



OPTO ENGINEERING



OE OF THE MACHINE VISION COMPANY®

OPTICS • CAMERAS • LIGHTING • SOFTWARE

8 Telecentric lenses

UP TO 2/3" SENSORS

• CLASSIC LENSES

8	TC series - Bi-telecentric lenses for sensors up to 2/3"	Magnification 0.025-2 x • CLASSIC
9	TCLWD series - 132 mm working distance telecentric lenses for sensors up to 2/3"	Magnification 0.5-3.5 x • CLASSIC
9	TCHM series - High magnification telecentric lenses for sensors up to 2/3" *RT	Magnification 1-6 x • CLASSIC
10	TCVLWD series - Long working distance telecentric lenses for sensors up to 1/1.8" *RT	Magnification 0.5-3 x • CLASSIC

• COMPACT LENSES

10	TC CORE series - Compact bi-telecentric lenses for sensors up to 2/3"	Magnification 0.052-0.184 x • COMPACT
11	TC CORE PLUS series - Compact large FOV bi-telecentric lenses for sensors up to 2/3"	Magnification 0.027-0.059 x • COMPACT

• COAXIAL LENSES

11	TCCX series - 132 mm working distance coaxial telecentric lenses for sensors up to 2/3"	Magnification 0.5-3.5 x • COAXIAL
12	TCCXHM series - High magnification coaxial telecentric lenses for sensors up to 2/3" *RT	Magnification 0.2-6 x • COAXIAL

UP TO 4/3" SENSORS

12	TC1MHR series - Telecentric lenses for sensors up to 1/1.2"	Magnification 0.045-0.639 x • CLASSIC
13	TC2MHR series - Telecentric lenses for sensors up to 1"	Magnification 0.053-0.768 x • CLASSIC
13	TC3MHR series - Telecentric lenses for sensors up to 1.1"	Magnification 0.059-0.850 x • CLASSIC
14	TC4MHR series - Telecentric lenses for sensors up to 4/3"	Magnification 0.059-4 x • CLASSIC
15	TCLWD3M series - Fixed working distance telecentric lenses for sensors up to 1.1"	Magnification 0.2-0.1 x • CLASSIC

• COMPACT LENSES

15	TC1MHR CORE series - Compact telecentric lenses for sensors up to 1/1.2"	Magnification 0.087-0.222 x • COMPACT
16	TC2MHR CORE series - Compact telecentric lenses for sensors up to 1"	Magnification 0.104-0.267 x • COMPACT
16	TC3MHR CORE series - Compact telecentric lenses for sensors up to 1.1"	Magnification 0.118-0.303 x • COMPACT
17	TC4MHR CORE series - Compact telecentric lenses for sensors up to 4/3"	Magnification 0.143-0.366 x • COMPACT
17	TCHR CORE PLUS series - Compact large FOV telecentric lenses for sensors up to 4/3"	Magnification 0.053-0.117 x • COMPACT

• COAXIAL LENSES

18	TCCX2M series - Coaxial telecentric lenses for sensors up to 1" *RT	Magnification 0.3-4 x • COAXIAL
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VERY LARGE & LINE SCAN SENSORS

• CLASSIC LENSES

18	TC10M series - Telecentric lenses for sensors up to APS-C and 4k line scan cameras	Magnification 0.075-0.888 x • CLASSIC
19	TC12M series - Telecentric lenses for sensors up to APS-H and 4k line scan cameras	Magnification 0.1-1.825 x • CLASSIC
20	TC16M series - Telecentric lenses for sensors up to 43.3 mm and 8k line scan cameras	Magnification 0.116-4 x • CLASSIC
21	TCSE series - High-resolution telecentric lenses for 4/3", APS-C, APS-H and full frame sensor	Magnification 0.366-2.750 x • CLASSIC
21	TC12K series - Telecentric lenses for sensors up to 62 mm and 12k line scan cameras	Magnification 0.26-0.96 x • CLASSIC

• FLAT LENSES

22	TC4K series - Flat telecentric lenses for 4k line scan cameras	Magnification 0.159-0.478 x • FLAT
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SPECIALTIES

• FOCUS TUNABLE LENSES

22	TCEL series - Telecentric optics with liquid lens technology	Magnification 0.243-3.5 x • FOCUS TUNABLE
23	TCZEL series - Telecentric zoom lens with dual liquid lens technology	Magnification 0.18-0.55 x • FOCUS TUNABLE

*RT see page 7 for description

SPECIALTIES

• **MULTI-MAG LENSES**

23	TCDP PLUS series - Dual magnification telecentric lenses	MULTI MAG
24	TCZRS series - Bi-telecentric zoom lenses with motorized control	MULTI MAG

• **OPTICAL BENCHES**

24	TCBENCH series - Telecentric optical benches for precision measurements	Magnification 0.093-1 x • BENCHES
25	TCBENCH CORE series - Compact telecentric optical benches for precision measurements	Magnification 0.093-0.184 x • BENCHES

• **3D LENSES**

26	TCSM series - 3D bi-telecentric lenses with Scheimpflug adjustment	3D LENSES
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27 Macro & Fixed focal length lenses

UP TO 2/3" SENSORS

• **FIXED FOCAL LENGTH LENSES**

27	EN2MP series - Cost-effective 2 Megapixel fixed focal length lenses for sensors up to 2/3"	Focal length 3.5-75 mm • FIXED FOCAL
27	EN-2RT series - Megapixel fixed focal length lenses for sensors up to 2/3" *RT	Focal length 5-75 mm • FIXED FOCAL
28	EN5MP series - Cost-effective 5 Megapixel fixed focal length lenses for sensors up to 2/3"	Focal length 8-75 mm • FIXED FOCAL
28	EN-5RT series - 5 Megapixel fixed focal length lenses for sensors up to 2/3" *RT	Focal length 5-75 mm • FIXED FOCAL

• **MACRO LENSES**

29	MC series - Nearly zero distortion macro lenses for sensors up to 2/3"	Magnification 0.1-6 mm • MACRO
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FROM 1" TO APS-C SENSORS

• **FIXED FOCAL LENGTH LENSES**

29	EN8MP series - 8 Megapixel fixed focal length lenses for sensors up to 1"	Focal length 8-50 mm • FIXED FOCAL
30	EN-9RT series - 9 Megapixel fixed focal length lenses for sensors up to 1" *RT	Focal length 25-75 mm • FIXED FOCAL
30	EN10MP series - 10 Megapixel fixed focal length lenses for sensors up to 4/3"	Focal length 12-50 mm • FIXED FOCAL
30	EN-12RT series - 12 Megapixel fixed focal length lenses for sensors up to 1.1" *RT	Focal length 8-50 mm • FIXED FOCAL
31	EN-A5MX series - 5 Megapixel fixed focal length lenses for sensors up to 4/3" *RT	Focal length 12-35 mm • FIXED FOCAL

• **MACRO LENSES**

31	NEW MC3M series - Nearly zero distortion macro lenses for sensors up to 1.1"	Magnification 0.1-6 x • MACRO
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VERY LARGE & LINE SCAN SENSORS

• **FIXED FOCAL LENGTH LENSES**

32	EN-MAX series - Fixed focal length lenses for APS-H, Full Frame and up to 43 mm sensors *RT	Focal length 25-50 mm • FIXED FOCAL
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• **MACRO LENSES**

32	MC16K series - Macro lenses for 16k line scan cameras and sensors up to 82 mm *RT	Magnification 0.5-3 x • MACRO
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SPECIALTIES

• **FOCUS TUNABLE LENSES**

33	EL5MP series - 5 MP fixed focal length lenses for sensors up to 2/3" with liquid lens technology	Focal length 6-25 mm • FOCUS TUNABLE
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• **ZOOM & VARIABLE MAGNIFICATION**

33	ENVF series - Varifocal lenses for sensors up to 2/3" *RT	Focal length 12-36 mm • FIXED FOCAL
34	MC3-03X series - Nearly zero distortion multi-configuration macro lens for sensors up to 2/3"	Magnification 0.1-3 x • MACRO
35	NEW MC3M3-03X series - Nearly zero distortion multi-configuration macro lens for sensors up to 1.1"	Magnification 0.1-3 x • MACRO
36	MCSM1-01X series - Variable macro lens with Scheimpflug adjustment	Magnification 0.1-1 x • MACRO
37	NEW MCSM3M1-025X series - Variable macro lens with Scheimpflug adjustment for sensors up to 1.1"	Magnification 0.25-1 x • MACRO
37	MCZM series - Macro zoom lenses for sensors up to 2/3" *RT	Magnification 0.013-1 x • MACRO

Macro & Fixed focal length lenses

INFRARED & UV LENSES

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| 38 | ENVIS-SWIRMP series - VIS-SWIR fixed focal length lenses for sensors up to 2/3" *RT | Focal length 5-50 mm • SHORT WAVE • IR • VISIBLE |
| 38 | ENUV2M series - UV fixed focal length lenses for sensors up to 1" *RT | Focal length 25-78 mm • UV |

39 360° View lenses

OUTER INSPECTION LENSES

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| 39 | PC series - Pericentric lenses for 360° top and lateral view with just one camera | OUTER INSPECTION |
| 39 | NEW MODEL PCCD series - Catadioptric lenses for 360° top and lateral view with just one camera | OUTER INSPECTION |

INNER INSPECTION LENSES

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| 40 | NEW HC series - Hypercentric lenses for 360° inspection of the inner sides and bottom of cavities | INNER INSPECTION |
| 40 | NEW PCHIL series - Large aperture hole inspection lenses for 360° inside view | INNER INSPECTION |
| 41 | PCBP series - Boroscopic probes for panoramic cavity imaging from inside | INNER INSPECTION |

MULTI-VIEW LENSES

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| 41 | PCPW series - Polyview optics for multiple side views in one image | MULTI-VIEW |
| 41 | PCMP series - Multi-view optics for measuring and imaging small parts | MULTI-VIEW |
| 42 | TCCAGE series - Bi-telecentric system for multiple side imaging and measurement at 90° | MULTI-VIEW |

CAMERAS

44

44 Area scan cameras - GigE

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| 44 | ITALA G series - Industrial GigE vision PoE cameras | Sensor format 1/2.9" - APS-C • Resolution 0.4-31.5 MP |
| 45 | NEW ITALA G.SWIR series - Industrial GigE vision VIS-SWIR PoE cameras | Sensor format 1.2" • Resolution 1.3 MP |
| 45 | NEW ITALA 10G series - Industrial 10GigE vision PoE cameras | Sensor format 1/1.8" - APS-C • Resolution 5 - 31.5 MP |
| 46 | ITALA G.EL series - Industrial GigE vision PoE cameras with liquid lens control | Sensor format 1/2.9" - 1.2" • Resolution 1.6 - 24.6 MP |
| 47 | NEW ITALA G.IP series - Dustproof & water resistant GigE vision PoE cameras | Sensor format 2/3" - 1.1" • Resolution 0.4 - 24.6 MP |

48 Area scan cameras - USB

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| 48 | COE U series - GenICam® C-mount USB3 cameras | Sensor format 1/2.9" - 1.1" • Resolution 1.3 - 20.4 MP |
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48 Line scan cameras - GigE

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| 48 | COE LS-X series - 4K GigE Vision line scan cameras | Sensor format 28.7 mm • Resolution 4K MP |
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LIGHTING

49

49 Telecentric lights

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| 49 | LTCLHP series - High-performance telecentric illuminators | TELECENTRIC LIGHT • COLLIMATED |
| 50 | LTCLHP CORE series - Compact telecentric illuminators | TELECENTRIC LIGHT • COLLIMATED |
| 50 | LTCLHP CORE PLUS series - Compact telecentric illuminators for large FOV systems | TELECENTRIC LIGHT • COLLIMATED |
| 51 | LTCL4K series - Flat telecentric illuminators for line scan cameras | TELECENTRIC LIGHT • COLLIMATED |

*RT see page 7 for description

52 Backlights

52	NEW LT3BC series - High-power LED backlights with integrated driver	BACKLIGHT • COLLIMATED/DIFFUSED • HIGH POWER
54	LT2BC series - High uniformity continuous LED backlights	BACKLIGHT • COLLIMATED/DIFFUSED
60	LTBP series - High power strobed LED backlights	BACKLIGHT • COLLIMATED/DIFFUSED • HIGH POWER
66	LTBCL series - Large continuous LED backlights	BACKLIGHT • DIFFUSED
68	LTBFC series - Continuous flat side-emitting LED backlights	BACKLIGHT • DIFFUSED

69 LED Pattern projectors

69	LTPRHP3W series - 3W LED pattern projectors	
69	NEW LT2PRXP series - 40W continuous and strobe LED pattern projectors	
70	NEW LT2PRUP series - 100W continuous and strobe LED pattern projectors	
70	LTPRSMHP3W series - 3W tilting LED pattern projectors	

71 Ring lights

71	LTRNST series - LED ring illuminators - straight type	RING LIGHT • Light angle 0° • DIFFUSED
73	LTRNDC series - Continuous LED direct ring lights	RING LIGHT • Light angle 0°, 15°, 30°, 45° • DIRECT
75	LTRNAD series - Compact diffused LED ring lights	RING LIGHT • Light angle 0°, 15°, 30° • DIFFUSED
76	LTLA series - High power strobed LED low angle diffused ring lights	RING LIGHT • HIGH POWER • Light angle 60° • DIFFUSED
77	LTLAIC series - Continuous LED low angle diffused ring lights	RING LIGHT • Light angle 45°, 60° • DIFFUSED
78	LTLADC series - Continuous LED low angle direct ring lights	RING LIGHT • Light angle 60°, 75°, 90° • DIRECT
80	LTRNOB series - LED ring illuminators - oblique type	RING LIGHT • Light angle 20°, 25°, 30°, 45° • DIFFUSED
81	LTRNOBHP series - High power LED ring illuminators - oblique type	RING LIGHT • HIGH POWER • Light angle 20°, 25°, 45° • DIFFUSED

82 Coaxial lights

82	LTCXC series - Continuous LED coaxial lights	COAXIAL LIGHT • DIFFUSED
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83 Bar lights

83	LTBRZ3 series - LED bar lights with integrated driving electronics	BAR LIGHT • DIRECT
89	LTBRDC series - Continuous LED bar lights	BAR LIGHT • DIRECT
90	LTBRSQ series - Combined continuous LED bar lights	BAR LIGHT • DIRECT
92	LTBRLS series - Compact LED bar lights	BAR LIGHT • DIRECT

93 Spot lights

93	NEW LTSP series - 60W LED Spot Lights	SPOT LIGHT • Light angle 26°, 32°, 61°, 77° • HIGH POWER
93	LDSC series - LED sources *RT	

94 Dome lights

94	LTDMC series - Continuous LED domes	DOME LIGHT • INDIRECT
96	LTDM series - High power strobe LED domes	DOME LIGHT • INDIRECT • HIGH POWER
97	LTDMLA series - High power strobe dome + low angle illumination systems	DOME LIGHT • INDIRECT • HIGH POWER
97	LTPH series - Diffused continuous LED flat dome lights	DOME LIGHT • DIFFUSED

98 Tunnel lights

98	LTTNC series - Continuous LED tunnel lights	TUNNEL LIGHT • INDIRECT
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*RT see page 7 for description

99 Line lights

99	LTLNC series - Continuous LED line lights	LINE LIGHT • FOCUSED
100	LTLNM series - Flicker free high power focused modular LED line lights	LINE LIGHT • FOCUSED/COLLIMATED • HIGH POWER
102	LTLNE series - High power enhanced LED line lights	LINE LIGHT • FOCUSED/COLLIMATED • HIGH POWER

103 Specialties

103	LTVT series - Space-saving illumination system for double-side object inspection	SPECIALTIES • DIFFUSED/INDIRECT • HIGH POWER
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ACCESSORIES**104****104 Optical filters for lenses**

104	OPFI series - Filters for telecentric lenses and fixed focal length lenses
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106 Cables

106	CB series - Cables for machine vision cameras, optics and accessories
106	CBLT series - Cables for LED illuminators

107 Controllers for lenses and lighting

107	LTDV series - LED lighting strobe controllers
108	LTIC series - LED lighting controllers
110	MTDV series - Motion controller for bipolar stepper motors with additional encoder input

110 Accessories for lenses

110	CMT series - Precision alignment mechanics for lenses
111	CMHO series - Clamping mechanics for lenses
111	CMHOCR series - Clamping mechanics for CORE lenses
112	CMPH series - Holders for calibration patterns
112	CMPT series - Mounting plates for optical benches
112	CMPTCR series - Mounting plates for CORE optical benches
112	CMWF series - Holders for WI series
113	WI series - Protective windows for lenses
113	CMMR series - 45° first surface mirrors
114	CMBS series - 45° beam splitter
114	RPOP series - Miscellaneous optical replacements

115 Accessories for cameras

115	EXT series - Extenders and adapters
115	NEW IPT series - Dustproof & water resistant tubes for lenses

115 Accessories for lighting

- 115 **CMLT series** - Mounting brackets for lighting

- 116 **NEW** **CLLT series** - Collimating filters for LED illuminators

- 116 **NEW MODELS** **DFLT series** - Diffusing filters for LED illuminators

- 117 **NEW MODELS** **PLLT series** - Polarizing filters for LED illuminators

- 118 **NEW** **PCLT series** - Protective covers for LED illuminators

- 118 **CPDPH series** - Diffuser caps for telecentric illuminators

- 119 **LTSCHP series** - High-performance replacement LED modules

- 119 **RPLT series** - Replacement LED sources for LTSCHP series

120 Calibration & projection patterns

- 120 **PTTC, PTCP series** - Accurate calibration patterns for machine vision

- 121 **PTPR series** - Projection patterns for LED projectors

121 Power supplies

- 121 **PS series** - Power supplies ***RT**

* RT Products

In order to meet all of our customers' needs, we have carefully selected a collection of machine vision components from experienced and qualified suppliers to complement our product range. These products will be delivered to you with the same level of competence, quality and technical support that you have come to know and expect from Opto Engineering®. Our goal is to turn our knowledge, experience and passion for machine vision into a broad and comprehensive service for our customers.



TC series

Bi-telecentric lenses for sensors up to 2/3"

Magnification 0.025-2 x • CLASSIC

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS			
	Mag. (x)	Max sensor size	1/3"	1/2"	2/3"	WD (mm)	wf/N	Telecentricity (deg)	Distortion (%)	DOF (mm)	Mount	Phase adj. availability	Length (mm)	Front diam. (mm)
			4.80 x 3.60 (mm x mm)	6.40 x 4.80 (mm x mm)	8.50 x 7.09 (mm x mm)									
			1											
TC 23 004	2.000	2/3"	2.40 x 1.80	3.20 x 2.40	4.25 x 3.55	56.0	11	< 0.08 (0.10)	< 0.04 (0.08)	0.1	C	No	101.4	28
TC 23 007	1.333	2/3"	3.60 x 2.70	4.80 x 3.60	6.38 x 5.32	60.1	11	< 0.08 (0.10)	< 0.03 (0.08)	0.3	C	No	78.5	28
TC 23 009	1.000	2/3"	4.80 x 3.60	6.40 x 4.80	8.50 x 7.09	62.2	11	< 0.08 (0.10)	< 0.04 (0.08)	0.6	C	No	65.0	28
TC 23 012	0.735	2/3"	6.53 x 4.90	8.71 x 6.53	11.56 x 9.65	53.9	14	< 0.04 (0.10)	< 0.04 (0.10)	1.3	C	No	60.3	28
TC 13 016	0.290	1/3"	16.55 x 12.41	∅ = 16.55	∅ = 20.69	43.1	8	< 0.08 (0.10)	< 0.04 (0.08)	4.9	C	No	80.9	37.7
TC 12 016	0.385	1/2"	12.47 x 9.35	16.62 x 12.47	∅ = 18.42	43.1	8	< 0.04 (0.10)	< 0.04 (0.08)	2.8	C	No	93.0	37.7
TC 23 016	0.528	2/3"	9.09 x 6.82	12.12 x 9.09	16.10 x 13.43	43.1	8	< 0.06 (0.10)	< 0.04 (0.07)	1.5	C	No	112.7	37.7
TC 13 024	0.192	1/3"	25.00 x 18.75	∅ = 25.00	∅ = 31.25	67.2	8	< 0.08 (0.10)	< 0.04 (0.08)	11.2	C	No	105.6	44
TC 12 024	0.255	1/2"	18.82 x 14.12	25.10 x 18.82	∅ = 27.80	67.2	8	< 0.08 (0.10)	< 0.04 (0.08)	6.4	C	No	117.8	44
TC 23 024	0.350	2/3"	13.71 x 10.29	18.29 x 13.71	24.29 x 20.26	67.2	8	< 0.08 (0.10)	< 0.04 (0.10)	3.4	C	No	137.5	44
TC 13 036	0.133	1/3"	36.09 x 27.07	∅ = 36.09	∅ = 45.11	102.5	8	< 0.04 (0.08)	< 0.03 (0.08)	23.4	C	No	133.0	61
TC 12 036	0.177	1/2"	27.12 x 20.34	36.16 x 27.12	∅ = 40.06	102.5	8	< 0.03 (0.08)	< 0.04 (0.10)	13.2	C	No	145.2	61
TC 23 036	0.243	2/3"	19.75 x 14.81	26.34 x 19.75	34.98 x 29.18	102.5	8	< 0.04 (0.08)	< 0.04 (0.10)	7.0	C	No	164.9	61
TC 13 048	0.098	1/3"	48.98 x 36.73	∅ = 48.98	∅ = 61.22	132.5	8	< 0.08 (0.10)	< 0.06 (0.10)	43.1	C	No	167.9	75
TC 12 048	0.134	1/2"	35.82 x 26.87	47.76 x 35.82	∅ = 52.91	132.9	8	< 0.07 (0.10)	< 0.06 (0.10)	23.1	C	No	181.5	75
TC 23 048	0.184	2/3"	26.09 x 19.57	34.78 x 26.09	46.20 x 38.53	132.9	8	< 0.08 (0.10)	< 0.05 (0.10)	12.2	C	No	201.0	75
TC 13 056	0.084	1/3"	57.14 x 42.86	∅ = 57.14	∅ = 71.43	157.5	8	< 0.04 (0.08)	< 0.04 (0.08)	58.7	C	No	191.5	80
TC 12 056	0.114	1/2"	42.11 x 31.58	56.14 x 42.11	∅ = 62.19	157.8	8	< 0.04 (0.08)	< 0.04 (0.08)	31.9	C	No	205.0	80
TC 23 056	0.157	2/3"	30.57 x 22.93	40.76 x 30.57	54.14 x 45.16	157.8	8	< 0.05 (0.08)	< 0.03 (0.08)	16.8	C	No	225.0	80
TC 13 064	0.074	1/3"	64.86 x 48.65	∅ = 64.86	∅ = 81.08	181.9	8	< 0.06 (0.08)	< 0.03 (0.07)	75.6	C	No	212.3	100
TC 12 064	0.100	1/2"	48.00 x 36.00	64.00 x 48.00	∅ = 70.90	181.9	8	< 0.05 (0.08)	< 0.04 (0.07)	41.4	C	No	225.9	100
TC 23 064	0.138	2/3"	34.78 x 26.09	46.38 x 34.78	61.59 x 51.38	181.9	8	< 0.05 (0.08)	< 0.03 (0.07)	21.7	C	No	245.5	100
TC 23 072	0.122	2/3"	39.34 x 29.51	52.46 x 39.34	69.67 x 58.11	226.8	8	< 0.04 (0.08)	< 0.03 (0.07)	27.8	C	Yes	299.2	116
TC 13 080	0.059	1/3"	81.36 x 61.02	∅ = 81.36	∅ = 101.69	226.8	8	< 0.05 (0.08)	< 0.03 (0.08)	118.9	C	No	259.2	116
TC 12 080	0.080	1/2"	60.00 x 45.00	80.00 x 60.00	∅ = 88.63	226.8	8	< 0.03 (0.08)	< 0.04 (0.10)	64.7	C	No	271.5	116
TC 23 080	0.110	2/3"	43.64 x 32.73	58.18 x 43.64	77.27 x 64.45	226.8	8	< 0.04 (0.08)	< 0.02 (0.10)	34.2	C	No	291.2	116
TC 23 085	0.104	2/3"	46.15 x 34.62	61.54 x 46.15	81.73 x 68.17	278.6	8	< 0.04 (0.08)	< 0.02 (0.08)	38.3	C	Yes	344.5	143
TC 13 096	0.050	1/3"	96.00 x 72.00	∅ = 96.00	∅ = 120.00	278.6	8	< 0.06 (0.08)	< 0.04 (0.10)	165.6	C	No	303.3	143
TC 12 096	0.068	1/2"	70.59 x 52.94	94.12 x 70.59	∅ = 104.26	278.6	8	< 0.06 (0.08)	< 0.03 (0.08)	89.5	C	No	317.0	143
TC 23 096	0.093	2/3"	51.61 x 38.71	68.82 x 51.61	91.40 x 76.24	278.6	8	< 0.06 (0.08)	< 0.04 (0.08)	47.9	C	No	336.6	143
TC 23 110	0.079	2/3"	60.76 x 45.57	81.01 x 60.76	107.59 x 89.75	334.6	8	< 0.06 (0.08)	< 0.03 (0.07)	66.3	C	Yes	430.4	180
TC 13 120	0.038	1/3"	126.32 x 94.74	∅ = 126.32	∅ = 157.89	334.6	8	< 0.06 (0.08)	< 0.04 (0.10)	286.7	C	Yes	398.1	180
TC 12 120	0.052	1/2"	92.31 x 69.23	123.08 x 92.31	∅ = 136.35	334.6	8	< 0.06 (0.08)	< 0.04 (0.10)	153.1	C	Yes	402.7	180
TC 23 120	0.072	2/3"	66.67 x 50.00	88.89 x 66.67	118.06 x 98.47	334.6	8	< 0.07 (0.08)	< 0.04 (0.10)	79.9	C	Yes	422.4	180
TC 23 130	0.068	2/3"	70.59 x 52.94	94.12 x 70.59	125.00 x 104.26	396.0	8	< 0.05 (0.08)	< 0.04 (0.10)	89.5	C	Yes	490.0	200
TC 13 144	0.033	1/3"	145.45 x 109.09	∅ = 145.45	∅ = 181.82	396.0	8	< 0.05 (0.08)	< 0.04 (0.10)	380.2	C	Yes	448.8	200
TC 12 144	0.044	1/2"	109.09 x 81.82	145.45 x 109.09	∅ = 161.14	396.0	8	< 0.05 (0.08)	< 0.05 (0.08)	213.8	C	Yes	462.1	200
TC 23 144	0.061	2/3"	78.69 x 59.02	104.92 x 78.69	139.34 x 116.23	396.0	8	< 0.05 (0.08)	< 0.04 (0.08)	111.3	C	Yes	481.9	200
TC 23 172	0.051	2/3"	94.12 x 70.59	125.49 x 94.12	166.67 x 139.02	527.6	8	< 0.05 (0.08)	< 0.04 (0.10)	159.2	C	Yes	630.3	260
TC 13 192	0.025	1/3"	192.00 x 144.00	∅ = 192.00	∅ = 240.00	527.6	8	< 0.06 (0.08)	< 0.04 (0.10)	662.4	C	Yes	598.2	260
TC 12 192	0.033	1/2"	145.45 x 109.09	193.94 x 145.45	∅ = 214.85	527.6	8	< 0.06 (0.08)	< 0.04 (0.08)	380.2	C	Yes	602.6	260
TC 23 192	0.046	2/3"	104.35 x 78.26	139.13 x 104.35	184.78 x 154.13	527.6	8	< 0.06 (0.08)	< 0.05 (0.08)	195.7	C	Yes	622.3	260
TC 23 200	0.044	2/3"	109.09 x 81.82	145.45 x 109.09	193.18 x 161.14	492.8	8	< 0.06 (0.08)	< 0.05 (0.10)	213.8	C	Yes	792.0	322
TC 23 240	0.037	2/3"	129.73 x 97.30	172.97 x 129.73	229.73 x 191.62	492.8	8	< 0.03 (0.08)	< 0.04 (0.08)	302.4	C	Yes	775.1	322

Last update 21/05/2024

- Object field of view (mm x mm). For the fields with the indication „∅ =“, the image of a circular object of such diameter is fully inscribed into the detector.
- Working distance: distance between the front end of the mechanics and the object. Set this distance within ±3% of the nominal value for maximum resolution and minimum distortion.
- Working F-number (wf/N): the real F-number of a lens in operating conditions.
- Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
- Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- At the limits of the depth of field, the image can still be used for measurements. For a very sharp image, however, only half of the depth of field should be considered. Pixel size used for calculation is 3.45 µm.
- Object size, calculated with the Rayleigh criterion with λ= 520 nm.
- If not available, phase adjustment can be supplied upon request (except for TC23004, TC23007, TC23009, TC23012).
- Measured from the front end of the mechanics to the camera flange.

Ordering information

It's easy to select the right lens for your application: our part numbers are coded as **TC xx yyy**, where **xx** defines the camera sensor size (13 = 1/3", 12 = 1/2", 23 = 2/3") and **yyy** refers to the horizontal field of view (FOV), in millimeters. For instance, a TC12064 features a field of view of 64 (x 48) mm with a 1/2" camera sensor.

TCLWD series

132 mm working distance telecentric lenses for sensors up to 2/3"



Magnification 0.5-3.5 x • CLASSIC

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS			
	Mag. (x)	Max sensor size	1/3"	1/1.8"	2/3"	WD (mm)	wf/N	Telecentricity typical (max) (deg)	Distortion typical (max) (%)	DOF (mm)	Mount	Phase adj. availability	Length (mm)	Front diam. (mm)
			4.80 x 3.60 (mm x mm)	7.13 x 5.33 (mm x mm)	8.50 x 7.09 (mm x mm)									
TCLWD 050	0.500	2/3"	9.60 x 7.20	14.26 x 10.66	17.00 x 14.18	132.3	12	< 0.04 (0.06)	< 0.1 (0.2)	2.5	C	Yes	130.7	37.7
TCLWD 066	0.660	2/3"	7.27 x 5.45	10.80 x 8.08	12.88 x 10.74	132.3	12	< 0.04 (0.06)	< 0.1 (0.2)	1.4	C	Yes	149.3	37.7
TCLWD 075	0.750	2/3"	6.40 x 4.80	9.51 x 7.11	11.33 x 9.45	132.3	12	< 0.04 (0.06)	< 0.1 (0.2)	1.1	C	Yes	155.0	37.7
TCLWD 100	1.000	2/3"	4.80 x 3.60	7.13 x 5.33	8.50 x 7.09	132.3	12	< 0.04 (0.06)	< 0.05 (0.10)	0.6	C	Yes	126.0	37.7
TCLWD 150	1.500	2/3"	3.20 x 2.40	4.75 x 3.55	5.67 x 4.73	132.3	16	< 0.04 (0.06)	< 0.05 (0.10)	0.4	C	Yes	140.4	37.7
TCLWD 250	2.500	2/3"	1.92 x 1.44	2.85 x 2.13	3.40 x 2.84	132.3	20	< 0.04 (0.06)	< 0.05 (0.10)	0.2	C	Yes	157.0	37.7
TCLWD 350	3.500	2/3"	1.37 x 1.03	2.04 x 1.52	2.43 x 2.03	132.3	24	< 0.04 (0.06)	< 0.05 (0.10)	0.1	C	Yes	174.7	37.7

Last update 22/09/2023

- 1 Working distance: distance between the front end of the mechanics and the object. Set this distance within ±3% of the nominal value for maximum resolution and minimum distortion.
- 2 Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
- 4 Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- 5 At the limits of the depth of field, the image can still be used for measurements. For a very sharp image, however, only half of the depth of field should be considered. Pixel size used for calculation is 3.45 µm.
- 6 Object side, calculated with the Rayleigh criterion with λ= 520 nm.
- 7 Indicates the availability of an integrated camera phase adjustment feature.
- 8 Measured from the front end of the mechanics to the camera flange.

Ordering information

It's easy to select the right lens for your application: our part numbers are coded as **TCLWD xxx**, where **xxx** defines the magnification (050 = 0.50, 066 = 0.66, 075 = 0.75). For example a TCLWD050 features a 0.50 magnification.

TCHM series

High magnification telecentric lenses for sensors up to 2/3"



* RT

Magnification 1-6 x • CLASSIC

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS			
	Mag. (x)	Max sensor size	1/3"	1/2"	2/3"	WD (mm)	wf/N	Distortion typical (%)	DOF (mm)	Mount	Phase adj. availability	Length (mm)	Front diam. (mm)
			4.80 x 3.60 (mm x mm)	6.40 x 4.80 (mm x mm)	8.50 x 7.09 (mm x mm)								
RT-HR-6M-71	6.000	2/3"	0.80 x 0.60	1.07 x 0.80	1.42 x 1.18	71.1	41.1	< 0.90	0.10	C	Yes	107.9	18.0
RT-HR-4M-71	4.000	2/3"	1.20 x 0.90	1.60 x 1.20	2.13 x 1.77	71.1	29	< 0.82	0.1	C	Yes	100.0	18.0
RT-HR-2M-71	2.000	2/3"	2.40 x 1.80	3.20 x 2.40	4.25 x 3.55	71.0	18.5	< 0.34	0.3	C	Yes	97.0	18.0
RT-HR-1M-71	1.000	2/3"	4.80 x 3.60	6.40 x 4.80	8.50 x 7.09	71.0	15.6	< 0.01	0.9	C	Yes	116.1	18.0
RT-HR-6M-110	6.000	2/3"	0.80 x 0.60	1.07 x 0.80	1.42 x 1.18	110.0	55.6	< 0.48	0.2	C	Yes	112.1	18.0
RT-HR-4M-110	4.000	2/3"	1.20 x 0.90	1.60 x 1.20	2.13 x 1.77	110.0	39.2	< 1.03	0.2	C	Yes	92.5	18.0
RT-HR-2M-110	2.000	2/3"	2.40 x 1.80	3.20 x 2.40	4.25 x 3.55	110.0	23.8	< 1.52	0.4	C	Yes	85.3	18.0
RT-HR-1M-110	1.000	2/3"	4.80 x 3.60	6.40 x 4.80	8.50 x 7.09	110.0	16.7	< 0.06	1.0	C	Yes	125.5	18.0

Last update 26/07/2023

- 1 Working distance: distance between the front end of the mechanics and the object. Set this distance within ±3% of the nominal value for maximum resolution and minimum distortion.
- 2 Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Measured from the front end of the mechanics to the camera flange.

TCVLWD series

Long working distance telecentric lenses for sensors up to 1/1.8"



* RT

Magnification 0.5-3 x • CLASSIC

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS			
	Mag. (x)	Max sensor size	1/3" 4.80 x 3.60 (mm x mm)	1/2" 6.40 x 4.80 (mm x mm)	1/1.8" 8.50 x 7.09 (mm x mm)	WD (mm)	wf/N	Distortion typical (%)	DOF (mm)	Mount	Phase adj. availability	Length (mm)	Front diam. (mm)
			1	2	3	1	2					3	
RT-TV-1M-150	1.000	1/2"	4.80 x 3.60	6.40 x 4.80	-	156.0	16.7	< 0.24	1.00	C	Yes	155.6	24.0
RT-TV-2M-150	2.000	1/2"	2.40 x 1.80	3.20 x 2.40	-	156.0	25	< 0.99	0.4	C	Yes	164.5	24.0
RT-TV-3M-150	3.000	1/2"	1.60 x 1.20	2.13 x 1.60	-	156.0	37.5	< 1.13	0.3	C	Yes	168.4	24.0
RT-TV-1M-220	1.000	1/2"	4.80 x 3.60	6.40 x 4.80	-	218.2	20	< 0.09	1.2	C	Yes	212.0	27.0
RT-TV-2M-220	2.000	1/2"	2.40 x 1.80	3.20 x 2.40	-	218.2	33	< 0.92	0.6	C	Yes	220.1	27.0
RT-TV-3M-220	3.000	1/2"	1.60 x 1.20	2.13 x 1.60	-	218.2	43	< 1.10	0.4	C	Yes	224.8	27.0
RT-TV-1M-290	1.000	1/2"	4.80 x 3.60	6.40 x 4.80	-	290.7	20	< 0.14	1.2	C	Yes	198.6	27.0
RT-TV-2M-290	2.000	1/2"	2.40 x 1.80	3.20 x 2.40	-	290.7	33	< 0.95	0.6	C	Yes	207.5	27.0
RT-TV-3M-290	3.000	1/2"	1.60 x 1.20	2.13 x 1.60	-	290.7	43	< 1.11	0.4	C	Yes	211.4	27.0
RT-TV-05M-400	0.500	1/2"	9.60 x 7.20	12.80 x 9.60	-	400.0	13.9	< 0.44	3.1	C	Yes	144.6	34.0
RT-TV-1M-400	1.000	1/1.8"	4.80 x 3.60	6.40 x 4.80	4.80 x 7.13	400.0	25	< 0.31	1.7	C	Yes	161.8	34.0
RT-TV-2M-400	2.000	1/1.8"	2.40 x 1.80	3.20 x 2.40	2.40 x 3.57	400.0	33.3	< 0.06	0.6	C	Yes	173.2	34.0
RT-TV-05M-800	0.500	1/1.8"	9.60 x 7.20	12.80 x 9.60	9.60 x 14.26	800.0	16.7	< 0.03	3.9	C	Yes	274.8	58.0
RT-TV-1M-800	1.000	1/1.8"	4.80 x 3.60	6.40 x 4.80	4.80 x 7.13	800.0	20	< 0.09	1.2	C	Yes	291.9	58.0

Last update 26/07/2023

1 Working distance: distance between the front end of the mechanics and the object. Set this distance within ±3% of the nominal value for maximum resolution and minimum distortion.

2 Working f-number (wf/N): the real f-number of a lens in operating conditions.
3 Measured from the front end of the mechanics to the camera flange.

TC CORE series

Compact bi-telecentric lenses for sensors up to 2/3"



PATENTED



Magnification 0.052-0.184 x • COMPACT

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS				
	Mag. (x)	Max sensor size	1/3" 4.80 x 3.60 (mm x mm)	1/2" 6.40 x 4.80 (mm x mm)	2/3" 8.50 x 7.09 (mm x mm)	WD (mm)	wf/N	Telecentricity typical (max) (deg)	Distortion typical (max) (%)	DOF (mm)	Mount	Phase adj. availability	Dimensions (mm)		
			1	2	3	2	3	4	5	6		8	A	B	C
TCCR 12 048	0.134	1/2"	35.82 x 26.87	47.76 x 35.82	ø = 52.91	132.9	8	< 0.07 (0.10)	< 0.06 (0.10)	23.1	C	Yes	77	106	111
TCCR 23 048	0.184	2/3"	26.09 x 19.57	34.78 x 26.09	46.20 x 38.53	132.9	8	< 0.08 (0.10)	< 0.05 (0.10)	12.2	C	Yes	77	106	131
TCCR 12 056	0.114	1/2"	42.11 x 31.58	56.14 x 42.11	ø = 62.19	157.8	8	< 0.04 (0.08)	< 0.04 (0.10)	31.9	C	Yes	94	110	121
TCCR 23 056	0.157	2/3"	30.57 x 22.93	40.76 x 30.57	54.14 x 45.16	157.8	8	< 0.05 (0.08)	< 0.03 (0.10)	16.8	C	Yes	94	110	141
TCCR 12 064	0.100	1/2"	48.00 x 36.00	64.00 x 48.00	ø = 69.00	181.8	8	< 0.05 (0.08)	< 0.04 (0.10)	41.4	C	Yes	101	122	132
TCCR 23 064	0.138	2/3"	34.78 x 26.09	46.38 x 34.78	61.59 x 51.38	181.8	8	< 0.05 (0.08)	< 0.03 (0.10)	21.7	C	Yes	101	122	148
TCCR 12 080	0.080	1/2"	60.00 x 45.00	80.00 x 60.00	ø = 86.25	226.7	8	< 0.03 (0.08)	< 0.04 (0.10)	64.7	C	Yes	119	145	148
TCCR 23 080	0.110	2/3"	43.64 x 32.73	58.18 x 43.64	77.27 x 64.45	226.7	8	< 0.04 (0.08)	< 0.02 (0.10)	34.2	C	Yes	119	145	167
TCCR 12 096	0.068	1/2"	70.59 x 52.94	94.12 x 70.59	ø = 100.00	278.6	8	< 0.06 (0.08)	< 0.03 (0.10)	89.5	C	Yes	139	172	183
TCCR 23 096	0.093	2/3"	51.61 x 38.71	68.82 x 51.61	91.40 x 76.24	278.6	8	< 0.06 (0.08)	< 0.04 (0.10)	47.9	C	Yes	139	172	192
TCCR 12 120	0.052	1/2"	92.31 x 69.23	123.08 x 92.31	ø = 128.85	334.5	8	< 0.06 (0.08)	< 0.08 (0.10)	153.1	C	Yes	181	220	231
TCCR 23 120	0.072	2/3"	66.67 x 50.00	88.89 x 66.67	118.06 x 98.47	334.5	8	< 0.06 (0.08)	< 0.08 (0.10)	79.9	C	Yes	181	220	231

Last update 22/09/2023

1 Object field of view (mm x mm). For the fields with the indication „ø =“, the image of a circular object of such diameter is fully inscribed into the sensor.
2 Working distance: distance between the front end of the mechanics and the object. Set this distance within ±3% of the nominal value for maximum resolution and minimum distortion.
3 Working f-number (wf/N): the real f-number of a lens in operating conditions.
4 Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
5 Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.

6 At the limits of the depth of field, the image can still be used for measurements. For a very sharp image, however, only half of the depth of field should be considered. Pixel size used for calculation is 3.45 µm.
7 Object side, calculated with the Rayleigh criterion with λ = 520 nm.
8 Indicates the availability of an integrated camera phase adjustment feature.
9 Due to the special shape of TCCR120xx it might be necessary to check the mechanical compatibility with your camera.



TC CORE PLUS series

Compact large FOV bi-telecentric lenses for sensors up to 2/3"



Magnification 0.027-0.059 x • COMPACT

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS						MECHANICAL SPECIFICATIONS				
	Mag. (x)	Max sensor size	1/3"	1/1.8"	2/3"	WD (mm)	wf/N	Telecentricity typical (max) (deg)	Distortion typical (max) (%)	Residual Distortion	DOF (mm)	Mount	Phase adj. availability	Dimensions (mm)		
			4.80 x 3.60 (mm x mm)	7.13 x 5.33 (mm x mm)	8.50 x 7.09 (mm x mm)									1	2	3
TCCP 12 144	0.044	1/1.8"	109.09 x 81.82	162.05 x 121.14	-	217.4	8	< 0.06 (0.1)	< 0.8	< 0.01	213.8	C	Yes	332	303	314
TCCP 23 144	0.059	2/3"	81.91 x 61.43	121.67 x 90.96	145.05 x 120.99	217.4	8	< 0.06 (0.1)	< 0.8	< 0.01	120.6	C	Yes	332	303	321
TCCP 12 192	0.033	1/1.8"	145.90 x 109.42	200.00 x 162.01	-	328.0	8	< 0.12 (0.18)	< 0.8	< 0.01	382.5	C	Yes	410	344	358
TCCP 23 192	0.044	2/3"	109.59 x 82.19	162.79 x 121.69	194.06 x 161.87	328.0	8	< 0.12 (0.18)	< 0.8	< 0.01	215.8	C	Yes	410	344	359
TCCP 12 260	0.027	1/1.8"	177.78 x 133.33	264.07 x 197.41	-	366.0	8	< 0.18 (0.22)	< 0.9	< 0.01	567.9	C	Yes	480	397	435
TCCP 23 260	0.036	2/3"	133.33 x 100.00	198.06 x 148.06	236.11 x 196.94	366.0	8	< 0.18 (0.22)	< 0.9	< 0.01	319.4	C	Yes	480	397	435

Last update 26/07/2023

- 1 Working distance: distance between the front end of the mechanics and the object. Set this distance within ± 5% of the nominal value for maximum resolution and minimum distortion.
- 2 Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
- 4 Percent deviation of the real image compared to an ideal, undistorted image: maximum (guaranteed) values of the uncorrected image are listed.
- 5 Residual distortion after calibration with TCLIB Suite software library, using a PTCIP calibrations pattern and a fully GenICam compliant camera. For setup information see related table.
- 6 At the limits of the depth of field, the image can still be used for measurements. For a very sharp image, however, only half of the depth of field should be considered. Pixel size used for calculation is 3.45 µm.
- 7 Indicates the availability of an integrated camera phase adjustment feature.
- 8 Maximum dimension of the clamping flange.

TCCX series

132 mm working distance coaxial telecentric lenses for sensors up to 2/3"



Magnification 0.5-3.5 x • COAXIAL

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS		
	Mag. (x)	Max sensor size	1/3"	1/2"	2/3"	WD (mm)	wf/N	Telecentricity typical (max) (deg)	Distortion typical (max) (%)	DOF (mm)	Mount	Length (mm)	Front diam. (mm)
			4.80 x 3.60 (mm x mm)	6.40 x 4.80 (mm x mm)	8.50 x 7.09 (mm x mm)								
TCCX 050-G	0.500	2/3"	9.60 x 7.20	12.80 x 9.60	17.00 x 14.18	132.3	12	< 0.04 (0.06)	< 0.1 (0.2)	2.5	C	131.2	37.7
TCCX 050-W	0.500	2/3"	9.60 x 7.20	12.80 x 9.60	17.00 x 14.18	132.3	12	< 0.04 (0.06)	< 0.1 (0.2)	2.5	C	131.2	37.7
TCCX 066-G	0.660	2/3"	7.27 x 5.45	9.70 x 7.27	12.88 x 10.74	132.3	12	< 0.04 (0.06)	< 0.1 (0.2)	1.4	C	149.8	37.7
TCCX 066-W	0.660	2/3"	7.27 x 5.45	9.70 x 7.27	12.88 x 10.74	132.3	12	< 0.04 (0.06)	< 0.1 (0.2)	1.4	C	149.8	37.7
TCCX 075-G	0.750	2/3"	6.40 x 4.80	8.53 x 6.40	11.33 x 9.45	132.3	12	< 0.04 (0.06)	< 0.1 (0.2)	1.1	C	155.5	37.7
TCCX 075-W	0.750	2/3"	6.40 x 4.80	8.53 x 6.40	11.33 x 9.45	132.3	12	< 0.04 (0.06)	< 0.1 (0.2)	1.1	C	155.5	37.7
TCCX 100-G	1.000	2/3"	4.80 x 3.60	6.40 x 4.80	8.50 x 7.09	132.3	12	< 0.04 (0.06)	< 0.05 (0.10)	0.6	C	132.9	37.7
TCCX 100-W	1.000	2/3"	4.80 x 3.60	6.40 x 4.80	8.50 x 7.09	132.3	12	< 0.04 (0.06)	< 0.05 (0.10)	0.6	C	132.9	37.7
TCCX 150-G	1.500	2/3"	3.20 x 2.40	4.27 x 3.20	5.67 x 4.73	132.3	16	< 0.04 (0.06)	< 0.05 (0.10)	0.4	C	147.2	37.7
TCCX 150-W	1.500	2/3"	3.20 x 2.40	4.27 x 3.20	5.67 x 4.73	132.3	16	< 0.04 (0.06)	< 0.05 (0.10)	0.4	C	147.2	37.7
TCCX 250-G	2.500	2/3"	1.92 x 1.44	2.56 x 1.92	3.40 x 2.84	132.3	20	< 0.04 (0.06)	< 0.05 (0.10)	0.2	C	163.9	37.7
TCCX 250-W	2.500	2/3"	1.92 x 1.44	2.56 x 1.92	3.40 x 2.84	132.3	20	< 0.04 (0.06)	< 0.05 (0.10)	0.2	C	163.9	37.7
TCCX 350-G	3.500	2/3"	1.37 x 1.03	1.83 x 1.37	2.43 x 2.03	132.3	24	< 0.04 (0.06)	< 0.05 (0.10)	0.1	C	181.5	37.7
TCCX 350-W	3.500	2/3"	1.37 x 1.03	1.83 x 1.37	2.43 x 2.03	132.3	24	< 0.04 (0.06)	< 0.05 (0.10)	0.1	C	181.5	37.7

Last update 23/07/2024

- 1 Working distance: distance between the front end of the mechanics and the object. Set this distance within ± 3% of the nominal value for maximum resolution and minimum distortion.
- 2 Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
- 4 Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- 5 At the limits of the depth of field, the image can still be used for measurements. or a very sharp image, however, only half of the depth of field should be applied. Pixel size used for calculation is 3.45 µm.
- 6 Measured from the front end of the mechanics to the camera flange.

Ordering information

It's easy to select the right lens for your application: our part numbers are coded as TCCXxxx-y, where xxx defines the magnification (050 = 0.50, 066 = 0.66, 075 = 0.75, ...) and y defines the source color ("G" stands for "green light", "W" stands for "white light"). For instance, a TCCX050-G features a 0.50 magnification with a green light source.



TCCXHM series

High magnification coaxial telecentric lenses for sensors up to 2/3"

Magnification 0.2-6 x • COAXIAL

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS			
	Mag. (x)	Max sensor size	1/3" 4.80 x 3.60 (mm x mm)	1/2" 6.40 x 4.80 (mm x mm)	2/3" 8.50 x 7.09 (mm x mm)	WD (mm)	wf/N	Distortion typical (%)	DOF (mm)	Mount	Phase adj. availability	Length (mm)	Front diam. (mm)
RT-HR-6F-71	6.000	2/3"	0.80 x 0.60	1.07 x 0.80	1.42 x 1.18	71.1	41.1	< 0.90	0.10	C	Yes	107.9	18.0
RT-HR-4F-71	4.000	2/3"	1.20 x 0.90	1.60 x 1.20	2.13 x 1.77	71.1	29	< 0.82	0.1	C	Yes	100.0	18.0
RT-HR-2F-71	2.000	2/3"	2.40 x 1.80	3.20 x 2.40	4.25 x 3.55	71.0	18.5	< 0.34	0.3	C	Yes	97.0	18.0
RT-HR-1F-71	1.000	2/3"	4.80 x 3.60	6.40 x 4.80	8.50 x 7.09	71.0	15.6	< 0.01	0.9	C	Yes	116.4	18.0
RT-HR-6F-110	6.000	2/3"	0.80 x 0.60	1.07 x 0.80	1.42 x 1.18	110.0	55.6	< 0.48	0.2	C	Yes	114.5	18.0
RT-HR-4F-110	4.000	2/3"	1.20 x 0.90	1.60 x 1.20	2.13 x 1.77	110.0	39.2	< 1.02	0.2	C	Yes	94.9	18.0
RT-HR-2F-110	2.000	2/3"	2.40 x 1.80	3.20 x 2.40	4.25 x 3.55	110.0	23.8	< 1.50	0.4	C	Yes	87.7	18.0
RT-HR-1F-110	1.000	2/3"	4.80 x 3.60	6.40 x 4.80	8.50 x 7.09	110.0	16.7	< 0.06	1.0	C	Yes	125.5	18.0

Last update 24/01/2024

- 1 Working distance: distance between the front end of the mechanics and the object. Set this distance within ±3% of the nominal value for maximum resolution and minimum distortion.
- 2 Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Measured from the front end of the mechanics to the camera flange.



TC1MHR series

Telecentric lenses for sensors up to 1/1.2"

Magnification 0.045-0.639 x • CLASSIC

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS			
	Mag. (x)	Max sensor size	1/1.8" 7.13 x 5.33 (mm x mm)	2/3" 8.50 x 7.09 (mm x mm)	1/1.2" 11.35 x 7.13 (mm x mm)	WD (mm)	wf/N	Telecentricity typical (max) (deg)	Distortion typical (max) (%)	DOF (mm)	Mount	Phase adj. availability	Length (mm)	Front diam. (mm)
TC1MHR 016-C	0.639	1/1.2"	11.16 x 8.34	13.30 x 11.10	17.76 x 11.16	43.1	11	<0.08 (0.10)	<0.08 (0.10)	1.4	C	Yes	125.4	37.7
TC1MHR 024-C	0.424	1/1.2"	16.82 x 12.57	20.05 x 16.72	26.77 x 16.82	67.2	11	<0.08 (0.10)	<0.08 (0.10)	3.2	C	Yes	150.2	44
TC1MHR 036-C	0.295	1/1.2"	24.17 x 18.07	28.81 x 24.03	38.47 x 24.17	102.6	11	<0.08 (0.10)	<0.08 (0.10)	6.5	C	Yes	177.6	61
TC1MHR 048-C	0.222	1/1.2"	32.12 x 24.01	38.29 x 31.94	51.13 x 32.12	132.9	8	<0.08 (0.10)	<0.08 (0.10)	8.4	C	Yes	215.9	75
TC1MHR 056-C	0.190	1/1.2"	37.53 x 28.05	44.74 x 37.32	59.74 x 37.53	157.8	8	<0.08 (0.10)	<0.08 (0.10)	11.5	C	Yes	238.7	80
TC1MHR 064-C	0.166	1/1.2"	42.95 x 32.11	51.20 x 42.71	68.37 x 42.95	181.9	8	<0.08 (0.10)	<0.08 (0.10)	15.0	C	Yes	259.8	100
TC1MHR 080-C	0.134	1/1.2"	53.21 x 39.78	63.43 x 52.91	84.70 x 53.21	226.8	8	<0.08 (0.10)	<0.08 (0.10)	23.1	C	Yes	305.4	116
TC1MHR 096-C	0.114	1/1.2"	62.54 x 46.75	74.56 x 62.19	99.56 x 62.54	278.6	8	<0.08 (0.10)	<0.08 (0.10)	31.9	C	Yes	342.7	143
TC1MHR 120-C	0.087	1/1.2"	81.95 x 61.26	97.70 x 81.49	130.46 x 81.95	334.6	8	<0.08 (0.10)	<0.08 (0.10)	54.7	C	Yes	428.3	180
TC1MHR 144-C	0.074	1/1.2"	96.35 x 72.03	114.86 x 95.81	153.38 x 96.35	396.0	8	<0.08 (0.10)	<0.08 (0.10)	75.6	C	Yes	487.8	200
TC1MHR 192-C	0.056	1/1.2"	127.32 x 95.18	151.79 x 126.61	202.68 x 127.32	527.6	8	<0.08 (0.10)	<0.08 (0.10)	132.0	C	Yes	628.2	260
TC1MHR 240-C	0.045	1/1.2"	158.44 x 118.44	188.89 x 157.56	252.22 x 158.44	492.8	8	<0.08 (0.10)	<0.08 (0.10)	204.4	C	Yes	788.4	322

Last update 22/05/2024

- 1 Working distance: distance between the front end of the mechanics and the object. Set this distance within +/- 3% of the nominal value for maximum resolution and minimum distortion.
- 2 Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
- 4 Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- 5 At the limits of the depth of field, the image can still be used for measurements. For a very sharp image, however, only half of the depth of field should be considered. Pixel size used for calculation is 3.45 µm.
- 6 Object side, calculated with the Rayleigh criterion with λ= 520 nm.
- 7 Indicates the availability of an integrated camera phase adjustment feature.
- 8 Measured from the front end of the mechanics to the camera flange.

Ordering information

It's easy to select the right lens for your application: our models are coded as TC1MHRyyy-x where yyy refers to the width of the object FOV in mm and -x refers to the mount option: -C for C-mount
For example, TC1MHR064-C for a C-mount TC1MHR064 lens. Customized mounts are also available upon request.

TC2MHR series

Telecentric lenses for sensors up to 1"



Magnification 0.053-0.768 x • CLASSIC

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS			
	Mag. (x)	Max sensor size	2/3"	1/1.2"	1"	WD	wf/N	Telecentricity	Distortion	DOF	Mount	Phase adj. availability	Length (mm)	Front diam. (mm)
			8.50 x 7.09 (mm x mm)	11.35 x 7.13 (mm x mm)	14.19 x 7.51 (mm x mm)	(mm)		typical (max) (deg)	typical (max) (%)	(mm)				
TC2MHRP 016-C	0.768	1"	11.07 x 9.23	14.78 x 9.28	18.48 x 9.78	43.1	16	<0.08 (0.10)	<0.04 (0.10)	1.4	C	Yes	142.4	37.7
TC2MHRP 024-C	0.509	1"	16.70 x 13.93	22.30 x 14.01	27.88 x 14.75	67.2	11	<0.08 (0.10)	<0.04 (0.10)	2.2	C	Yes	167.4	44
TC2MHRP 036-C	0.354	1"	24.01 x 20.03	32.06 x 20.14	40.08 x 21.21	102.6	11	<0.08 (0.10)	<0.08 (0.10)	4.5	C	Yes	197.7	61
TC2MHRP 048-C	0.267	1"	31.84 x 26.55	42.51 x 26.70	53.15 x 28.13	132.9	8	<0.08 (0.10)	<0.08 (0.10)	5.8	C	Yes	233.7	75
TC2MHRP 056-C	0.228	1"	37.28 x 31.10	49.78 x 31.27	62.24 x 32.94	157.8	8	<0.04 (0.10)	<0.05 (0.10)	8.0	C	Yes	256.6	80
TC2MHRP 064-C	0.200	1"	42.50 x 35.45	56.75 x 35.65	70.95 x 37.55	181.9	8	<0.04 (0.10)	<0.05 (0.10)	10.4	C	Yes	278.2	100
TC2MHRP 080-C	0.160	1"	53.13 x 44.31	70.94 x 44.56	88.69 x 46.94	226.8	8	<0.04 (0.10)	<0.05 (0.10)	16.2	C	Yes	323.9	116
TC2MHRP 096-C	0.136	1"	62.50 x 52.13	83.46 x 52.43	104.34 x 55.22	278.6	8	<0.05 (0.10)	<0.07 (0.10)	22.4	C	Yes	365.2	143
TC2MHRP 120-C	0.104	1"	81.73 x 68.17	109.13 x 68.56	136.44 x 72.21	334.6	8	<0.07 (0.10)	<0.07 (0.10)	38.3	C	Yes	451.3	180
TC2MHRP 144-C	0.089	1"	95.51 x 79.66	127.53 x 80.11	159.44 x 84.38	396.0	8	<0.05 (0.10)	<0.05 (0.10)	52.3	C	Yes	510.8	200
TC2MHRP 192-C	0.067	1"	126.87 x 105.82	169.40 x 106.42	211.79 x 112.09	527.6	8	<0.05 (0.10)	<0.04 (0.10)	92.2	C	Yes	651.2	260
TC2MHRP 240-C	0.053	1"	160.38 x 133.77	214.15 x 134.53	267.74 x 141.70	492.8	8	<0.05 (0.10)	<0.04 (0.10)	147.4	C	Yes	790.6	322

Last update 08/09/2023

- 1 Working distance: distance between the front end of the mechanics and the object. Set this distance within +/- 3% of the nominal value for maximum resolution and minimum distortion.
- 2 Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
- 4 Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- 5 At the limits of the depth of field, the image can still be used for measurements. For a very sharp image, however, only half of the depth of field should be considered. Pixel size used for calculation is 3.45 µm.
- 6 Object side, calculated with the Rayleigh criterion with λ= 520 nm.
- 7 Indicates the availability of an integrated camera phase adjustment feature.
- 8 Measured from the front end of the mechanics to the camera flange.

Ordering information

It's easy to select the right lens for your application: our models are coded as TC2MHRyyy-x where yyy refers to the width of the object FOV in mm and -x refers to the mount option. Customized mounts are also available upon request.

TC3MHR series

Telecentric lenses for sensors up to 1.1"



Magnification 0.059-0.850 x • CLASSIC

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS			
	Mag. (x)	Max sensor size	1/1.2"	1"	1.1"	WD	wf/N	Telecentricity	Distortion	DOF	Mount	Phase adj. availability	Length (mm)	Front diam. (mm)
			11.35 x 7.13 (mm x mm)	14.19 x 7.51 (mm x mm)	14.16 x 10.37 (mm x mm)	(mm)		typical (max) (deg)	typical (max) (%)	(mm)				
TC3MHR 016-C	0.850	1.1"	13.35 x 8.39	16.69 x 8.84	16.66 x 12.20	43.1	11	<0.08 (0.10)	<0.08 (0.10)	0.8	C	Yes	155.2	37.7
TC3MHR 024-C	0.564	1.1"	20.12 x 12.64	25.16 x 13.32	25.11 x 18.39	67.2	11	<0.08 (0.10)	<0.08 (0.10)	1.8	C	Yes	177.0	44
TC3MHR 036-C	0.392	1.1"	28.95 x 18.19	36.20 x 19.16	36.12 x 26.45	102.6	11	<0.08 (0.10)	<0.08 (0.10)	3.7	C	Yes	204.4	61
TC3MHR 048-C	0.303	1.1"	37.46 x 23.53	46.83 x 24.79	46.73 x 34.22	132.9	8	<0.08 (0.10)	<0.08 (0.10)	4.5	C	Yes	223.4	75
TC3MHR 056-C	0.259	1.1"	43.82 x 27.53	54.79 x 29.00	54.67 x 40.04	157.8	8	<0.08 (0.10)	<0.08 (0.10)	6.2	C	Yes	246.7	80
TC3MHR 064-C	0.227	1.1"	50.00 x 31.41	62.51 x 33.08	62.38 x 45.68	181.9	8	<0.08 (0.10)	<0.08 (0.10)	8.0	C	Yes	284.0	100
TC3MHR 080-C	0.182	1.1"	62.36 x 39.18	77.97 x 41.26	77.80 x 56.98	226.8	8	<0.08 (0.10)	<0.08 (0.10)	12.5	C	Yes	313.7	116
TC3MHR 096-C	0.153	1.1"	74.18 x 46.60	92.75 x 49.08	92.55 x 67.78	278.6	8	<0.08 (0.10)	<0.08 (0.10)	17.7	C	Yes	354.7	143
TC3MHR 120-C	0.118	1.1"	96.19 x 60.42	120.25 x 63.64	120.00 x 87.88	334.6	8	<0.08 (0.10)	<0.08 (0.10)	29.7	C	Yes	440.4	180
TC3MHR 144-C	0.100	1.1"	113.50 x 71.30	141.90 x 75.10	141.60 x 103.70	396.0	8	<0.08 (0.10)	<0.08 (0.10)	41.4	C	Yes	499.8	200
TC3MHR 192-C	0.075	1.1"	151.33 x 95.07	189.20 x 100.13	188.80 x 138.27	527.6	8	<0.08 (0.10)	<0.08 (0.10)	73.6	C	Yes	640.3	260
TC3MHR 240-C	0.059	1.1"	192.37 x 120.85	240.51 x 127.29	240.00 x 175.76	492.8	8	<0.08 (0.10)	<0.08 (0.10)	118.9	C	Yes	801.6	322

Last update 22/05/2024

- 1 Working distance: distance between the front end of the mechanics and the object. Set this distance within +/- 3% of the nominal value for maximum resolution and minimum distortion.
- 2 Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
- 4 Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- 5 At the limits of the depth of field, the image can still be used for measurements. For a very sharp image, however, only half of the depth of field should be considered. Pixel size used for calculation is 3.45 µm.
- 6 Object side, calculated with the Rayleigh criterion with λ= 520 nm.
- 7 Indicates the availability of an integrated camera phase adjustment feature.
- 8 Measured from the front end of the mechanics to the camera flange.

Ordering information

It's easy to select the right lens for your application: our models are coded as TC3MHRyyy-x where yyy refers to the width of the object FOV in mm and -x refers to the mount option: -C for C-mount. For example, TC3MHR064-F for a C-mount TC3MHR064 lens. Customized mounts are also available upon request.



TCLWD3M series

Fixed working distance telecentric lenses for sensors up to 1.1"

Magnification 0.2-0.1 x • CLASSIC

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS						MECHANICAL SPECIFICATIONS			
	Mag. (x)	Max sensor size	1/1.8"	2/3"	1.1"	WD (mm)	wf/N	Telecentricity (deg)	Distortion (%)	DOF (mm)	Resolution (µm)	Mount	Phase adj. availability	Length (mm)	Front diam. (mm)
			7.13 x 5.33 (mm x mm)	8.50 x 7.09 (mm x mm)	14.16 x 10.37 (mm x mm)										
TCLWD100-110-3M	1.000	1.1"	7.13 x 5.33	8.50 x 7.09	14.16 x 10.37	110	12	< 0.25	< 0.15	0.6	8	C	Yes	190	42
TCLWD080-110-3M	0.800	1.1"	8.91 x 6.66	10.63 x 8.86	17.70 x 12.96	110	12	< 0.25	< 0.15	1.0	10	C	Yes	175	42
TCLWD055-110-3M	0.550	1.1"	12.96 x 9.69	15.45 x 12.89	25.75 x 18.85	110	10	< 0.25	< 0.15	1.7	12	C	Yes	176	52
TCLWD050-110-3M	0.500	1.1"	14.26 x 10.66	17.00 x 14.18	28.32 x 20.74	110	10	< 0.25	< 0.15	2.1	13	C	Yes	170	52
TCLWD050-180-3M	0.500	1.1"	14.26 x 10.66	17.00 x 14.18	28.32 x 20.74	178	10	< 0.25	< 0.15	2.1	13	C	Yes	193	52
TCLWD040-110-3M	0.400	1.1"	17.83 x 13.33	21.25 x 17.73	35.40 x 25.93	110	10	< 0.25	< 0.15	3.2	16	C	Yes	185	62
TCLWD030-110-23	0.300	2/3"	23.77 x 17.77	28.33 x 23.63	∅ = 34.57	110	10	< 0.25	< 0.15	5.8	21	C	Yes	170	62
TCLWD030-180-3M	0.300	1.1"	23.77 x 17.77	28.33 x 23.63	47.20 x 34.57	178	8	< 0.25	< 0.15	4.6	17	C	Yes	205	82
TCLWD020-180-23	0.200	2/3"	35.65 x 26.65	42.50 x 35.45	∅ = 51.85	178	8	< 0.25	< 0.15	10.4	25	C	Yes	184	82
TCLWD020-275-23	0.200	2/3"	35.65 x 26.65	42.50 x 35.45	∅ = 51.85	274	8	< 0.25	< 0.15	10.4	25	C	Yes	201	82

Last update 23/05/2024

- Object field of view (mm x mm). For the fields with the indication "∅ =", the image of a circular object of such diameter is fully inscribed into the detector.
- Working distance: distance between the front end of the mechanics and the object. Set this distance within ±3% of the nominal value for maximum resolution and minimum distortion.
- Working f-number (wf/N): the real f-number of a lens in operating conditions.
- Maximum angle between chief rays and optical axis on the object side. Maximum (guaranteed) values are listed.
- Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- At the borders of the depth of field, the image can be still used for measurement but, to get a very sharp image, only half of the nominal field depth should be considered. Pixel size used for calculation is 3.45 µm.
- Object side, calculated with the Rayleigh criterion with λ= 520 nm.
- Indicates the availability of an integrated camera phase adjustment feature.
- Measured from the front end of the mechanics to the camera flange.

TC1MHR CORE series

Compact telecentric lenses for sensors up to 1/1.2"



Magnification 0.087-0.222 x • COMPACT

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS				
	Mag. (x)	Max sensor size	1/1.8"	2/3"	1/1.2"	WD (mm)	wf/N	Telecentricity (deg)	Distortion (%)	DOF (mm)	Mount	Phase adj. availability	Dimensions (mm)		
			7.13 x 5.33 (mm x mm)	8.50 x 7.09 (mm x mm)	11.35 x 7.13 (mm x mm)								A	B	C
TCCR1M 048-C	0.222	1/1.2"	32.12 x 24.01	38.29 x 31.94	51.13 x 32.12	132.4	8	<0.08 (0.10)	<0.08 (0.10)	8.4	C	Yes	77	106	144.7
TCCR1M 056-C	0.190	1/1.2"	37.53 x 28.05	44.74 x 37.32	59.74 x 37.53	157.8	8	<0.08 (0.10)	<0.08 (0.10)	11.5	C	Yes	94	110	154.3
TCCR1M 064-C	0.166	1/1.2"	42.95 x 32.11	51.20 x 42.71	68.37 x 42.95	181.9	8	<0.08 (0.10)	<0.08 (0.10)	15.0	C	Yes	101	122	161.9
TCCR1M 080-C	0.134	1/1.2"	53.21 x 39.78	63.43 x 52.91	84.70 x 53.21	226.8	8	<0.08 (0.10)	<0.08 (0.10)	23.1	C	Yes	119	145	180.9
TCCR1M 096-C	0.114	1/1.2"	62.54 x 46.75	74.56 x 62.19	99.56 x 62.54	278.6	8	<0.08 (0.10)	<0.08 (0.10)	31.9	C	Yes	139	172	197.5
TCCR1M 120-C	0.087	1/1.2"	81.95 x 61.26	97.70 x 81.49	130.46 x 81.95	334.6	8	<0.08 (0.10)	<0.08 (0.10)	54.7	C	Yes	181	220	230.3

Last update 26/07/2023

- Working distance: distance between the front end of the mechanics and the object. Set this distance within ± 3% of the nominal value for maximum resolution and minimum distortion.
- Working f-number (wf/N): the real f-number of a lens in operating conditions.
- Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
- Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- At the limits of the depth of field, the image can still be used for measurements. For a very sharp image, however, only half of the depth of field should be considered.
- Indicates the availability of an integrated camera phase adjustment feature.
- Due to the special shape of TCCR120xx it might be necessary to check the mechanical compatibility with your camera.



TC2MHR CORE series

Compact telecentric lenses for sensors up to 1"

Magnification 0.104-0.267 x • COMPACT

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS				
	Mag.	Max sensor size	2/3"	1/1.2"	1"	WD	wf/N	Telecentricity	Distortion	DOF	Mount	Phase adj.	Dimensions (mm)		
	(x)	(mm)	(mm x mm)	(mm x mm)	(mm x mm)	(mm)		(deg)	(%)	(mm)	availability		A	B	C
TCCR2MP 048-C	0.267	1"	31.84 x 26.55	42.51 x 26.70	53.15 x 28.13	132.9	8	<0.08 (0.10)	<0.08 (0.10)	5.8	C	Yes	76.9	108.3	162.6
TCCR2MP 056-C	0.228	1"	37.28 x 31.10	49.78 x 31.27	62.24 x 32.94	157.8	8	<0.04 (0.10)	<0.05 (0.10)	8.0	C	Yes	93.6	110.7	172.7
TCCR2MP 064-C	0.200	1"	42.50 x 35.45	56.75 x 35.65	70.95 x 37.55	181.9	8	<0.04 (0.10)	<0.05 (0.10)	10.4	C	Yes	100.5	123.0	180.3
TCCR2MP 080-C	0.160	1"	53.13 x 44.31	70.94 x 44.56	88.69 x 46.94	226.8	8	<0.04 (0.10)	<0.05 (0.10)	16.2	C	Yes	118.9	145.0	199.4
TCCR2MP 096-C	0.136	1"	62.50 x 52.13	83.46 x 52.43	104.34 x 55.22	278.6	8	<0.05 (0.10)	<0.07 (0.10)	22.4	C	Yes	139.0	171.9	220.1
TCCR2MP 120-C	0.104	1"	81.73 x 68.17	109.13 x 68.56	136.44 x 72.21	334.6	8	<0.07(0.10)	<0.07 (0.10)	38.3	C	Yes	181.4	220.0	253.6

Last update 08/09/2023

- 1 Working distance: distance between the front end of the mechanics and the object. Set this distance within ± 3% of the nominal value for maximum resolution and minimum distortion.
- 2 Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
- 4 Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- 5 At the limits of the depth of field, the image can still be used for measurements. For a very sharp image, however, only half of the depth of field should be considered. Pixel size used for calculation is 3.45 µm.
- 6 Indicates the availability of an integrated camera phase adjustment feature.
- 7 Due to the special shape of TCCR120xx it might be necessary to check the mechanical compatibility with your camera.



TC3MHR CORE series

Compact telecentric lenses for sensors up to 1.1"

Magnification 0.118-0.303 x • COMPACT

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS				
	Mag.	Max sensor size	1/1.2"	1"	1.1"	WD	wf/N	Telecentricity	Distortion	DOF	Mount	Phase adj.	Dimensions (mm)		
	(x)	(mm)	(mm x mm)	(mm x mm)	(mm x mm)	(mm)		(deg)	(%)	(mm)	availability		A	B	C
TCCR3M 048-C	0.303	1.1"	37.46 x 23.53	46.83 x 24.79	46.73 x 34.22	132.9	8	<0.08 (0.10)	<0.08 (0.10)	4.5	C	Yes	77	106	152.3
TCCR3M 056-C	0.259	1.1"	43.82 x 27.53	54.79 x 29.00	54.67 x 40.04	157.8	8	<0.08 (0.10)	<0.08 (0.10)	6.2	C	Yes	94	110	162.3
TCCR3M 064-C	0.227	1.1"	50.00 x 31.41	62.51 x 33.08	62.38 x 45.68	181.9	8	<0.08 (0.10)	<0.08 (0.10)	8.0	C	Yes	101	122	169.9
TCCR3M 080-C	0.182	1.1"	62.36 x 39.18	77.97 x 41.26	77.80 x 56.98	226.8	8	<0.08 (0.10)	<0.08 (0.10)	12.5	C	Yes	119	145	189
TCCR3M 096-C	0.153	1.1"	74.18 x 46.60	92.75 x 49.08	92.55 x 67.78	278.6	8	<0.08 (0.10)	<0.08 (0.10)	17.7	C	Yes	139	172	208.3
TCCR3M 120-C	0.118	1.1"	96.19 x 60.42	120.25 x 63.64	120.00 x 87.88	334.6	8	<0.08 (0.10)	<0.08 (0.10)	29.7	C	Yes	181	220	238.6

Last update 08/09/2023

- 1 Working distance: distance between the front end of the mechanics and the object. Set this distance within ± 3% of the nominal value for maximum resolution and minimum distortion.
- 2 Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
- 4 Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- 5 At the limits of the depth of field, the image can still be used for measurements. For a very sharp image, however, only half of the depth of field should be considered. Pixel size used for calculation is 3.45 µm.
- 6 Indicates the availability of an integrated camera phase adjustment feature.
- 7 Due to the special shape of TCCR120xx it might be necessary to check the mechanical compatibility with your camera.



PATENTED

TC4MHR CORE series

Compact telecentric lenses for sensors up to 4/3"

Magnification 0.143-0.366 x • COMPACT

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS				
	Mag. (x)	Max sensor size	1"	1.1"	4/3"	WD (mm)	wf/N	Telecentricity	Distortion	DOF	Mount	Phase adj. availability	Dimensions (mm)		
			14.19 x 7.51 (mm x mm)	14.16 x 10.37 (mm x mm)	18.93 x 10.61 (mm x mm)	1	2	3	4	5			6	7	8
TCCR4MP 048-C	0.366	4/3"	38.77 x 20.52	38.69 x 28.33	51.72 x 28.99	132.9	8	<0.08 (0.10)	<0.05 (0.10)	3.1	C	Yes	77	108	173.6
TCCR4MP 048-F	0.366	4/3"	38.77 x 20.52	38.69 x 28.33	51.72 x 28.99	132.9	8	<0.08 (0.10)	<0.05 (0.10)	3.1	F	Yes	77	118	144.6
TCCR4MP 048-J	0.366	4/3"	38.77 x 20.52	38.69 x 28.33	51.72 x 28.99	132.9	8	<0.08 (0.10)	<0.05 (0.10)	3.1	M42x1 FD 12	Yes	77	112	179.1
TCCR4MP 056-C	0.313	4/3"	45.34 x 23.99	45.24 x 33.13	60.48 x 33.90	157.8	8	<0.05 (0.10)	<0.07 (0.10)	4.2	C	Yes	94	111	183.2
TCCR4MP 056-F	0.313	4/3"	45.34 x 23.99	45.24 x 33.13	60.48 x 33.90	157.8	8	<0.05 (0.10)	<0.07 (0.10)	4.2	F	Yes	94	120	154.2
TCCR4MP 056-J	0.313	4/3"	45.34 x 23.99	45.24 x 33.13	60.48 x 33.90	157.8	8	<0.05 (0.10)	<0.07 (0.10)	4.2	M42x1 FD 12	Yes	94	114	188.7
TCCR4MP 064-C	0.274	4/3"	51.79 x 27.41	51.68 x 37.85	69.09 x 38.72	181.9	8	<0.04 (0.10)	<0.08 (0.10)	5.5	C	Yes	101	123	190.8
TCCR4MP 064-F	0.274	4/3"	51.79 x 27.41	51.68 x 37.85	69.09 x 38.72	181.9	8	<0.04 (0.10)	<0.08 (0.10)	5.5	F	Yes	101	133	161.8
TCCR4MP 064-J	0.274	4/3"	51.79 x 27.41	51.68 x 37.85	69.09 x 38.72	181.9	8	<0.04 (0.10)	<0.08 (0.10)	5.5	M42x1 FD 12	Yes	101	126	196.3
TCCR4MP 080-C	0.220	4/3"	64.50 x 34.14	64.36 x 47.14	86.05 x 48.23	226.8	8	<0.04 (0.10)	<0.08 (0.10)	8.6	C	Yes	119	145	210
TCCR4MP 080-F	0.220	4/3"	64.50 x 34.14	64.36 x 47.14	86.05 x 48.23	226.8	8	<0.04 (0.10)	<0.08 (0.10)	8.6	F	Yes	119	153	181
TCCR4MP 080-J	0.220	4/3"	64.50 x 34.14	64.36 x 47.14	86.05 x 48.23	226.8	8	<0.04 (0.10)	<0.08 (0.10)	8.6	M42x1 FD 12	Yes	119	147	215.5
TCCR4MP 096-C	0.185	4/3"	76.70 x 40.59	76.54 x 56.05	102.32 x 57.35	278.6	8	<0.05 (0.10)	<0.04 (0.10)	12.1	C	Yes	139	172	229.5
TCCR4MP 096-F	0.185	4/3"	76.70 x 40.59	76.54 x 56.05	102.32 x 57.35	278.6	8	<0.05 (0.10)	<0.04 (0.10)	12.1	F	Yes	139	176	200.5
TCCR4MP 096-J	0.185	4/3"	76.70 x 40.59	76.54 x 56.05	102.32 x 57.35	278.6	8	<0.05 (0.10)	<0.04 (0.10)	12.1	M42x1 FD 12	Yes	139	172	235
TCCR4MP 120-C	0.143	4/3"	99.23 x 52.52	99.02 x 72.52	132.38 x 74.20	334.6	8	<0.05 (0.10)	<0.05 (0.10)	20.2	C	Yes	181	220	263.3
TCCR4MP 120-F	0.143	4/3"	99.23 x 52.52	99.02 x 72.52	132.38 x 74.20	334.6	8	<0.05 (0.10)	<0.05 (0.10)	20.2	F	Yes	181	223	234.4
TCCR4MP 120-J	0.143	4/3"	99.23 x 52.52	99.02 x 72.52	132.38 x 74.20	334.6	8	<0.05 (0.10)	<0.05 (0.10)	20.2	M42x1 FD 12	Yes	181	220	268.9

Last update 26/07/2023

- With IMX387 (21.7 mm diagonal) sensors, the FOV of TCCR4Myy-x lenses may show some vignetting at the image corners.
- Working distance: distance between the front end of the mechanics and the object. Set this distance within ± 3% of the nominal value for maximum resolution and minimum distortion.
- Working F-number (wf/N): the real f-number of a lens in operating conditions.
- Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
- Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- At the limits of the depth of field, the image can still be used for measurements. For a very sharp image, however, only half of the depth of field should be considered. Pixel size used for calculation is 3.45 µm.
- Indicates the availability of an integrated camera phase adjustment feature.
- Due to the special shape of TCCR120xx it might be necessary to check the mechanical compatibility with your camera.

TCHR CORE PLUS series

Compact large FOV telecentric lenses for sensors up to 4/3"

PATENTED



Magnification 0.053-0.117 x • COMPACT

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS					
	Mag. (x)	Max sensor size	1"	1.1"	4/3"	WD (mm)	wf/N	Telecentricity	Distortion	Residual Distortion	DOF (mm)	Mount	Phase adj. availability	Dimensions (mm)		
			14.19 x 7.51 (mm x mm)	14.16 x 10.37 (mm x mm)	18.93 x 10.61 (mm x mm)	1	2	3	4	5	6			7	8	9
TCCP3 MHR 144-C	0.086	1.1"	132.28 x 83.10	165.03 x 120.86	-	232.0	11	< 0.06 (0.10)	< 0.8	< 0.01	77.3	C	Yes	332	303	340
TCCP3 MHR 192-C	0.064	1.1"	177.07 x 111.23	200.00 x 161.78	-	288.0	10	< 0.12 (0.18)	< 0.8	< 0.01	125.9	C	Yes	410	344	371
TCCP3 MHR 260-C	0.053	1.1"	214.15 x 134.53	267.17 x 195.66	-	366.0	10	< 0.18 (0.22)	< 0.9	< 0.01	184.2	C	Yes	480	397	444
TCCP5 MHR 144-F	0.117	4/3"	96.96 x 60.91	120.96 x 88.59	161.71 x 90.64	217.0	14	< 0.06 (0.10)	< 0.8	< 0.01	52.9	F	Yes	332	303	348
TCCP5 MHR 192-F	0.088	4/3"	129.71 x 81.49	161.83 x 118.51	200.00 x 121.26	288.0	12	< 0.12 (0.18)	< 0.8	< 0.01	81.1	F	Yes	410	344	373
TCCP5 MHR 260-F	0.072	4/3"	157.64 x 99.03	196.67 x 144.03	262.92 x 147.36	346.0	12	< 0.18 (0.22)	< 0.9	< 0.01	119.8	F	Yes	480	397	441

Last update 26/07/2023

- Working distance: distance between the front end of the mechanics and the object.
- Working F-number: the real F-number of a lens in operating conditions.
- Maximum angle between chief rays and optical axis on the object side.
- Percent deviation of the real image compared to an ideal, undistorted image. Maximum (guaranteed) values of the uncorrected image are listed.
- Residual distortion after calibration with TCLIB Suite software library, using a PTCB calibrations pattern and a fully GenICam compliant camera. For setup information see related table.
- At the borders of the depth of field, the image can be still used for measurement but to get a very sharp image, only half of the nominal field depth should be considered. Pixel size used for calculation is 3.45 µm.
- Indicates the availability of an integrated camera phase adjustment feature.
- Maximum dimension of the clamping flange.
- Measured from the front end of the mechanics to the camera flange.

TCCX2M series

Coaxial telecentric lenses for sensors up to 1"



Magnification 0.3-4 x • COAXIAL

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS			
	Mag. (x)	Max sensor size	1/1.8" 5.70 x 4.28 (mm x mm)	2/3" 8.50 x 7.09 (mm x mm)	1.1" 14.16 x 10.37 (mm x mm)	WD (mm)	wf/N	Distortion typical (%)	DOF (mm)	Mount	Phase adj. availability	Length (mm)	Front diam. (mm)
						1	2					3	
RT-MP-4F-65	4.000	1"	1.43 x 1.07	2.13 x 1.77	3.54 x 2.59	65.0	16.7	< 0.57	0.04	C	Yes	165.5	29.0
RT-MP-2F-65	2.000	1"	2.85 x 2.14	4.25 x 3.55	7.08 x 5.19	65.0	10	< 0.96	0.1	C	Yes	127.0	29.0
RT-MP-1.5F-65	1.500	1"	3.80 x 2.85	5.67 x 4.73	9.44 x 6.91	65.0	7.5	< 0.57	0.1	C	Yes	114.6	29.0
RT-MP-1F-65	1.000	1"	5.70 x 4.28	8.50 x 7.09	14.16 x 10.37	65.5	8	< 0.22	0.3	C	Yes	133.1	32.0
RT-TCL0750-FU	0.750	1"	7.60 x 5.71	11.33 x 9.45	18.88 x 13.83	60.7	12-60	< 0.05	0.8	C	No	206.4	44.0
RT-TCL0600-FU	0.600	1"	9.50 x 7.13	14.17 x 11.82	23.60 x 17.28	78.5	12-60	< 0.04	1.2	C	No	228.5	44.0
RT-TCL0450-FU	0.450	1"	12.67 x 9.51	18.89 x 15.76	31.47 x 23.04	108.2	12-60	< 0.01	2.2	C	No	265.4	49.0
RT-TCL0300-FU	0.300	1"	19.00 x 14.27	28.33 x 23.63	47.20 x 34.57	167.0	12-60	< 0.01	5.0	C	No	338.2	68.0

Last update 26/07/2023

- 1 Working distance: distance between the front end of the mechanics and the object. Set this distance within ±3% of the nominal value for maximum resolution and minimum distortion.
- 2 Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Measured from the front end of the mechanics to the camera flange.

TC10M series

Telecentric lenses for sensors up to APS-C and 4k line scan cameras



Magnification 0.075-0.888 x • CLASSIC

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS			
	Mag. (x)	Max sensor size	4/3" IMX387 18.87 x 10.64 (mm x mm)	Line 4k-7µm 28.67 (mm)	APS-C IMX342 22.36 x 16.77 (mm x mm)	WD (mm)	wf/N	Telecentricity typical (max) (deg)	Distortion typical (max) (%)	DOF (mm)	Mount	Phase adj.	Length (mm)	Front diam. (mm)
						1	2	3	4	5	6	7	8	
TC10M 024-F	0.888	APS-C	17.22 x 17.23	32.29	25.18 x 18.89	67.2	11	<0.07 (0.10)	<0.06 (0.10)	1.2	F	Yes	148.5	44
TC10M 024-J	0.888	APS-C	17.22 x 17.23	32.29	25.18 x 18.89	67.2	11	<0.07 (0.10)	<0.06 (0.10)	1.2	M42x1 FD 12	Yes	183.0	44
TC10M 036-F	0.617	APS-C	24.78 x 24.80	46.47	36.24 x 27.18	102.6	11	<0.07 (0.10)	<0.07 (0.10)	2.4	F	Yes	176.3	61
TC10M 036-J	0.617	APS-C	24.78 x 24.80	46.47	36.24 x 27.18	102.6	11	<0.07 (0.10)	<0.07 (0.10)	2.4	M42x1 FD 12	Yes	210.8	61
TC10M 048-F	0.469	APS-C	32.60 x 32.62	61.13	47.68 x 35.76	132.9	8	<0.02 (0.10)	<0.05 (0.10)	3.0	F	Yes	213.3	75
TC10M 048-J	0.469	APS-C	32.60 x 32.62	61.13	47.68 x 35.76	132.9	8	<0.02 (0.10)	<0.05 (0.10)	3.0	M42x1 FD 12	Yes	247.8	75
TC10M 056-F	0.401	APS-C	38.13 x 38.15	71.50	55.76 x 41.82	157.8	8	<0.03 (0.10)	<0.08 (0.10)	4.1	F	Yes	237.3	80
TC10M 056-J	0.401	APS-C	38.13 x 38.15	71.50	55.76 x 41.82	157.8	8	<0.03 (0.10)	<0.08 (0.10)	4.1	M42x1 FD 12	Yes	271.8	80
TC10M 064-F	0.351	APS-C	43.56 x 43.59	81.68	63.70 x 47.78	181.9	8	<0.08 (0.10)	<0.04 (0.10)	5.4	F	Yes	259.8	100
TC10M 064-J	0.351	APS-C	43.56 x 43.59	81.68	63.70 x 47.78	181.9	8	<0.08 (0.10)	<0.04 (0.10)	5.4	M42x1 FD 12	Yes	294.3	100
TC10M080-F	0.281	APS-C	54.41 x 54.45	102.03	79.57 x 59.68	226.8	8	<0.03 (0.10)	<0.08 (0.10)	8.4	F	Yes	307.1	116
TC10M 080-J	0.281	APS-C	54.41 x 54.45	102.03	79.57 x 59.68	226.8	8	<0.03 (0.10)	<0.08 (0.10)	8.4	M42x1 FD 12	Yes	341.6	116
TC10M 096-F	0.238	APS-C	64.24 x 64.29	120.46	93.95 x 70.46	278.6	8	<0.05 (0.10)	<0.07 (0.10)	11.7	F	Yes	357.5	143
TC10M 096-J	0.238	APS-C	64.24 x 64.29	120.46	93.95 x 70.46	278.6	8	<0.05 (0.10)	<0.07 (0.10)	11.7	M42x1 FD 12	Yes	392.0	143
TC10M 120-F	0.184	APS-C	83.10 x 83.15	155.82	121.52 x 91.14	334.6	8	<0.07 (0.10)	<0.06 (0.10)	19.5	F	Yes	442.4	180
TC10M 120-J	0.184	APS-C	83.10 x 83.15	155.82	121.52 x 91.14	334.6	8	<0.07 (0.10)	<0.06 (0.10)	19.5	M42x1 FD 12	Yes	476.9	180
TC10M 144-F	0.156	APS-C	98.01 x 98.08	183.78	143.33 x 107.50	396.0	8	<0.06 (0.10)	<0.08 (0.10)	27.1	F	Yes	506.9	200
TC10M 144-J	0.156	APS-C	98.01 x 98.08	183.78	143.33 x 107.50	396.0	8	<0.06 (0.10)	<0.08 (0.10)	27.1	M42x1 FD 12	Yes	541.4	200
TC10M 192-F	0.117	APS-C	130.68 x 130.77	245.04	191.11 x 143.33	527.6	8	<0.08 (0.10)	<0.07 (0.10)	48.2	F	Yes	648.4	260
TC10M 192-J	0.117	APS-C	130.68 x 130.77	245.04	191.11 x 143.33	527.6	8	<0.08 (0.10)	<0.07 (0.10)	48.2	M42x1 FD 12	Yes	682.9	260
TC10M 240-F	0.096	APS-C	159.27 x 159.38	298.65	232.92 x 174.69	492.8	8	<0.03 (0.10)	<0.08 (0.10)	71.6	F	Yes	827.5	322
TC10M 240-J	0.096	APS-C	159.27 x 159.38	298.65	232.92 x 174.69	492.8	8	<0.03 (0.10)	<0.08 (0.10)	71.6	M42x1 FD 12	Yes	862.0	322
TC10M 308-F	0.075	APS-C	203.87 x 204.00	382.27	298.13 x 223.60	500.0	8	<0.09 (0.15)	<0.10 (0.15)	117.3	F	Yes	973.3	417
TC10M 308-J	0.075	APS-C	203.87 x 204.00	382.27	298.13 x 223.60	500.0	8	<0.09 (0.15)	<0.10 (0.15)	117.3	M42x1 FD 12	Yes	1007.8	417

Last update 01/09/2023

- 1 Working distance: distance between the front end of the mechanics and the object. Set this distance within ±3% of the nominal value for maximum resolution and minimum distortion.
- 2 Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
- 4 Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- 5 At the borders of the depth of field, the image can be still used for measurement but to get a very sharp image, only half of the nominal field depth should be considered. Pixel size used for calculation is 5.5 µm.
- 6 FD stands for Flange Distance (in mm), defined as the distance from the mounting flange (the "metal ring" in rear part of the lens) to the camera detector plane.
- 7 Indicates the availability of an integrated camera phase adjustment feature.
- 8 Measured from the front end of the mechanics to the camera flange.



TC12M series

Telecentric lenses for sensors up to APS-H and 4k line scan cameras

Magnification 0.1-1.825 x • CLASSIC

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS			
	Mag. (x)	Max sensor size	APS-C	Line	APS-H	WD	wf/N	Telecentricity	Distortion	DOF	Mount	Phase adj.	Length	Front diam.
			IMX342 22.36 x 16.77 (mm x mm)	4k-7µm 28.67 (mm)	PYTHON 25K 23.04 x 23.04 (mm x mm)	(mm)	(deg)	(%)	(mm)	(mm)	(mm)	(mm)	(mm)	
1	2	3	4	5	6	7	8							
TC12M 016-F	1.825	APS-H	12.25 x 9.19	15.71	12.62 x 12.62	42.3	16	<0.08 (0.10)	<0.08 (0.10)	0.4	F	Yes	213.0	37.7
TC12M 016-J	1.825	APS-H	12.25 x 9.19	15.71	12.62 x 12.62	42.3	16	<0.08 (0.10)	<0.08 (0.10)	0.4	M42x1 FD 12	Yes	247.5	37.7
TC12M 024-F	1.208	APS-H	18.51 x 13.88	23.73	19.07 x 19.07	66.7	16	<0.08 (0.10)	<0.08 (0.10)	0.9	F	Yes	222.1	44
TC12M 024-J	1.208	APS-H	18.51 x 13.88	23.73	19.07 x 19.07	66.7	16	<0.08 (0.10)	<0.08 (0.10)	0.9	M42x1 FD 12	Yes	256.6	44
TC12M 036-F	0.838	APS-H	26.68 x 20.01	34.21	27.49 x 27.49	101.9	12	<0.08 (0.10)	<0.08 (0.10)	1.4	F	Yes	270.1	61
TC12M 036-J	0.838	APS-H	26.68 x 20.01	34.21	27.49 x 27.49	101.9	12	<0.08 (0.10)	<0.08 (0.10)	1.4	M42x1 FD 12	Yes	304.1	61
TC12M 048-F	0.635	APS-H	35.21 x 26.41	45.15	36.28 x 36.28	131.1	12	<0.08 (0.10)	<0.08 (0.10)	2.5	F	Yes	292.7	75
TC12M 048-J	0.635	APS-H	35.21 x 26.41	45.15	36.28 x 36.28	131.1	12	<0.08 (0.10)	<0.08 (0.10)	2.5	M42x1 FD 12	Yes	327.2	75
TC12M 056-F	0.531	APS-H	42.11 x 31.58	53.99	43.39 x 43.39	136.5	11	<0.08 (0.10)	<0.08 (0.10)	3.2	F	Yes	331.7	80
TC12M 056-J	0.531	APS-H	42.11 x 31.58	53.99	43.39 x 43.39	136.5	11	<0.08 (0.10)	<0.08 (0.10)	3.2	M42x1 FD 12	Yes	366.2	80
TC12M 064-F	0.465	APS-H	48.09 x 36.06	61.66	49.55 x 49.55	157.6	11	<0.08 (0.10)	<0.08 (0.10)	4.2	F	Yes	353.5	100
TC12M 064-J	0.465	APS-H	48.09 x 36.06	61.66	49.55 x 49.55	157.6	11	<0.08 (0.10)	<0.08 (0.10)	4.2	M42x1 FD 12	Yes	388.0	100
TC12M 080-F	0.376	APS-H	59.47 x 44.60	76.25	61.28 x 61.28	199.0	11	<0.08 (0.10)	<0.08 (0.10)	6.4	F	Yes	401.2	116
TC12M 080-J	0.376	APS-H	59.47 x 44.60	76.25	61.28 x 61.28	199.0	11	<0.08 (0.10)	<0.08 (0.10)	6.4	M42x1 FD 12	Yes	435.7	116
TC12M 096-F	0.306	APS-H	73.07 x 54.80	93.69	75.29 x 75.29	256.0	8	<0.08 (0.10)	<0.08 (0.10)	7.0	F	Yes	423.7	143
TC12M 096-J	0.306	APS-H	73.07 x 54.80	93.69	75.29 x 75.29	256.0	8	<0.08 (0.10)	<0.08 (0.10)	7.0	M42x1 FD 12	Yes	458.2	143
TC12M 120-F	0.233	APS-H	95.97 x 71.97	123.05	98.88 x 98.88	303.9	8	<0.08 (0.10)	<0.08 (0.10)	12.2	F	Yes	508.7	180
TC12M 120-J	0.233	APS-H	95.97 x 71.97	123.05	98.88 x 98.88	303.9	8	<0.08 (0.10)	<0.08 (0.10)	12.2	M42x1 FD 12	Yes	543.2	180
TC12M 144-F	0.196	APS-H	114.08 x 85.56	146.28	117.55 x 117.55	358.5	8	<0.08 (0.10)	<0.08 (0.10)	17.2	F	Yes	564.2	200
TC12M 144-J	0.196	APS-H	114.08 x 85.56	146.28	117.55 x 117.55	358.5	8	<0.08 (0.10)	<0.08 (0.10)	17.2	M42x1 FD 12	Yes	598.7	200
TC12M 192-F	0.144	APS-H	155.28 x 116.46	199.10	160.00 x 160.00	475.9	8	<0.08 (0.10)	<0.08 (0.10)	31.8	F	Yes	700.2	260
TC12M 192-J	0.144	APS-H	155.28 x 116.46	199.10	160.00 x 160.00	475.9	8	<0.08 (0.10)	<0.08 (0.10)	31.8	M42x1 FD 12	Yes	734.7	260
TC12M 240-F	0.115	APS-H	194.43 x 145.83	249.30	200.35 x 200.35	542.8	8	<0.08 (0.10)	<0.08 (0.10)	49.9	F	Yes	849.8	322
TC12M 240-J	0.115	APS-H	194.43 x 145.83	249.30	200.35 x 200.35	542.8	8	<0.08 (0.10)	<0.08 (0.10)	49.9	M42x1 FD 12	Yes	884.3	322
TC12M 308-F	0.100	2.4"	223.60 x 167.70	286.70	230.40 x 230.40	500.0	8	<0.10 (0.15)	<0.10 (0.15)	66.0	F	Yes	1001.0	417
TC12M 308-J	0.100	2.4"	223.60 x 167.70	286.70	230.40 x 230.40	500.0	8	<0.10 (0.15)	<0.10 (0.15)	66.0	M42x1 FD 12	Yes	1035.5	417

Last update 26/07/2023

- Working distance: distance between the front end of the mechanics and the object. Set this distance within ±3% of the nominal value for maximum resolution and minimum distortion.
- Working f-number (wf/N): the real f-number of a lens in operating conditions.
- Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
- Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- At the borders of the depth of field, the image can be still used for measurement but, to get a very sharp image, only half of the nominal field depth should be considered. Pixel size used for calculation is 5.5 µm.
- FD stands for Flange Distance (in mm), defined as the distance from the mounting flange (the "metal ring" in rear part of the lens) to the camera detector plane.
- Indicates the availability of an integrated camera phase adjustment feature.
- Measured from the front end of the mechanics to the camera flange.

TCSE series

High-resolution telecentric lenses for 4/3", APS-C, APS-H and full frame sensor



Magnification 0.366–2.750 x • CLASSIC

Part number	MAIN OPTICAL SPECIFICATIONS			OBJECT FIELD OF VIEW			
	Mag. (x)	Max sensor size		4/3" IMX367 15.29 x 15.30 (mm x mm)	APS-C IMX342 22.36 x 16.77 (mm x mm)	CHR70M 31.00 x 21.99 (mm x mm)	CMV50000 36.43 x 27.62 (mm x mm)
TCSE 5M 065-J	0.366	4/3"		41.78 x 41.80	45.82 x 0.00	60.08 x 0.00	65.30 x 0.00
TCSE 10M 056-F	0.460	APS-C		33.24 x 33.26	48.61 x 36.46	47.81 x 0.00	60.04 x 0.00
TCSE 16M 048-I	0.800	FF		19.11 x 19.13	27.95 x 20.96	38.75 x 27.49	45.54 x 34.52
TCSE 16M 036-I	0.920	FF		16.62 x 16.63	24.30 x 18.23	33.70 x 23.90	39.60 x 30.02
TCSE 16M 028VISNIR-F a	1.500	2.4"		10.19 x 10.20	14.91 x 11.18	20.67 x 14.66	18.41 x 0.00
TCSE 16M024-F b	1.600	2.4"		9.56 x 9.56	13.98 x 10.48	19.38 x 13.74	17.26 x 0.00
TCSE 16M 024NIR-F	1.600	2.4"		9.56 x 9.56	13.98 x 10.48	19.38 x 13.74	17.26 x 0.00
TCSE 10M 009-J b	2.750	APS-C		5.56 x 5.56	8.13 x 6.10	8.00 x 0.00	10.04 x 0.00

Part number	ADVANCED OPTICAL SPECIFICATIONS						MECHANICAL SPECIFICATIONS			
	WD (mm) 1	Wavelength range (nm)	wf/N 2	Telecentricity typical (max) (deg) 3	Distortion typical (max) (%) 4	DOF (mm) 5	Mount 6	Phase adj. 7	Length (mm) 8	Front diam. (mm)
TCSE 5M 065-J	189.0	440-640	8-32	<0.06 (0.08)	<0.08 (0.10)	3.09	M42x1 FD 12	Yes	192.0	88
TCSE 10M 056-F	160.0	460-630	11-27	<0.06 (0.08)	<0.06 (0.08)	2.69	F	Yes	230.0	82
TCSE 16M 048-I	240.0	460-640	8-32	<0.08 (0.10)	<0.10 (0.15)	0.65	M58x0.75 FD 11.48	Yes	355.0	100
TCSE 16M 036-I	240.0	460-640	8-16	<0.08 (0.10)	<0.08 (0.10)	0.49	M58x0.75 FD 11.48	Yes	351.4	80
TCSE 16M 028VISNIR-F a	211.0	450-960	16-32	<0.06 (0.08)	<0.06 (0.08)	0.37	F	Yes	356.1	60
TCSE 16M024-F b	180.0	400-700	10-32	<0.06 (0.08)	<0.06 (0.08)	0.20	F	Yes	370.0	61
TCSE 16M 024NIR-F	163.0	760-825	10-32	<0.08 (0.10)	<0.08 (0.10)	0.20	F	Yes	230.2	61
TCSE 10M 009-J b	178.0	400-700	11.5	<0.06 (0.08)	<0.06 (0.08)	0.08	M42x1 FD 12	Yes	381.5	61

Last update 04/09/2023

- a This lens works in VIS and IR wavelength range separately, changing working distance between the two configurations.
- b This lens works only with a 50 mm cube beamsplitter in front of the objective.
- 1 Working distance: distance between the front end of the mechanics and the object. Set this distance within ±3% of the nominal value for maximum resolution and minimum distortion.
- 2 Working F-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
- 4 Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- 5 At the borders of the field depth the image can be still used for measurement but, to get a very sharp image, only half of the nominal field depth should be considered. Pixel size used for calculation is 7 µm.
- 6 FD stands for Flange Distance (in mm), defined as the distance from the mounting flange (the "metal ring" in rear part of the lens) to the camera detector plane.
- 7 Indicates the availability of an integrated camera phase adjustment feature.
- 8 Measured from the front end of the mechanics to the camera flange.

TC12K series

Telecentric lenses for sensors up to 62 mm and 12k line scan cameras



Magnification 0.26-0.96 x • CLASSIC

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS			
	Mag. (x)	Max sensor size	Line 8k-7 µm 57.30 (mm)	Line 16k-3.5 µm 57.30 (mm)	Line 12k-5.2 µm 62.40 (mm)	WD (mm) 1	wf/N 2	Telecentricity typical (max) (deg) 3	Distortion typical (max) (%) 4	DOF (mm) 5	Mount 7	Phase adj. availability 8	Length (mm) 9	Front diam. (mm)
TC12K 064	0.960	12k/16k	59.69	59.69	65.00	162.8	16	< 0.06 (0.08)	< 0.08 (0.10)	1.8	M72x0.75 FD 6.56	Yes	566.7	100
TC12K 080	0.698	12k/16k	82.09	82.09	89.40	157.4	16	< 0.06 (0.08)	< 0.08 (0.10)	3.4	M72x0.75 FD 6.56	Yes	541.9	116
TC12K 120	0.529	12k/16k	108.32	108.32	117.96	254.0	16	< 0.06 (0.08)	< 0.06 (0.08)	6.0	M72x0.75 FD 6.56	Yes	722.1	180
TC12K 144	0.439	12k/16k	130.52	130.52	142.14	237.9	16	< 0.06 (0.08)	< 0.07 (0.10)	8.7	M72x0.75 FD 6.56	Yes	743.3	200
TC12K 192	0.320	12k/16k	179.06	179.06	195.00	265.5	16	< 0.06 (0.08)	< 0.08 (0.10)	16.4	M72x0.75 FD 6.56	Yes	857.5	260
TC12K 240	0.260	12k/16k	220.38	220.38	240.00	492.8	16	< 0.06 (0.08)	< 0.08 (0.10)	24.9	M72x0.75 FD 6.56	Yes	1072.8	322

Last update 26/07/2023

- 1 Working distance: distance between the front end of the mechanics and the object. Set this distance within ±3% of the nominal value for maximum resolution and minimum distortion.
- 2 Working F-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
- 4 Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- 5 At the borders of the depth of field, the image can be still used for measurement but, to get a very sharp image, only half of the nominal field depth should be considered. Pixel size used for calculation is 7 µm.
- 6 Object side, calculated with the Rayleigh criterion with λ = 520 nm.
- 7 FD stands for Flange Distance (in mm), defined as the distance from the mounting flange (the "metal ring" in rear part of the lens) to the camera detector plane.
- 8 Indicates the availability of an integrated camera phase adjustment feature.
- 9 Measured from the front end of the mechanics to the camera flange.



TC4K series

Flat telecentric lenses for 4k line scan cameras

Magnification 0.159-0.478 x • FLAT

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW		ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS				
	Mag. (x)	Max sensor size	Line 2k-7 μ m	Line 4k-7 μ m	WD	wf/N	Telecentricity	Distortion	DOF	Mount	Phase adj. availability	Length (mm)	Width (mm)	Height (mm)
			14.34 (mm)	28.67 (mm)	(mm)		typical (max) (deg)	typical (max) (%)	(mm)					
TC4K 060-F	0.478	4k	30.00	59.98	174.0	16	< 0.06 (0.10)	< 0.05 (0.08)	7.4	F	Yes	319.7	83	64
TC4K 060-N	0.478	4k	30.00	59.98	174.0	16	< 0.06 (0.10)	< 0.05 (0.08)	7.4	M42x1 FD 10.56	Yes	355.3	83	52
TC4K 060-J	0.478	4k	30.00	59.98	174.0	16	< 0.06 (0.10)	< 0.05 (0.08)	7.4	M42x1 FD 12	Yes	353.7	83	52
TC4K 090-F	0.319	4k	44.95	89.87	174.0	16	< 0.05 (0.10)	< 0.05 (0.08)	16.5	F	Yes	360.7	114	64
TC4K 090-N	0.319	4k	44.95	89.87	174.0	16	< 0.05 (0.10)	< 0.05 (0.08)	16.5	M42x1 FD 10.56	Yes	396.3	114	52
TC4K 090-J	0.319	4k	44.95	89.87	174.0	16	< 0.06 (0.10)	< 0.05 (0.08)	16.5	M42x1 FD 12	Yes	395.2	114	52
TC4K 120-F	0.240	4k	59.75	119.46	174.0	16	< 0.10 (0.12)	< 0.08 (0.10)	29.2	F	Yes	337.3	144	64
TC4K 120-N	0.240	4k	59.75	119.46	174.0	16	< 0.10 (0.12)	< 0.08 (0.10)	29.2	M42x1 FD 10.56	Yes	372.9	144	52
TC4K 120-J	0.240	4k	59.75	119.46	174.0	16	< 0.06 (0.10)	< 0.05 (0.08)	29.2	M42x1 FD 12	Yes	371.8	144	52
TC4K 180-F	0.159	4k	90.19	180.31	254.0	16	< 0.08 (0.10)	< 0.08 (0.10)	66.5	F	Yes	522.4	208	64
TC4K 180-N	0.159	4k	90.19	180.31	254.0	16	< 0.08 (0.10)	< 0.08 (0.10)	66.5	M42x1 FD 10.56	Yes	558.1	208	52
TC4K 180-J	0.159	4k	90.19	180.31	254.0	16	< 0.08 (0.10)	< 0.08 (0.10)	66.5	M42x1 FD 12	Yes	556.9	208	52

Last update 04/09/2023

- Working distance: distance between the front end of the mechanics and the object. Set this distance within $\pm 3\%$ of the nominal value for maximum resolution and minimum distortion.
- Working f-number (wf/N): the real f-number of a lens in operating conditions.
- Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
- Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- At the borders of the depth of field, the image can be still used for measurement but, to get a very sharp image, only half of the nominal field depth should be considered. Pixel size used for calculation is 7 μ m.
- Object side, calculated with the Rayleigh criterion with $\lambda = 520$ nm.
- FD stands for Flange Distance (in mm), defined as the distance from the mounting flange to the camera detector plane.
- Indicates the availability of an integrated camera phase adjustment feature.
- Measured from the front end of the mechanics to the camera flange.

Ordering information

It's easy to select the right lens for your application: our part numbers are coded as TC4Kyyy-x where yyy refers to the field of view (FOV) in millimeters and -x refers to the mount option: -F for F-mount, -N for M42x1 mount (flange distance FD 10.56 mm). For example, TC4K060-N refers to a TC4K060 with M42x1 mount.



INTERNATIONAL PATENT PENDING

TCEL series

Telecentric optics with liquid lens technology

Magnification 0.243-3.5 x • FOCUS TUNABLE

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS			
	Mag. (x)	Max sensor size	1/3"	1/1.8"	2/3"	WD range	wf/N	Telecentricity	Distortion	DOF	Mount	Length (mm)	Front diam. (mm)	
			4.80 x 3.60 (mm x mm)	7.13 x 5.33 (mm x mm)	8.50 x 7.09 (mm x mm)	(mm)		typical (max) (deg)	typical (max) (%)	(mm)				
TCEL 23 036	a	0.243	2/3"	19.75 x 14.81	29.34 x 21.93	34.98 x 29.18	122.9 - 73.2	8	< 0.08 (0.1)	< 0.04 (0.1)	7.0	C	166.4	61.0
TCEL 050		0.500	2/3"	9.60 x 7.20	14.26 x 10.66	17.00 x 14.18	146.3 - 112.2	12	< 0.04 (0.08)	< 0.1 (0.2)	2.5	C	130.8	37.7
TCEL 066		0.670	2/3"	7.16 x 5.37	10.64 x 7.96	12.69 x 10.58	146.1 - 112.3	12	< 0.04 (0.08)	< 0.1 (0.2)	1.4	C	149.3	37.7
TCEL 075		0.750	2/3"	6.40 x 4.80	9.51 x 7.11	11.33 x 9.45	146.1 - 112.5	12	< 0.07 (0.1)	< 0.1 (0.2)	1.1	C	155.0	37.7
TCEL 100		1.000	2/3"	4.80 x 3.60	7.13 x 5.33	8.50 x 7.09	142.0 - 118.0	12	< 0.08 (0.1)	< 0.05 (0.1)	0.6	C	126.0	37.7
TCEL 150	b	1.500	2/3"	3.20 x 2.40	4.75 x 3.55	5.67 x 4.73	142.0 - 118.0	16	< 0.08 (0.1)	< 0.05 (0.1)	0.4	C	140.4	37.7
TCEL 250	b	2.500	2/3"	1.92 x 1.44	2.85 x 2.13	3.40 x 2.84	142.1 - 117.9	20	< 0.08 (0.1)	< 0.05 (0.1)	0.2	C	157.0	37.7
TCEL 350	b	3.500	2/3"	1.37 x 1.03	2.04 x 1.52	2.43 x 2.03	142.1 - 117.9	24	< 0.08 (0.1)	< 0.05 (0.1)	0.1	C	174.7	37.7

Last update 29/01/2024

- Field of views are calculated at 0 dpt power of the liquid lens.
- Minimum and maximum working distance are reported at nominal range of the liquid lens; maximum excursion may be larger.
- Working f-number (wf/N): the real f-number of a lens in operating conditions.
- Maximum angle between chief rays and optical axis on the object side, evaluated at 0 dpt power of the liquid lens. Typical (average production) values and maximum (guaranteed) values are listed.
- Percent deviation of the real image compared to an ideal, undistorted image, evaluated at 0 dpt power of the liquid lens. Typical (average production) values and maximum (guaranteed) values are listed.
- At the borders of the depth of field, the image can be still used for measurement but, to get a very sharp image, only half of the nominal field depth should be considered. Pixel size used for calculation is 3.45 μ m.
- Measured from the front end of the mechanics to the camera flange.

a Performances calculated with monochromatic light (LED emission); performance range in white light is smaller.
 b Performances guaranteed when used with vertical optical axis; when used with horizontal optical axis performances drops due to gravity induced aberration of the liquid lens.

Ordering information

Hirose cables and liquid lens controller sold separately.



PATENTED

TCZEL series

Telecentric zoom lens with dual liquid lens technology

Magnification 0.18-0.55 x • FOCUS TUNABLE

Part number	MAIN OPTICAL SPECIFICATIONS			OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS		
	Mag. range (x)	Mag. ratio (x)	Max sensor size	1/3" 4.80 x 3.60 (mm x mm)	1/1.8" 7.13 x 5.33 (mm x mm)	2/3" 8.50 x 7.09 (mm x mm)	WD range (mm)	wf/N	Telecentricity typical (max) (deg)	Distortion typical (max) (%)	DOF (mm)	Mount	Length (mm)	Front diam. (mm)
TCZEL 23 056	0.180	3	2/3"	26.67 x 20.00	35.56 x 26.67	47.22 x 39.99	115 - 155	9	< 0.3	< 0.3	14.4	C	249.3	80.0
	0.550			8.73 x 6.55	11.64 x 8.73	15.45 x 12.89		16	< 0.3	< 0.3	2.7			

Last update 26/03/2024

- 1** Working distance: distance between the front end of the mechanics and the object, reported at nominal range of the liquid lenses; maximum excursion may be larger.
- a** Performances guaranteed when used with vertical optical axis; when used with horizontal optical axis performances drop due to gravity induced aberrations of the liquid lens.

Ordering information

Hirose cables and liquid lens controller sold separately.



TCDP PLUS series

Dual magnification telecentric lenses

MULTI MAG

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW				ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS				
	Mag. (x)	Max sensor size	1/2" 6.40 x 4.80 (mm x mm)	2/3" 8.50 x 7.09 (mm x mm)	1" 14.19 x 7.51 (mm x mm)	4/3" 18.93 x 10.61 (mm x mm)	WD (mm)	wf/N	Telecentricity typical (max) (deg)	Distortion typical (max) (%)	DOF (mm)	Mount	Phase adj. availability	Length (mm)	H1 (mm)	Front diam. (mm)
							2	3	4	5	6		7	8	9	
TCDP 23C 4XC 096	0.093	2/3"	68.82 x 51.61	91.40 x 76.24	-	-	278.6	8	< 0.06 (0.08)	< 0.04 (0.08)	47.9	C	Yes	337.5	192.1	143.0
	0.374	2/3"	17.11 x 12.83	-	-	-	278.6	12	< 0.06 (0.10)	< 0.07 (0.10)	4.4					
TCDP 23C 4MC 096	0.093	2/3"	68.82 x 51.61	-	-	-	278.6	8	< 0.06 (0.08)	< 0.04 (0.08)	47.9	C	Yes	337.5	145.2	143.0
	0.186	4/3"	34.41 x 25.81	76.29 x 40.38	76.29 x 40.38	101.77 x 57.04	278.6	16	< 0.05 (0.10)	< 0.04 (0.10)	23.9					
TCDP 12C 23C 096	0.068	1/2"	94.12 x 70.59	-	-	-	278.6	8	< 0.06 (0.08)	< 0.03 (0.08)	89.5	C	Yes	317.9	89.0	143.0
	0.093	2/3"	68.82 x 51.61	-	-	-	278.6	8	< 0.06 (0.08)	< 0.04 (0.08)	47.9					
TCDP 2MC 4XC 096	0.137	1"	46.72 x 35.04	103.58 x 54.82	103.58 x 54.82	-	278.6	16	< 0.05 (0.10)	< 0.07 (0.10)	44.1	C	Yes	366.2	192.1	143.0
	0.374	2/3"	17.11 x 12.83	-	-	-	278.6	12	< 0.08 (0.10)	< 0.08 (0.10)	4.4					

Last update 08/08/2023

- 1** With IMX387 (21.7 mm diagonal) sensors, the FOV of TC4MHRyyy-x lenses may show some vignetting at the image corners.
- 2** Working distance: distance between the front end of the mechanics and the object. Set this distance within ±3% of the nominal value for maximum resolution and minimum distortion.
- 3** Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 4** Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
- 5** Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- 6** At the limits of the depth of field, the image can still be used for measurements. For a very sharp image, however, only half of the depth of field should be considered. Pixel size used for calculation is 3.45 µm.
- 7** Indicates the availability of an integrated camera phase adjustment feature.
- 8** Measured from the front end of the mechanics to the camera flange.
- 9** Right-angled ocular length, measured from the optical axis of the frontal lens to the camera flange.



TCZRS series

Bi-telecentric zoom lenses with motorized control

MULTI MAG

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS				
	Mag. (x)	Max sensor size	1/3" (mm x mm)	1/2" (mm x mm)	2/3" (mm x mm)	WD (mm)	wf/N	Telecentricity typical (max) (deg)	Distortion typical (max) (%)	DOF (mm)	Mount	Length (mm)	Height (mm)	Width (mm)	Front diam. (mm)
			1	2	3			4	5						
TCZR 036S	0.250	2/3"	19.20 x 14.40	25.60 x 19.20	34.00 x 28.36	74.0	16	< 0.05 (0.10)	< 0.05 (0.08)	13.2	C	211.5	142.0	103.0	58.0
	0.500		9.60 x 7.20	12.80 x 9.60	17.00 x 14.18			< 0.05 (0.10)	< 0.04 (0.08)	3.3					
	1.000		4.80 x 3.60	6.40 x 4.80	8.50 x 7.09			< 0.05 (0.10)	< 0.04 (0.08)	0.8					
	2.000		2.40 x 1.80	3.20 x 2.40	4.25 x 3.55			< 0.05 (0.10)	< 0.08 (0.10)	0.2					
TCZR 072S	0.125	2/3"	38.40 x 28.80	51.20 x 38.40	68.00 x 56.72	157.8	16	< 0.05 (0.10)	< 0.10 (0.10)	53.0	C	279.3	142.0	100.0	100.0
	0.250		19.20 x 14.40	25.60 x 19.20	34.00 x 28.36			< 0.05 (0.10)	< 0.08 (0.10)	13.2					
	0.500		9.60 x 7.20	12.80 x 9.60	17.00 x 14.18			< 0.05 (0.10)	< 0.05 (0.10)	3.3					
	1.000		4.80 x 3.60	6.40 x 4.80	8.50 x 7.09			< 0.05 (0.10)	< 0.07 (0.10)	0.8					

Last update 08/08/2023

- 1 Working distance: distance between the front end of the mechanics and the object. Set this distance within ±3% of the nominal value for maximum resolution and minimum distortion.
- 2 Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
- 4 Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- 5 At the limits of the depth of field, the image can still be used for measurements. For a very sharp image, however, only half of the depth of field should be considered. Pixel size used for calculation is 3.45 µm.



TCBENCH series

Telecentric optical benches for precision measurements

Magnification 0.093-1 x • BENCHES

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					ELECTRICAL SPECIFICATIONS	MECHANICAL SPECIFICATIONS			
	Mag. (x)	Max sensor size	1/3" (mm x mm)	1/2" (mm x mm)	2/3" (mm x mm)	WD (mm)	wf/N	Telecentricity typical (max) (deg)	Distortion typical (max) (%)	DOF (mm)	Light color, peak wavelength	Mount	Length (mm)	Width (mm)	Height (mm)
			1	2	3			4	5				6		
TCBENCH 009	1.000	2/3"	4.80 x 3.60	6.40 x 4.80	8.50 x 7.09	62.2	11	< 0.08 (0.10)	< 0.04 (0.08)	0.6	green, 520 nm	C	285	56	79
TCBENCH 016	0.528	2/3"	9.09 x 6.82	12.12 x 9.09	16.10 x 13.43	43.1	8	< 0.06 (0.10)	< 0.04 (0.07)	1.5	green, 520 nm	C	311	66	81
TCBENCH 024	0.350	2/3"	13.71 x 10.29	18.29 x 13.71	24.29 x 20.26	67.2	8	< 0.08 (0.10)	< 0.04 (0.10)	3.4	green, 520 nm	C	389	66	81
TCBENCH 036	0.243	2/3"	19.75 x 14.81	26.34 x 19.75	34.98 x 29.18	102.5	8	< 0.04 (0.08)	< 0.04 (0.10)	7.0	green, 520 nm	C	545	103	141
TCBENCH 048	0.184	2/3"	26.09 x 19.57	34.78 x 26.09	46.20 x 38.53	132.9	8	< 0.08 (0.10)	< 0.05 (0.10)	12.2	green, 520 nm	C	653	117	148
TCBENCH 056	0.157	2/3"	30.57 x 22.93	40.76 x 30.57	54.14 x 45.16	157.8	8	< 0.05 (0.08)	< 0.03 (0.08)	16.8	green, 520 nm	C	712	122	150
TCBENCH 064	0.138	2/3"	34.78 x 26.09	46.38 x 34.78	61.59 x 51.38	181.8	8	< 0.05 (0.08)	< 0.03 (0.07)	21.7	green, 520 nm	C	845	143	161
TCBENCH 080	0.110	2/3"	43.64 x 32.73	58.18 x 43.64	77.27 x 64.45	226.7	8	< 0.04 (0.08)	< 0.02 (0.10)	34.2	green, 520 nm	C	936	158	168
TCBENCH 096	0.093	2/3"	51.61 x 38.71	68.82 x 51.61	91.40 x 76.24	278.6	8	< 0.06 (0.08)	< 0.04 (0.08)	47.9	green, 520 nm	C	1084	185	207

Last update 26/07/2023

- 1 Working distance: distance between the front end of the mechanics and the object. Set this distance within ± 3% of the nominal value for maximum resolution and minimum distortion.
- 2 Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
- 4 Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- 5 At the limits of the depth of field, the image can still be used for measurements. For a very sharp image, however, only half of the depth of field should be considered. Pixel size used for calculation is 3.45 µm.
- 6 Measured from the camera flange of the objective lens to the electronic end of the illuminator. Cable, connector and mount thread excluded.



TCCBENCH CORE series

Compact telecentric optical benches for precision measurements

Magnification 0.093-0.184 x • BENCHES

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					ELECTRICAL SPECIFICATIONS	MECHANICAL SPECIFICATIONS			
	Mag. (x)	Max sensor size	1/3"	1/2"	2/3"	WD	wf/N	Telecentricity	Distortion	DOF	Light color, peak wavelength	Mount	Length	Width	Height
			4.80 x 3.60 (mm x mm)	6.40 x 4.80 (mm x mm)	8.50 x 7.09 (mm x mm)	(mm)		typical (max) (deg)	typical (max) (%)	(mm)					
TCCRBENCH 048	0.184	2/3"	26.09 x 19.57	34.78 x 26.09	46.20 x 38.53	132.9	8	< 0.08 (0.10)	< 0.05 (0.10)	12.2	green, 520 nm	C	352	157	118
TCCRBENCH 056	0.157	2/3"	30.57 x 22.93	40.76 x 30.57	54.14 x 45.16	157.8	8	< 0.05 (0.08)	< 0.03 (0.10)	16.8	green, 520 nm	C	424	167	122
TCCRBENCH 064	0.138	2/3"	34.78 x 26.09	46.38 x 34.78	61.59 x 51.38	181.8	8	< 0.05 (0.08)	< 0.03 (0.10)	21.7	green, 520 nm	C	474	175	134
TCCRBENCH 080	0.110	2/3"	43.64 x 32.73	58.18 x 43.64	77.27 x 64.45	226.7	8	< 0.04 (0.08)	< 0.02 (0.10)	34.2	green, 520 nm	C	578	193	162
TCCRBENCH 096	0.093	2/3"	51.61 x 38.71	68.82 x 51.61	91.40 x 76.24	278.6	8	< 0.06 (0.08)	< 0.04 (0.10)	47.9	green, 520 nm	C	696	218	189

Last update 26/07/2023

- 1** Working distance: distance between the front end of the mechanics and the object. Set this distance within $\pm 3\%$ of the nominal value for maximum resolution and minimum distortion.
- 2** Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 3** Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.
- 4** Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- 5** At the limits of the depth of field, the image can still be used for measurements. For a very sharp image, however, only half of the depth of field should be considered. Pixel size used for calculation is 3.45 μm .
- 6** Maximum width dimension considering illuminator/telecentric side and cable connector end.



TCSM series

3D bi-telecentric lenses with Scheimpflug adjustment

3D LENSES

Part number	MAIN OPTICAL SPECIFICATIONS				FIELD OF VIEW, LONG SENSOR SIDE HORIZONTAL	FIELD OF VIEW, LONG SENSOR SIDE VERTICAL	ADVANCED OPTICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS		
	Object tilt (deg)	Mount tilt (deg)	Horizontal mag (x)	Vertical mag (x)	2/3" 8.50 x 7.09 (mm x mm)	2/3" 8.50 x 7.09 (mm x mm)	WD (mm)	wf/N	Telecentricity typical (max) (deg)	Distortion typical (max) (%)	Mount	Length (mm)	Front diam. (mm)
							1	2	3	4	5		
TCSM 016	0	0.0	0.528	0.528	16.10 x 13.43	13.43 x 16.10	43.1	8	< 0.06 (0.10)	< 0.04 (0.07)	C	112.6	37.7
	10	5.3	0.528	0.522	16.10 x 13.58	13.43 x 16.28							
	20	10.9	0.528	0.505	16.10 x 14.04	13.43 x 16.83							
	30	17.0	0.528	0.478	16.10 x 14.83	13.43 x 17.78							
TCSM 024	0	0.0	0.350	0.350	24.29 x 20.26	20.26 x 24.29	67.2	8	< 0.08 (0.10)	< 0.04 (0.10)	C	137.5	44.0
	15	5.4	0.350	0.340	24.29 x 20.85	20.26 x 25.00							
	30	11.4	0.350	0.309	24.29 x 22.94	20.26 x 27.51							
	45	19.3	0.350	0.262	24.29 x 27.06	20.26 x 32.44							
TCSM 036	0	0.0	0.243	0.243	34.98 x 29.18	29.18 x 34.98	102.5	8	< 0.04 (0.08)	< 0.04 (0.10)	C	164.9	61.0
	15	3.7	0.243	0.235	34.98 x 30.17	29.18 x 36.17							
	30	8.0	0.243	0.212	34.98 x 33.44	29.18 x 40.09							
	45	13.6	0.243	0.177	34.98 x 40.06	29.18 x 48.02							
TCSM 048	0	0.0	0.185	0.185	45.95 x 38.32	38.32 x 45.95	132.9	8	< 0.08 (0.10)	< 0.05 (0.10)	C	200.6	75.0
	15	2.8	0.185	0.179	45.95 x 39.61	38.32 x 47.49							
	30	6.1	0.185	0.161	45.95 x 44.04	38.32 x 52.80							
	45	10.5	0.185	0.133	45.95 x 53.31	38.32 x 63.91							
TCSM 056	0	0.0	0.157	0.157	54.14 x 45.16	45.16 x 54.14	157.8	8	< 0.05 (0.08)	< 0.03 (0.08)	C	224.4	80.0
	15	2.4	0.157	0.152	54.14 x 46.64	45.16 x 55.92							
	30	5.1	0.157	0.137	54.14 x 51.75	45.16 x 62.04							
	45	8.8	0.157	0.112	54.14 x 63.30	45.16 x 75.89							
TCSM 064	0	0.0	0.137	0.137	62.04 x 51.75	51.75 x 62.04	181.8	8	< 0.05 (0.08)	< 0.03 (0.07)	C	245.5	100.0
	15	2.1	0.137	0.132	62.04 x 53.71	51.75 x 64.39							
	30	4.5	0.137	0.119	62.04 x 59.58	51.75 x 71.43							
	45	7.8	0.137	0.098	62.04 x 72.35	51.75 x 86.73							
TCSM 080	0	0.0	0.110	0.110	77.27 x 64.45	64.45 x 77.27	226.7	8	< 0.04 (0.08)	< 0.02 (0.10)	C	291.2	116.0
	15	1.7	0.110	0.106	77.27 x 66.89	64.45 x 80.19							
	30	3.6	0.110	0.095	77.27 x 74.63	64.45 x 89.47							
	45	6.3	0.110	0.078	77.27 x 90.90	64.45 x 108.97							
TCSM 096	0	0.0	0.093	0.093	91.40 x 76.24	76.24 x 91.40	278.6	8	< 0.06 (0.08)	< 0.04 (0.08)	C	336.6	143.0
	15	1.4	0.093	0.090	91.40 x 78.78	76.24 x 94.44							
	30	3.1	0.093	0.081	91.40 x 87.53	76.24 x 104.94							
	45	5.3	0.093	0.066	91.40 x 107.42	76.24 x 128.79							

Last update 26/07/2023

- 1 Working distance: distance between the front end of the mechanics and the object. Set this distance within ±3% of the nominal value for maximum resolution and minimum distortion.
- 2 Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Maximum angle between chief rays and optical axis on the object side. Typical (average production) values and maximum (guaranteed) values are listed.

- 4 Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- 5 Measured from the front end of the mechanics to the camera flange.

EN2MP series

Cost-effective 2 Megapixel fixed focal length lenses for sensors up to 2/3"



Focal length 3.5-75 mm • FIXED FOCAL

Part number	MAIN OPTICAL SPECIFICATIONS		ANGLE OF VIEW		OBJECT FIELD OF VIEW		ADVANCED OPTICAL SPECIFICATIONS			MECHANICAL SPECIFICATIONS				
	Focal length (mm)	Max sensor size	1/1.8" Diagonal (deg)	2/3" Diagonal (deg)	1/1.8" 7.12 x 5.33 (mm x mm)	2/3" 8.50 x 7.09 (mm x mm)	WD range (m)	f/N	Distortion on 2/3" (%)	Mount	Filter thread	Outer diameter (mm)	Length (mm)	Mass (g)
					1	1	2		3				4	
EN2MP0814	3.5	1/1.8"	104.5	-	323.64 x 242.27	-	0.15 - inf	2.4 - close	-	C	M40.5 x 0.5	42.0	37.7	70
EN2MP0814	8	2/3"	58.7	68.6	100.28 x 75.07	119.72 x 99.86	0.1 - inf	1.4 - close	2.81	C	M34 x 0.5	36.0	35.5	77
EN2MP1214	12	2/3"	41.1	49.0	100.28 x 75.07	119.72 x 99.86	0.15 - inf	1.4 - close	1.80	C	M30.5 x 0.5	34.0	31.8	71
EN2MP1614	16	2/3"	31.4	37.6	136.92 x 102.50	163.46 x 136.35	0.3 - inf	1.4 - close	1.00	C	M30.5 x 0.5	34.0	31.6	76
EN2MP2514	25	2/3"	20.4	24.7	71.20 x 53.30	85.00 x 70.90	0.25 - inf	1.4 - close	0.27	C	M30.5 x 0.5	34.0	35.6	83
EN2MP3514	35	2/3"	14.7	17.7	56.51 x 42.30	67.46 x 56.27	0.3 - inf	1.4 - close	0.33	C	M30.5 x 0.5	35.4	33.8	90
EN2MP5018	50	2/3"	10.3	12.5	65.32 x 48.90	77.98 x 65.05	0.5 - inf	1.8 - close	0.22	C	M30.5 x 0.5	35.6	39.4	98
EN2MP7528	75	2/3"	6.9	8.4	91.28 x 68.33	108.97 x 90.90	1.1 - inf	2.8 - close	0.36	C	M30.5 x 0.5	38.0	49.4	140

Last update 10/08/2023

- 1 Calculated at minimum object distance.
 2 Working distance: distance between the front end of the mechanics and the object.
 3 Value calculated at the corner point of the sensor diagonal.
 For distortion graphs see datasheet.
- 4 Measured from the front end of the mechanics to the camera flange at infinity focus.

EN-2RT series

Megapixel fixed focal length lenses for sensors up to 2/3"



* RT

Focal length 5-75 mm • FIXED FOCAL

Part number	MAIN OPTICAL SPECIFICATIONS		ANGLE OF VIEW		OBJECT FIELD OF VIEW		ADVANCED OPTICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS				
	Focal length (mm)	Max sensor size	1/2" Diagonal (deg)	2/3" Diagonal (deg)	1/2" 6.40 x 4.80 (mm x mm)	2/3" 8.50 x 7.09 (mm x mm)	WD range (m)	f/N	Distortion on 1/2" (%)	Distortion on 2/3" (%)	Mount	Filter thread	Outer diam. (mm)	Length (mm)	Mass (g)
					1	1	2		3				4		
RT-H0514-MP2	5	1/2"	76.7	-	148.84 x 111.63	-	0.1 - inf	1.4 - 16	0.48	-	C	M43 x 0.75	44.5	45.5	102
RT-M0814-MP2	8	2/3"	51.9	67.1	86.49 x 64.86	114.86 x 95.81	0.1 - inf	1.4 - 16	1.10	0.10	C	M30.5 x 0.5	33.5	28.2	63
RT-M1214-MP2	12	2/3"	37	49.2	87.67 x 65.75	116.44 x 97.12	0.15 - inf	1.4 - 16	0.35	0.10	C	M30.5 x 0.5	33.5	28.2	62
RT-M1614-MP2	16	2/3"	28.2	38	125.49 x 94.12	166.67 x 139.02	0.3 - inf	1.4 - 16	0.30	0.10	C	M30.5 x 0.5	33.5	28.2	60
RT-M2514-MP2	25	2/3"	18.2	24.9	77.11 x 57.83	102.41 x 85.42	0.3 - inf	1.4 - 16	0.10	0.30	C	M30.5 x 0.5	33.5	36	71
RT-M3514-MP	35	2/3"	12.6	17.3	58.72 x 44.04	77.98 x 65.05	0.3 - inf	1.4 - 16	0.39	0.80	C	M30.5 x 0.5	33.5	38.2	87
RT-M5018-MP2	50	2/3"	9.5	13.1	64.00 x 48.00	85.00 x 70.90	0.5 - inf	1.8 - 16	0.20	0.30	C	M30.5 x 0.5	33.5	38.2	85
RT-M7528-MP	75	2/3"	6.2	8.5	30.05 x 22.54	39.91 x 33.29	0.3 - inf	2.8 - 16	0.22	0.43	C	M30.5 x 0.5	35.0	57.8	113

Last update 10/08/2023

- 1 Calculated at minimum object distance.
 2 Working distance: distance between the front end of the mechanics and the object.
 3 Value calculated at the corner point of the sensor diagonal.
 For distortion graphs see datasheet.
- 4 Measured from the front end of the mechanics to the camera flange at infinity focus.



EN5MP series

Cost-effective 5 Megapixel fixed focal length lenses for sensors up to 2/3"

Focal length 8-75 mm • FIXED FOCAL

Part number	MAIN OPTICAL SPECIFICATIONS		ANGLE OF VIEW	OBJECT FIELD OF VIEW	ADVANCED OPTICAL SPECIFICATIONS			MECHANICAL SPECIFICATIONS				
	Focal length (mm)	Max sensor size	2/3" Diagonal (deg)	2/3" 8.50 x 7.09 (mm x mm) 1	WD range (m)	f/N	Distortion on 2/3" (%)	Mount	Filter thread	Outer diam. (mm)	Length (mm)	Mass (g)
					2		3				4	
EN5MP0816	8	2/3"	66.8	118.38 x 98.75	0.1 - inf	1.6 - 22	0.73	C	M40.5 x 0.5	45.0	53.0	170
EN5MP1216	12	2/3"	48.6	79.44 x 66.26	0.1 - inf	1.6 - 22	0.35	C	M37.5 x 0.5	43.3	58.5	178
EN5MP1616	16	2/3"	38	112.29 x 93.66	0.2 - inf	1.6 - 22	0.07	C	M37.5 x 0.5	43.3	63.3	181
EN5MP2514	25	2/3"	24.8	67.19 x 56.05	0.2 - inf	1.4 - 22	0.19	C	M37.5 x 0.5	43.3	54.5	148
EN5MP3514	35	2/3"	17.9	69.67 x 58.11	0.3 - inf	1.4 - 22	0.06	C	M37.5 x 0.5	43.3	56.8	156
EN5MP5018	50	2/3"	12.6	64.64 x 53.92	0.4 - inf	1.8 - 22	0.03	C	M37.5 x 0.5	43.3	58.5	173
EN5MP7520	75	2/3"	8.4	95.18 x 79.40	0.9 - inf	2.0 - 22	0.02	C	M40.5 x 0.5	45.0	71.7	223

Last update 10/08/2023

- 1 Calculated at minimum object distance.
 2 Working distance: distance between the front end of the mechanics and the object.
 3 Value calculated at the corner point of the sensor diagonal.
 For distortion graphs see datasheet.
 4 Measured from the front end of the mechanics to the camera flange at infinity focus.



EN-5RT series

5 Megapixel fixed focal length lenses for sensors up to 2/3"

Focal length 5-75 mm • FIXED FOCAL

Part number	MAIN OPTICAL SPECIFICATIONS		ANGLE OF VIEW	OBJECT FIELD OF VIEW	ADVANCED OPTICAL SPECIFICATIONS			MECHANICAL SPECIFICATIONS				
	Focal length (mm)	Max sensor size	2/3" Diagonal (deg)	2/3" 8.50 x 7.09 (mm x mm) 1	WD range (m)	f/N	Distortion on 2/3" (%)	Mount	Filter thread	Outer diam. (mm)	Length (mm)	Mass (g)
					2		3				4	
RT-M0528-MPW3	5	2/3"	94.6	207.32 x 172.93	0.1 - inf	2.8 - 16	0.03	C	M72 x 0.75	75.0	54	163
RT-M0828-MPW3	8	2/3"	68.5	116.44 x 97.12	0.1 - inf	2.8 - 16	1.80	C	M30.5 x 0.5	32.0	35.5	58
RT-M1228-MPW3	12	2/3"	49.3	80.19 x 66.89	0.1 - inf	2.8 - 16	0.10	C	M27 x 0.5	29.0	43.5	60
RT-M1628-MPW3	16	2/3"	37.8	134.92 x 112.54	0.25 - inf	2.8 - 16	0.47	C	M27 x 0.5	29.0	29	37
RT-M2528-MPW3	25	2/3"	24.6	68.00 x 56.72	0.2 - inf	2.8 - 16	0.77	C	M27 x 0.5	29.0	31.5	42
RT-M3528-MPW3	35	2/3"	17.9	43.59 x 36.36	0.25 - inf	2.8 - 16	0.06	C	M27 x 0.5	29.0	38.5	48
RT-M5028-MPW3	50	2/3"	12.5	62.04 x 51.75	0.3 - inf	2.8 - 16	0.00	C	M27 x 0.5	29.0	56	65
RT-M7528-MPW3	75	2/3"	8.4	45.21 x 37.71	0.4 - inf	2.8 - 16	0.33	C	M34 x 0.5	36.0	75	102

Last update 10/08/2023

- 1 Calculated at minimum object distance.
 2 Working distance: distance between the front end of the mechanics and the object.
 3 Value calculated at the corner point of the sensor diagonal.
 For distortion graphs see datasheet.
 4 Measured from the front end of the mechanics to the camera flange at infinity focus.

MC series

Nearly zero distortion macro lenses for sensors up to 2/3"



Magnification 0.1-6 mm • MACRO

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS		
	Mag. (x)	Max sensor size	1/3" (mm x mm)	1/2" (mm x mm)	2/3" (mm x mm)	WD (mm)	f/N	wf/N	Distortion typical (max) (%)	DOF (mm)	Mount	Length (mm)	Outer diam. (mm)
			4.80 x 3.60	6.40 x 4.80	8.50 x 7.09	1		2	3	4		5	
MC 010X	0.100	2/3"	48.00 x 36.00	64.00 x 48.00	85.00 x 70.90	292.5	5.3	6	< 0.10	30.5	C	24.5	30.0
MC 020X	0.200	2/3"	24.00 x 18.00	32.00 x 24.00	42.50 x 35.45	158.3	5.3	6	< 0.07	8.3	C	27.4	30.0
MC 033X	0.333	2/3"	14.41 x 10.81	19.22 x 14.41	25.53 x 21.29	103.0	5.3	7	< 0.05	3.3	C	31.1	30.0
MC 040X	0.400	2/3"	12.00 x 9.00	16.00 x 12.00	21.25 x 17.73	90.0	5.3	8	< 0.05	2.4	C	32.9	30.0
MC 050X	0.500	2/3"	9.60 x 7.20	12.80 x 9.60	17.00 x 14.18	74.8	5.3	8	< 0.02	1.7	C	35.7	30.0
MC 075X	0.750	2/3"	6.40 x 4.80	8.53 x 6.40	11.33 x 9.45	55.9	5.3	9	< 0.02	0.8	C	42.8	30.0
MC 100X	1.000	2/3"	4.80 x 3.60	6.40 x 4.80	8.50 x 7.09	46.5	5.3	11	< 0.01	0.6	C	49.9	30.0
MC 150X	1.500	2/3"	3.20 x 2.40	4.27 x 3.20	5.67 x 4.73	37.3	5.3	13	< 0.01	0.3	C	64.0	30.0
MC 200X	2.000	2/3"	2.40 x 1.80	3.20 x 2.40	4.25 x 3.55	32.5	5.3	16	< 0.01	0.2	C	78.1	30.0
MC 300X	3.000	2/3"	1.60 x 1.20	2.13 x 1.60	2.83 x 2.36	27.8	5.3	21	< 0.01	0.1	C	106.5	30.0
MC 400X	4.000	2/3"	1.20 x 0.90	1.60 x 1.20	2.13 x 1.77	25.4	5.3	27	< 0.02	0.1	C	134.9	30.0
MC 500X	5.000	2/3"	0.96 x 0.72	1.28 x 0.96	1.70 x 1.42	24.0	5.3	32	< 0.02	0.1	C	163.9	30.0
MC 600X	6.000	2/3"	0.80 x 0.60	1.07 x 0.80	1.42 x 1.18	23.0	5.3	38	< 0.02	0.1	C	192.8	30.0

Last update 22/09/2023

- Working distance: distance between the front end of the mechanics and the object. Set this distance within $\pm 3\%$ of the nominal value for maximum resolution and minimum distortion.
- Working f-number (wf/N): the real f-number of a lens in operating conditions.
- Percent deviation of the real image compared to an ideal, undistorted image. Typical (average production) values and maximum (guaranteed) values are listed.
- At the borders of the field depth the image can be still used for measurement but, to get a very sharp image, only half of the nominal field depth should be considered. Pixel size used for calculation is $3.45 \mu\text{m}$.
- Object side, calculated with the Rayleigh criterion with $\lambda = 520 \text{ nm}$.

EN8MP series

8 Megapixel fixed focal length lenses for sensors up to 1"



Focal length 8-50 mm • FIXED FOCAL

Part number	MAIN OPTICAL SPECIFICATIONS		ANGLE OF VIEW	OBJECT FIELD OF VIEW	ADVANCED OPTICAL SPECIFICATIONS			MECHANICAL SPECIFICATIONS				
	Focal length (mm)	Max sensor size	1" Diagonal (deg)	1" (mm x mm)	WD range (m)	f/N	Distortion on 1" (%)	Mount	Filter thread	Outer diam. (mm)	Length (mm)	Mass (g)
				1	2		3				4	
EN8MPL0818	8	1"	90.1	478.46 x 378.08	0.3 - inf	1.8 - close	4.12	C	-	56.8	67.0	77
EN8MPL1220	12	1"	69.6	115.29 x 91.10	0.08 - inf	2.0 - 22	4.10	C	M35.5 x 0.5	39.6	48.9	130
EN8MPL1620	16	1"	53.7	84.74 x 66.96	0.1 - inf	2.0 - 22	2.20	C	M34 x 0.5	37.4	45.9	151
EN8MPL2518	25	1"	36.0	70.32 x 55.57	0.15 - inf	1.8 - close	1.53	C	M30.5 x 0.5	33.5	36.5	93
EN8MPL3520	35	1"	25.7	62.76 x 49.60	0.2 - inf	2.0 - close	0.33	C	M30.5 x 0.5	35.7	35.7	74
EN8MPL5020	50	1"	18.2	56.06 x 44.30	0.25 - inf	2.0 - 22	0.01	C	M37 x 0.5	42.4	48.2	120

Last update 10/08/2023

- Calculated at minimum object distance.
- Working distance: distance between the front end of the mechanics and the object.
- Value calculated at the corner point of the sensor diagonal. For distortion graphs see datasheet.
- Measured from the front end of the mechanics to the camera flange at infinity focus.

EN-9RT series

9 Megapixel fixed focal length lenses for sensors up to 1"



Focal length 25-75 mm • FIXED FOCAL

Part number	MAIN OPTICAL SPECIFICATIONS		ANGLE OF VIEW	ADVANCED OPTICAL SPECIFICATIONS		MECHANICAL SPECIFICATIONS				
	Focal length (mm)	Max sensor size	1" Horizontal (deg)	WD range (m) 1	f/N	Mount	Filter thread	Outer diam. (mm)	Length (mm) 2	Mass (g)
RT-FL-BC2518-9M	25	1"	28.8	0.1 - inf	1.8 - 16	C	M40.5 x 0.5	42.0	57.5	149
RT-FL-BC3518-9M	35	1"	20.7	0.15 - inf	1.8 - 22	C	M40.5 x 0.5	42.0	60.5	150
RT-FL-BC5024-9M	50	1"	14.6	0.2 - inf	2.4 - 22	C	M40.5 x 0.5	42.0	69	166
RT-FL-BC7528-9M	75	1"	9.8	0.25 - inf	2.8 - 32	C	M40.5 x 0.5	42.0	81	189

Last update 10/08/2023

1 Working distance: distance between the front end of the mechanics and the object.

2 Measured from the front end of the mechanics to the camera flange at infinity focus.

EN10MP series

10 Megapixel fixed focal length lenses for sensors up to 4/3"



Focal length 12-50 mm • FIXED FOCAL

Part number	MAIN OPTICAL SPECIFICATIONS		ANGLE OF VIEW	OBJECT FIELD OF VIEW	ADVANCED OPTICAL SPECIFICATIONS			MECHANICAL SPECIFICATIONS				
	Focal length (mm)	Max sensor size	4/3" Diagonal (deg)	4/3" 18.93 x 10.61 (mm x mm) 1	WD range (m) 2	f/N	Distortion on 4/3" (%) 3	Mount	Filter thread	Outer diam. (mm)	Length (mm) 4	Mass (g)
EN10MPL1220	12	4/3"	89	273.55 x 153.32	0.15 - inf	2.0 - 22	2.40	C	M77 x 0.75	80.0	84.4	447
EN10MPL1620	16	4/3"	72.9	143.41 x 80.38	0.1 - inf	2.0 - 22	2.81	C	M58 x 0.75	60.0	85.9	338
EN10MPL2520	25	4/3"	49.7	127.99 x 71.74	0.15 - inf	2.0 - 22	0.66	C	M46 x 0.75	48.0	82.7	251
EN10MPL3520	35	4/3"	36.6	98.90 x 55.43	0.2 - inf	2.0 - 22	0.56	C	M40.5 x 0.5	44.6	54.9	173
EN10MPL5020	50	4/3"	25.9	97.48 x 54.63	0.3 - inf	2.0 - 22	0.14	C	M40.5 x 0.5	44.6	53.7	170

Last update 10/08/23

1 Calculated at minimum object distance.

2 Working distance: distance between the front end of the mechanics and the object.

3 Value calculated at the corner point of the sensor diagonal.

For distortion graphs see datasheet.

4 Measured from the front end of the mechanics to the camera flange at infinity focus.

EN-12RT series

12 Megapixel fixed focal length lenses for sensors up to 1.1"



Focal length 8-50 mm • FIXED FOCAL

Part number	MAIN OPTICAL SPECIFICATIONS		ANGLE OF VIEW	OBJECT FIELD OF VIEW	ADVANCED OPTICAL SPECIFICATIONS			MECHANICAL SPECIFICATIONS				
	Focal length (mm)	Max sensor size	1.1" Diagonal (deg)	1.1" 14.16 x 10.37 (mm x mm) 1	WD range (m) 2	f/N	Distortion on 1.1" (%) 3	Mount	Filter thread 4	Outer diam. (mm)	Length (mm) 5	Mass (g)
RT-V0828-MPY2	8	1.1"	93.9	372.63 x 272.89	0.2 - inf	2.8 - 16	0.60	C	M72 (or M67) x 0.75	57.5	53.2	157
RT-V1228-MPY2	12	1.1"	71.1	354.00 x 259.25	0.3 - inf	2.8 - 16	0.50	C	M40.5 x 0.5	42.0	36.2	97
RT-V1628-MPY2	16	1.1"	57.9	257.45 x 188.55	0.3 - inf	2.8 - 16	0.50	C	M34 x 0.5	39.5	35.3	90
RT-V2528-MPY	25	1.1"	38.7	162.76 x 119.20	0.3 - inf	2.8 - 16	0.30	C	M34 x 0.5	39.5	34.0	79
RT-V3528-MPY	35	1.1"	28.2	109.77 x 80.39	0.3 - inf	2.8 - 16	0.10	C	M34 x 0.5	39.5	45.2	103
RT-V5028-MPY	50	1.1"	20.0	118.00 x 86.42	0.5 - inf	2.8 - 16	0.10	C	M34 x 0.5	39.5	45.2	107

Last update 10/08/2023

1 Calculated at minimum object distance.

2 Working distance: distance between the front end of the mechanics and the object.

3 Value calculated at the corner point of the sensor diagonal.

For distortion graphs see datasheet.

4 For RT-V0828-MPY2, with a 1.1 sensor it must be used an RT-VM0811 mount adapter for M72 x 0.75 filter mount. With a 1" sensor, it could be used an RT-VM0810 mount adapter for M67 x 0.75 filter mount.

5 Measured from the front end of the mechanics to the camera flange at infinity focus.

EN-A5MX series

5 Megapixel fixed focal length lenses for sensors up to 4/3"



Focal length 12-35 mm • FIXED FOCAL

Part number	MAIN OPTICAL SPECIFICATIONS		ANGLE OF VIEW	ADVANCED OPTICAL SPECIFICATIONS			MECHANICAL SPECIFICATIONS					
	Focal length (mm)	Max sensor size	4.3" Diagonal (deg)	WD range (m)	f/N	Distortion on 4.3" (%)	Mount	Filter thread	Outer diam. (mm)	Length (mm)	Mass (g)	
				1		2				3		
RT-A-1224MX5M	12	4/3"	86.1	0.3 - inf	2.4 - 32	4.00	C	M77 x 0.75	80.0	104.4	670	
RT-A-1620MX5M	16	4/3"	67.4	0.1 - inf	2.0 - 32	2.50	C	M72 x 0.75	76.0	102.4	690	
RT-A-2520MX5M	25	4/3"	48.2	0.15 - inf	2.0 - 32	1.40	C	M35.5 x 0.5	50.0	103.4	383	
RT-A-3520MX5M	35	4/3"	36.0	0.2 - inf	2.0 - 32	1.10	C	M37.5 x 0.5	55.0	103.4	510	

Last update 10/08/2023

- 1 Working distance: distance between the front end of the mechanics and the object.
- 2 Value calculated at the corner point of the sensor diagonal. For distortion graphs see datasheet
- 3 Measured from the front end of the mechanics to the camera flange at infinity focus.

MC3M series

Nearly zero distortion macro lenses for sensors up to 1.1"



NEW

Magnification 0.1-6 x • MACRO

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS		
	Mag. (x)	Max sensor size	1/1.2" 11.35 x 7.13 (mm x mm)	1" 14.19 x 7.51 (mm x mm)	1.1" 14.16 x 10.37 (mm x mm)	WD (mm)	f/N	wf/N	Distortion (%)	DOF (mm)	Mount	Length (mm)	Outer diam. (mm)
						1		2	3	4			5
MC3M 010X	0.100	1.1"	113.50 x 71.30	141.90 x 75.10	141.60 x 103.70	348.4	5.0	5.5	< 0.10	28.5	C	22.9	30.0
MC3M 020X	0.200	1.1"	56.75 x 35.65	70.95 x 37.55	70.80 x 51.85	187.2	5.0	6	< 0.08	7.8	C	26.1	30.0
MC3M 033X	0.333	1.1"	34.08 x 21.41	42.61 x 22.55	42.52 x 31.14	122.7	5.0	6.5	< 0.05	3.0	C	30.4	30.0
MC3M 040X	0.400	1.1"	28.38 x 17.83	35.48 x 18.78	35.40 x 25.93	106.6	5.0	7	< 0.05	2.3	C	32.5	30.0
MC3M 050X	0.500	1.1"	22.70 x 14.26	28.38 x 15.02	28.32 x 20.74	90.5	5.0	7.5	< 0.03	1.6	C	35.7	30.0
MC3M 075X	0.750	1.1"	15.13 x 9.51	18.92 x 10.01	18.88 x 13.83	69.1	5.0	9	< 0.03	0.8	C	43.8	30.0
MC3M 100X	1.000	1.1"	11.35 x 7.13	14.19 x 7.51	14.16 x 10.37	58.3	5.0	10	< 0.02	0.5	C	51.8	30.0
MC3M 150X	1.500	1.1"	7.57 x 4.75	9.46 x 5.01	9.44 x 6.91	47.6	5.0	13	< 0.02	0.3	C	67.9	30.0
MC3M 200X	2.000	1.1"	5.68 x 3.57	7.10 x 3.76	7.08 x 5.19	42.3	5.0	15	< 0.02	0.2	C	84.1	30.0
MC3M 300X	3.000	1.1"	3.78 x 2.38	4.73 x 2.50	4.72 x 3.46	36.9	5.0	20.5	< 0.03	0.12	C	116.4	30.0
MC3M 400X	4.000	1.1"	2.84 x 1.78	3.55 x 1.88	3.54 x 2.59	34.2	5.0	26	< 0.03	0.08	C	148.6	30.0
MC3M 500X	5.000	1.1"	2.27 x 1.43	2.84 x 1.50	2.83 x 2.07	32.6	5.0	31	< 0.03	0.06	C	180.8	30.0
MC3M 600X	6.000	1.1"	1.89 x 1.19	2.37 x 1.25	2.36 x 1.73	31.6	5.0	36	< 0.03	0.05	C	213.1	30.0

Last update 08/09/2023

- 1 Working distance: distance between the front end of the mechanics and the object. Set this distance within ±3% of the nominal value for maximum resolution and minimum distortion.
- 2 Working F-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Percent deviation of the real image compared to an ideal, undistorted image.
- 4 At the borders of the field depth the image can be still used for measurement but, to get a very sharp image, only half of the nominal field depth should be considered. Pixel size used for calculation is 3.45 µm.
- 5 Object side, calculated with the Rayleigh criterion with λ= 520 nm.

EN-MAX series

Fixed focal length lenses for APS-H and Full Frame sensors up to 43 mm



Focal length 25-50 mm • FIXED FOCAL

Part number	MAIN OPTICAL SPECIFICATIONS		ANGLE OF VIEW	ADVANCED OPTICAL SPECIFICATIONS			MECHANICAL SPECIFICATIONS				
	Focal length (mm)	Max sensor size	Full Frame Diagonal (deg)	WD range (m)	f/N	Distortion (%)	Mount	Filter thread	Outer diam. (mm)	Length (mm)	Mass (g)
				1		2				3	
RT-A-2428MF	25	35 mm Full frame	84.0	0.5 - inf	2.8 - 22	4.20	F	M52 x 0.75	60.0	40.2	230
RT-A-2428MT	25	35 mm Full frame	84.0	0.5 - inf	2.8 - 22	4.20	M42x1 FD 46.5	M52 x 0.75	60.0	40.2	200
RT-A-2828MF	28	35 mm Full frame	73.6	0.3 - inf	2.8 - 22	3.00	F	M52 x 0.75	60.0	34.2	220
RT-A-2828MT	28	35 mm Full frame	73.6	0.3 - inf	2.8 - 22	3.00	M42x1 FD 46.5	M52 x 0.75	60.0	34.2	170
RT-A-3525MF	35	35 mm Full frame	62.4	0.3 - inf	2.5 - 16	3.00	F	M52 x 0.75	60.0	43.7	250
RT-A-3525MT	35	35 mm Full frame	62.4	0.3 - inf	2.5 - 16	3.00	M42x1 FD 46.5	M52 x 0.75	60.0	43.7	230
RT-FL-YFL3528	35	35 mm Full frame	64.4	0.19 - inf	2.8 - 22	-	F	M62 x 0.75	72.0	56.8	380
RT-A-5018MF	50	35 mm Full frame	46.7	0.4 - inf	1.8 - 22	0.25	F	M52 x 0.75	60.0	39.0	230
RT-A-5018MT	50	35 mm Full frame	46.7	0.4 - inf	1.8 - 22	0.25	M42x1 FD 46.5	M52 x 0.75	60.0	39.0	200
RT-FL-YFL5028	50	35 mm Full frame	47.6	0.25 - inf	2.8 - 22	-	F	M62 x 0.75	72.0	56.8	440

Last update 08/09/2023

- 1 Working distance: distance between the front end of the mechanics and the object.
- 2 Percent deviation of the real image compared to an ideal, undistorted image.
- 3 Measured from the front end of the mechanics to the camera flange at infinity focus.

MC16K series

Macro lenses for 16k line scan cameras and sensors up to 82 mm



Magnification 0.5-3 x • MACRO

Part number	MAIN OPTICAL SPECIFICATIONS		OBJECT FIELD OF VIEW				ADVANCED OPTICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS			
	Mag. (x)	Image circle Ø (mm)	4.2" IMX411 53.36 x 40.01 (mm x mm)	Line 16k-3.5 µm 57.30 (mm)	Line 12k-5.2µm 62.40 (mm)	Line 16k-5µm 81.92 (mm)	WD (mm)	Focal length (mm)	f/N	Distortion (%)	DOF (mm)	Mount	Phase adj. availability	Length (mm)	Outer diam. (mm)
							1					2	3	4	
RT-OPKE16-050M95	0.50	66.0	106.72 x 80.02	114.60	124.80	-	296.9	116	3.8	< 0.01	0.6	M95x1 FD 10	No	189.1	100
RT-OPKE16-070M95	0.70	66.0	76.23 x 57.16	81.86	89.14	-	229.3	116	3.8	< 0.01	0.4	M95x1FD 10	No	207.9	100
RT-OPKE16-100M95	1.00	66.0	53.36 x 40.01	57.30	62.40	-	184.2	116	3.8	< 0.01	0.2	M95x1FD 10	No	245.3	100
RT-OPKE16-150M95	1.50	82.0	35.57 x 26.67	38.20	41.60	54.61	143.9	116	3.8	< 0.01	0.1	M95x1 FD 10	No	299.8	100
RT-OPKE16-200M95	2.00	82.0	26.68 x 20.01	28.65	31.20	40.96	127.2	116	3.8	< 0.01	0.1	M95x1 FD 10	No	358.8	100
RT-OPKE16-300M95	3.00	82.0	17.79 x 13.34	19.10	20.80	27.31	111.5	116	4.2	< 0.01	0.1	M95x1 FD 10	No	470.0	100

Last update 26/07/2023

- 1 Working distance: distance between the front end of the mechanics and the object. Working distance production range ±5 mm.
- 2 FD stands for Flange Distance (in mm), defined as the distance from the mounting flange to the camera detector plane.
- 3 Indicates the availability of an integrated camera phase adjustment feature.
- 4 Measured from the front end of the mechanics to the camera flange.



EL5MP series

5 MP fixed focal length lenses for sensors up to 2/3" with liquid lens technology

Focal length 6-25 mm • FOCUS TUNABLE

Part number	MAIN OPTICAL SPECIFICATIONS			OBJECT FIELD OF VIEW				ADVANCED OPTICAL SPECIFICATIONS			MECHANICAL SPECIFICATIONS				
	Focal length (mm)	Mag. (x)	Max sensor size	1/1.8"	2/3"	1/1.8"	2/3"	WD range (mm)	f/N	Distortion (%)	Mount	Filter thread	Front diam. (mm)	Length (mm)	Mass (g)
				Diagonal (deg)	Diagonal (deg)	7.13 x 5.33 (mm x mm)	8.50 x 7.09 (mm x mm)								
EL5MP 0656	6	0.084	1/1.8"	74.5	-	84.88 x 63.45	-	60 - inf	5.6	< 4.0	C	M30.5 x 0.5	33.0	40.9	87
EL5MP 0856	8	0.086	2/3"	58.9	70	82.91 x 61.98	98.84 x 82.44	80 - inf	5.6	< 2.5	C	M30.5 x 0.5	33.0	42.3	88
EL5MP 1256	12	0.105	2/3"	41.2	50	67.90 x 50.76	80.95 x 67.52	100 - inf	5.6	< 1.5	C	M27 x 0.5	30.0	37.4	82
EL5MP 1656	16	0.093	2/3"	31.1	38	76.67 x 57.31	91.40 x 76.24	160 - inf	5.6	< 0.6	C	M27 x 0.5	30.0	41.2	81
EL5MP 2556	25	0.116	2/3"	19.5	24	61.47 x 45.95	73.28 x 61.12	200 - inf	5.6	< 0.2	C	M27 x 0.5	30.0	21.0	48

Last update 28/08/2023

- 1 Calculated at minimum object distance.
- 2 Working distance: distance between the front end of the mechanics and the object.
- 3 Percent deviation of the real image compared to an ideal, undistorted image.
- 4 Measured from the front end of the mechanics to the camera flange.



ENVF series

Varifocal lenses for sensors up to 2/3"

Focal length 12-36 mm • FIXED FOCAL

Part number	MAIN OPTICAL SPECIFICATIONS		ANGLE OF VIEW		OBJECT FIELD OF VIEW		ADVANCED OPTICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS				
	Focal length (mm)	Max sensor size	1/2"	2/3"	1/2"	2/3"	WD range (m)	wf/N	Distortion on 1/2" (%)	Distortion on 2/3" (%)	Mount	Filter thread	Outer diam. (mm)	Length (mm)	Mass (g)
			Diagonal (deg)	Diagonal (deg)	6.40 x 4.80 (mm x mm)	8.50 x 7.09 (mm x mm)									
RT-M3Z1228C-MP	12	2/3"	37.5	50.4	29.09 x 21.82	38.64 x 32.23	0.05 - inf	2.8 - 16	1.90	2.60	C	M35.5 x 0.5	41.6	53	105
	36	2/3"	12.5	16.8	34.97 x 26.23	46.45 x 38.74	0.2 - inf	2.8 - 16	1.70	3.50					

Last update 10/08/2023

- 1 Calculated at minimum object distance.
- 2 Working distance: distance between the front end of the mechanics and the object.
- 3 Value calculated at the corner point of the sensor diagonal. For distortion graphs see datasheet
- 4 Measured from the front end of the mechanics to the camera flange at infinity focus.

MC3-03X series

Nearly zero distortion multi-configuration macro lens for sensors up to 2/3"



Magnification 0.1-3 x • MACRO

Part number	MAIN OPTICAL SPECIFICATIONS			OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS			MECHANICAL SPECIFICATIONS			
	Mag. (x)	Number of back focal spacers (deg)	Max sensor size	1/3" 4.80 x 3.60 (mm x mm)	1/2" 6.40 x 4.80 (mm x mm)	2/3" 8.50 x 7.09 (mm x mm)	WD (mm)	f/N	wf/N	Mount	Phase adj. availability	Length (mm)	Outer diam. (mm)
							1	2		3			
MC3-03X	0.1	0	2/3"	48.00 x 36.00	64.00 x 48.00	85.00 x 70.90	275.0	5.3	6	C	No	50.8	28.0
	0.2			24.00 x 18.00	32.00 x 24.00	42.50 x 35.45	136.0	5.3	6				
	0.3			16.00 x 12.00	21.33 x 16.00	28.33 x 23.63	92.0	5.3	7				
	0.4			12.00 x 9.00	16.00 x 12.00	21.25 x 17.73	71.0	5.3	7				
	0.5			9.60 x 7.20	12.80 x 9.60	17.00 x 14.18	60.0	5.3	8				
	0.6			8.00 x 6.00	10.67 x 8.00	14.17 x 11.82	54.0	5.3	9				
	0.7			6.86 x 5.14	9.14 x 6.86	12.14 x 10.13	50.0	5.3	9				
	0.8			6.00 x 4.50	8.00 x 6.00	10.63 x 8.86	47.0	5.3	10				
	0.9			5.33 x 4.00	7.11 x 5.33	9.44 x 7.88	46.0	5.3	10				
	1.0			4.80 x 3.60	6.40 x 4.80	8.50 x 7.09	46.0	5.3	11				
	0.7	1	2/3"	6.86 x 5.14	9.14 x 6.86	12.14 x 10.13	31.0	5.3	9	C	No	69.3	28.0
	0.8			6.00 x 4.50	8.00 x 6.00	10.63 x 8.86	29.0	5.3	10				
	0.9			5.33 x 4.00	7.11 x 5.33	9.44 x 7.88	28.0	5.3	10				
	1.0			4.80 x 3.60	6.40 x 4.80	8.50 x 7.09	27.0	5.3	11				
	1.1			4.36 x 3.27	5.82 x 4.36	7.73 x 6.45	28.0	5.3	11				
	1.2			4.00 x 3.00	5.33 x 4.00	7.08 x 5.91	28.0	5.3	12				
	1.3			3.69 x 2.77	4.92 x 3.69	6.54 x 5.45	29.0	5.3	12				
	1.4			3.43 x 2.57	4.57 x 3.43	6.07 x 5.06	31.0	5.3	13				
	1.5			3.20 x 2.40	4.27 x 3.20	5.67 x 4.73	32.0	5.3	13				
	1.6			3.00 x 2.25	4.00 x 3.00	5.31 x 4.43	34.0	5.3	14				
	1.4	2	2/3"	3.43 x 2.57	4.57 x 3.43	6.07 x 5.06	12.0	5.3	13	C	No	87.8	28.0
	1.5			3.20 x 2.40	4.27 x 3.20	5.67 x 4.73	14.0	5.3	13				
	1.6			3.00 x 2.25	4.00 x 3.00	5.31 x 4.43	15.0	5.3	14				
	1.7			2.82 x 2.12	3.76 x 2.82	5.00 x 4.17	17.0	5.3	14				
	1.8			2.67 x 2.00	3.56 x 2.67	4.72 x 3.94	19.0	5.3	15				
	1.9			2.53 x 1.89	3.37 x 2.53	4.47 x 3.73	21.0	5.3	15				
	2.0			2.40 x 1.80	3.20 x 2.40	4.25 x 3.55	23.0	5.3	16				
	2.1			2.29 x 1.71	3.05 x 2.29	4.05 x 3.38	25.0	5.3	16				
	2.2			2.18 x 1.64	2.91 x 2.18	3.86 x 3.22	27.0	5.3	17				
	2.3			2.09 x 1.57	2.78 x 2.09	3.70 x 3.08	30.0	5.3	18				
2.1	3	2/3"	2.29 x 1.71	3.05 x 2.29	4.05 x 3.38	7.0	5.3	16	C	No	106.3	28.0	
2.2			2.18 x 1.64	2.91 x 2.18	3.86 x 3.22	9.0	5.3	17					
2.3			2.09 x 1.57	2.78 x 2.09	3.70 x 3.08	11.0	5.3	18					
2.4			2.00 x 1.50	2.67 x 2.00	3.54 x 2.95	14.0	5.3	18					
2.5			1.92 x 1.44	2.56 x 1.92	3.40 x 2.84	16.0	5.3	19					
2.6			1.85 x 1.38	2.46 x 1.85	3.27 x 2.73	18.0	5.3	19					
2.7			1.78 x 1.33	2.37 x 1.78	3.15 x 2.63	21.0	5.3	20					
2.8			1.71 x 1.29	2.29 x 1.71	3.04 x 2.53	23.0	5.3	20					
2.9			1.66 x 1.24	2.21 x 1.66	2.93 x 2.44	26.0	5.3	21					
3.0			1.60 x 1.20	2.13 x 1.60	2.83 x 2.36	28.0	5.3	21					

Last update 18/01/2023

- Working distance: distance between the front end of the mechanics and the object. Set this distance within $\pm 3\%$ of the nominal value for maximum resolution and minimum distortion.
- Working f-number (wf/N): the real f-number of a lens in operating conditions.
- Measured from the front end of the mechanics to the camera flange.

MC3M3-03X macro

Nearly zero distortion multi-configuration macro lens for sensors up to 1.1"



NEW

Magnification 0.1-3 x • MACRO

Part number	MAIN OPTICAL SPECIFICATIONS			OBJECT FIELD OF VIEW			ADVANCED OPTICAL SPECIFICATIONS			MECHANICAL SPECIFICATIONS			
	Mag. (x)	Number of back focal spacers (deg)	Max sensor size	1/1.2" 11.35 x 7.13 (mm x mm)	1" 14.19 x 7.51 (mm x mm)	1.1" 14.16 x 10.37 (mm x mm)	WD (mm)	f/N	wf/N	Mount	Phase adj. availability	Length (mm)	Outer diam. (mm)
							1	2		3			
MC3M3-03X	0.1	0	1.1"	113.50 x 71.30	113.50 x 71.30	141.60 x 103.70	319.9	5.0	6	C	No	50.8	28.0
	0.2			56.75 x 35.65	56.75 x 35.65	70.80 x 51.85	162.4	5.0	6				
	0.3			37.83 x 23.77	37.83 x 23.77	47.20 x 34.57	112.0	5.0	7				
	0.4			28.38 x 17.83	28.38 x 17.83	35.40 x 25.93	88.4	5.0	7				
	0.5			22.70 x 14.26	22.70 x 14.26	28.32 x 20.74	75.5	5.0	8				
	0.6			18.92 x 11.88	18.92 x 11.88	23.60 x 17.28	68.0	5.0	8				
	0.7			16.21 x 10.19	16.21 x 10.19	20.23 x 14.81	63.5	5.0	9				
	0.8			14.19 x 8.91	14.19 x 8.91	17.70 x 12.96	61.0	5.0	9				
	0.9			12.61 x 7.92	12.61 x 7.92	15.73 x 11.52	59.7	5.0	10				
	0.7	1	1.1"	16.21 x 10.19	16.21 x 10.19	20.23 x 14.81	45.0	5.0	9	C	No	69.3	28.0
	0.8			14.19 x 8.91	14.19 x 8.91	17.70 x 12.96	42.5	5.0	9				
	0.9			12.61 x 7.92	12.61 x 7.92	15.73 x 11.52	41.2	5.0	10				
	1.0			11.35 x 7.13	11.35 x 7.13	14.16 x 10.37	40.9	5.0	10				
	1.1			10.32 x 6.48	10.32 x 6.48	12.87 x 9.43	41.1	5.0	11				
	1.2			9.46 x 5.94	9.46 x 5.94	11.80 x 8.64	41.9	5.0	11				
	1.3			8.73 x 5.48	8.73 x 5.48	10.89 x 7.98	43.1	5.0	12				
	1.4			8.11 x 5.09	8.11 x 5.09	10.11 x 7.41	44.5	5.0	12				
	1.5			7.57 x 4.75	7.57 x 4.75	9.44 x 6.91	46.2	5.0	13				
	1.2	2	1.1"	9.46 x 5.94	9.46 x 5.94	11.80 x 8.64	23.4	5.0	11	C	No	87.8	28.0
	1.3			8.73 x 5.48	8.73 x 5.48	10.89 x 7.98	24.6	5.0	12				
	1.4			8.11 x 5.09	8.11 x 5.09	10.11 x 7.41	26.0	5.0	12				
	1.5			7.57 x 4.75	7.57 x 4.75	9.44 x 6.91	27.7	5.0	13				
	1.6			7.09 x 4.46	7.09 x 4.46	8.85 x 6.48	29.6	5.0	13				
	1.7			6.68 x 4.19	6.68 x 4.19	8.33 x 6.10	31.6	5.0	14				
	1.8			6.31 x 3.96	6.31 x 3.96	7.87 x 5.76	33.8	5.0	14				
	1.9			5.97 x 3.75	5.97 x 3.75	7.45 x 5.46	36.1	5.0	15				
	2.0			5.68 x 3.57	5.68 x 3.57	7.08 x 5.19	38.5	5.0	15				
	2.1	5.40 x 3.40	5.40 x 3.40	6.74 x 4.94	40.9	5.0	16						
	1.8	3	1.1"	6.31 x 3.96	6.31 x 3.96	7.87 x 5.76	15.3	5.0	14	C	No	106.3	28.0
	1.9			5.97 x 3.75	5.97 x 3.75	7.45 x 5.46	17.6	5.0	15				
2.0	5.68 x 3.57			5.68 x 3.57	7.08 x 5.19	20.0	5.0	15					
2.1	5.40 x 3.40			5.40 x 3.40	6.74 x 4.94	22.4	5.0	16					
2.2	5.16 x 3.24			5.16 x 3.24	6.44 x 4.71	25.0	5.0	16					
2.3	4.93 x 3.10			4.93 x 3.10	6.16 x 4.51	27.5	5.0	17					
2.4	4.73 x 2.97			4.73 x 2.97	5.90 x 4.32	30.2	5.0	17					
2.5	4.54 x 2.85			4.54 x 2.85	5.66 x 4.15	32.9	5.0	18					
2.6	4.37 x 2.74			4.37 x 2.74	5.45 x 3.99	35.6	5.0	18					
2.4	4	1.1"	4.73 x 2.97	4.73 x 2.97	5.90 x 4.32	11.7	5.0	17	C	No	124.8	28.0	
2.5			4.54 x 2.85	4.54 x 2.85	5.66 x 4.15	14.4	5.0	18					
2.6			4.37 x 2.74	4.37 x 2.74	5.45 x 3.99	17.1	5.0	18					
2.7			4.20 x 2.64	4.20 x 2.64	5.24 x 3.84	19.9	5.0	19					
2.8			4.05 x 2.55	4.05 x 2.55	5.06 x 3.70	22.7	5.0	20					
2.9			3.91 x 2.46	3.91 x 2.46	4.88 x 3.58	25.5	5.0	20					
3.0	3.78 x 2.38	3.78 x 2.38	4.72 x 3.46	28.4	5.0	21							

Last update 18/01/2023

- 1 Working distance: distance between the front end of the mechanics and the object. Set this distance within ±3% of the nominal value for maximum resolution and minimum distortion.
- 2 Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Measured from the front end of the mechanics to the camera flange.



MCSM1-01X series

Variable macro lens with Scheimpflug adjustment

Magnification 0.1-1 x • MACRO

FOV and WD selection chart

MAIN OPTICAL SPECIFICATIONS				FIELD OF VIEW, LONG SENSOR SIDE HORIZONTAL			FIELD OF VIEW, LONG SENSOR SIDE VERTICAL			ADVANCED OPTICAL SPECIFICATIONS		
Mag.	Object tilt	Mount tilt	Max sensor size	1/3"	1/2"	2/3"	1/3"	1/2"	2/3"	WD	f/N	wf/N
(x)	(deg)	(x)		4.80 x 3.60	6.40 x 4.80	8.50 x 7.09	3.60 x 4.80	4.80 x 6.40	7.09 x 8.50	(mm)		
				w, W x h			w, W x h			1	2	
1.00	0	0	2/3"	4.80, 4.80 x 3.60	6.40, 6.40 x 4.80	8.80, 8.80 x 6.60	3.60, 3.60 x 4.80	4.80, 4.80 x 6.40	6.60, 6.60 x 8.80	46.0	6	12
	5	5.0		4.80, 4.80 x 3.60	6.30, 6.50 x 4.80	8.70, 8.90 x 6.60	3.60, 3.60 x 4.80	4.70, 4.90 x 6.40	6.50, 6.70 x 8.80			
	10	10.0		4.70, 4.90 x 3.60	6.30, 6.50 x 4.80	8.60, 9.00 x 6.60	3.50, 3.70 x 4.80	4.70, 4.90 x 6.40	6.40, 6.80 x 8.80			
	15	15.0		4.70, 4.90 x 3.60	6.20, 6.60 x 4.80	8.50, 9.10 x 6.60	3.50, 3.80 x 4.80	4.60, 5.00 x 6.40	6.30, 6.90 x 8.80			
0.75	0	0	2/3"	6.40, 6.40 x 4.80	8.60, 8.60 x 6.40	11.80, 11.80 x 8.80	4.80, 4.80 x 6.40	6.40, 6.40 x 8.60	8.80, 8.80 x 11.80	47.8	6	10
	8	5.7		6.30, 6.50 x 4.80	8.40, 8.70 x 6.50	11.60, 12.00 x 8.90	4.70, 4.90 x 6.40	6.30, 6.60 x 8.60	8.70, 9.00 x 11.80			
	15	11.4		6.20, 6.60 x 4.90	8.30, 8.80 x 6.50	11.00, 12.20 x 9.00	4.60, 5.00 x 6.50	6.20, 6.70 x 8.70	8.50, 9.20 x 12.00			
	20	15.3		6.20, 6.70 x 5.00	8.20, 8.90 x 6.60	11.00, 12.30 x 9.10	4.60, 1.90 x 6.60	6.10, 2.40 x 8.80	8.40, 3.40 x 12.10			
0.50	0	0	2/3"	9.60, 9.60 x 7.20	13.00, 12.80 x 9.60	18.00, 17.70 x 13.00	7.20, 7.20 x 9.60	9.60, 9.60 x 13.00	13.00, 13.20 x 17.70	59.6	6	9
	10	5.0		9.40, 9.80 x 7.30	13.00, 13.10 x 9.70	17.00, 18.00 x 13.00	7.00, 7.40 x 9.70	9.40, 9.90 x 13.00	13.00, 13.60 x 17.90			
	20	10.4		9.20, 10.10 x 7.60	12.00, 13.40 x 10.00	17.00, 18.40 x 14.00	6.80, 7.70 x 10.00	9.10, 10.20 x 13.00	13.00, 14.00 x 18.60			
	30	16.1		9.00, 10.30 x 8.00	12.00, 13.70 x 11.00	17.00, 18.90 x 15.00	6.60, 7.90 x 11.00	8.90, 10.50 x 14.00	12.00, 14.50 x 19.70			
0.33	0	0	2/3"	15.00, 14.60 x 11.00	19.00, 19.50 x 15.00	27.00, 26.70 x 20.00	11.00, 10.90 x 15.00	15.00, 14.60 x 19.00	20.00, 20.00 x 26.60	83.8	6	8
	15	5.1		14.00, 14.90 x 11.00	19.00, 19.90 x 15.00	26.00, 27.40 x 21.00	11.00, 11.40 x 15.00	14.00, 15.20 x 20.00	19.00, 20.90 x 27.60			
	30	10.8		14.00, 15.60 x 12.00	18.00, 20.80 x 17.00	25.00, 28.60 x 23.00	10.00, 12.00 x 17.00	13.00, 16.00 x 22.00	18.00, 22.00 x 30.60			
	45	18.3		13.00, 16.40 x 15.00	17.00, 21.90 x 20.00	24.00, 30.10 x 27.00	9.50, 12.90 x 20.00	13.00, 17.10 x 27.00	17.00, 23.60 x 36.70			
0.20	0	0	2/3"	24.00, 24.00 x 18.00	32.00, 32.00 x 24.00	44.00, 44.00 x 33.00	18.00, 18.00 x 24.00	24.00, 24.00 x 32.00	33.00, 33.00 x 44.00	135.3	6	7
	15	3.0		23.00, 24.80 x 19.00	31.00, 33.00 x 25.00	43.00, 45.40 x 34.00	17.00, 18.80 x 25.00	23.00, 25.10 x 33.00	32.00, 34.50 x 45.60			
	30	6.7		22.00, 25.70 x 21.00	30.00, 34.30 x 28.00	41.00, 47.20 x 38.00	17.00, 19.80 x 28.00	22.00, 26.40 x 37.00	30.00, 36.30 x 50.90			
	45	11.4		22.00, 27.10 x 25.00	29.00, 36.20 x 34.00	39.00, 49.70 x 46.00	16.00, 21.30 x 34.00	21.00, 28.40 x 45.00	29.00, 39.00 x 62.50			
0.10	0	0	2/3"	48.00, 47.60 x 36.00	64.00, 63.50 x 48.00	87.00, 87.30 x 66.00	36.00, 35.70 x 48.00	48.00, 47.60 x 64.00	66.00, 65.50 x 87.40	271.0	6	6.5
	15	1.6		46.00, 49.20 x 37.00	62.00, 65.60 x 49.00	85.00, 90.20 x 68.00	34.00, 37.30 x 49.00	46.00, 49.70 x 66.00	63.00, 68.40 x 90.60			
	30	3.4		45.00, 51.10 x 41.00	59.00, 68.10 x 55.00	82.00, 93.70 x 76.00	33.00, 39.30 x 55.00	44.00, 52.40 x 74.00	60.00, 72.00 x 101.00			
	45	5.8		43.00, 53.90 x 51.00	57.00, 71.90 x 68.00	78.00, 98.90 x 93.00	31.00, 42.30 x 69.00	41.00, 56.40 x 92.00	57.00, 77.60 x 126.00			

Last update 18/01/2024

- Working distance: distance between the front end of the mechanics and the object.
Set this distance within ±3% of the nominal value for maximum resolution and minimum distortion.
- Working f-number (wf/N): the real f-number of a lens in operating conditions.



MCSM3M1-025X series

Variable macro lens with Scheimpflug adjustment for sensors up to 1.1"

NEW

Magnification 0.25-1 x • MACRO

FOV and WD selection chart

MAIN OPTICAL SPECIFICATIONS				FIELD OF VIEW, LONG SENSOR SIDE HORIZONTAL			FIELD OF VIEW, LONG SENSOR SIDE VERTICAL			ADVANCED OPTICAL SPECIFICATIONS		
Mag.	Object tilt (x)	Mount tilt (deg)	Max sensor size (x)	1/3"	1/2"	2/3"	1/3"	1/2"	2/3"	WD (mm)	f/N	wf/N
				11.35 x 7.13	14.19 x 7.51	14.16 x 10.37	7.13 x 11.35	7.51 x 14.19	10.37 x 14.16			
				(mm, mm x mm)	(mm, mm x mm)	(mm, mm x mm)	(mm, mm x mm)	(mm, mm x mm)	(mm, mm x mm)			
				w, W x H			w, W x H			1		2
1.00	0	0	1.1"	11.35, 11.35 x 7.13	14.19, 14.19 x 7.51	14.16, 14.16 x 10.37	7.13, 7.13 x 11.35	7.51, 7.51 x 14.19	10.37, 10.37 x 14.16	58.4	5	10
	5	5.0	11.21, 11.53 x 7.14	14.02, 14.42 x 7.52	13.99, 14.39 x 10.39	7.01, 7.28 x 11.38	7.39, 7.67 x 14.23	10.20, 10.59 x 14.20				
	10	10.0	11.06, 11.70 x 7.15	13.83, 14.63 x 7.53	13.80, 14.60 x 10.40	6.88, 7.43 x 11.38	7.25, 7.82 x 14.23	10.01, 10.80 x 14.20				
	15	15.0	10.92, 11.87 x 7.15	13.65, 14.84 x 7.53	13.62, 14.81 x 10.40	6.76, 7.58 x 11.41	7.12, 7.98 x 14.26	9.83, 11.02 x 14.23				
0.75	0	0	1.1"	15.13, 15.13 x 9.51	18.92, 18.92 x 10.02	18.88, 18.88 x 13.83	9.51, 9.51 x 15.13	10.02, 10.02 x 18.92	13.83, 13.83 x 18.88	62.0	5	9
	8	5.6	14.84, 15.49 x 9.56	18.56, 19.36 x 10.07	18.52, 19.32 x 13.91	9.25, 9.81 x 15.23	9.75, 10.33 x 19.04	13.46, 14.27 x 19.00				
	15	11.3	14.55, 15.83 x 9.69	18.19, 19.79 x 10.20	18.15, 19.75 x 14.09	9.01, 10.11 x 15.45	9.49, 10.65 x 19.31	13.10, 14.70 x 19.27				
0.50	0	0	1.1"	22.70, 22.70 x 14.26	28.38, 28.38 x 15.02	28.32, 28.32 x 20.74	14.26, 14.26 x 22.70	15.02, 15.02 x 28.38	20.74, 20.74 x 28.32	75.4	5	8
	10	5.0	22.11, 23.38 x 14.45	27.64, 29.23 x 15.22	27.58, 29.17 x 21.02	13.75, 14.85 x 23.03	14.48, 15.64 x 28.79	20.00, 21.60 x 28.73				
	20	10.3	21.49, 24.11 x 15.00	26.87, 30.14 x 15.80	26.81, 30.08 x 21.82	13.24, 15.50 x 23.95	13.94, 16.32 x 29.94	19.25, 22.54 x 29.88				
0.33	0	0	1.1"	34.39, 34.39 x 21.60	43.00, 43.00 x 22.75	42.91, 42.91 x 31.42	21.60, 21.60 x 34.39	22.75, 22.75 x 43.00	31.42, 31.42 x 42.91	102.2	5	7
	15	5.1	32.66, 35.60 x 22.11	40.84, 44.50 x 23.29	40.75, 44.41 x 32.16	20.21, 22.74 x 35.25	21.29, 23.95 x 44.07	29.40, 33.07 x 43.98				
	30	10.8	31.22, 37.49 x 24.47	39.03, 46.87 x 25.77	38.95, 46.77 x 35.59	19.03, 24.44 x 39.24	20.05, 25.75 x 49.05	27.68, 35.55 x 48.95				
0.25	0	0	1.1"	44.85, 44.85 x 28.58	56.08, 56.08 x 30.10	55.96, 55.96 x 41.56	28.58, 28.58 x 44.85	30.10, 30.10 x 56.08	41.56, 41.56 x 55.96	131.7	5	6
	15	3.8	43.52, 47.43 x 29.51	54.41, 59.30 x 31.08	54.29, 59.17 x 42.92	26.93, 30.29 x 47.05	28.37, 31.91 x 58.82	39.17, 44.06 x 58.70				
	30	8.2	41.57, 49.98 x 32.87	51.97, 62.49 x 34.62	51.86, 62.36 x 47.80	25.34, 32.60 x 52.70	26.69, 34.34 x 65.89	36.85, 47.42 x 65.75				
	45	14.0		39.26, 53.78 x 40.11	49.08, 67.24 x 42.25	48.98, 67.10 x 58.34	23.50, 36.23 x 65.25	24.75, 38.17 x 81.58	34.18, 52.70 x 81.41			

Last update 18/01/2024

1 Working distance: distance between the front end of the mechanics and the object. Set this distance within ±3% of the nominal value for maximum resolution and minimum distortion.

2 Working f-number (wf/N): the real f-number of a lens in operating conditions.

MCZM series

Macro zoom lenses for sensors up to 2/3"



* RT

Magnification 0.013-1 x • MACRO

Part number	MAIN OPTICAL SPECIFICATIONS		ANGLE OF VIEW		OBJECT FIELD OF VIEW		ADVANCED OPTICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS				
	Mag. (x)	Max sensor size	1/2" Diagonal (deg)	2/3" Diagonal (deg)	1/2" (mm x mm)	2/3" (mm x mm)	WD range (m)	f/N	Distortion on 1/2" (%)	Distortion on 2/3" (%)	Mount	Filter thread	Outer diam. (mm)	Length (mm)	Mass (g)
							1		2					3	
RT-MLM-3XMP	0.300	2/3"	10.7	14.88	21.33 x 16.00	28.33 x 23.63	90.0	4.5 - 22	0.02	0.12	C	M34 x 0.5	36.0	79.5	150
	1.000	2/3"	2.72	2.84	6.40 x 4.80	8.50 x 7.09	90.0	4.5 - 22	0.77	1.78					
RT-MLH-10X-C	0.084	1/2"	21.6	-	76.19 x 57.14	-	150 - 450	5.6 - 32	0.90	-	C	M46 x 0.75	48.0	98.5	260
	0.840	1/2"	4.5	-	7.62 x 5.71	-	150 - 450	5.6 - 32	1.60	-					
RT-TEC-M55	0.013	2/3"	8.3	11.5	509.15 x 381.86	676.21 x 564.04	140 - 5000	2.8 - 32	-	0.60	C	M43 x 0.75	53.0	92.9	320
	0.518	2/3"	-	-	12.36 x 9.27	16.42 x 13.70	140 - 5000	2.8 - 32	-	0.60					

Last update 16/04/2024

1 Working distance: distance between the front end of the mechanics and the object.
2 Percent deviation of the real image compared to an ideal, undistorted image.

3 Measured from the front end of the mechanics to the camera flange.



* RT

ENVIS-SWIRMP series

VIS-SWIR fixed focal length lenses for sensors up to 2/3"

Focal length 5-50 mm • SHORT WAVE • IR • VISIBLE

Part number	MAIN OPTICAL SPECIFICATIONS		ANGLE OF VIEW		ADVANCED OPTICAL SPECIFICATIONS			MECHANICAL SPECIFICATIONS				
	Focal length (mm)	Max sensor size	1/2" IMX990 Diagonal (deg)	2/3" (mm × mm)	WD range (m)	f/N	Distortion on 2/3" (%)	Mount	Filter thread	Outer diam. (mm)	Length (mm)	Mass (g)
					1		2				3	
RT-H0514-VSW	5	1/2"	77.8	-	0.1 - 0.9	1.4 - closed	-	C	M43 x 0.75	44.5	45.5	102
RT-M0814-VSW	8	2/3"	53.0	67.1	0.1 - inf	1.4 - closed	0.10	C	M30.5 x 0.5	33.5	28.2	63
RT-M1214-VSW	12	2/3"	37.8	49.2	0.15 - inf	1.4 - closed	0.10	C	M30.5 x 0.5	33.5	28.2	62
RT-M1614-VSW	16	2/3"	28.8	38.0	0.3 - inf	1.4 - closed	0.10	C	M30.5 x 0.5	33.5	28.2	60
RT-M2514-VSW	25	2/3"	18.6	24.9	0.3 - inf	1.4 - closed	0.30	C	M30.5 x 0.5	33.5	36	71
RT-M3514-VSW	35	2/3"	13.7	17.3	0.3 - inf	1.4 - closed	0.80	C	M30.5 x 0.5	33.5	38.2	87
RT-M5018-VSW	50	2/3"	9.8	13.1	0.5 - inf	1.8 - closed	0.30	C	M30.5 x 0.5	33.5	38.2	85

Last update 13/11/2023

- 1** Working distance: distance between the front end of the mechanics and the object.
2 Percent deviation of the real image compared to an ideal, undistorted image.
3 Measured from the front end of the mechanics to the camera flange at infinity focus.



* RT

ENUV2M series

UV fixed focal length lenses for sensors up to 1"

Focal length 25-78 mm • UV

Part number	MAIN OPTICAL SPECIFICATIONS		ANGLE OF VIEW			ADVANCED OPTICAL SPECIFICATIONS		MECHANICAL SPECIFICATIONS				
	Focal length (mm)	Max sensor size	1/2" Horizontal (deg)	2/3" Horizontal (deg)	1" Horizontal (deg)	WD range (m)	f/N	Mount	Filter thread	Outer diam. (mm)	Length (mm)	Mass (g)
						1					2	
RT-FL-BC2528-VGUV	25	1"	14.8	20.4	29.7	0.23 - inf	2.8 - 16	C	M25.5 x 0.5	30.0	25.4	33
RT-FL-BC7838-VGUV	78	1"	4.7	6.5	9.5	0.44 - inf	3.8 - 16	C	M49 x 0.75	62.5	109.3	446

Last update 10/08/2023

- 1** Working distance: distance between the front end of the mechanics and the object.
2 Measured from the front end of the mechanics to the camera flange at infinity focus.



PATENTED

PC series

Pericentric lenses for 360° top and lateral view with just one camera

OUTER INSPECTION

Part number	MAIN OPTICAL SPECIFICATIONS		FIELD OF VIEW (DIAMETER X HEIGHT)		ADVANCED OPTICAL SPECIFICATIONS			MECHANICAL SPECIFICATIONS		
	Image circle Ø (mm)	Max sensor size	Minimum (mm x mm)	Maximum (mm x mm)	Working distance with minimum object (mm)	Working distance with maximum object (mm)	wf/N	Mount	Length (mm)	Diam. (mm)
PC13030HP	3.6	1/3"	20.0 x 60.0	60.0 x 20.0	80.0	20.0	1.4 - close	C	455.2	157.0
PC12030HP	4.8	1/2"	20.0 x 60.0	60.0 x 20.0	80.0	20.0	1.4 - close	C	451.5	157.0
PC13030XS	3.6	1/3"	7.5 x 5.0	55.0 x 20.0	85.0	20.0	1.4 - close	C	385.3	116.0
PC12030XS	4.8	1/2"	10.0 x 5.0	55.0 x 15.0	80.0	20.0	1.4 - close	C	381.6	116.0
PC23030XS	6.6	2/3"	15.0 x 5.0	55.0 x 12.0	80.0	20.0	1.4 - close	C	381.1	116.0

Last update 26/03/2024

- 1 Working distance: distance between the front end of the mechanics and the object.
- 3 Measured from the front end of the mechanics to the camera flange.



PCCD series

Catadioptric lenses for 360° top and lateral view with just one camera

NEW MODEL

OUTER INSPECTION

Part number	MAIN OPTICAL SPECIFICATIONS		FIELD OF VIEW (DIAMETER X HEIGHT)			ADVANCED OPTICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS		
	Image circle Ø (mm)	Max sensor size	Minimum (mm x mm)	Medium (mm x mm)	Maximum (mm x mm)	Working distance with minimum object (mm)	Working distance with medium object (mm)	Working distance with maximum object	wf/N	Mount	Diam. (mm)	Length (mm)
PCCD013	3.6	1/3"	7.5 x 4.2	35.0 x 24.2	75.0 x 2.5	50.5	9.2	0.0	1.4 - C	C	143.0	111.2
PCCD012	4.8	1/2"	7.5 x 4.2	35.0 x 24.2	75.0 x 2.5	50.5	9.2	0.0	1.4 - C	C	143.0	108.0
PCCD023	6.6	2/3"	7.5 x 4.2	35.0 x 24.2	75.0 x 2.5	50.5	9.2	0.0	1.4 - C	C	143.0	108.5
PCCD2M	9.6	1"	7.5 x 4.2	35.0 x 24.2	75.0 x 2.5	50.5	9.2	0.0	1.4 - C	C	143.0	113.8
PCCDL	4.8 - 10	1/2" - 1.1"	10.0 x 1.7	50.0 x 38.3	110.0 x 1.4	76.1	9.0	0.0	2.8 - C	C	215.0	129.5

Last update 07/09/2023

- 1 For the complete information about the inspectable field of view, see the datasheet of the objective.
- 2 The maximum inspectable field of view is given considering zero working distance. Depending on the application, a working distance greater than zero will decrease the height of the inspectable object accordingly.
- 3 Working distance: distance between the front end of the mechanics and the object.
- 4 The f-number could be changed using the variable iris.
- 5 Measured from the front end of the mechanics to the camera flange.



HC series

Hypercentric lenses for 360° inspection of the inner sides and bottom of cavities

INTERNATIONAL PATENT PENDING

NEW INNER INSPECTION

Part number	MAIN OPTICAL SPECIFICATIONS		FIELD OF VIEW (DIAMETER X HEIGHT)			ADVANCED OPTICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS			
	Image circle Ø (mm)	Min sensor size	Maximum (mm x mm)	Medium (mm x mm)	Minimum (mm x mm)	Working distance with maximum object (mm)	Working distance with minimum object (mm)		Convergence point distance	f/N	Mount	Length (mm)	Outer diam. (mm)
							1	1, 2					
HCSI013	3.4	1/3"	110.0 x 330.0	50.0 x 150.0	10.0 x 30.0	143.8	58.1	50.0	1.6 - 22	C	320.2	84.0	
HCSI012	5.1	1/1.8"	110.0 x 330.0	50.0 x 150.0	10.0 x 30.0	143.8	58.1	50.0	1.6 - 22	C	322.8	84.0	
HCSI023	6.7	2/3"	110.0 x 330.0	50.0 x 150.0	10.0 x 30.0	143.8	58.1	50.0	1.6 - 22	C	324.5	84.0	
HCSI3M	10.75	1.1"	110.0 x 330.0	50.0 x 150.0	10.0 x 30.0	143.8	58.1	50.0	1.4 - 22	C	303.9	84.0	
HCBIO13	3.4	1/3"	220.0 x -	100.0 x -	20.0 x -	473.8	87.4	50.0	1.6 - 22	C	244.7	84.0	
HCBIO12	5.1	1/1.8"	220.0 x -	100.0 x -	20.0 x -	473.8	87.4	50.0	1.6 - 22	C	247.3	84.0	
HCBIO23	6.7	2/3"	220.0 x -	100.0 x -	30.0 x -	473.8	107.2	50.0	1.6 - 22	C	249.1	84.0	
HCBIO3M	10.8	1.1"	220.0 x -	100.0 x -	45.0 x -	473.8	138.8	50.0	1.4 - 22	C	228.5	84.0	

Last update 25/06/2024

- 1 The minimum field of view can be achieved by using about 2 mm of back focal spacers between the camera and the objective. Even smaller field of views can be achieved by using extension tubes.
- 2 Working distance: distance between the front end of the mechanics and the object.
- 3 Distance between the front end of the mechanics and the point where all the optical rays coming from the object converge (entrance pupil).
- 4 Measured from the front end of the mechanics to the camera flange.



PCHIL series

Large aperture hole inspection lenses for 360° inside view

NEW INNER INSPECTION

Part number	MAIN OPTICAL SPECIFICATIONS		FIELD OF VIEW (DIAMETER X HEIGHT)		ADVANCED OPTICAL SPECIFICATIONS			ADVANCED OPTICAL	MECHANICAL SPECIFICATIONS		
	Image circle Ø (mm)	Max sensor size	Minimum (mm x mm)	Maximum (mm x mm)	Working distance with minimum object (mm)	Working distance with maximum object (mm)		Focusing	Mount	Length (mm)	Outer diam. (mm)
						1	1				
PCHIL013	3.4	1/3"	10.0 x 6.0	120.0 x 190.0	5.0	62.0	1.4-close	Manual	C	120.2	36.0
PCHIL012	4.9	1/1.8"	10.0 x 6.0	120.0 x 190.0	5.0	62.0	1.4-close	Manual	C	115.4	34.0
PCHIL023	6.6	2/3"	10.0 x 6.0	120.0 x 190.0	5.0	62.0	1.4-close	Manual	C	115.3	34.0
PCHIL3M	10.7	1.1"	10.0 x 6.0	120.0 x 190.0	5.0	62.0	1.4-close	Manual	C	101.9	34.0
PCHIL013-EL	3.2	1/3"	10.0 x 6.0	120.0 x 190.0	5.0	62.0	5.6	Liquid lens	C	130.4	33.0
PCHIL012-EL	4.7	1/1.8"	10.0 x 6.0	120.0 x 190.0	5.0	62.0	5.6	Liquid lens	C	128.9	30.0
PCHIL023-EL	6.1	2/3"	10.0 x 6.0	120.0 x 190.0	5.0	62.0	8	Liquid lens	C	122.8	30.0
PCHIL3M-EL	10.1	1.1"	10.0 x 6.0	120.0 x 190.0	5.0	62.0	13	Liquid lens	C	102.6	30.0

Last update 07/05/2024

- 1 Working distance: distance between the front end of the mechanics and the object.
- 2 Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Measured from the front end of the mechanics to the camera flange.



PATENTED

PCBP series

Boroscopic probes for panoramic cavity imaging from inside

INNER INSPECTION

Part number	MAIN OPTICAL SPECIFICATIONS		FIELD OF VIEW (DIAMETER X HEIGHT)		ADVANCED OPTICAL SPECIFICATIONS				ELECTRICAL SPECIFICATIONS			MECHANICAL SPECIFICATIONS				
	Image circle Ø (mm)	Max sensor size	Minimum (mm x mm)	Maximum (mm x mm)	Angle of view (mag)	wf/N	Focusing	Light color	Supply voltage (V)	Current (mA)	Power consumption (W)	Mount	Total length (mm)	Probe length (mm)	Probe diam. (mm)	
PCBPN013	a	3.4	1/3"	5.5 x 2.8	25.0 x 15.0	65	30	Manual	-	-	-	C	81.1	66.8	4	
PCBPN013-WG	a	3.4	1/3"	8.0 x 4.4	25.0 x 15.0	65	30	Manual	white	24	150	3.5	C	81.1	57.6	7
PCBP013		3.4	1/3"	25.0 x 11.0	inf x inf	60	14	Manual	white	24	40	1.0	C	167.1	159.1	21
PCBP013-AF		3.4	1/3"	25.0 x 11.0	inf x inf	60	14	Liquid lens	white	24	40	1.0	C	168.2	139.3	21
PCBP012		4.6	1/2"	25.0 x 11.0	inf x inf	60	16	Manual	white	24	40	1.0	C	137.1	129.1	21
PCBP012-AF		4.6	1/2"	25.0 x 11.0	inf x inf	60	16	Liquid lens	white	24	40	1.0	C	138.2	109.3	21
PCBP023		7	2/3"	25.0 x 11.0	inf x inf	60	18	Manual	white	24	40	1.0	C	112.9	99.9	21
PCBP023-AF		7	2/3"	25.0 x 11.0	inf x inf	60	18	Liquid lens	white	24	40	1.0	C	114.0	80.1	21

a Recommended use of a 1/2" sensor as the image may be decentered.

Last update 05/04/2024

- 1 Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 2 Tolerance ± 2%.
- 3 Used in continuous (non-pulsed) mode.

- 4 Constant voltage power supply.
- 5 Constant current power supply.
- 6 Measured from the front end of the mechanics to the camera flange.



PCPW series

Polyview optics for multiple side views in one image

MULTI-VIEW

Part number	MAIN OPTICAL SPECIFICATIONS		FIELD OF VIEW (DIAMETER X HEIGHT)		ADVANCED OPTICAL SPECIFICATIONS			MECHANICAL SPECIFICATIONS		
	Image circle Ø (mm)	Max sensor size	Minimum (mm x mm)	Maximum (mm x mm)	Working distance with minimum object (mm)	Working distance with maximum object (mm)	wf/N	Mount	Length (mm)	Front diam. (mm)
PCPW013	3.6	1/3"	30.0 x 20.0	50.0 x 5.0	40.0	20.0	1.4 - close	C	232.3	117.0
PCPW012	4.8	1/2"	30.0 x 20.0	50.0 x 5.0	40.0	20.0	1.4 - close	C	231.8	117.0
PCPW023	6.6	2/3"	30.0 x 20.0	50.0 x 5.0	40.0	20.0	1.4 - close	C	236.1	117.0

Last update 19/09/2023

- 1 Working distance: distance between the front end of the mechanics and the object.
- 2 Measured from the front end of the mechanics to the camera flange.



PCMP series

Multi-view optics for measuring and imaging small parts

MULTI-VIEW

Part number	MAIN OPTICAL SPECIFICATIONS		FIELD OF VIEW (DIAMETER X HEIGHT)		ADVANCED OPTICAL SPECIFICATIONS			ELECTRICAL SPECIFICATIONS			MECHANICAL SPECIFICATIONS			
	Image circle Ø (mm)	Max sensor size	Minimum (mm x mm)	Maximum (mm x mm)	Working distance with minimum object (mm)	Working distance with maximum object (mm)	wf/N	Supply voltage (V)	Current (mA)	Power consumption (W)	Mount	Length (mm)	Width (mm)	Height (mm)
PCMP012	4.8	1/2"	2.5 x 6.0	10.0 x 1.0	5.0	1.5	8	24	450	10.8	C	242.3	119.0	139.5
PCMP023	6.6	2/3"	2.5 x 6.0	10.0 x 1.0	5.0	1.5	8	24	450	10.8	C	262.0	119.0	139.5

Last update 18/09/2023

- 1 Working distance: distance between the front end of the mechanics and the object.
- 2 Working f-number (wf/N): the real f-number of a lens in operating conditions.
- 3 Tolerance ± 2%.

- 4 Continuous mode.
- 5 Measured from the front end of the mechanics to the camera flange.

TCCAGE series

Bi-telecentric system for multiple side imaging and measurement at 90°

Part number	MAIN OPTICAL SPECIFICATIONS			FIELD OF VIEW (DIAMETER X HEIGHT)	ADVANCED OPTICAL SPECIFICATIONS		COAXIAL LIGHT				
	Mag. (x)	Image size (mm x mm) 1	Max sensor size	Maximum (mm x mm) 2	wf/N 3	DOF 4	Power supply mode	Supply voltage (V) 5	Max continuous current (mA)	Max pulse current (A)	Peak power consumption (W)
TCCAGE12048	0.134	6.4 x 4.8	1/2"	8.0 x 32.0	8	23.1	Continuous, strobe constant current driving	24	280	3	6.7
TCCAGE23048	0.184	8.5 x 7.1	2/3"	8.0 x 32.0	8	12.2		24	280	3	6.7
TCCAGE2MHR048-C	0.267	14.2 x 7.5	1"	8.0 x 28.1	16	11.6		24	280	3	6.7
TCCAGE3MHR048-C	0.303	14.2 x 10.4	1.1"	8.0 x 32.0	16	9.0		24	280	3	6.7
TCCAGE12096	0.068	6.4 x 4.8	1/2"	16.0 x 68.0	8	89.5		24	620	6	14.9
TCCAGE23096	0.093	8.5 x 7.1	2/3"	16.0 x 68.0	8	47.9		24	620	6	14.9
TCCAGE2MHR096-C	0.136	14.2 x 7.5	1"	16.0 x 55.1	16	44.8		24	620	6	14.9
TCCAGE3MHR096-C	0.153	14.2 x 10.4	1.1"	16.0 x 68.0	16	35.4		24	620	6	14.9
TCCAGE4MHR096-C	0.186	18.1 x 13.6	4/3"	16.0 x 68.0	16	23.9		24	620	6	14.9
TCCAGE12048HP	0.134	6.4 x 4.8	1/2"	8.0 x 32.0	8	23.1	Strobe only, constant current driving	-	-	6	180.0
TCCAGE23048HP	0.184	8.5 x 7.1	2/3"	8.0 x 32.0	8	12.2		-	-	6	180.0
TCCAGE2MHR048HP-C	0.267	14.2 x 7.5	1"	8.0 x 28.1	16	11.6		-	-	6	180.0
TCCAGE3MHR048HP-C	0.303	14.2 x 10.4	1.1"	8.0 x 32.0	16	9.0		-	-	6	180.0
TCCAGE12096HP	0.068	6.4 x 4.8	1/2"	16.0 x 68.0	8	89.5		-	-	10	300.0
TCCAGE23096HP	0.093	8.5 x 7.1	2/3"	16.0 x 68.0	8	47.9		-	-	10	300.0
TCCAGE2MHR096HP-C	0.136	14.2 x 7.5	1"	16.0 x 55.1	16	44.8		-	-	10	300.0
TCCAGE3MHR096HP-C	0.153	14.2 x 10.4	1.1"	16.0 x 68.0	16	35.4		-	-	10	300.0
TCCAGE4MHR096HP-C	0.186	18.1 x 13.6	4/3"	16.0 x 68.0	16	23.9		-	-	10	300.0

Last update 17/01/2023

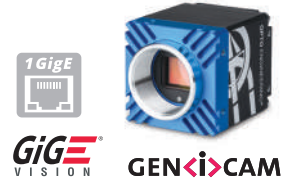
- 1 Recommended sensor. Different sensor sizes may generate incomplete images.
- 2 Maximum sample diameter in each of the four views and maximum sample height with the recommended sensor.
- 3 Working f-number (wf/N): the real f-number of a lens in operating conditions. Lenses with reduced aperture can be supplied on request.

- 4 At the limits of the depth of field, the image can still be used for measurements. For a very sharp image, however, only half of the depth of field should be considered. Pixel size used for calculation is 3.45 µm.
- 5 Tolerance ± 2%.
- 6 Indicates the availability of an integrated camera phase adjustment feature.



MULTI-VIEW

Part number	RING LIGHT					MECHANICAL SPECIFICATIONS				
	Power supply mode	Supply voltage (V) 5	Max continuous current (mA)	Max pulse current (A)	Peak power consumption (W)	Mount	Phase adj. availability	Length (mm) 6	Width (mm)	Height (mm)
TCCAGE12048	Continuous, strobe constant current driving	24	105	0.32	2.5	C	Yes	200.8	111.0	228.3
TCCAGE23048		24	105	0.32	2.5	C	Yes	200.8	111.0	248.0
TCCAGE2MHR048-C		24	105	0.32	2.5	C	Yes	200.8	111.0	281.0
TCCAGE3MHR048-C		24	105	0.32	2.5	C	Yes	200.8	111.0	270.7
TCCAGE12096		24	90	0.27	2.2	C	Yes	347.0	179.0	404.4
TCCAGE23096		24	90	0.27	2.2	C	Yes	347.0	179.0	424.1
TCCAGE2MHR096-C		24	90	0.27	2.2	C	Yes	347.0	179.0	452.5
TCCAGE3MHR096-C		24	90	0.27	2.2	C	Yes	347.0	179.0	441.1
TCCAGE4MHR096-C		24	90	0.27	2.2	C	Yes	347.0	179.0	461.9
TCCAGE12048HP	Strobe only, constant current driving	-	-	2	40	C	Yes	200.8	111.0	228.3
TCCAGE23048HP		-	-	2	40	C	Yes	200.8	111.0	248.0
TCCAGE2MHR048HP-C		-	-	2	40	C	Yes	200.8	111.0	281.0
TCCAGE3MHR048HP-C		-	-	2	40	C	Yes	200.8	111.0	270.7
TCCAGE12096HP		-	-	10	280	C	Yes	347.0	179.0	404.4
TCCAGE23096HP		-	-	10	280	C	Yes	347.0	179.0	424.1
TCCAGE2MHR096HP-C		-	-	10	280	C	Yes	347.0	179.0	452.5
TCCAGE3MHR096HP-C		-	-	10	280	C	Yes	347.0	179.0	441.1
TCCAGE4MHR096HP-C		-	-	10	280	C	Yes	347.0	179.0	461.9



ITALA G series

Industrial GigE vision PoE cameras

Sensor format 1/2.9"-APS-C • Resolution 0.4-31.5 MP

Part number	SENSOR SPECIFICATIONS								CAMERA SPECIFICATIONS			MECHANICAL SPECIFICATIONS
	Megapixel	Resolution	Sensor format	Pixel size (µm)	Sensor model	Sensor type	Shutter	Chroma	Filter	Frame rate (fps) ¹	Data interface	Mount
ITA04-GM-10C	0.4	728 x 544	1/2.9"	6.90	IMX287	CMOS	Global	Mono	AR glass	296.5	1 GigE	C
ITA04-GC-10C	0.4	728 x 544	1/2.9"	6.90	IMX287	CMOS	Global	Color	IR cut	296.5	1 GigE	C
ITA16-GM-10C	1.6	1456 x 1088	1/2.9"	3.45	IMX273	CMOS	Global	Mono	AR glass	74.2	1 GigE	C
ITA16-GC-10C	1.6	1456 x 1088	1/2.9"	3.45	IMX273	CMOS	Global	Color	IR cut	74.2	1 GigE	C
ITA23-GM-10C	2.4	1936 x 1216	1/1.2"	5.86	IMX249	CMOS	Global	Mono	AR glass	41.1	1 GigE	C
ITA23-GC-10C	2.4	1936 x 1216	1/1.2"	5.86	IMX249	CMOS	Global	Color	IR cut	41.1	1 GigE	C
ITA24-GM-10C	2.4	1936 x 1216	1/2.3"	3.45	IMX392	CMOS	Global	Mono	AR glass	49.9	1 GigE	C
ITA24-GC-10C	2.4	1936 x 1216	1/2.3"	3.45	IMX392	CMOS	Global	Color	IR cut	49.9	1 GigE	C
ITA32-GM-10C	3.2	2064 x 1544	1/1.8"	3.45	IMX265	CMOS	Global	Mono	AR glass	36.9	1 GigE	C
ITA32-GC-10C	3.2	2064 x 1544	1/1.8"	3.45	IMX265	CMOS	Global	Color	IR cut	36.9	1 GigE	C
ITA50-GM-10C	5.0	2464 x 2056	2/3"	3.45	IMX264	CMOS	Global	Mono	AR glass	23.2	1 GigE	C
ITA50-GC-10C	5.0	2464 x 2056	2/3"	3.45	IMX264	CMOS	Global	Color	IR cut	23.2	1 GigE	C
ITA50-GM-10C-PL	5.0	2464 x 2056	2/3"	3.45	IMX264	CMOS	Global	Polar Mono	AR glass	23.2	1 GigE	C
ITA50-GC-10C-PL	5.0	2464 x 2056	2/3"	3.45	IMX264	CMOS	Global	Polar Color	IR cut	23.2	1 GigE	C
ITA51-GM-20C	5.1	2472 x 2064	1/1.8"	2.74	IMX547	CMOS	Global	Mono	AR glass	23.0	1 GigE	C
ITA51-GC-20C	5.1	2472 x 2064	1/1.8"	2.74	IMX547	CMOS	Global	Color	IR cut	23.0	1 GigE	C
ITA81-GM-20C	8.1	2856 x 2848	2/3"	2.74	IMX546	CMOS	Global	Mono	AR glass	14.4	1 GigE	C
ITA81-GC-20C	8.1	2856 x 2848	2/3"	2.74	IMX546	CMOS	Global	Color	IR cut	14.4	1 GigE	C
ITA89-GM-10C	8.9	4112 x 2176	1"	3.45	IMX267	CMOS	Global	Mono	AR glass	13.1	1 GigE	C
ITA89-GC-10C	8.9	4112 x 2176	1"	3.45	IMX267	CMOS	Global	Color	IR cut	13.1	1 GigE	C
ITA120-GM-10C	12.3	4112 x 3008	1.1"	3.45	IMX304	CMOS	Global	Mono	AR glass	9.5	1 GigE	C
ITA120-GC-10C	12.3	4112 x 3008	1.1"	3.45	IMX304	CMOS	Global	Color	IR cut	9.5	1 GigE	C
ITA120-GM-11C-PL	12.3	4112 x 3008	1.1"	3.45	IMX253	CMOS	Global	Polar Mono	AR glass	9.5	1 GigE	C
ITA120-GC-11C-PL	12.3	4112 x 3008	1.1"	3.45	IMX253	CMOS	Global	Polar Color	IR cut	9.5	1 GigE	C
ITA124-GM-20C	12.4	4128 x 3008	1/1.1"	2.74	IMX545	CMOS	Global	Mono	AR glass	9.5	1 GigE	C
ITA124-GC-20C	12.4	4128 x 3008	1/1.1"	2.74	IMX545	CMOS	Global	Color	IR cut	9.5	1 GigE	C
ITA162-GM-20C	16.2	5328 x 3040	1.1"	2.74	IMX542	CMOS	Global	Mono	AR glass	7.3	1 GigE	C
ITA162-GC-20C	16.2	5328 x 3040	1.1"	2.74	IMX542	CMOS	Global	Color	IR cut	7.3	1 GigE	C
ITA168-GM-10J	16.8	5472 x 3084	4/3"	3.45	IMX387	CMOS	Global	Mono	AR glass	7.0	1 GigE	M42x1 FD 12
ITA168-GC-10J	16.8	5472 x 3084	4/3"	3.45	IMX387	CMOS	Global	Color	IR cut	7.0	1 GigE	M42x1 FD 12
ITA196-GM-10J	19.6	4432 x 4436	4/3"	3.45	IMX367	CMOS	Global	Mono	AR glass	6.0	1 GigE	M42x1 FD 12
ITA196-GC-10J	19.6	4432 x 4436	4/3"	3.45	IMX367	CMOS	Global	Color	IR cut	6.0	1 GigE	M42x1 FD 12
ITA204-GM-20C	20.4	4512 x 4512	1.1"	2.74	IMX541	CMOS	Global	Mono	AR glass	5.8	1 GigE	C
ITA204-GC-20C	20.4	4512 x 4512	1.1"	2.74	IMX541	CMOS	Global	Color	IR cut	5.8	1 GigE	C
ITA246-GM-20C	24.6	5328 x 4608	1.2"	2.74	IMX540	CMOS	Global	Mono	AR glass	4.8	1 GigE	C
ITA246-GC-20C	24.6	5328 x 4608	1.2"	2.74	IMX540	CMOS	Global	Color	IR cut	4.8	1 GigE	C
ITA315-GM-10J	31.5	6480 x 4860	APS-C	3.45	IMX342	CMOS	Global	Mono	AR glass	3.7	1 GigE	M42x1 FD 12
ITA315-GC-10J	31.5	6480 x 4860	APS-C	3.45	IMX342	CMOS	Global	Color	IR cut	3.7	1 GigE	M42x1 FD 12

Last update 23/07/2024

¹ Color-model's fps are calculated using BayerRG8 pixel format.



ITALA G.SWIR series

Industrial GigE vision VIS-SWIR PoE cameras

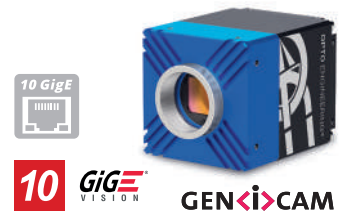
NEW

Sensor format 1.2" • Resolution 1.3 MP

Part number	SENSOR SPECIFICATIONS								CAMERA SPECIFICATIONS			MECHANICAL SPECIFICATIONS
	Megapixel	Resolution	Sensor format	Pixel size (µm)	Sensor model	Sensor type	Shutter	Chroma	Filter	Frame rate (fps)	Data interface	Mount
ITA13-GM-10C-SWIR	1.3	1296 x 1032	1/2"	5.00	IMX990	CMOS	Global	VIS-SWIR	AR glass	87.8	1 GigE	C

Last update 05/08/2024

Dual use product subject to export control.



ITALA 10G series

Industrial 10GigE vision PoE cameras

NEW

Sensor format 1/1.8"-APS-C • Resolution 5.1-31.5 MP

Part number	SENSOR SPECIFICATIONS								CAMERA SPECIFICATIONS			MECHANICAL SPECIFICATIONS
	Megapixel	Resolution	Sensor format	Pixel size (µm)	Sensor model	Sensor type	Shutter	Chroma	Filter	Frame rate (fps) ¹	Data interface	Mount
ITA51-10GM-20C	5.1	2472 x 2064	1/1.8"	2.74	IMX537	CMOS	Global	Mono	AR glass	231.2	10 GigE	C
ITA51-10GC-20C	5.1	2472 x 2064	1/1.8"	2.74	IMX537	CMOS	Global	Color	IR cut	231.2	10 GigE	C
ITA81-10GM-20C	8.1	2856 x 2848	2/3"	2.74	IMX536	CMOS	Global	Mono	AR glass	144.8	10 GigE	C
ITA81-10GC-20C	8.1	2856 x 2848	2/3"	2.74	IMX536	CMOS	Global	Color	IR cut	144.8	10 GigE	C
ITA124-10GM-20C	12.4	4128 x 3008	1/1.1"	2.74	IMX535	CMOS	Global	Mono	AR glass	94.6	10 GigE	C
ITA124-10GC-20C	12.4	4128 x 3008	1/1.1"	2.74	IMX535	CMOS	Global	Color	IR cut	94.6	10 GigE	C
ITA162-10GM-20C	16.2	5328 x 3040	1.1"	2.74	IMX532	CMOS	Global	Mono	AR glass	72.5	10 GigE	C
ITA162-10GC-20C	16.2	5328 x 3040	1.1"	2.74	IMX532	CMOS	Global	Color	IR cut	72.5	10 GigE	C
ITA168-10GM-10J	16.8	5472 x 3084	4/3"	3.45	IMX387	CMOS	Global	Mono	AR glass	39.7	10 GigE	M42x1 FD 12
ITA168-10GC-10J	16.8	5472 x 3084	4/3"	3.45	IMX387	CMOS	Global	Color	IR cut	39.7	10 GigE	M42x1 FD 12
ITA196-10GM-10J	19.6	4432 x 4436	4/3"	3.45	IMX367	CMOS	Global	Mono	AR glass	34.0	10 GigE	M42x1 FD 12
ITA196-10GC-10J	19.6	4432 x 4436	4/3"	3.45	IMX367	CMOS	Global	Color	IR cut	34.0	10 GigE	M42x1 FD 12
ITA204-10GM-20C	20.4	4512 x 4512	1.1"	2.74	IMX531	CMOS	Global	Mono	AR glass	57.7	10 GigE	C
ITA204-10GC-20C	20.4	4512 x 4512	1.1"	2.74	IMX531	CMOS	Global	Color	IR cut	57.7	10 GigE	C
ITA246-10GM-20C	24.6	5328 x 4608	1.2"	2.74	IMX530	CMOS	Global	Mono	AR glass	47.9	10 GigE	C
ITA246-10GC-20C	24.6	5328 x 4608	1.2"	2.74	IMX530	CMOS	Global	Color	IR cut	47.9	10 GigE	C
ITA315-10GM-10J	31.5	6480 x 4860	APS-C	3.45	IMX342	CMOS	Global	Mono	AR glass	21.7	10 GigE	M42x1 FD 12
ITA315-10GC-10J	31.5	6480 x 4860	APS-C	3.45	IMX342	CMOS	Global	Color	IR cut	21.7	10 GigE	M42x1 FD 12

Last update 17/09/2024

¹ Color-model's fps are calculated using BayerRG8 pixel format.



ITALA G.EL series

Industrial GigE vision PoE cameras with liquid lens control

Sensor format 1/2.9" - 1.2" • Resolution 1.6-24.6 MP

Part number	SENSOR SPECIFICATIONS								CAMERA SPECIFICATIONS			MECHANICAL SPECIFICATIONS
	Megapixel	Resolution	Sensor format	Pixel size (µm)	Sensor model	Sensor type	Shutter	Chroma	Filter	Frame rate (fps) ¹	Data interface	Mount
ITA16-GM-10C-EL	1.6	1456 x 1088	1/2.9"	3.45	IMX273	CMOS	Global	Mono	AR glass	74.2	1 GigE	C
ITA16-GC-10C-EL	1.6	1456 x 1088	1/2.9"	3.45	IMX273	CMOS	Global	Color	IR cut	74.2	1 GigE	C
ITA23-GM-10C-EL	2.4	1936 x 1216	1/1.2"	5.86	IMX249	CMOS	Global	Mono	AR glass	41.1	1 GigE	C
ITA23-GC-10C-EL	2.4	1936 x 1216	1/1.2"	5.86	IMX249	CMOS	Global	Color	IR cut	41.1	1 GigE	C
ITA24-GM-10C-EL	2.4	1936 x 1216	1/2.3"	3.45	IMX392	CMOS	Global	Mono	AR glass	49.9	1 GigE	C
ITA24-GC-10C-EL	2.4	1936 x 1216	1/2.3"	3.45	IMX392	CMOS	Global	Color	IR cut	49.9	1 GigE	C
ITA32-GM-10C-EL	3.2	2064 x 1544	1/1.8"	3.45	IMX265	CMOS	Global	Mono	AR glass	36.9	1 GigE	C
ITA32-GC-10C-EL	3.2	2064 x 1544	1/1.8"	3.45	IMX265	CMOS	Global	Color	IR cut	36.9	1 GigE	C
ITA50-GM-10C-EL	5.0	2464 x 2056	2/3"	3.45	IMX264	CMOS	Global	Mono	AR glass	23.2	1 GigE	C
ITA50-GC-10C-EL	5.0	2464 x 2056	2/3"	3.45	IMX264	CMOS	Global	Color	IR cut	23.2	1 GigE	C
ITA51-GM-20C-EL	5.1	2472 x 2064	1/1.8"	2.74	IMX547	CMOS	Global	Mono	AR glass	23.0	1 GigE	C
ITA51-GC-20C-EL	5.1	2472 x 2064	1/1.8"	2.74	IMX547	CMOS	Global	Color	IR cut	23.0	1 GigE	C
ITA81-GM-20C-EL	8.1	2856 x 2848	2/3"	2.74	IMX546	CMOS	Global	Mono	AR glass	14.4	1 GigE	C
ITA81-GC-20C-EL	8.1	2856 x 2848	2/3"	2.74	IMX546	CMOS	Global	Color	IR cut	14.4	1 GigE	C
ITA89-GM-10C-EL	8.9	4112 x 2176	1"	3.45	IMX267	CMOS	Global	Mono	AR glass	13.1	1 GigE	C
ITA89-GC-10C-EL	8.9	4112 x 2176	1"	3.45	IMX267	CMOS	Global	Color	IR cut	13.1	1 GigE	C
ITA120-GM-10C-EL	12.3	4112 x 3008	1.1"	3.45	IMX304	CMOS	Global	Mono	AR glass	9.5	1 GigE	C
ITA120-GC-10C-EL	12.3	4112 x 3008	1.1"	3.45	IMX304	CMOS	Global	Color	IR cut	9.5	1 GigE	C
ITA124-GM-20C-EL	12.4	4128 x 3008	1/1.1"	2.74	IMX545	CMOS	Global	Mono	AR glass	9.5	1 GigE	C
ITA124-GC-20C-EL	12.4	4128 x 3008	1/1.1"	2.74	IMX545	CMOS	Global	Color	IR cut	9.5	1 GigE	C
ITA162-GM-20C-EL	16.2	5328 x 3040	1.1"	2.74	IMX542	CMOS	Global	Mono	AR glass	7.3	1 GigE	C
ITA162-GC-20C-EL	16.2	5328 x 3040	1.1"	2.74	IMX542	CMOS	Global	Color	IR cut	7.3	1 GigE	C
ITA204-GM-20C-EL	20.4	4512 x 4512	1.1"	2.74	IMX541	CMOS	Global	Mono	AR glass	5.8	1 GigE	C
ITA204-GC-20C-EL	20.4	4512 x 4512	1.1"	2.74	IMX541	CMOS	Global	Color	IR cut	5.8	1 GigE	C
ITA246-GM-20C-EL	24.6	5328 x 4608	1.2"	2.74	IMX540	CMOS	Global	Mono	AR glass	4.8	1 GigE	C
ITA246-GC-20C-EL	24.6	5328 x 4608	1.2"	2.74	IMX540	CMOS	Global	Color	IR cut	4.8	1 GigE	C

Last update 23/07/2024

¹ Color-model's fps are calculated using BayerRG8 pixel format.



ITALA G.IP

Dustproof & water resistant GigE vision PoE cameras made in Italy

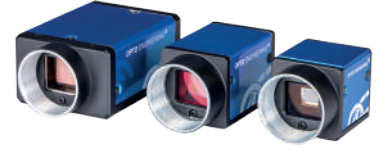
Sensor format 1/2.9-1.2" • Resolution 0.4-24.6 MP

NEW

Part number	SENSOR SPECIFICATIONS								CAMERA SPECIFICATIONS			MECHANICAL SPECIFICATIONS
	Megapixel	Resolution	Sensor format	Pixel size (µm)	Sensor model	Sensor type	Shutter	Chroma	Filter	Frame rate (fps) ¹	Data interface	Mount
ITA04-GM-10C-IP	0.4	728 x 544	1/2.9"	6.90	IMX287	CMOS	Global	Mono	AR glass	296.5	1 GigE	C
ITA04-GC-10C-IP	0.4	728 x 544	1/2.9"	6.90	IMX287	CMOS	Global	Color	IR cut	296.5	1 GigE	C
ITA16-GM-10C-IP	1.6	1456 x 1088	1/2.9"	3.45	IMX273	CMOS	Global	Mono	AR glass	74.2	1 GigE	C
ITA16-GC-10C-IP	1.6	1456 x 1088	1/2.9"	3.45	IMX273	CMOS	Global	Color	IR cut	74.2	1 GigE	C
ITA23-GM-10C-IP	2.4	1936 x 1216	1/1.2"	5.86	IMX249	CMOS	Global	Mono	AR glass	41.1	1 GigE	C
ITA23-GC-10C-IP	2.4	1936 x 1216	1/1.2"	5.86	IMX249	CMOS	Global	Color	IR cut	41.1	1 GigE	C
ITA24-GM-10C-IP	2.4	1936 x 1216	1/2.3"	3.45	IMX392	CMOS	Global	Mono	AR glass	49.9	1 GigE	C
ITA24-GC-10C-IP	2.4	1936 x 1216	1/2.3"	3.45	IMX392	CMOS	Global	Color	IR cut	49.9	1 GigE	C
ITA32-GM-10C-IP	3.2	2064 x 1544	1/1.8"	3.45	IMX265	CMOS	Global	Mono	AR glass	36.9	1 GigE	C
ITA32-GC-10C-IP	3.2	2064 x 1544	1/1.8"	3.45	IMX265	CMOS	Global	Color	IR cut	36.9	1 GigE	C
ITA50-GM-10C-IP	5.0	2464 x 2056	2/3"	3.45	IMX264	CMOS	Global	Mono	AR glass	23.2	1 GigE	C
ITA50-GC-10C-IP	5.0	2464 x 2056	2/3"	3.45	IMX264	CMOS	Global	Color	IR cut	23.2	1 GigE	C
ITA51-GM-20C-IP	5.1	2472 x 2064	1/1.8"	2.74	IMX547	CMOS	Global	Mono	AR glass	23.0	1 GigE	C
ITA51-GC-20C-IP	5.1	2472 x 2064	1/1.8"	2.74	IMX547	CMOS	Global	Color	IR cut	23.0	1 GigE	C
ITA81-GM-20C-IP	8.1	2856 x 2848	2/3"	2.74	IMX546	CMOS	Global	Mono	AR glass	14.4	1 GigE	C
ITA81-GC-20C-IP	8.1	2856 x 2848	2/3"	2.74	IMX546	CMOS	Global	Color	IR cut	14.4	1 GigE	C
ITA89-GM-10C-IP	8.9	4112 x 2176	1"	3.45	IMX267	CMOS	Global	Mono	AR glass	13.1	1 GigE	C
ITA89-GC-10C-IP	8.9	4112 x 2176	1"	3.45	IMX267	CMOS	Global	Color	IR cut	13.1	1 GigE	C
ITA120-GM-10C-IP	12.3	4112 x 3008	1.1"	3.45	IMX304	CMOS	Global	Mono	AR glass	9.5	1 GigE	C
ITA120-GC-10C-IP	12.3	4112 x 3008	1.1"	3.45	IMX304	CMOS	Global	Color	IR cut	9.5	1 GigE	C
ITA124-GM-20C-IP	12.4	4128 x 3008	1/1.1"	2.74	IMX545	CMOS	Global	Mono	AR glass	9.5	1 GigE	C
ITA124-GC-20C-IP	12.4	4128 x 3008	1/1.1"	2.74	IMX545	CMOS	Global	Color	IR cut	9.5	1 GigE	C
ITA162-GM-20C-IP	16.2	5328 x 3040	1.1"	2.74	IMX542	CMOS	Global	Mono	AR glass	7.3	1 GigE	C
ITA162-GC-20C-IP	16.2	5328 x 3040	1.1"	2.74	IMX542	CMOS	Global	Color	IR cut	7.3	1 GigE	C
ITA204-GM-20C-IP	20.4	4512 x 4512	1.1"	2.74	IMX541	CMOS	Global	Mono	AR glass	5.8	1 GigE	C
ITA204-GC-20C-IP	20.4	4512 x 4512	1.1"	2.74	IMX541	CMOS	Global	Color	IR cut	5.8	1 GigE	C
ITA246-GM-20C-IP	24.6	5328 x 4608	1.2"	2.74	IMX540	CMOS	Global	Mono	AR glass	4.8	1 GigE	C
ITA246-GC-20C-IP	24.6	5328 x 4608	1.2"	2.74	IMX540	CMOS	Global	Color	IR cut	4.8	1 GigE	C

Last update 17/06/2024

¹ Color-model's fps are calculated using BayerRG8 pixel format.



COE U series

GeniCam® C-mount USB3 cameras

Sensor format 1/2.9" - 1.1" • Resolution 1.3- 20.4 MP

Part number	SENSOR SPECIFICATIONS								CAMERA SPECIFICATIONS			MECHANICAL SPECIFICATIONS
	Megapixel	Resolution	Sensor format	Pixel size (µm)	Sensor model	Sensor type	Shutter	Chroma	Filter	Frame rate (fps) ¹	Data interface	Mount
COE-013-M-USB-040-IR-C	1.3	1280 x 1024	1/2"	4.8	-	CMOS	Global	Mono	AR	201.0	USB 3.0	C
COE-013-C-USB-040-IR-C	1.3	1280 x 1024	1/2"	4.8	-	CMOS	Global	Color	IR cut	67.0	USB 3.0	C
COE-016-M-USB-030-IR-C	1.6	1440 x 1080	1/2.9"	3.5	IMX273	CMOS	Global	Mono	AR	249.1	USB 3.0	C
COE-016-C-USB-030-IR-C	1.6	1440 x 1080	1/2.9"	3.5	IMX273	CMOS	Global	Color	IR cut	83.0	USB 3.0	C
COE-023-M-USB-060-IR-C	2.3	1920 x 1200	1/1.2"	5.9	IMX249	CMOS	Global	Mono	AR	41.0	USB 3.0	C
COE-023-C-USB-060-IR-C	2.3	1920 x 1200	1/1.2"	5.9	IMX249	CMOS	Global	Color	IR cut	13.3	USB 3.0	C
COE-050-M-USB-070-IR-C	5.0	2448 x 2048	2/3"	3.45	IMX264	CMOS	Global	Mono	AR	60.0	USB 3.0	C
COE-050-C-USB-070-IR-C	5.0	2448 x 2048	2/3"	3.45	IMX264	CMOS	Global	Color	IR cut	20.0	USB 3.0	C
COE-089-M-USB-070-IR-C	8.8	4096 x 2160	1"	3.45	IMX267	CMOS	Global	Mono	AR	32.2	USB 3.0	C
COE-089-C-USB-070-IR-C	8.8	4096 x 2160	1"	3.45	IMX267	CMOS	Global	Color	IR cut	10.7	USB 3.0	C
COE-123-M-USB-090-IR-C	12.3	4096 x 3000	1.1"	3.45	IMX304	CMOS	Global	Mono	AR	30.3	USB 3.0	C
COE-123-C-USB-090-IR-C	12.3	4096 x 3000	1.1"	3.45	IMX304	CMOS	Global	Color	IR cut	10.1	USB 3.0	C
COE-200-M-USB-080-IR-C	20.4	5472 x 3648	1"	2.40	IMX183	CMOS	Rolling	Mono	AR	19.2	USB 3.0	C
COE-200-C-USB-080-IR-C	20.4	5472 x 3648	1"	2.40	IMX183	CMOS	Rolling	Color	IR cut	6.4	USB 3.0	C

Last update 26/07/2023

¹ Color-model's fps are calculated using RGB8 pixel format.



COE LS-X series

4K GigE Vision line scan cameras

Sensor format 28.7 mm • Resolution 4K MP

Part number	SENSOR SPECIFICATIONS								CAMERA SPECIFICATIONS			MECHANICAL SPECIFICATIONS
	Resolution	Sensor format	Pixel size (µm)	Line length (mm)	Sensor model	Sensor type	Shutter	Chroma	Line rate (kHz)	Data interface	Power supply (V)	Mount
COE-4K-M-POE-010-J	4096 x 2	4K	7	28.7	GL0402	CMOS	Global	Mono	28.0	1 GigE	12-24, PoE	M42x1 FD 12
COE-4K-C-POE-010-J	4096 x 2	4K	7	28.7	GL0402	CMOS	Global	Color	19.0	1 GigE	12-24, PoE	M42x1 FD 12

Last update 26/07/2023



LTCLHP series

High-performance telecentric illuminators

TELECENTRIC LIGHT • COLLIMATED

Part number	LIGHTING SPECIFICATIONS			ELECTRICAL SPECIFICATIONS		MECHANICAL SPECIFICATIONS	
	Beam diameter (mm)	Working distance range (mm)	Light color, peak wavelength	Supply voltage (V)	Max power consumption (W)	Length (mm)	Outer diameter (mm)
			1	2		3	
LTCLHP 023-R	16	45 - 90	red, 625 nm	12-24	3	96.8	28.0
LTCLHP 023-G	16	45 - 90	green, 525 nm	12-24	3	96.8	28.0
LTCLHP 023-B	16	45 - 90	blue, 460 nm	12-24	3	96.8	28.0
LTCLHP 023-W	16	45 - 90	white, 6000 K	12-24	3	96.8	28.0
LTCLHP 016-R	20	35 - 70	red, 625 nm	12-24	3	99.9	37.7
LTCLHP 016-G	20	35 - 70	green, 525 nm	12-24	3	99.9	37.7
LTCLHP 016-B	20	35 - 70	blue, 460 nm	12-24	3	99.9	37.7
LTCLHP 016-W	20	35 - 70	white, 6000 K	12-24	3	99.9	37.7
LTCLHP 024-R	30	45 - 90	red, 625 nm	12-24	3	124.7	44.0
LTCLHP 024-G	30	45 - 90	green, 525 nm	12-24	3	124.7	44.0
LTCLHP 024-B	30	45 - 90	blue, 460 nm	12-24	3	124.7	44.0
LTCLHP 024-W	30	45 - 90	white, 6000 K	12-24	3	124.7	44.0
LTCLHP 036-R	45	70 - 140	red, 625 nm	12-24	3	152.1	61.0
LTCLHP 036-G	45	70 - 140	green, 525 nm	12-24	3	152.1	61.0
LTCLHP 036-B	45	70 - 140	blue, 460 nm	12-24	3	152.1	61.0
LTCLHP 036-W	45	70 - 140	white, 6000 K	12-24	3	152.1	61.0
LTCLHP 048-R	60	90 - 180	red, 625 nm	12-24	3	186.7	75.0
LTCLHP 048-G	60	90 - 180	green, 525 nm	12-24	3	186.7	75.0
LTCLHP 048-B	60	90 - 180	blue, 460 nm	12-24	3	186.7	75.0
LTCLHP 048-W	60	90 - 180	white, 6000 K	12-24	3	186.7	75.0
LTCLHP 056-R	70	100 - 200	red, 625 nm	12-24	3	210.5	80.0
LTCLHP 056-G	70	100 - 200	green, 525 nm	12-24	3	210.5	80.0
LTCLHP 056-B	70	100 - 200	blue, 460 nm	12-24	3	210.5	80.0
LTCLHP 056-W	70	100 - 200	white, 6000 K	12-24	3	210.5	80.0
LTCLHP 064-R	80	120 - 240	red, 625 nm	12-24	3	231.6	100.0
LTCLHP 064-G	80	120 - 240	green, 525 nm	12-24	3	231.6	100.0
LTCLHP 064-B	80	120 - 240	blue, 460 nm	12-24	3	231.6	100.0
LTCLHP 064-W	80	120 - 240	white, 6000 K	12-24	3	231.6	100.0
LTCLHP 080-R	100	150 - 300	red, 625 nm	12-24	3	277.3	116.0
LTCLHP 080-G	100	150 - 300	green, 525 nm	12-24	3	277.3	116.0
LTCLHP 080-B	100	150 - 300	blue, 460 nm	12-24	3	277.3	116.0
LTCLHP 080-W	100	150 - 300	white, 6000 K	12-24	3	277.3	116.0
LTCLHP 096-R	120	200 - 350	red, 625 nm	12-24	3	322.8	143.0
LTCLHP 096-G	120	200 - 350	green, 525 nm	12-24	3	322.8	143.0
LTCLHP 096-B	120	200 - 350	blue, 460 nm	12-24	3	322.8	143.0
LTCLHP 096-W	120	200 - 350	white, 6000 K	12-24	3	322.8	143.0
LTCLHP 120-R	150	220 - 440	red, 625 nm	12-24	3	408.4	180.0
LTCLHP 120-G	150	220 - 440	green, 525 nm	12-24	3	408.4	180.0
LTCLHP 120-W	150	220 - 440	white, 6000 K	12-24	3	408.4	180.0
LTCLHP 144-R	180	270 - 540	red, 625 nm	12-24	3	467.9	200.0
LTCLHP 144-G	180	270 - 540	green, 525 nm	12-24	3	467.9	200.0
LTCLHP 192-R	250	350 - 700	red, 625 nm	12-24	3	608.3	260.0
LTCLHP 192-G	250	350 - 700	green, 525 nm	12-24	3	608.3	260.0
LTCLHP 192-W	250	350 - 700	white, 6000 K	12-24	3	608.3	260.0
LTCLHP 240-R	300	350 - 700	red, 625 nm	12-24	3	770.0	322.0
LTCLHP 240-G	300	350 - 700	green, 525 nm	12-24	3	770.0	322.0
LTCLHP 308-G	380	650-1000	green, 525 nm	12-24	3	938.5	417.0

Last update 05/09/2024

1 Opto Engineering® recommends green light for high precision measurement applications.

2 Tolerance ± 10%.

3 Nominal value, with no spacers in place.



LTCLHP CORE series

Compact telecentric illuminators

TELECENTRIC LIGHT • COLLIMATED

Part number	LIGHTING SPECIFICATIONS			ELECTRICAL SPECIFICATIONS		MECHANICAL SPECIFICATIONS		
	Beam diameter (mm)	Working distance range (mm)	Light color, peak wavelength	Supply voltage (V)	Max power consumption (W)	A (mm)	B (mm)	C (mm)
	1		2	3				4
LTCLCR 048-R	∅ = 56, x = 50	90 - 180	red, 625 nm	12-24	3	76.9	106.0	117.1
LTCLCR 048-G	∅ = 56, x = 50	90 - 180	green, 525 nm	12-24	3	76.9	106.0	117.1
LTCLCR 048-W	∅ = 56, x = 50	90 - 180	white, 6000 K	12-24	3	76.9	106.0	117.1
LTCLCR 056-R	∅ = 74, x = 66	100 - 200	red, 625 nm	12-24	3	93.6	110.0	126.6
LTCLCR 056-G	∅ = 74, x = 66	100 - 200	green, 525 nm	12-24	3	93.6	110.0	127.1
LTCLCR 056-W	∅ = 74, x = 66	100 - 200	white, 6000 K	12-24	3	93.6	110.0	130.1
LTCLCR 064-R	∅ = 86, x = 67	120 - 240	red, 625 nm	12-24	3	100.5	122.0	134.7
LTCLCR 064-G	∅ = 86, x = 67	120 - 240	green, 525 nm	12-24	3	100.5	122.0	134.7
LTCLCR 064-B	∅ = 86, x = 67	120 - 240	blue, 460 nm	12-24	3	100.5	122.0	134.7
LTCLCR 064-W	∅ = 86, x = 67	120 - 240	white, 6000 K	12-24	3	100.5	122.0	133.7
LTCLCR 080-R	∅ = 98, x = 90	150 - 300	red, 625 nm	12-24	3	118.9	145.0	158.4
LTCLCR 080-G	∅ = 98, x = 90	150 - 300	green, 525 nm	12-24	3	118.9	145.0	158.4
LTCLCR 080-B	∅ = 98, x = 90	150 - 300	blue, 460 nm	12-24	3	118.9	145.0	158.4
LTCLCR 080-W	∅ = 98, x = 90	150 - 300	white, 6000 K	12-24	3	118.9	145.0	158.4
LTCLCR 096-R	∅ = 120, x = 99	200 - 350	red, 625 nm	12-24	3	139.0	171.9	182.9
LTCLCR 096-G	∅ = 120, x = 99	200 - 350	green, 525 nm	12-24	3	139.0	171.9	182.9
LTCLCR 096-B	∅ = 120, x = 99	200 - 350	blue, 460 nm	12-24	3	139.0	171.9	182.9
LTCLCR 096-W	∅ = 120, x = 99	200 - 350	white, 6000 K	12-24	3	139.0	171.9	182.9
LTCLCR 120-R	∅ = 156, x = 130	220 - 440	red, 625 nm	12-24	3	181.4	220.0	230.6
LTCLCR 120-G	∅ = 156, x = 130	220 - 440	green, 525 nm	12-24	3	181.4	220.0	230.6
LTCLCR 120-B	∅ = 156, x = 130	220 - 440	blue, 460 nm	12-24	3	181.4	220.0	230.6
LTCLCR 120-W	∅ = 156, x = 130	220 - 440	white, 6000 K	12-24	3	181.4	200.0	230.6

Last update 05/09/2024

- 1 Beam shape is not circular. See Tech Info for minimum beam dimensions.
- 2 Opto Engineering® recommends green light for high precision measurement applications.
- 3 Tolerance ± 10%.
- 4 Nominal value, with no spacers in place.



LTCLHP CORE PLUS series

Compact telecentric illuminators for large FOV systems

TELECENTRIC LIGHT • COLLIMATED

Part number	LIGHTING SPECIFICATIONS			ELECTRICAL SPECIFICATIONS			MECHANICAL SPECIFICATIONS				
	Beam shape dimension (mm)	Working distance range (mm)	Light color, peak wavelength	Supply voltage (V)	Max power consumption (W)	LED forward voltage typical (max) (V)	Max LED forward current (mA)	Max LED pulse current (mA)	A (mm)	B (mm)	C (mm)
	1		2	3		4	5	6	7	8	
LTCLCP 144-G	165 x 120	170 - 350	green, 525 nm	12-24	2.5	3.3 (4.0)	350	2000	332	303	314
LTCLCP 192-G	220 x 160	230 - 450	green, 525 nm	12-24	2.5	3.3 (4.0)	350	2000	410	344	376
LTCLCP 260-G	265 x 200	270 - 500	green, 525 nm	12-24	2.5	3.3 (4.0)	350	2000	480	397	435

Last update 25/07/2024

- 1 Beam shape is not circular. See Tech Info for minimum beam dimensions.
- 2 Opto Engineering® recommends green light for high precision measurement applications.
- 3 Tolerance ± 10%.
- 4 At max forward current. Tolerance is ± 0.06V on forward voltage measurements.
- 5 In continuous mode (non-pulsed).
- 6 At pulse width ≤ 10 ms and duty cycle ≤ 10%. Built-in electronics board must be bypassed (see tech info).
- 7 Maximum dimension of the clamping flange.
- 8 Nominal value, with no spacers in place.



LTCL4K series

Flat telecentric illuminators for line scan cameras

TELECENTRIC LIGHT • COLLIMATED

Part number	ELECTRICAL SPECIFICATIONS					
	Light color, wavelength peak 1	Supply voltage 2 (V)	Max power consumption (W)	Led forward voltage typical (max) 3 (V)	Max led forward current 4 (mA)	Max led pulse current 5 (mA)
LTCL4Kxxx-G	green, 520 nm	12-24	2.5	3.3 (4.0)	350	2000
LTCL4Kxxx-W	white, 6000 K	12-24	2.5	2.8 (-)	350	2000

1 Opto Engineering® recommends green light for high precision measurement applications.

2 Tolerance ± 10%.

3 At max forward current. Tolerance is ± 0.06V on forward voltage measurements.

4 In continuous mode (non-pulsed).

5 At pulse width ≤ 10 ms and duty cycle ≤ 10%. Built-in electronics board must be bypassed (see tech info).

Part number	LIGHTING SPECIFICATIONS			MECHANICAL SPECIFICATIONS		
	Beam shape diameter (mm) 1	Working distance range (mm)	Light color, peak wavelength 2	Length (mm) 3	Width (mm)	Height (mm)
LTCL4K 060-G	71 x 10	90 - 300	green, 525 nm	217.3	83.0	38.5
LTCL4K 060-W	71 x 10	90 - 300	white, 6000 K	217.3	83.0	38.5
LTCL4K 090-G	102 x 10	90 - 300	green, 525 nm	294.4	114.0	38.5
LTCL4K 090-W	102 x 10	90 - 300	white, 6000 K	294.4	114.0	38.5
LTCL4K 120-G	132 x 10	90 - 300	green, 525 nm	305.3	144.0	38.5
LTCL4K 120-W	132 x 10	90 - 300	white, 6000 K	305.3	144.0	38.5
LTCL4K 180-G	187 x 10	120 - 450	green, 525 nm	482.6	206.0	38.5
LTCL4K 180-W	187 x 10	120 - 450	white, 6000 K	482.6	206.0	38.5

Last update 25/07/2024

1 Beam shape is not circular. See Tech Info for minimum beam dimensions.

2 Opto Engineering® recommends green light for high precision measurement applications.

3 Nominal value, with no spacers in place.

LT3BC series

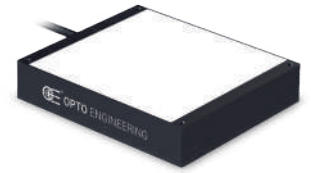
High-power LED backlights with integrated driver

NEW

Part number	LIGHTING SPECIFICATIONS					ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS		
	Illumination area		Light color, peak wavelength	Irradiance (continuous)	Irradiance (strobe)	Operating mode	Supply voltage (V)	Power consumption (continuous) (W)	Peak power consumption (strobe) (W)	Connector	Length (mm)	Width (mm)	Thickness (mm)
	height (mm)	width (mm)											
LT3BC050050-W	50.0	50.0	white, 5700 K	401	2202	Continuous and strobe	24	3.4	19.2	1x M12 straight plug male connector	58.0	76.0	24.0
LT3BC050050-R	50.0	50.0	red, 625 nm	116	980	Continuous and strobe	24	2.4	19.2	1x M12 straight plug male connector	58.0	76.0	24.0
LT3BC050050-G	50.0	50.0	green, 525 nm	265	1079	Continuous and strobe	24	3.4	19.2	1x M12 straight plug male connector	58.0	76.0	24.0
LT3BC050050-B	50.0	50.0	blue, 465 nm	471	2374	Continuous and strobe	24	3.4	19.2	1x M12 straight plug male connector	58.0	76.0	24.0
LT3BC050050-IR850	50.0	50.0	IR, 850 nm	91	284	Continuous and strobe	24	2.4	7.7	1x M12 straight plug male connector	58.0	76.0	24.0
LT3BC050100-W	50.0	100.0	white, 5700 K	401	2202	Continuous and strobe	24	6.8	38.4	1x M12 straight plug male connector	58.0	126.0	24.0
LT3BC050100-R	50.0	100.0	red, 625 nm	116	980	Continuous and strobe	24	4.8	38.4	1x M12 straight plug male connector	58.0	126.0	24.0
LT3BC050100-G	50.0	100.0	green, 525 nm	265	1079	Continuous and strobe	24	6.8	38.4	1x M12 straight plug male connector	58.0	126.0	24.0
LT3BC050100-B	50.0	100.0	blue, 465 nm	471	2374	Continuous and strobe	24	6.8	38.4	1x M12 straight plug male connector	58.0	126.0	24.0
LT3BC050100-IR850	50.0	100.0	IR, 850 nm	91	284	Continuous and strobe	24	4.8	15.4	1x M12 straight plug male connector	58.0	126.0	24.0
LT3BC050150-W	50.0	150.0	white, 5700 K	401	2202	Continuous and strobe	24	10.1	57.6	1x M12 straight plug male connector	58.0	176.0	24.0
LT3BC050150-R	50.0	150.0	red, 625 nm	116	980	Continuous and strobe	24	7.2	57.6	1x M12 straight plug male connector	108.0	176.0	24.0
LT3BC050150-G	50.0	150.0	green, 525 nm	265	1079	Continuous and strobe	24	10.1	57.6	1x M12 straight plug male connector	108.0	176.0	24.0
LT3BC050150-B	50.0	150.0	blue, 465 nm	471	2374	Continuous and strobe	24	10.1	57.6	1x M12 straight plug male connector	108.0	176.0	24.0
LT3BC050150-IR850	50.0	150.0	IR, 850 nm	91	284	Continuous and strobe	24	7.2	23.0	1x M12 straight plug male connector	108.0	176.0	24.0
LT3BC100100-W	100.0	100.0	white, 5700 K	401	2202	Continuous and strobe	24	13.2	76.8	1x M12 straight plug male connector	108.0	126.0	24.0
LT3BC100100-R	100.0	100.0	red, 625 nm	116	980	Continuous and strobe	24	9.6	76.8	1x M12 straight plug male connector	108.0	126.0	24.0
LT3BC100100-G	100.0	100.0	green, 525 nm	265	1079	Continuous and strobe	24	13.2	76.8	1x M12 straight plug male connector	108.0	126.0	24.0
LT3BC100100-B	100.0	100.0	blue, 465 nm	471	2374	Continuous and strobe	24	13.2	76.8	1x M12 straight plug male connector	108.0	126.0	24.0
LT3BC100100-IR850	100.0	100.0	IR, 850 nm	91	284	Continuous and strobe	24	9.6	30.7	1x M12 straight plug male connector	108.0	126.0	24.0
LT3BC100150-W	100.0	150.0	white, 5700 K	314	1755	Continuous and strobe	24	20.2	115.0	1x M12 straight plug male connector	108.0	176.0	24.0
LT3BC100150-R	100.0	150.0	red, 625 nm	87	772	Continuous and strobe	24	14.4	115.0	1x M12 straight plug male connector	108.0	176.0	24.0
LT3BC100150-G	100.0	150.0	green, 525 nm	213	963	Continuous and strobe	24	20.2	115.0	1x M12 straight plug male connector	108.0	176.0	24.0
LT3BC100150-B	100.0	150.0	blue, 465 nm	377	2060	Continuous and strobe	24	20.2	115.0	1x M12 straight plug male connector	108.0	176.0	24.0
LT3BC100150-IR850	100.0	150.0	IR, 850 nm	76	324	Continuous and strobe	24	14.4	46.0	1x M12 straight plug male connector	108.0	176.0	24.0
LT3BC150150-W	150.0	150.0	white, 5700 K	314	1755	Continuous and strobe	24	30.2	173.0	1x M12 straight plug male connector	158.0	176.0	24.0
LT3BC150150-R	150.0	150.0	red, 625 nm	87	772	Continuous and strobe	24	21.6	173.0	1x M12 straight plug male connector	158.0	176.0	24.0
LT3BC150150-G	150.0	150.0	green, 525 nm	213	963	Continuous and strobe	24	30.2	173.0	1x M12 straight plug male connector	158.0	176.0	24.0
LT3BC150150-B	150.0	150.0	blue, 465 nm	377	2060	Continuous and strobe	24	30.2	173.0	1x M12 straight plug male connector	158.0	176.0	24.0
LT3BC150150-IR850	150.0	150.0	IR, 850 nm	76	324	Continuous and strobe	24	21.6	69.0	1x M12 straight plug male connector	158.0	176.0	24.0
LT3BC150200-W	150.0	200.0	white, 5700 K	314	1755	Continuous and strobe	24	28.8	173.0	1x M12 straight plug male connector	158.0	226.0	24.0
LT3BC150200-R	150.0	200.0	red, 625 nm	87	772	Continuous and strobe	24	20.2	173.0	1x M12 straight plug male connector	158.0	226.0	24.0
LT3BC150200-G	150.0	200.0	green, 525 nm	213	963	Continuous and strobe	24	28.8	173.0	1x M12 straight plug male connector	158.0	226.0	24.0
LT3BC150200-B	150.0	200.0	blue, 465 nm	377	2060	Continuous and strobe	24	28.8	173.0	1x M12 straight plug male connector	158.0	226.0	24.0
LT3BC150200-IR850	150.0	200.0	IR, 850 nm	76	324	Continuous and strobe	24	23.0	92.0	1x M12 straight plug male connector	158.0	226.0	24.0

Last update 01/07/2024

1 At emitting surface.



BACKLIGHT • COLLIMATED/DIFFUSED HIGH POWER

Part number	LIGHTING SPECIFICATIONS					ELECTRICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS			
	Illumination area height (mm)	Illumination area width (mm)	Light color, peak wavelength	Irradiance (continuous)	Irradiance (strobe)	Operating mode	Supply voltage (V)	Power consumption (continuous) (W)	Peak power consumption (strobe) (W)	Connector	Length (mm)	Width (mm)	Thickness (mm)
				1	1								
LT3BC200200-W	200.0	200.0	white, 5700 K	314	1755	Continuous and strobe	24	38.4	230.0	1x M12 straight plug male connector	208.0	226.0	24.0
LT3BC200200-R	200.0	200.0	red, 625 nm	87	772	Continuous and strobe	24	26.9	230.0	1x M12 straight plug male connector	208.0	226.0	24.0
LT3BC200200-G	200.0	200.0	green, 525 nm	213	963	Continuous and strobe	24	38.4	230.0	1x M12 straight plug male connector	208.0	226.0	24.0
LT3BC200200-B	200.0	200.0	blue, 465 nm	377	2060	Continuous and strobe	24	38.4	230.0	1x M12 straight plug male connector	208.0	226.0	24.0
LT3BC200200-IR850	200.0	200.0	IR, 850 nm	76	324	Continuous and strobe	24	30.8	123.0	1x M12 straight plug male connector	208.0	226.0	24.0
LT3BC200250-W	200.0	250.0	white, 5700 K	314	1755	Continuous and strobe	24	48.0	288.0	1x M12 straight plug male connector	208.0	276.0	24.0
LT3BC200250-R	200.0	250.0	red, 625 nm	87	772	Continuous and strobe	24	33.6	288.0	1x M12 straight plug male connector	208.0	276.0	24.0
LT3BC200250-G	200.0	250.0	green, 525 nm	213	963	Continuous and strobe	24	48.0	288.0	1x M12 straight plug male connector	208.0	276.0	24.0
LT3BC200250-B	200.0	250.0	blue, 465 nm	377	2060	Continuous and strobe	24	48.0	288.0	1x M12 straight plug male connector	208.0	276.0	24.0
LT3BC200250-IR850	200.0	250.0	IR, 850 nm	76	324	Continuous and strobe	24	38.4	77.0	1x M12 straight plug male connector	208.0	276.0	24.0
LT3BC200300-W	200.0	300.0	white, 5700 K	314	1755	Continuous and strobe	24	57.6	346.0	2x M12 straight plug male connector	208.0	326.0	24.0
LT3BC200300-R	200.0	300.0	red, 625 nm	87	772	Continuous and strobe	24	40.3	346.0	2x M12 straight plug male connector	208.0	326.0	24.0
LT3BC200300-G	200.0	300.0	green, 525 nm	213	963	Continuous and strobe	24	57.6	346.0	2x M12 straight plug male connector	208.0	326.0	24.0
LT3BC200300-B	200.0	300.0	blue, 465 nm	377	2060	Continuous and strobe	24	57.6	346.0	2x M12 straight plug male connector	208.0	326.0	24.0
LT3BC200300-IR850	200.0	300.0	IR, 850 nm	76	324	Continuous and strobe	24	46.1	184.0	2x M12 straight plug male connector	208.0	326.0	24.0
LT3BC250250-W	250.0	250.0	white, 5700 K	314	1755	Continuous and strobe	24	60.0	360.0	2x M12 straight plug male connector	248.0	276.0	24.0
LT3BC250250-R	250.0	250.0	red, 625 nm	87	772	Continuous and strobe	24	42.0	360.0	2x M12 straight plug male connector	248.0	276.0	24.0
LT3BC250250-G	250.0	250.0	green, 525 nm	213	963	Continuous and strobe	24	60.0	360.0	2x M12 straight plug male connector	248.0	276.0	24.0
LT3BC250250-B	250.0	250.0	blue, 465 nm	377	2060	Continuous and strobe	24	60.0	360.0	2x M12 straight plug male connector	248.0	276.0	24.0
LT3BC250250-IR850	250.0	250.0	IR, 850 nm	76	324	Continuous and strobe	24	48.0	192.0	2x M12 straight plug male connector	248.0	276.0	24.0
LT3BC300300-W	300.0	300.0	white, 5700 K	314	1755	Continuous and strobe	24	86.5	518.0	2x M12 straight plug male connector	308.0	326.0	24.0
LT3BC300300-R	300.0	300.0	red, 625 nm	87	772	Continuous and strobe	24	60.5	518.0	2x M12 straight plug male connector	308.0	326.0	24.0
LT3BC300300-G	300.0	300.0	green, 525 nm	213	963	Continuous and strobe	24	86.5	518.0	2x M12 straight plug male connector	308.0	326.0	24.0
LT3BC300300-B	300.0	300.0	blue, 465 nm	377	2060	Continuous and strobe	24	86.5	518.0	2x M12 straight plug male connector	308.0	326.0	24.0
LT3BC300300-IR850	300.0	300.0	IR, 850 nm	76	324	Continuous and strobe	24	69.0	276.0	2x M12 straight plug male connector	308.0	326.0	24.0
LT3BC400400-W	400.0	400.0	white, 5700 K	194	1392	Continuous and strobe	24	92.0	614.0	2x M12 straight plug male connector	408.0	426.0	24.0
LT3BC400400-R	400.0	400.0	red, 625 nm	62.66	564	Continuous and strobe	24	77.0	614.0	2x M12 straight plug male connector	408.0	426.0	24.0
LT3BC400400-G	400.0	400.0	green, 525 nm	139.8	744.8	Continuous and strobe	24	92.0	614.0	2x M12 straight plug male connector	408.0	426.0	24.0
LT3BC400400-B	400.0	400.0	blue, 465 nm	234.5	1485.8	Continuous and strobe	24	92.0	614.0	2x M12 straight plug male connector	408.0	426.0	24.0
LT3BC400400-IR850	400.0	400.0	IR, 850 nm	57.2	324	Continuous and strobe	24	92.0	492.0	2x M12 straight plug male connector	408.0	426.0	24.0
LT3BC500500-W	500.0	500.0	white, 5700 K	194	1392	Continuous and strobe	24	144.0	960.0	3x M12 straight plug male connector	508.0	526.0	24.0
LT3BC500500-R	500.0	500.0	red, 625 nm	62.66	564	Continuous and strobe	24	120.0	960.0	3x M12 straight plug male connector	508.0	526.0	24.0
LT3BC500500-G	500.0	500.0	green, 525 nm	139.8	744.8	Continuous and strobe	24	144.0	960.0	3x M12 straight plug male connector	508.0	526.0	24.0
LT3BC500500-B	500.0	500.0	blue, 465 nm	234.5	1485.8	Continuous and strobe	24	144.0	960.0	3x M12 straight plug male connector	508.0	526.0	24.0
LT3BC500500-IR850	500.0	500.0	IR, 850 nm	57.2	324	Continuous and strobe	24	144.0	768.0	3x M12 straight plug male connector	508.0	526.0	24.0

Ordering information

Our part numbers are coded as **LT3BC zzz yyy - x**, where:
 - **zzz** defines the illumination area height (in mm),
 - **yyy** defines the illumination area width (in mm),
 - **x** defines the color. R = red, G = green, B = blue, W = white, IR850 = Infrared 850 nm.

LT3BC backlights feature a wide range of compatible optical filters to be ordered separately:

- for horizontal/vertical linear polarizers, refer to PLLT series,
 - for collimating filters, refer to CLLT series,
 - for protective covers, refer to PCLT series.
- Contact us for more customization options.

LT2BC series

High uniformity continuous LED backlights

Part number	Modules	LIGHTING SPECIFICATIONS							ELECTRICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS		
		Illumination area		Number of LED's	Light color, peak wavelength	Illuminance (klux)	Diffuser	Optional collimation film	Supply voltage (V)	Current (mA)	Power consumption (W)	Peak power consumption (W)	Length (mm)	Width (mm)	Height (mm)
		width (mm)	height (mm)												
LT2BC048036-R	1x1	48	36	48	red, 620 nm	28	yes	no	24	210	5.0	17.6	60	56	26
LT2BC048036-G	1x1	48	36	48	green, 525 nm	29	yes	no	24	200	4.8	15.2	60	56	26
LT2BC048036-B	1x1	48	36	48	blue, 470 nm	30	yes	no	24	220	5.3	16.8	60	56	26
LT2BC048036-W	1x1	48	36	48	white, > 4500 K	31	yes	no	24	220	5.3	16.8	60	56	26
LT2BC048036-IR860	1x1	48	36	48	IR, 860 nm	32	yes	no	24	210	5.0	17.5	60	56	26
LT2BC048036-R-CO	1x1	48	36	48	red, 620 nm	33	yes	yes	24	210	5.0	17.6	60	56	26
LT2BC048036-G-CO	1x1	48	36	48	green, 525 nm	34	yes	yes	24	200	4.8	15.2	60	56	26
LT2BC048036-B-CO	1x1	48	36	48	blue, 470 nm	35	yes	yes	24	220	5.3	16.8	60	56	26
LT2BC048036-W-CO	1x1	48	36	48	white, > 4500 K	36	yes	yes	24	220	5.3	16.8	60	56	26
LT2BC048072-R	1x2	48	72	96	red, 620 nm	37	yes	no	24	310	7.4	24.9	60	92	26
LT2BC048072-G	1x2	48	72	96	green, 525 nm	38	yes	no	24	310	7.4	21.4	60	92	26
LT2BC048072-B	1x2	48	72	96	blue, 470 nm	39	yes	no	24	310	7.4	24.5	60	92	26
LT2BC048072-W	1x2	48	72	96	white, > 4500 K	40	yes	no	24	300	7.2	24.5	60	92	26
LT2BC048072-IR860	1x2	48	72	96	IR, 860 nm	41	yes	no	24	290	7.0	23.5	60	92	26
LT2BC048072-R-CO	1x2	48	72	96	red, 620 nm	42	yes	yes	24	310	7.4	24.9	60	92	26
LT2BC048072-G-CO	1x2	48	72	96	green, 525 nm	43	yes	yes	24	310	7.4	21.4	60	92	26
LT2BC048072-B-CO	1x2	48	72	96	blue, 470 nm	44	yes	yes	24	310	7.4	24.5	60	92	26
LT2BC048072-W-CO	1x2	48	72	96	white, > 4500 K	45	yes	yes	24	300	7.2	24.5	60	92	26
LT2BC048108-R	1x3	48	108	144	red, 620 nm	46	yes	no	24	380	9.1	30.3	60	128	26
LT2BC048108-G	1x3	48	108	144	green, 525 nm	47	yes	no	24	360	8.6	26.9	60	128	26
LT2BC048108-B	1x3	48	108	144	blue, 470 nm	48	yes	no	24	380	9.1	29.9	60	128	26
LT2BC048108-W	1x3	48	108	144	white, > 4500 K	49	yes	no	24	370	8.9	29.9	60	128	26
LT2BC048108-IR860	1x3	48	108	144	IR, 860 nm	50	yes	no	24	370	8.9	29.2	60	128	26
LT2BC048108-R-CO	1x3	48	108	144	red, 620 nm	51	yes	yes	24	380	9.1	30.3	60	128	26
LT2BC048108-G-CO	1x3	48	108	144	green, 525 nm	52	yes	yes	24	360	8.6	26.9	60	128	26
LT2BC048108-B-CO	1x3	48	108	144	blue, 470 nm	53	yes	yes	24	380	9.1	29.9	60	128	26
LT2BC048108-W-CO	1x3	48	108	144	white, > 4500 K	54	yes	yes	24	370	8.9	29.9	60	128	26
LT2BC048144-R	1x4	48	144	192	red, 620 nm	55	yes	no	24	460	11.0	35.1	60	164	26
LT2BC048144-G	1x4	48	144	192	green, 525 nm	56	yes	no	24	460	11.0	31.0	60	164	26
LT2BC048144-B	1x4	48	144	192	blue, 470 nm	57	yes	no	24	460	11.0	34.8	60	164	26
LT2BC048144-W	1x4	48	144	192	white, > 4500 K	58	yes	no	24	460	11.0	34.8	60	164	26
LT2BC048144-IR860	1x4	48	144	192	IR, 860 nm	59	yes	no	24	460	11.0	33.0	60	164	26
LT2BC048144-R-CO	1x4	48	144	192	red, 620 nm	60	yes	yes	24	460	11.0	35.1	60	164	26
LT2BC048144-G-CO	1x4	48	144	192	green, 525 nm	61	yes	yes	24	460	11.0	31.0	60	164	26
LT2BC048144-B-CO	1x4	48	144	192	blue, 470 nm	62	yes	yes	24	460	11.0	34.8	60	164	26
LT2BC048144-W-CO	1x4	48	144	192	white, > 4500 K	63	yes	yes	24	460	11.0	34.8	60	164	26
LT2BC048180-R	1x5	48	180	240	red, 620 nm	64	yes	no	24	530	12.7	43.2	60	200	26
LT2BC048180-G	1x5	48	180	240	green, 525 nm	65	yes	no	24	530	12.7	38.2	60	200	26
LT2BC048180-B	1x5	48	180	240	blue, 470 nm	66	yes	no	24	540	13.0	42.5	60	200	26
LT2BC048180-W	1x5	48	180	240	white, > 4500 K	67	yes	no	24	530	12.7	42.5	60	200	26
LT2BC048180-IR860	1x5	48	180	240	IR, 860 nm	68	yes	no	24	540	13.0	40.3	60	200	26
LT2BC048180-R-CO	1x5	48	180	240	red, 620 nm	69	yes	yes	24	530	12.7	43.2	60	200	26
LT2BC048180-G-CO	1x5	48	180	240	green, 525 nm	70	yes	yes	24	530	12.7	38.2	60	200	26
LT2BC048180-B-CO	1x5	48	180	240	blue, 470 nm	71	yes	yes	24	540	13.0	42.5	60	200	26
LT2BC048180-W-CO	1x5	48	180	240	white, > 4500 K	72	yes	yes	24	530	12.7	42.5	60	200	26
LT2BC048216-R	1x6	48	216	288	red, 620 nm	73	yes	no	24	640	15.4	49.7	60	236	26
LT2BC048216-G	1x6	48	216	288	green, 525 nm	74	yes	no	24	630	15.1	44.1	60	236	26
LT2BC048216-B	1x6	48	216	288	blue, 470 nm	75	yes	no	24	640	15.4	49.0	60	236	26
LT2BC048216-W	1x6	48	216	288	white, > 4500 K	76	yes	no	24	640	15.4	49.0	60	236	26
LT2BC048216-IR860	1x6	48	216	288	IR, 860 nm	77	yes	no	24	630	15.1	47.3	60	236	26
LT2BC048216-R-CO	1x6	48	216	288	red, 620 nm	78	yes	yes	24	640	15.4	49.7	60	236	26
LT2BC048216-G-CO	1x6	48	216	288	green, 525 nm	79	yes	yes	24	630	15.1	44.1	60	236	26
LT2BC048216-B-CO	1x6	48	216	288	blue, 470 nm	80	yes	yes	24	640	15.4	49.0	60	236	26
LT2BC048216-W-CO	1x6	48	216	288	white, > 4500 K	81	yes	yes	24	640	15.4	49.0	60	236	26



BACKLIGHT • COLLIMATED/DIFFUSED

Part number	Modules	LIGHTING SPECIFICATIONS							ELECTRICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS		
		Illumination area		Number of LED's	Light color, peak wavelength	Illuminance (klux)	Diffuser	Optional collimation film	Supply voltage (V)	Current (mA)	Power consumption (W)	Peak power consumption (W)	Length (mm)	Width (mm)	Height (mm)
		width (mm)	height (mm)												
LT2BC096036-R	2x1	96	36	96	red, 620 nm	82	yes	no	24	310	7.4	24.9	108	56	26
LT2BC096036-G	2x1	96	36	96	green, 525 nm	83	yes	no	24	310	7.4	21.4	108	56	26
LT2BC096036-B	2x1	96	36	96	blue, 470 nm	84	yes	no	24	310	7.4	24.5	108	56	26
LT2BC096036-W	2x1	96	36	96	white, > 4500 K	85	yes	no	24	300	7.2	24.5	108	56	26
LT2BC096036-IR860	2x1	96	36	96	IR, 860 nm	86	yes	no	24	290	7.0	23.5	108	56	26
LT2BC096036-R-CO	2x1	96	36	96	red, 620 nm	87	yes	yes	24	310	7.4	24.9	108	56	26
LT2BC096036-G-CO	2x1	96	36	96	green, 525 nm	88	yes	yes	24	310	7.4	21.4	108	56	26
LT2BC096036-B-CO	2x1	96	36	96	blue, 470 nm	89	yes	yes	24	310	7.4	24.5	108	56	26
LT2BC096036-W-CO	2x1	96	36	96	white, > 4500 K	90	yes	yes	24	300	7.2	24.5	108	56	26
LT2BC096072-R	2x2	96	72	192	red, 620 nm	91	yes	no	24	450	10.8	35.1	108	92	26
LT2BC096072-G	2x2	96	72	192	green, 525 nm	92	yes	no	24	460	11.0	31.0	108	92	26
LT2BC096072-B	2x2	96	72	192	blue, 470 nm	93	yes	no	24	460	11.0	34.8	108	92	26
LT2BC096072-W	2x2	96	72	192	white, > 4500 K	94	yes	no	24	460	11.0	34.8	108	92	26
LT2BC096072-IR860	2x2	96	72	192	IR, 860 nm	95	yes	no	24	460	11.0	33.0	108	92	26
LT2BC096072-R-CO	2x2	96	72	192	red, 620 nm	96	yes	yes	24	450	10.8	35.1	108	92	26
LT2BC096072-G-CO	2x2	96	72	192	green, 525 nm	97	yes	yes	24	460	11.0	31.0	108	92	26
LT2BC096072-B-CO	2x2	96	72	192	blue, 470 nm	98	yes	yes	24	460	11.0	34.8	108	92	26
LT2BC096072-W-CO	2x2	96	72	192	white, > 4500 K	99	yes	yes	24	460	11.0	34.8	108	92	26
LT2BC096108-R	2x3	96	108	288	red, 620 nm	100	yes	no	24	640	15.4	49.7	108	128	26
LT2BC096108-G	2x3	96	108	288	green, 525 nm	101	yes	no	24	630	15.1	44.1	108	128	26
LT2BC096108-B	2x3	96	108	288	blue, 470 nm	102	yes	no	24	640	15.4	49.0	108	128	26
LT2BC096108-W	2x3	96	108	288	white, > 4500 K	103	yes	no	24	640	15.4	49.0	108	128	26
LT2BC096108-IR860	2x3	96	108	288	IR, 860 nm	104	yes	no	24	630	15.1	47.3	108	128	26
LT2BC096108-R-CO	2x3	96	108	288	red, 620 nm	105	yes	yes	24	640	15.4	49.7	108	128	26
LT2BC096108-G-CO	2x3	96	108	288	green, 525 nm	106	yes	yes	24	630	15.1	44.1	108	128	26
LT2BC096108-B-CO	2x3	96	108	288	blue, 470 nm	107	yes	yes	24	640	15.4	49.0	108	128	26
LT2BC096108-W-CO	2x3	96	108	288	white, > 4500 K	108	yes	yes	24	640	15.4	49.0	108	128	26
LT2BC096144-R	2x4	96	144	384	red, 620 nm	109	yes	no	24	770	18.5	61.0	108	164	26
LT2BC096144-G	2x4	96	144	384	green, 525 nm	110	yes	no	24	740	17.8	54.7	108	164	26
LT2BC096144-B	2x4	96	144	384	blue, 470 nm	111	yes	no	24	770	18.5	60.0	108	164	26
LT2BC096144-W	2x4	96	144	384	white, > 4500 K	112	yes	no	24	780	18.7	60.0	108	164	26
LT2BC096144-IR860	2x4	96	144	384	IR, 860 nm	113	yes	no	24	730	17.5	59.7	108	164	26
LT2BC096144-R-CO	2x4	96	144	384	red, 620 nm	114	yes	yes	24	770	18.5	61.0	108	164	26
LT2BC096144-G-CO	2x4	96	144	384	green, 525 nm	115	yes	yes	24	740	17.8	54.7	108	164	26
LT2BC096144-B-CO	2x4	96	144	384	blue, 470 nm	116	yes	yes	24	770	18.5	60.0	108	164	26
LT2BC096144-W-CO	2x4	96	144	384	white, > 4500 K	117	yes	yes	24	780	18.7	60.0	108	164	26
LT2BC096180-R	2x5	96	180	480	red, 620 nm	118	yes	no	24	860	20.6	68.0	108	200	26
LT2BC096180-G	2x5	96	180	480	green, 525 nm	119	yes	no	24	950	22.8	58.9	108	200	26
LT2BC096180-B	2x5	96	180	480	blue, 470 nm	120	yes	no	24	880	21.1	67.2	108	200	26
LT2BC096180-W	2x5	96	180	480	white, > 4500 K	121	yes	no	24	890	21.4	67.2	108	200	26
LT2BC096180-IR860	2x5	96	180	480	IR, 860 nm	122	yes	no	24	870	20.9	65.4	108	200	26
LT2BC096180-R-CO	2x5	96	180	480	red, 620 nm	123	yes	yes	24	860	20.6	68.0	108	200	26
LT2BC096180-G-CO	2x5	96	180	480	green, 525 nm	124	yes	yes	24	950	22.8	58.9	108	200	26
LT2BC096180-B-CO	2x5	96	180	480	blue, 470 nm	125	yes	yes	24	880	21.1	67.2	108	200	26
LT2BC096180-W-CO	2x5	96	180	480	white, > 4500 K	126	yes	yes	24	890	21.4	67.2	108	200	26
LT2BC096216-R	2x6	96	216	576	red, 620 nm	127	yes	no	24	1050	25.2	80.1	108	236	26
LT2BC096216-G	2x6	96	216	576	green, 525 nm	128	yes	no	24	1010	24.2	72.6	108	236	26
LT2BC096216-B	2x6	96	216	576	blue, 470 nm	129	yes	no	24	1070	25.7	79.0	108	236	26
LT2BC096216-W	2x6	96	216	576	white, > 4500 K	130	yes	no	24	1080	25.9	79.0	108	236	26
LT2BC096216-IR860	2x6	96	216	576	IR, 860 nm	131	yes	no	24	1000	24.0	79.0	108	236	26
LT2BC096216-R-CO	2x6	96	216	576	red, 620 nm	132	yes	yes	24	1050	25.2	80.1	108	236	26
LT2BC096216-G-CO	2x6	96	216	576	green, 525 nm	133	yes	yes	24	1010	24.2	72.6	108	236	26
LT2BC096216-B-CO	2x6	96	216	576	blue, 470 nm	134	yes	yes	24	1070	25.7	79.0	108	236	26
LT2BC096216-W-CO	2x6	96	216	576	white, > 4500 K	135	yes	yes	24	1080	25.9	79.0	108	236	26

1 At emitting surface.

2 Tolerance ± 10%.

3 At 25°C. At max pulse width (1 ms), max pulse frequency = 15 Hz.

Following page →

Part number	Modules	LIGHTING SPECIFICATIONS							ELECTRICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS		
		Illumination area		Number of LED's	Light color, peak wavelength	Illuminance (klux)	Diffuser	Optional collimation film	Supply voltage (V)	Current (mA)	Power consumption (W)	Peak power consumption (W)	Length (mm)	Width (mm)	Height (mm)
width (mm)	height (mm)	1	2												
LT2BC288144-R	6x4	288	144	1152	red, 620 nm	325	yes	no	24	1920	46.1	140.5	300	164	26
LT2BC288144-G	6x4	288	144	1152	green, 525 nm	326	yes	no	24	1860	44.6	129.0	300	164	26
LT2BC288144-B	6x4	288	144	1152	blue, 470 nm	327	yes	no	24	1820	43.7	144.0	300	164	26
LT2BC288144-W	6x4	288	144	1152	white, > 4500 K	328	yes	no	24	1820	43.7	144.0	300	164	26
LT2BC288144-IR860	6x4	288	144	1152	IR, 860 nm	329	yes	no	24	1920	46.1	136.8	300	164	26
LT2BC288144-R-CO	6x4	288	144	1152	red, 620 nm	330	yes	yes	24	1920	46.1	140.5	300	164	26
LT2BC288144-G-CO	6x4	288	144	1152	green, 525 nm	331	yes	yes	24	1860	44.6	129.0	300	164	26
LT2BC288144-B-CO	6x4	288	144	1152	blue, 470 nm	332	yes	yes	24	1820	43.7	144.0	300	164	26
LT2BC288144-W-CO	6x4	288	144	1152	white, > 4500 K	333	yes	yes	24	1820	43.7	144.0	300	164	26
LT2BC288180-R	6x5	288	180	1440	red, 620 nm	334	yes	no	24	2050	49.2	141.9	300	200	26
LT2BC288180-G	6x5	288	180	1440	green, 525 nm	335	yes	no	24	1960	47.0	132.4	300	200	26
LT2BC288180-B	6x5	288	180	1440	blue, 470 nm	336	yes	no	24	1940	46.6	146.4	300	200	26
LT2BC288180-W	6x5	288	180	1440	white, > 4500 K	337	yes	no	24	1940	46.6	146.4	300	200	26
LT2BC288180-IR860	6x5	288	180	1440	IR, 860 nm	338	yes	no	24	2060	49.4	140.2	300	200	26
LT2BC288180-R-CO	6x5	288	180	1440	red, 620 nm	339	yes	yes	24	2050	49.2	141.9	300	200	26
LT2BC288180-G-CO	6x5	288	180	1440	green, 525 nm	340	yes	yes	24	1960	47.0	132.4	300	200	26
LT2BC288180-B-CO	6x5	288	180	1440	blue, 470 nm	341	yes	yes	24	1940	46.6	146.4	300	200	26
LT2BC288180-W-CO	6x5	288	180	1440	white, > 4500 K	342	yes	yes	24	1940	46.6	146.4	300	200	26
LT2BC288216-R	6x6	288	216	1728	red, 620 nm	343	yes	no	24	2230	53.5	156.2	300	236	26
LT2BC288216-G	6x6	288	216	1728	green, 525 nm	344	yes	no	24	2040	49.0	149.3	300	236	26
LT2BC288216-B	6x6	288	216	1728	blue, 470 nm	345	yes	no	24	2190	52.6	160.6	300	236	26
LT2BC288216-W	6x6	288	216	1728	white, > 4500 K	346	yes	no	24	2170	52.1	160.6	300	236	26
LT2BC288216-IR860	6x6	288	216	1728	IR, 860 nm	347	yes	no	24	2050	49.2	162.5	300	236	26
LT2BC288216-R-CO	6x6	288	216	1728	red, 620 nm	348	yes	yes	24	2230	53.5	156.2	300	236	26
LT2BC288216-G-CO	6x6	288	216	1728	green, 525 nm	349	yes	yes	24	2040	49.0	149.3	300	236	26
LT2BC288216-B-CO	6x6	288	216	1728	blue, 470 nm	350	yes	yes	24	2190	52.6	160.6	300	236	26
LT2BC288216-W-CO	6x6	288	216	1728	white, > 4500 K	351	yes	yes	24	2170	52.1	160.6	300	236	26

Last update 04/09/2024

- 1 At emitting surface.
- 2 Tolerance ± 10%.
- 3 At 25°C. At max pulse width (1 ms), max pulse frequency = 15 Hz.

Ordering information

Our part numbers are coded as **LT2BC xxx yyy - z - a**, where:

- **xxx** defines the illumination area length (in mm),
 - **yyy** defines the illumination area width (in mm),
 - **z** defines the color. R = red, G = green, B = blue, W = white, IR860 = Infrared 860 nm,
 - **a** defines the presence of an optional optical sheet. CO = with collimation films in both horizontal and vertical directions.
- Leave empty if no optional optical sheet is required. For additional options such as horizontal/vertical linear or circular polarizers, contact us.

LTBP series

High power strobed LED backlights

Part number	Modules	LIGHTING SPECIFICATIONS							ELECTRICAL SPECIFICATIONS		MECHANICAL SPECIFICATIONS		
		Illumination area		Number of LED's	Light color, peak wavelength	Illuminance (klux)	Diffuser	Optional collimation film	Power consumption (W)	Max pulse current (W)	Length (mm)	Width (mm)	Height (mm)
		width (mm)	height (mm)										
LTBP048036-R	1x1	48	36	48	red, 620 nm	70	yes	no	43.2	1.8	60	56	26
LTBP048036-G	1x1	48	36	48	green, 522 nm	150	yes	no	60.5	1.8	60	56	26
LTBP048036-B	1x1	48	36	48	blue, 465 nm	30	yes	no	54.7	1.8	60	56	26
LTBP048036-W	1x1	48	36	48	white, > 4500 K	200	yes	no	47.5	1.8	60	56	26
LTBP048036-IR850	1x1	48	36	48	IR, 850 nm	-	yes	no	37.4	1.8	60	56	26
LTBP048036-R-CO	1x1	48	36	48	red, 620 nm	70	yes	yes	43.2	1.8	60	56	26
LTBP048036-G-CO	1x1	48	36	48	green, 522 nm	150	yes	yes	60.5	1.8	60	56	26
LTBP048036-B-CO	1x1	48	36	48	blue, 465 nm	30	yes	yes	54.7	1.8	60	56	26
LTBP048036-W-CO	1x1	48	36	48	white, > 4500 K	200	yes	yes	47.5	1.8	60	56	26
LTBP048072-R	1x2	48	72	96	red, 620 nm	70	yes	no	86.4	3.6	60	56	26
LTBP048072-G	1x2	48	72	96	green, 522 nm	150	yes	no	121.0	3.6	60	56	26
LTBP048072-B	1x2	48	72	96	blue, 465 nm	30	yes	no	109.4	3.6	60	56	26
LTBP048072-W	1x2	48	72	96	white, > 4500 K	200	yes	no	95.0	3.6	60	56	26
LTBP048072-IR850	1x2	48	72	96	IR, 850 nm	-	yes	no	74.9	3.6	60	56	26
LTBP048072-R-CO	1x2	48	72	96	red, 620 nm	70	yes	yes	86.4	3.6	60	56	26
LTBP048072-G-CO	1x2	48	72	96	green, 522 nm	150	yes	yes	121.0	3.6	60	56	26
LTBP048072-B-CO	1x2	48	72	96	blue, 465 nm	30	yes	yes	109.4	3.6	60	56	26
LTBP048072-W-CO	1x2	48	72	96	white, > 4500 K	200	yes	yes	95.0	3.6	60	56	26
LTBP048108-R	1x3	48	108	144	red, 620 nm	70	yes	no	129.6	5.4	60	56	26
LTBP048108-G	1x3	48	108	144	green, 522 nm	150	yes	no	181.4	5.4	60	56	26
LTBP048108-B	1x3	48	108	144	blue, 465 nm	30	yes	no	164.2	5.4	60	56	26
LTBP048108-W	1x3	48	108	144	white, > 4500 K	200	yes	no	142.6	5.4	60	56	26
LTBP048108-IR850	1x3	48	108	144	IR, 850 nm	-	yes	no	112.3	5.4	60	56	26
LTBP048108-R-CO	1x3	48	108	144	red, 620 nm	70	yes	yes	129.6	5.4	60	56	26
LTBP048108-G-CO	1x3	48	108	144	green, 522 nm	150	yes	yes	181.4	5.4	60	56	26
LTBP048108-B-CO	1x3	48	108	144	blue, 465 nm	30	yes	yes	164.2	5.4	60	56	26
LTBP048108-W-CO	1x3	48	108	144	white, > 4500 K	200	yes	yes	142.6	5.4	60	56	26
LTBP048144-R	1x4	48	144	192	red, 620 nm	70	yes	no	172.8	7.2	60	56	26
LTBP048144-G	1x4	48	144	192	green, 522 nm	150	yes	no	241.9	7.2	60	56	26
LTBP048144-B	1x4	48	144	192	blue, 465 nm	30	yes	no	218.9	7.2	60	56	26
LTBP048144-W	1x4	48	144	192	white, > 4500 K	200	yes	no	190.1	7.2	60	56	26
LTBP048144-IR850	1x4	48	144	192	IR, 850 nm	-	yes	no	149.8	7.2	60	56	26
LTBP048144-R-CO	1x4	48	144	192	red, 620 nm	70	yes	yes	172.8	7.2	60	56	26
LTBP048144-G-CO	1x4	48	144	192	green, 522 nm	150	yes	yes	241.9	7.2	60	56	26
LTBP048144-B-CO	1x4	48	144	192	blue, 465 nm	30	yes	yes	218.9	7.2	60	56	26
LTBP048144-W-CO	1x4	48	144	192	white, > 4500 K	200	yes	yes	190.1	7.2	60	56	26
LTBP048180-R	1x5	48	180	240	red, 620 nm	70	yes	no	216.0	9.0	60	56	26
LTBP048180-G	1x5	48	180	240	green, 522 nm	150	yes	no	302.4	9.0	60	56	26
LTBP048180-B	1x5	48	180	240	blue, 465 nm	30	yes	no	273.6	9.0	60	56	26
LTBP048180-W	1x5	48	180	240	white, > 4500 K	200	yes	no	237.6	9.0	60	56	26
LTBP048180-IR850	1x5	48	180	240	IR, 850 nm	-	yes	no	187.2	9.0	60	56	26
LTBP048180-R-CO	1x5	48	180	240	red, 620 nm	70	yes	yes	216.0	9.0	60	56	26
LTBP048180-G-CO	1x5	48	180	240	green, 522 nm	150	yes	yes	302.4	9.0	60	56	26
LTBP048180-B-CO	1x5	48	180	240	blue, 465 nm	30	yes	yes	273.6	9.0	60	56	26
LTBP048180-W-CO	1x5	48	180	240	white, > 4500 K	200	yes	yes	237.6	9.0	60	56	26
LTBP048216-R	1x6	48	216	288	red, 620 nm	70	yes	no	259.2	10.8	60	56	26
LTBP048216-G	1x6	48	216	288	green, 522 nm	150	yes	no	362.9	10.8	60	56	26
LTBP048216-B	1x6	48	216	288	blue, 465 nm	30	yes	no	328.3	10.8	60	56	26
LTBP048216-W	1x6	48	216	288	white, > 4500 K	200	yes	no	285.1	10.8	60	56	26
LTBP048216-IR850	1x6	48	216	288	IR, 850 nm	-	yes	no	224.6	10.8	60	56	26
LTBP048216-R-CO	1x6	48	216	288	red, 620 nm	70	yes	yes	259.2	10.8	60	56	26
LTBP048216-G-CO	1x6	48	216	288	green, 522 nm	150	yes	yes	362.9	10.8	60	56	26
LTBP048216-B-CO	1x6	48	216	288	blue, 465 nm	30	yes	yes	328.3	10.8	60	56	26
LTBP048216-W-CO	1x6	48	216	288	white, > 4500 K	200	yes	yes	285.1	10.8	60	56	26



BACKLIGHT • COLLIMATED/DIFFUSED • HIGH POWER

Part number	Modules	LIGHTING SPECIFICATIONS							ELECTRICAL SPECIFICATIONS		MECHANICAL SPECIFICATIONS		
		Illumination area		Number of LED's	Light color, peak wavelength	Illuminance (klux)	Diffuser	Optional collimation film	Power consumption (W)	Max pulse current (W)	Length (mm)	Width (mm)	Height (mm)
		width (mm)	height (mm)										
LTBP096036-R	2x1	96	36	96	red, 620 nm	70	yes	no	86.4	3.6	60	56	26
LTBP096036-G	2x1	96	36	96	green, 522 nm	150	yes	no	121.0	3.6	60	56	26
LTBP096036-B	2x1	96	36	96	blue, 465 nm	30	yes	no	109.4	3.6	60	56	26
LTBP096036-W	2x1	96	36	96	white, > 4500 K	200	yes	no	95.0	3.6	60	56	26
LTBP096036-IR850	2x1	96	36	96	IR, 850 nm	-	yes	no	74.9	3.6	60	56	26
LTBP096036-R-CO	2x1	96	36	96	red, 620 nm	70	yes	yes	86.4	3.6	60	56	26
LTBP096036-G-CO	2x1	96	36	96	green, 522 nm	150	yes	yes	121.0	3.6	60	56	26
LTBP096036-B-CO	2x1	96	36	96	blue, 465 nm	30	yes	yes	109.4	3.6	60	56	26
LTBP096036-W-CO	2x1	96	36	96	white, > 4500 K	200	yes	yes	95.0	3.6	60	56	26
LTBP096072-R	2x2	96	72	192	red, 620 nm	70	yes	no	172.8	7.2	60	56	26
LTBP096072-G	2x2	96	72	192	green, 522 nm	150	yes	no	241.9	7.2	60	56	26
LTBP096072-B	2x2	96	72	192	blue, 465 nm	30	yes	no	218.9	7.2	60	56	26
LTBP096072-W	2x2	96	72	192	white, > 4500 K	200	yes	no	190.1	7.2	60	56	26
LTBP096072-IR850	2x2	96	72	192	IR, 850 nm	-	yes	no	149.8	7.2	60	56	26
LTBP096072-R-CO	2x2	96	72	192	red, 620 nm	70	yes	yes	172.8	7.2	60	56	26
LTBP096072-G-CO	2x2	96	72	192	green, 522 nm	150	yes	yes	241.9	7.2	60	56	26
LTBP096072-B-CO	2x2	96	72	192	blue, 465 nm	30	yes	yes	218.9	7.2	60	56	26
LTBP096072-W-CO	2x2	96	72	192	white, > 4500 K	200	yes	yes	190.1	7.2	60	56	26
LTBP096108-R	2x3	96	108	288	red, 620 nm	70	yes	no	259.2	10.8	60	56	26
LTBP096108-G	2x3	96	108	288	green, 522 nm	150	yes	no	362.9	10.8	60	56	26
LTBP096108-B	2x3	96	108	288	blue, 465 nm	30	yes	no	328.3	10.8	60	56	26
LTBP096108-W	2x3	96	108	288	white, > 4500 K	200	yes	no	285.1	10.8	60	56	26
LTBP096108-IR850	2x3	96	108	288	IR, 850 nm	-	yes	no	224.6	10.8	60	56	26
LTBP096108-R-CO	2x3	96	108	288	red, 620 nm	70	yes	yes	259.2	10.8	60	56	26
LTBP096108-G-CO	2x3	96	108	288	green, 522 nm	150	yes	yes	362.9	10.8	60	56	26
LTBP096108-B-CO	2x3	96	108	288	blue, 465 nm	30	yes	yes	328.3	10.8	60	56	26
LTBP096108-W-CO	2x3	96	108	288	white, > 4500 K	200	yes	yes	285.1	10.8	60	56	26
LTBP096144-R	2x4	96	144	384	red, 620 nm	70	yes	no	345.6	14.4	60	56	26
LTBP096144-G	2x4	96	144	384	green, 522 nm	150	yes	no	483.8	14.4	60	56	26
LTBP096144-B	2x4	96	144	384	blue, 465 nm	30	yes	no	437.8	14.4	60	56	26
LTBP096144-W	2x4	96	144	384	white, > 4500 K	200	yes	no	380.2	14.4	60	56	26
LTBP096144-IR850	2x4	96	144	384	IR, 850 nm	-	yes	no	299.5	14.4	60	56	26
LTBP096144-R-CO	2x4	96	144	384	red, 620 nm	70	yes	yes	345.6	14.4	60	56	26
LTBP096144-G-CO	2x4	96	144	384	green, 522 nm	150	yes	yes	483.8	14.4	60	56	26
LTBP096144-B-CO	2x4	96	144	384	blue, 465 nm	30	yes	yes	437.8	14.4	60	56	26
LTBP096144-W-CO	2x4	96	144	384	white, > 4500 K	200	yes	yes	380.2	14.4	60	56	26
LTBP096180-R	2x5	96	180	480	red, 625 nm	n.a.	yes	no	168.0	8.4	60	56	26
LTBP096180-G	2x5	96	180	480	green, 525 nm	n.a.	yes	no	241.9	8.4	60	56	26
LTBP096180-B	2x5	96	180	480	blue, 470 nm	n.a.	yes	no	125.4	4.9	60	56	26
LTBP096180-W	2x5	96	180	480	white, > 4500 K	n.a.	yes	no	122.9	4.8	60	56	26
LTBP096180-IR850	2x5	96	180	480	IR, 850 nm	-	yes	no	151.2	8.4	60	56	26
LTBP096180-R-CO	2x5	96	180	480	red, 625 nm	n.a.	yes	yes	168.0	8.4	60	56	26
LTBP096180-G-CO	2x5	96	180	480	green, 525 nm	n.a.	yes	yes	241.9	8.4	60	56	26
LTBP096180-B-CO	2x5	96	180	480	blue, 470 nm	n.a.	yes	yes	125.4	4.9	60	56	26
LTBP096180-W-CO	2x5	96	180	480	white, > 4500 K	n.a.	yes	yes	122.9	4.8	60	56	26
LTBP096216-R	2x6	96	216	576	red, 625 nm	n.a.	yes	no	202.0	10.1	60	56	26
LTBP096216-G	2x6	96	216	576	green, 525 nm	n.a.	yes	no	290.9	10.1	60	56	26
LTBP096216-B	2x6	96	216	576	blue, 470 nm	n.a.	yes	no	148.5	5.8	60	56	26
LTBP096216-W	2x6	96	216	576	white, > 4500 K	n.a.	yes	no	148.5	5.8	60	56	26
LTBP096216-IR850	2x6	96	216	576	IR, 850 nm	-	yes	no	181.8	10.1	60	56	26
LTBP096216-R-CO	2x6	96	216	576	red, 625 nm	n.a.	yes	yes	202.0	10.1	60	56	26
LTBP096216-G-CO	2x6	96	216	576	green, 525 nm	n.a.	yes	yes	290.9	10.1	60	56	26
LTBP096216-B-CO	2x6	96	216	576	blue, 470 nm	n.a.	yes	yes	148.5	5.8	60	56	26
LTBP096216-W-CO	2x6	96	216	576	white, > 4500 K	n.a.	yes	yes	148.5	5.8	60	56	26

1 Minimum value, at max driving current, on emitting surface. Where n.a. is reported data is available upon request.

2 Models where two currents are listed (such as LTBP240180-R) feature two separate channels.

Following page →

Part number	Modules	LIGHTING SPECIFICATIONS							ELECTRICAL SPECIFICATIONS		MECHANICAL SPECIFICATIONS		
		Illumination area		Number of LED's	Light color, peak wavelength	Illuminance (klux)	Diffuser	Optional collimation film	Power consumption (W)	Max pulse current (W)	Length (mm)	Width (mm)	Height (mm)
		width (mm)	height (mm)										
				1		2							
LTBP144036-R	3x1	144	36	144	red, 620 nm	70	yes	no	129.6	5.4	60	56	26
LTBP144036-G	3x1	144	36	144	green, 522 nm	150	yes	no	181.4	5.4	60	56	26
LTBP144036-B	3x1	144	36	144	blue, 465 nm	30	yes	no	164.2	5.4	60	56	26
LTBP144036-W	3x1	144	36	144	white, > 4500 K	200	yes	no	142.6	5.4	60	56	26
LTBP144036-IR850	3x1	144	36	144	IR, 850 nm	-	yes	no	112.3	5.4	60	56	26
LTBP144036-R-CO	3x1	144	36	144	red, 620 nm	70	yes	yes	129.6	5.4	60	56	26
LTBP144036-G-CO	3x1	144	36	144	green, 522 nm	150	yes	yes	181.4	5.4	60	56	26
LTBP144036-B-CO	3x1	144	36	144	blue, 465 nm	30	yes	yes	164.2	5.4	60	56	26
LTBP144036-W-CO	3x1	144	36	144	white, > 4500 K	200	yes	yes	142.6	5.4	60	56	26
LTBP144072-R	3x2	144	72	288	red, 620 nm	70	yes	no	259.2	10.8	60	56	26
LTBP144072-G	3x2	144	72	288	green, 522 nm	150	yes	no	362.9	10.8	60	56	26
LTBP144072-B	3x2	144	72	288	blue, 465 nm	30	yes	no	328.3	10.8	60	56	26
LTBP144072-W	3x2	144	72	288	white, > 4500 K	200	yes	no	285.1	10.8	60	56	26
LTBP144072-IR850	3x2	144	72	288	IR, 850 nm	-	yes	no	224.6	10.8	60	56	26
LTBP144072-R-CO	3x2	144	72	288	red, 620 nm	70	yes	yes	259.2	10.8	60	56	26
LTBP144072-G-CO	3x2	144	72	288	green, 522 nm	150	yes	yes	362.9	10.8	60	56	26
LTBP144072-B-CO	3x2	144	72	288	blue, 465 nm	30	yes	yes	328.3	10.8	60	56	26
LTBP144072-W-CO	3x2	144	72	288	white, > 4500 K	200	yes	yes	285.1	10.8	60	56	26
LTBP144108-R	3x3	144	108	432	red, 620 nm	70	yes	no	388.8	16.2	60	56	26
LTBP144108-G	3x3	144	108	432	green, 522 nm	150	yes	no	544.3	16.2	60	56	26
LTBP144108-B	3x3	144	108	432	blue, 465 nm	30	yes	no	492.5	16.2	60	56	26
LTBP144108-W	3x3	144	108	432	white, > 4500 K	200	yes	no	427.7	16.2	60	56	26
LTBP144108-IR850	3x3	144	108	432	IR, 850 nm	-	yes	no	337.0	16.2	60	56	26
LTBP144108-R-CO	3x3	144	108	432	red, 620 nm	70	yes	yes	388.8	16.2	60	56	26
LTBP144108-G-CO	3x3	144	108	432	green, 522 nm	150	yes	yes	544.3	16.2	60	56	26
LTBP144108-B-CO	3x3	144	108	432	blue, 465 nm	30	yes	yes	492.5	16.2	60	56	26
LTBP144108-W-CO	3x3	144	108	432	white, > 4500 K	200	yes	yes	427.7	16.2	60	56	26
LTBP144144-R	3x4	144	144	576	red, 625 nm	n.a.	yes	no	202.0	10.1	60	56	26
LTBP144144-G	3x4	144	144	576	green, 525 nm	n.a.	yes	no	290.9	10.1	60	56	26
LTBP144144-B	3x4	144	144	576	blue, 470 nm	n.a.	yes	no	148.5	5.8	60	56	26
LTBP144144-W	3x4	144	144	576	white, > 4500 K	n.a.	yes	no	148.5	5.8	60	56	26
LTBP144144-IR850	3x4	144	144	576	IR, 850 nm	-	yes	no	181.8	10.1	60	56	26
LTBP144144-R-CO	3x4	144	144	576	red, 625 nm	n.a.	yes	yes	202.0	10.1	60	56	26
LTBP144144-G-CO	3x4	144	144	576	green, 525 nm	n.a.	yes	yes	290.9	10.1	60	56	26
LTBP144144-B-CO	3x4	144	144	576	blue, 470 nm	n.a.	yes	yes	148.5	5.8	60	56	26
LTBP144144-W-CO	3x4	144	144	576	white, > 4500 K	n.a.	yes	yes	148.5	5.8	60	56	26
LTBP144180-R	3x5	144	180	720	red, 625 nm	n.a.	yes	no	252.0	12.6	60	56	26
LTBP144180-G	3x5	144	180	720	green, 525 nm	n.a.	yes	no	362.9	12.6	60	56	26
LTBP144180-B	3x5	144	180	720	blue, 470 nm	n.a.	yes	no	186.9	7.3	60	56	26
LTBP144180-W	3x5	144	180	720	white, > 4500 K	n.a.	yes	no	184.3	7.2	60	56	26
LTBP144180-IR850	3x5	144	180	720	IR, 850 nm	-	yes	no	226.8	12.6	60	56	26
LTBP144180-R-CO	3x5	144	180	720	red, 625 nm	n.a.	yes	yes	252.0	12.6	60	56	26
LTBP144180-G-CO	3x5	144	180	720	green, 525 nm	n.a.	yes	yes	362.9	12.6	60	56	26
LTBP144180-B-CO	3x5	144	180	720	blue, 470 nm	n.a.	yes	yes	186.9	7.3	60	56	26
LTBP144180-W-CO	3x5	144	180	720	white, > 4500 K	n.a.	yes	yes	184.3	7.2	60	56	26
LTBP144216-R	3x6	144	216	864	red, 625 nm	n.a.	yes	no	302.0	15.1	60	56	26
LTBP144216-G	3x6	144	216	864	green, 525 nm	n.a.	yes	no	434.9	15.1	60	56	26
LTBP144216-B	3x6	144	216	864	blue, 470 nm	n.a.	yes	no	222.7	8.7	60	56	26
LTBP144216-W	3x6	144	216	864	white, > 4500 K	n.a.	yes	no	220.2	8.6	60	56	26
LTBP144216-IR850	3x6	144	216	864	IR, 850 nm	-	yes	no	271.8	15.1	60	56	26
LTBP144216-R-CO	3x6	144	216	864	red, 625 nm	n.a.	yes	yes	302.0	15.1	60	56	26
LTBP144216-G-CO	3x6	144	216	864	green, 525 nm	n.a.	yes	yes	434.9	15.1	60	56	26
LTBP144216-B-CO	3x6	144	216	864	blue, 470 nm	n.a.	yes	yes	222.7	8.7	60	56	26
LTBP144216-W-CO	3x6	144	216	864	white, > 4500 K	n.a.	yes	yes	220.2	8.6	60	56	26
LTBP192036-R	4x1	192	36	192	red, 620 nm	70	yes	no	172.8	7.2	60	56	26
LTBP192036-G	4x1	192	36	192	green, 522 nm	150	yes	no	241.9	7.2	60	56	26
LTBP192036-B	4x1	192	36	192	blue, 465 nm	30	yes	no	218.9	7.2	60	56	26
LTBP192036-W	4x1	192	36	192	white, > 4500 K	200	yes	no	190.1	7.2	60	56	26
LTBP192036-IR850	4x1	192	36	192	IR, 850 nm	-	yes	no	149.8	7.2	60	56	26
LTBP192036-R-CO	4x1	192	36	192	red, 620 nm	70	yes	yes	172.8	7.2	60	56	26
LTBP192036-G-CO	4x1	192	36	192	green, 522 nm	150	yes	yes	241.9	7.2	60	56	26
LTBP192036-B-CO	4x1	192	36	192	blue, 465 nm	30	yes	yes	218.9	7.2	60	56	26
LTBP192036-W-CO	4x1	192	36	192	white, > 4500 K	200	yes	yes	190.1	7.2	60	56	26

Part number	Modules	LIGHTING SPECIFICATIONS							ELECTRICAL SPECIFICATIONS		MECHANICAL SPECIFICATIONS		
		Illumination area		Number of LED's	Light color, peak wavelength	Illuminance (klux)	Diffuser	Optional collimation film	Power consumption (W)	Max pulse current (W)	Length (mm)	Width (mm)	Height (mm)
		width (mm)	height (mm)										
								1	2				
LTBP192072-R	4x2	192	72	384	red, 620 nm	70	yes	no	345.6	14.4	60	56	26
LTBP192072-G	4x2	192	72	384	green, 522 nm	150	yes	no	483.8	14.4	60	56	26
LTBP192072-B	4x2	192	72	384	blue, 465 nm	30	yes	no	437.8	14.4	60	56	26
LTBP192072-W	4x2	192	72	384	white, > 4500 K	200	yes	no	380.2	14.4	60	56	26
LTBP192072-IR850	4x2	192	72	384	IR, 850 nm	-	yes	no	299.5	14.4	60	56	26
LTBP192072-R-CO	4x2	192	72	384	red, 620 nm	70	yes	yes	345.6	14.4	60	56	26
LTBP192072-G-CO	4x2	192	72	384	green, 522 nm	150	yes	yes	483.8	14.4	60	56	26
LTBP192072-B-CO	4x2	192	72	384	blue, 465 nm	30	yes	yes	437.8	14.4	60	56	26
LTBP192072-W-CO	4x2	192	72	384	white, > 4500 K	200	yes	yes	380.2	14.4	60	56	26
LTBP192108-R	4x3	192	108	576	red, 625 nm	n.a.	yes	no	202.0	10.1	60	56	26
LTBP192108-G	4x3	192	108	576	green, 525 nm	n.a.	yes	no	290.9	10.1	60	56	26
LTBP192108-B	4x3	192	108	576	blue, 470 nm	n.a.	yes	no	148.5	5.8	60	56	26
LTBP192108-W	4x3	192	108	576	white, > 4500 K	n.a.	yes	no	148.5	5.8	60	56	26
LTBP192108-IR850	4x3	192	108	576	IR, 850 nm	-	yes	no	181.8	10.1	60	56	26
LTBP192108-R-CO	4x3	192	108	576	red, 625 nm	n.a.	yes	yes	202.0	10.1	60	56	26
LTBP192108-G-CO	4x3	192	108	576	green, 525 nm	n.a.	yes	yes	290.9	10.1	60	56	26
LTBP192108-B-CO	4x3	192	108	576	blue, 470 nm	n.a.	yes	yes	148.5	5.8	60	56	26
LTBP192108-W-CO	4x3	192	108	576	white, > 4500 K	n.a.	yes	yes	148.5	5.8	60	56	26
LTBP192144-R	4x4	192	144	768	red, 625 nm	n.a.	yes	no	268.0	13.4	60	56	26
LTBP192144-G	4x4	192	144	768	green, 525 nm	n.a.	yes	no	385.9	13.4	60	56	26
LTBP192144-B	4x4	192	144	768	blue, 470 nm	n.a.	yes	no	199.7	7.8	60	56	26
LTBP192144-W	4x4	192	144	768	white, > 4500 K	n.a.	yes	no	197.1	7.7	60	56	26
LTBP192144-IR850	4x4	192	144	768	IR, 850 nm	-	yes	no	241.2	13.4	60	56	26
LTBP192144-R-CO	4x4	192	144	768	red, 625 nm	n.a.	yes	yes	268.0	13.4	60	56	26
LTBP192144-G-CO	4x4	192	144	768	green, 525 nm	n.a.	yes	yes	385.9	13.4	60	56	26
LTBP192144-B-CO	4x4	192	144	768	blue, 470 nm	n.a.	yes	yes	199.7	7.8	60	56	26
LTBP192144-W-CO	4x4	192	144	768	white, > 4500 K	n.a.	yes	yes	197.1	7.7	60	56	26
LTBP192180-R	4x5	192	180	960	red, 625 nm	n.a.	yes	no	336.0	16.8	60	56	26
LTBP192180-G	4x5	192	180	960	green, 525 nm	n.a.	yes	no	483.8	16.8	60	56	26
LTBP192180-B	4x5	192	180	960	blue, 470 nm	n.a.	yes	no	248.3	9.7	60	56	26
LTBP192180-W	4x5	192	180	960	white, > 4500 K	n.a.	yes	no	245.8	9.6	60	56	26
LTBP192180-IR850	4x5	192	180	960	IR, 850 nm	-	yes	no	302.4	16.8	60	56	26
LTBP192180-R-CO	4x5	192	180	960	red, 625 nm	n.a.	yes	yes	336.0	16.8	60	56	26
LTBP192180-G-CO	4x5	192	180	960	green, 525 nm	n.a.	yes	yes	483.8	16.8	60	56	26
LTBP192180-B-CO	4x5	192	180	960	blue, 470 nm	n.a.	yes	yes	248.3	9.7	60	56	26
LTBP192180-W-CO	4x5	192	180	960	white, > 4500 K	n.a.	yes	yes	245.8	9.6	60	56	26
LTBP192216-R	4x6	192	216	1152	red, 625 nm	n.a.	yes	no	404.0	20.2	60	56	26
LTBP192216-G	4x6	192	216	1152	green, 525 nm	n.a.	yes	no	581.8	20.2	60	56	26
LTBP192216-B	4x6	192	216	1152	blue, 470 nm	n.a.	yes	no	299.5	11.7	60	56	26
LTBP192216-W	4x6	192	216	1152	white, > 4500 K	n.a.	yes	no	294.4	11.5	60	56	26
LTBP192216-IR850	4x6	192	216	1152	IR, 850 nm	-	yes	no	363.6	20.2	60	56	26
LTBP192216-R-CO	4x6	192	216	1152	red, 625 nm	n.a.	yes	yes	404.0	20.2	60	56	26
LTBP192216-G-CO	4x6	192	216	1152	green, 525 nm	n.a.	yes	yes	581.8	20.2	60	56	26
LTBP192216-B-CO	4x6	192	216	1152	blue, 470 nm	n.a.	yes	yes	299.5	11.7	60	56	26
LTBP192216-W-CO	4x6	192	216	1152	white, > 4500 K	n.a.	yes	yes	294.4	11.5	60	56	26
LTBP240036-R	5x1	240	36	240	red, 620 nm	70	yes	no	216.0	9.0	60	56	26
LTBP240036-G	5x1	240	36	240	green, 522 nm	150	yes	no	302.4	9.0	60	56	26
LTBP240036-B	5x1	240	36	240	blue, 465 nm	30	yes	no	273.6	9.0	60	56	26
LTBP240036-W	5x1	240	36	240	white, > 4500 K	200	yes	no	237.6	9.0	60	56	26
LTBP240036-IR850	5x1	240	36	240	IR, 850 nm	-	yes	no	187.2	9.0	60	56	26
LTBP240036-R-CO	5x1	240	36	240	red, 620 nm	70	yes	yes	216.0	9.0	60	56	26
LTBP240036-G-CO	5x1	240	36	240	green, 522 nm	150	yes	yes	302.4	9.0	60	56	26
LTBP240036-B-CO	5x1	240	36	240	blue, 465 nm	30	yes	yes	273.6	9.0	60	56	26
LTBP240036-W-CO	5x1	240	36	240	white, > 4500 K	200	yes	yes	237.6	9.0	60	56	26
LTBP240072-R	5x2	240	72	480	red, 625 nm	n.a.	yes	no	168.0	8.4	60	56	26
LTBP240072-G	5x2	240	72	480	green, 525 nm	n.a.	yes	no	241.9	8.4	60	56	26
LTBP240072-B	5x2	240	72	480	blue, 470 nm	n.a.	yes	no	125.4	4.9	60	56	26
LTBP240072-W	5x2	240	72	480	white, > 4500 K	n.a.	yes	no	122.9	4.8	60	56	26
LTBP240072-IR850	5x2	240	72	480	IR, 850 nm	-	yes	no	151.2	8.4	60	56	26
LTBP240072-R-CO	5x2	240	72	480	red, 625 nm	n.a.	yes	yes	168.0	8.4	60	56	26
LTBP240072-G-CO	5x2	240	72	480	green, 525 nm	n.a.	yes	yes	241.9	8.4	60	56	26
LTBP240072-B-CO	5x2	240	72	480	blue, 470 nm	n.a.	yes	yes	125.4	4.9	60	56	26
LTBP240072-W-CO	5x2	240	72	480	white, > 4500 K	n.a.	yes	yes	122.9	4.8	60	56	26

1 Minimum value, at max driving current, on emitting surface. Where n.a. is reported data is available upon request.
 2 Models where two currents are listed (such as LTBP240180-R) feature two separate channels.

Part number	LIGHTING SPECIFICATIONS								ELECTRICAL SPECIFICATIONS		MECHANICAL SPECIFICATIONS		
	Modules	Illumination area		Number of LED's	Light color, peak wavelength	Illuminance (klux)	Diffuser	Optional collimation film	Power consumption (W)	Max pulse current (W)	Length (mm)	Width (mm)	Height (mm)
		width (mm)	height (mm)										
					1			2					
LTBP240108-R	5x3	240	108	720	red, 625 nm	n.a.	yes	no	252.0	12.6	60	56	26
LTBP240108-G	5x3	240	108	720	green, 525 nm	n.a.	yes	no	362.9	12.6	60	56	26
LTBP240108-B	5x3	240	108	720	blue, 470 nm	n.a.	yes	no	186.9	7.3	60	56	26
LTBP240108-W	5x3	240	108	720	white, > 4500 K	n.a.	yes	no	184.3	7.2	60	56	26
LTBP240108-IR850	5x3	240	108	720	IR, 850 nm	-	yes	no	226.8	12.6	60	56	26
LTBP240108-R-CO	5x3	240	108	720	red, 625 nm	n.a.	yes	yes	252.0	12.6	60	56	26
LTBP240108-G-CO	5x3	240	108	720	green, 525 nm	n.a.	yes	yes	362.9	12.6	60	56	26
LTBP240108-B-CO	5x3	240	108	720	blue, 470 nm	n.a.	yes	yes	186.9	7.3	60	56	26
LTBP240108-W-CO	5x3	240	108	720	white, > 4500 K	n.a.	yes	yes	184.3	7.2	60	56	26
LTBP240144-R	5x4	240	144	960	red, 625 nm	n.a.	yes	no	336.0	16.8	60	56	26
LTBP240144-G	5x4	240	144	960	green, 525 nm	n.a.	yes	no	483.8	16.8	60	56	26
LTBP240144-B	5x4	240	144	960	blue, 470 nm	n.a.	yes	no	248.3	9.7	60	56	26
LTBP240144-W	5x4	240	144	960	white, > 4500 K	n.a.	yes	no	245.8	9.6	60	56	26
LTBP240144-IR850	5x4	240	144	960	IR, 850 nm	-	yes	no	302.4	16.8	60	56	26
LTBP240144-R-CO	5x4	240	144	960	red, 625 nm	n.a.	yes	yes	336.0	16.8	60	56	26
LTBP240144-G-CO	5x4	240	144	960	green, 525 nm	n.a.	yes	yes	483.8	16.8	60	56	26
LTBP240144-B-CO	5x4	240	144	960	blue, 470 nm	n.a.	yes	yes	248.3	9.7	60	56	26
LTBP240144-W-CO	5x4	240	144	960	white, > 4500 K	n.a.	yes	yes	245.8	9.6	60	56	26
LTBP240180-R	5x5	240	180	1200	red, 625 nm	n.a.	yes	no	420.0	10.5 + 10.5	60	56	26
LTBP240180-G	5x5	240	180	1200	green, 525 nm	n.a.	yes	no	604.8	10.5 + 10.5	60	56	26
LTBP240180-B	5x5	240	180	1200	blue, 470 nm	n.a.	yes	no	312.3	12.2	60	56	26
LTBP240180-W	5x5	240	180	1200	white, > 4500 K	n.a.	yes	no	307.2	12.0	60	56	26
LTBP240180-IR850	5x5	240	180	1200	IR, 850 nm	-	yes	no	378.0	10.5 + 10.5	60	56	26
LTBP240180-R-CO	5x5	240	180	1200	red, 625 nm	n.a.	yes	yes	420.0	10.5 + 10.5	60	56	26
LTBP240180-G-CO	5x5	240	180	1200	green, 525 nm	n.a.	yes	yes	604.8	10.5 + 10.5	60	56	26
LTBP240180-B-CO	5x5	240	180	1200	blue, 470 nm	n.a.	yes	yes	312.3	12.2	60	56	26
LTBP240180-W-CO	5x5	240	180	1200	white, > 4500 K	n.a.	yes	yes	307.2	12.0	60	56	26
LTBP240216-R	5x6	240	216	1440	red, 625 nm	n.a.	yes	no	504.0	12.6 + 12.6	60	56	26
LTBP240216-G	5x6	240	216	1440	green, 525 nm	n.a.	yes	no	725.8	12.6 + 12.6	60	56	26
LTBP240216-B	5x6	240	216	1440	blue, 470 nm	n.a.	yes	no	373.8	14.6	60	56	26
LTBP240216-W	5x6	240	216	1440	white, > 4500 K	n.a.	yes	no	368.6	14.4	60	56	26
LTBP240216-IR850	5x6	240	216	1440	IR, 850 nm	-	yes	no	453.6	12.6 + 12.6	60	56	26
LTBP240216-R-CO	5x6	240	216	1440	red, 625 nm	n.a.	yes	yes	504.0	12.6 + 12.6	60	56	26
LTBP240216-G-CO	5x6	240	216	1440	green, 525 nm	n.a.	yes	yes	725.8	12.6 + 12.6	60	56	26
LTBP240216-B-CO	5x6	240	216	1440	blue, 470 nm	n.a.	yes	yes	373.8	14.6	60	56	26
LTBP240216-W-CO	5x6	240	216	1440	white, > 4500 K	n.a.	yes	yes	368.6	14.4	60	56	26
LTBP288036-R	6x1	288	36	288	red, 620 nm	70	yes	no	259.2	10.8	60	56	26
LTBP288036-G	6x1	288	36	288	green, 522 nm	150	yes	no	362.9	10.8	60	56	26
LTBP288036-B	6x1	288	36	288	blue, 465 nm	30	yes	no	328.3	10.8	60	56	26
LTBP288036-W	6x1	288	36	288	white, > 4500 K	200	yes	no	285.1	10.8	60	56	26
LTBP288036-IR850	6x1	288	36	288	IR, 850 nm	-	yes	no	224.6	10.8	60	56	26
LTBP288036-R-CO	6x1	288	36	288	red, 620 nm	70	yes	yes	259.2	10.8	60	56	26
LTBP288036-G-CO	6x1	288	36	288	green, 522 nm	150	yes	yes	362.9	10.8	60	56	26
LTBP288036-B-CO	6x1	288	36	288	blue, 465 nm	30	yes	yes	328.3	10.8	60	56	26
LTBP288036-W-CO	6x1	288	36	288	white, > 4500 K	200	yes	yes	285.1	10.8	60	56	26
LTBP288072-R	6x2	288	72	576	red, 625 nm	n.a.	yes	no	202.0	10.1	60	56	26
LTBP288072-G	6x2	288	72	576	green, 525 nm	n.a.	yes	no	290.9	10.1	60	56	26
LTBP288072-B	6x2	288	72	576	blue, 470 nm	n.a.	yes	no	148.5	5.8	60	56	26
LTBP288072-W	6x2	288	72	576	white, > 4500 K	n.a.	yes	no	148.5	5.8	60	56	26
LTBP288072-IR850	6x2	288	72	576	IR, 850 nm	-	yes	no	181.8	10.1	60	56	26
LTBP288072-R-CO	6x2	288	72	576	red, 625 nm	n.a.	yes	yes	202.0	10.1	60	56	26
LTBP288072-G-CO	6x2	288	72	576	green, 525 nm	n.a.	yes	yes	290.9	10.1	60	56	26
LTBP288072-B-CO	6x2	288	72	576	blue, 470 nm	n.a.	yes	yes	148.5	5.8	60	56	26
LTBP288072-W-CO	6x2	288	72	576	white, > 4500 K	n.a.	yes	yes	148.5	5.8	60	56	26
LTBP288108-R	6x3	288	108	864	red, 625 nm	n.a.	yes	no	302.0	15.1	60	56	26
LTBP288108-G	6x3	288	108	864	green, 525 nm	n.a.	yes	no	434.9	15.1	60	56	26
LTBP288108-B	6x3	288	108	864	blue, 470 nm	n.a.	yes	no	222.7	8.7	60	56	26
LTBP288108-W	6x3	288	108	864	white, > 4500 K	n.a.	yes	no	220.2	8.6	60	56	26
LTBP288108-IR850	6x3	288	108	864	IR, 850 nm	-	yes	no	271.8	15.1	60	56	26
LTBP288108-R-CO	6x3	288	108	864	red, 625 nm	n.a.	yes	yes	302.0	15.1	60	56	26
LTBP288108-G-CO	6x3	288	108	864	green, 525 nm	n.a.	yes	yes	434.9	15.1	60	56	26
LTBP288108-B-CO	6x3	288	108	864	blue, 470 nm	n.a.	yes	yes	222.7	8.7	60	56	26
LTBP288108-W-CO	6x3	288	108	864	white, > 4500 K	n.a.	yes	yes	220.2	8.6	60	56	26

Part number	Modules	LIGHTING SPECIFICATIONS							ELECTRICAL SPECIFICATIONS		MECHANICAL SPECIFICATIONS		
		Illumination area		Number of LED's	Light color, peak wavelength	Illuminance (klux)	Diffuser	Optional collimation film	Power consumption (W)	Max pulse current (W)	Length (mm)	Width (mm)	Height (mm)
		width (mm)	height (mm)										
								1	2				
LTBP288144-R	6x4	288	144	1152	red, 625 nm	n.a.	yes	no	404.0	20.2	60	56	26
LTBP288144-G	6x4	288	144	1152	green, 525 nm	n.a.	yes	no	581.8	20.2	60	56	26
LTBP288144-B	6x4	288	144	1152	blue, 470 nm	n.a.	yes	no	299.5	11.7	60	56	26
LTBP288144-W	6x4	288	144	1152	white, > 4500 K	n.a.	yes	no	294.4	11.5	60	56	26
LTBP288144-IR850	6x4	288	144	1152	IR, 850 nm	-	yes	no	363.6	20.2	60	56	26
LTBP288144-R-CO	6x4	288	144	1152	red, 625 nm	n.a.	yes	yes	404.0	20.2	60	56	26
LTBP288144-G-CO	6x4	288	144	1152	green, 525 nm	n.a.	yes	yes	581.8	20.2	60	56	26
LTBP288144-B-CO	6x4	288	144	1152	blue, 470 nm	n.a.	yes	yes	299.5	11.7	60	56	26
LTBP288144-W-CO	6x4	288	144	1152	white, > 4500 K	n.a.	yes	yes	294.4	11.5	60	56	26
LTBP288180-R	6x5	288	180	1440	red, 625 nm	n.a.	yes	no	504.0	12.6 + 12.6	60	56	26
LTBP288180-G	6x5	288	180	1440	green, 525 nm	n.a.	yes	no	504.0	12.6 + 12.6	60	56	26
LTBP288180-B	6x5	288	180	1440	blue, 470 nm	n.a.	yes	no	373.8	14.6	60	56	26
LTBP288180-W	6x5	288	180	1440	white, > 4500 K	n.a.	yes	no	368.6	14.4	60	56	26
LTBP288180-IR850	6x5	288	180	1440	IR, 850 nm	-	yes	no	453.6	12.6 + 12.6	60	56	26
LTBP288180-R-CO	6x5	288	180	1440	red, 625 nm	n.a.	yes	yes	504.0	12.6 + 12.6	60	56	26
LTBP288180-G-CO	6x5	288	180	1440	green, 525 nm	n.a.	yes	yes	504.0	12.6 + 12.6	60	56	26
LTBP288180-B-CO	6x5	288	180	1440	blue, 470 nm	n.a.	yes	yes	373.8	14.6	60	56	26
LTBP288180-W-CO	6x5	288	180	1440	white, > 4500 K	n.a.	yes	yes	368.6	14.4	60	56	26
LTBP288216-R	6x6	288	216	1728	red, 625 nm	n.a.	yes	no	604.0	15.1 + 15.1	60	56	26
LTBP288216-G	6x6	288	216	1728	green, 525 nm	n.a.	yes	no	869.8	15.1 + 15.1	60	56	26
LTBP288216-B	6x6	288	216	1728	blue, 470 nm	n.a.	yes	no	448.0	17.5	60	56	26
LTBP288216-W	6x6	288	216	1728	white, > 4500 K	n.a.	yes	no	442.9	17.3	60	56	26
LTBP288216-IR850	6x6	288	216	1728	IR, 850 nm	-	yes	no	543.6	15.1 + 15.1	60	56	26
LTBP288216-R-CO	6x6	288	216	1728	red, 625 nm	n.a.	yes	yes	604.0	15.1 + 15.1	60	56	26
LTBP288216-G-CO	6x6	288	216	1728	green, 525 nm	n.a.	yes	yes	869.8	15.1 + 15.1	60	56	26
LTBP288216-B-CO	6x6	288	216	1728	blue, 470 nm	n.a.	yes	yes	448.0	17.5	60	56	26
LTBP288216-W-CO	6x6	288	216	1728	white, > 4500 K	n.a.	yes	yes	442.9	17.3	60	56	26

Last update 04/09/2024

- 1 Minimum value, at max driving current, on emitting surface. Where n.a. is reported data is available upon request.
- 2 Models where two currents are listed (such as LTBP240180-R) feature two separate channels.

Ordering information

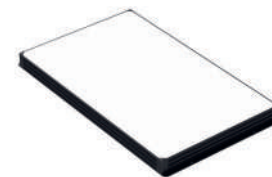
Our part numbers are coded as **LTBP xxx yyy - z - a**, where:

- **xxx** defines the illumination area length (in mm),
 - **yyy** defines the illumination area width (in mm),
 - **z** defines the color. R = red, G = green, B = blue, W = white and IR850,
 - **a** defines the presence of an optional optical sheet. CO = with collimation films in both horizontal and vertical directions.
- Leave empty if no optional optical sheet is required. For additional options such as horizontal/vertical linear or circular polarizers, contact us.

LTBCL series

Large continuous LED backlights

Part number	LIGHTING SPECIFICATIONS				ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS		
	Illumination area		Light color, peak wavelength	Illuminance (continuous)	Supply voltage	Current	Power consumption	Max pulse voltage	Max pulse current	Length	Width	Height
	height	width										
(mm)	(mm)	1	2	3	4							
LT3PVZL80X80-00-X-W-24V	80.0	80.0	white, 6300 K	TBA	24	180	4.3	24-48 (36 recommended)	595	116.0	98.0	30.0
LT3PVZL80X80-00-X-R-24V	80.0	80.0	red, 630 nm	TBA	24	135	3.2	24-48 (36 recommended)	550	116.0	98.0	30.0
LT3PVZL80X80-00-X-G-24V	80.0	80.0	green, 525 nm	TBA	24	180	4.3	24-48 (36 recommended)	595	116.0	98.0	30.0
LT3PVZL80X80-00-X-B-24V	80.0	80.0	blue, 470 nm	TBA	24	180	4.3	24-48 (36 recommended)	595	116.0	98.0	30.0
LT3PVZL80X80-IR850-24V	80.0	80.0	IR, 850 nm	-	24	130	3.1	24-48 (36 recommended)	545	116.0	98.0	30.0
LT3PVZL80X160-00-X-W-24V	160.0	80.0	white, 6300 K	TBA	24	360	8.6	24-48 (36 recommended)	1190	196.0	98.0	30.0
LT3PVZL80X160-00-X-R-24V	160.0	80.0	red, 630 nm	TBA	24	270	6.5	24-48 (36 recommended)	1100	196.0	98.0	30.0
LT3PVZL80X160-00-X-G-24V	160.0	80.0	green, 525 nm	TBA	24	360	8.6	24-48 (36 recommended)	1190	196.0	98.0	30.0
LT3PVZL80X160-00-X-B-24V	160.0	80.0	blue, 470 nm	TBA	24	360	8.6	24-48 (36 recommended)	1190	196.0	98.0	30.0
LT3PVZL80X160-IR850-24V	160.0	80.0	IR, 850 nm	-	24	260	6.2	24-48 (36 recommended)	1080	196.0	98.0	30.0
LT3PVZL80X240-00-X-W-24V	240.0	80.0	white, 6300 K	TBA	24	540	13.0	24-48 (36 recommended)	1620	276.0	98.0	30.0
LT3PVZL80X240-00-X-R-24V	240.0	80.0	red, 630 nm	TBA	24	405	9.7	24-48 (36 recommended)	1620	276.0	98.0	30.0
LT3PVZL80X240-00-X-G-24V	240.0	80.0	green, 525 nm	TBA	24	540	13.0	24-48 (36 recommended)	1620	276.0	98.0	30.0
LT3PVZL80X240-00-X-B-24V	240.0	80.0	blue, 470 nm	TBA	24	540	13.0	24-48 (36 recommended)	1620	276.0	98.0	30.0
LT3PVZL80X240-IR850-24V	240.0	80.0	IR, 850 nm	-	24	405	9.7	24-48 (36 recommended)	1620	276.0	98.0	30.0
LT3PVZL80X320-00-X-W-24V	320.0	80.0	white, 6300 K	TBA	24	540	13.0	24-48 (36 recommended)	2160	356.0	98.0	30.0
LT3PVZL80X320-00-X-R-24V	320.0	80.0	red, 630 nm	TBA	24	540	13.0	24-48 (36 recommended)	2160	356.0	98.0	30.0
LT3PVZL80X320-00-X-G-24V	320.0	80.0	green, 525 nm	TBA	24	540	13.0	24-48 (36 recommended)	2160	356.0	98.0	30.0
LT3PVZL80X320-00-X-B-24V	320.0	80.0	blue, 470 nm	TBA	24	540	13.0	24-48 (36 recommended)	2160	356.0	98.0	30.0
LT3PVZL80X320-IR850-24V	320.0	80.0	IR, 850 nm	-	24	540	13.0	24-48 (36 recommended)	2160	356.0	98.0	30.0
LT3PVZL80X400-00-X-W-24V	400.0	80.0	white, 6300 K	TBA	24	900	21.6	24-48 (36 recommended)	2700	436.0	98.0	30.0
LT3PVZL80X400-00-X-R-24V	400.0	80.0	red, 630 nm	TBA	24	830	21.6	24-48 (36 recommended)	2630	436.0	98.0	30.0
LT3PVZL80X400-00-X-G-24V	400.0	80.0	green, 525 nm	TBA	24	900	21.6	24-48 (36 recommended)	2700	436.0	98.0	30.0
LT3PVZL80X400-00-X-B-24V	400.0	80.0	blue, 470 nm	TBA	24	900	21.6	24-48 (36 recommended)	2700	436.0	98.0	30.0
LT3PVZL80X400-IR850-24V	400.0	80.0	IR, 850 nm	-	24	830	21.6	24-48 (36 recommended)	2630	436.0	98.0	30.0
LT3PVZL160X160-00-X-W-24V	160.0	160.0	white, 6300 K	40920	24	720	17.3	24-48 (36 recommended)	4800	196.0	178.0	30.0
LT3PVZL160X160-00-X-R-24V	160.0	160.0	red, 630 nm	14967	24	540	13.0	24-48 (36 recommended)	2370	196.0	178.0	30.0
LT3PVZL160X160-00-X-G-24V	160.0	160.0	green, 525 nm	TBA	24	720	17.3	24-48 (36 recommended)	4800	196.0	178.0	30.0
LT3PVZL160X160-00-X-B-24V	160.0	160.0	blue, 470 nm	43594	24	720	17.3	24-48 (36 recommended)	4800	196.0	178.0	30.0
LT3PVZL160X160-IR850-24V	160.0	160.0	IR, 850 nm	-	24	520	12.5	24-48 (36 recommended)	1880	196.0	178.0	30.0
LT3PVZL160X240-00-X-W-24V	240.0	160.0	white, 6300 K	45724	24	1080	25.9	24-48 (36 recommended)	7200	276.0	178.0	30.0
LT3PVZL160X240-00-X-R-24V	240.0	160.0	red, 630 nm	TBA	24	810	19.4	24-48 (36 recommended)	3550	276.0	178.0	30.0
LT3PVZL160X240-00-X-G-24V	240.0	160.0	green, 525 nm	TBA	24	1080	25.9	24-48 (36 recommended)	7200	276.0	178.0	30.0
LT3PVZL160X240-00-X-B-24V	240.0	160.0	blue, 470 nm	TBA	24	1080	25.9	24-48 (36 recommended)	7200	276.0	178.0	30.0
LT3PVZL160X240-IR850-24V	240.0	160.0	IR, 850 nm	-	24	780	18.7	24-48 (36 recommended)	2820	276.0	178.0	30.0
LT3PVZL160X320-00-X-W-24V	320.0	160.0	white, 6300 K	TBA	24	1440	34.6	24-48 (36 recommended)	9600	356.0	178.0	30.0
LT3PVZL160X320-00-X-R-24V	320.0	160.0	red, 630 nm	TBA	24	1080	25.9	24-48 (36 recommended)	4730	356.0	178.0	30.0
LT3PVZL160X320-00-X-G-24V	320.0	160.0	green, 525 nm	TBA	24	1440	34.6	24-48 (36 recommended)	9600	356.0	178.0	30.0
LT3PVZL160X320-00-X-B-24V	320.0	160.0	blue, 470 nm	TBA	24	1440	34.6	24-48 (36 recommended)	9600	356.0	178.0	30.0
LT3PVZL160X320-IR850-24V	320.0	160.0	IR, 850 nm	-	24	1040	25.0	24-48 (36 recommended)	3760	356.0	178.0	30.0



BACKLIGHT • DIFFUSED

Part number	LIGHTING SPECIFICATIONS				ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS		
	Illumination area		Light color, peak wavelength	Illuminance (continuous)	Supply voltage	Current	Power consumption	Max pulse voltage	Max pulse current	Length	Width	Height
	height	width										
LT3PVZL160X400-00-X-W-24V	400.0	160.0	white, 6300 K	TBA	24	1800	43.2	24-48 (36 recommended)	12000	436.0	178.0	30.0
LT3PVZL160X400-00-X-R-24V	400.0	160.0	red, 630 nm	TBA	24	1350	32.4	24-48 (36 recommended)	5920	436.0	178.0	30.0
LT3PVZL160X400-00-X-G-24V	400.0	160.0	green, 525 nm	TBA	24	1800	43.2	24-48 (36 recommended)	12000	436.0	178.0	30.0
LT3PVZL160X400-00-X-B-24V	400.0	160.0	blue, 470 nm	TBA	24	1800	43.2	24-48 (36 recommended)	12000	436.0	178.0	30.0
LT3PVZL160X400-IR850-24V	400.0	160.0	IR, 850 nm	-	24	1300	31.2	24-48 (36 recommended)	4710	436.0	178.0	30.0
LT3PVZL240X240-00-X-W-24V	240.0	240.0	white, 6300 K	41890	24	1620	38.9	24-48 (36 recommended)	10800	276.0	258.0	30.0
LT3PVZL240X240-00-X-R-24V	240.0	240.0	red, 630 nm	TBA	24	1215	29.2	24-48 (36 recommended)	5330	276.0	258.0	30.0
LT3PVZL240X240-00-X-G-24V	240.0	240.0	green, 525 nm	TBA	24	1620	38.9	24-48 (36 recommended)	10800	276.0	258.0	30.0
LT3PVZL240X240-00-X-B-24V	240.0	240.0	blue, 470 nm	TBA	24	1620	38.9	24-48 (36 recommended)	10800	276.0	258.0	30.0
LT3PVZL240X240-IR850-24V	240.0	240.0	IR, 850 nm	-	24	1170	28.1	24-48 (36 recommended)	4240	276.0	258.0	30.0
LT3PVZL240X320-00-X-W-24V	320.0	240.0	white, 6300 K	TBA	24	2160	51.8	24-48 (36 recommended)	14400	356.0	258.0	30.0
LT3PVZL240X320-00-X-R-24V	320.0	240.0	red, 630 nm	23000	24	1620	38.9	24-48 (36 recommended)	7100	356.0	258.0	30.0
LT3PVZL240X320-00-X-G-24V	320.0	240.0	green, 525 nm	TBA	24	2160	51.8	24-48 (36 recommended)	14400	356.0	258.0	30.0
LT3PVZL240X320-00-X-B-24V	320.0	240.0	blue, 470 nm	TBA	24	2160	51.8	24-48 (36 recommended)	14400	356.0	258.0	30.0
LT3PVZL240X320-IR850-24V	320.0	240.0	IR, 850 nm	-	24	1560	37.4	24-48 (36 recommended)	5650	356.0	258.0	30.0
LT3PVZL240X400-00-X-W-24V	400.0	240.0	white, 6300 K	38482	24	2700	64.8	24-48 (36 recommended)	18000	436.0	258.0	30.0
LT3PVZL240X400-00-X-R-24V	400.0	240.0	red, 630 nm	TBA	24	2025	48.6	24-48 (36 recommended)	8880	436.0	258.0	30.0
LT3PVZL240X400-00-X-G-24V	400.0	240.0	green, 525 nm	TBA	24	2700	64.8	24-48 (36 recommended)	18000	436.0	258.0	30.0
LT3PVZL240X400-00-X-B-24V	400.0	240.0	blue, 470 nm	TBA	24	2700	64.8	24-48 (36 recommended)	18000	436.0	258.0	30.0
LT3PVZL240X400-IR850-24V	400.0	240.0	IR, 850 nm	-	24	1950	46.8	24-48 (36 recommended)	7060	436.0	258.0	30.0
LT3PVZL320X320-00-X-W-24V	320.0	320.0	white, 6300 K	TBA	24	2880	69.1	24-48 (36 recommended)	19200	356.0	338.0	30.0
LT3PVZL320X320-00-X-R-24V	320.0	320.0	red, 630 nm	TBA	24	2160	51.8	24-48 (36 recommended)	9470	356.0	338.0	30.0
LT3PVZL320X320-00-X-G-24V	320.0	320.0	green, 525 nm	TBA	24	2880	69.1	24-48 (36 recommended)	19200	356.0	338.0	30.0
LT3PVZL320X320-00-X-B-24V	320.0	320.0	blue, 470 nm	TBA	24	2880	69.1	24-48 (36 recommended)	19200	356.0	338.0	30.0
LT3PVZL320X320-IR850-24V	320.0	320.0	IR, 850 nm	-	24	2080	49.9	24-48 (36 recommended)	7530	356.0	338.0	30.0
LT3PVZL320X400-00-X-W-24V	400.0	320.0	white, 6300 K	43700	24	3600	86.4	24-48 (36 recommended)	24000	436.0	338.0	30.0
LT3PVZL320X400-00-X-R-24V	400.0	320.0	red, 630 nm	TBA	24	2700	64.8	24-48 (36 recommended)	11830	436.0	338.0	30.0
LT3PVZL320X400-00-X-G-24V	400.0	320.0	green, 525 nm	TBA	24	3600	86.4	24-48 (36 recommended)	24000	436.0	338.0	30.0
LT3PVZL320X400-00-X-B-24V	400.0	320.0	blue, 470 nm	TBA	24	3600	86.4	24-48 (36 recommended)	24000	436.0	338.0	30.0
LT3PVZL320X400-IR850-24V	400.0	320.0	IR, 850 nm	-	24	2600	62.4	24-48 (36 recommended)	9410	436.0	338.0	30.0
LT3PVZL400X400-00-X-W-24V	400.0	400.0	white, 6300 K	38482	24	4500	108.0	24-48 (36 recommended)	30000	436.0	418.0	30.0
LT3PVZL400X400-00-X-R-24V	400.0	400.0	red, 630 nm	TBA	24	3375	81.0	24-48 (36 recommended)	14790	436.0	418.0	30.0
LT3PVZL400X400-00-X-G-24V	400.0	400.0	green, 525 nm	TBA	24	4500	108.0	24-48 (36 recommended)	30000	436.0	418.0	30.0
LT3PVZL400X400-00-X-B-24V	400.0	400.0	blue, 470 nm	TBA	24	4500	108.0	24-48 (36 recommended)	30000	436.0	418.0	30.0
LT3PVZL400X400-IR850-24V	400.0	400.0	IR, 850 nm	-	24	3250	78.0	24-48 (36 recommended)	11760	436.0	418.0	30.0
LT3PVZL480X480-00-X-W-24V	480.0	480.0	white, 6300 K	TBA	24	6480	115.5	24-48 (36 recommended)	13460	516.0	498.0	30.0
LT3PVZL480X480-00-X-R-24V	480.0	480.0	red, 630 nm	TBA	24	5980	143.5	24-48 (36 recommended)	12960	516.0	498.0	30.0
LT3PVZL480X480-00-X-G-24V	480.0	480.0	green, 525 nm	TBA	24	6480	115.5	24-48 (36 recommended)	13460	516.0	498.0	30.0
LT3PVZL480X480-00-X-B-24V	480.0	480.0	blue, 470 nm	TBA	24	6480	115.5	24-48 (36 recommended)	13460	516.0	498.0	30.0
LT3PVZL480X480-IR850-24V	480.0	480.0	IR, 850 nm	-	24	6080	145.9	24-48 (36 recommended)	13060	516.0	498.0	30.0

1 ± 15%. See datasheet for measurements distance.
2 Tolerance ± 2%.

3 Constant voltage power supply.
4 Constant current power supply.

Last update 19/10/2023



LTBFC series

Continuous flat side-emitting LED backlights

BACKLIGHT • DIFFUSED

Part number	LIGHTING SPECIFICATIONS					ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS		
	Illumination area		Sides type	Light color, peak wavelength	Illuminance	Supply voltage	Current	Power consumption	Max pulse voltage	Max pulse current	Length	Width	Height
	height	width											
(mm)	(mm)	1	2	3	4								
LTPVR070-00-1-W-24V	70	70	4 borders	white, 6300 K	21500	24	120	2.9	24-48 (36 recommended)	840	98.5	98.5	5.3
LTPVR070-00-1-R-24V	70	70	4 borders	red, 630 nm	3510	24	120	2.9	24-48 (36 recommended)	420	98.5	98.5	5.3
LTPVR070-00-1-G-24V	70	70	4 borders	green, 525 nm	7100	24	120	2.9	24-48 (36 recommended)	840	98.5	98.5	5.3
LTPVR070-00-1-B-24V	70	70	4 borders	blue, 470 nm	9700	24	120	2.9	24-48 (36 recommended)	840	98.5	98.5	5.3
LTPVR100-00-1-W-24V	100	100	4 borders	white, 6300 K	7200	24	160	3.8	24-48 (36 recommended)	1230	128.5	128.5	5.3
LTPVR100-00-1-R-24V	100	100	4 borders	red, 630 nm	2540	24	160	3.8	24-48 (36 recommended)	620	128.5	128.5	5.3
LTPVR100-00-1-G-24V	100	100	4 borders	green, 525 nm	3620	24	160	3.8	24-48 (36 recommended)	1230	128.5	128.5	5.3
LTPVR100-00-1-B-24V	100	100	4 borders	blue, 470 nm	7350	24	160	3.8	24-48 (36 recommended)	1230	128.5	128.5	5.3
LTPVRG25X36-00-1-W-24V	36	25	3 borders and 1 edge to edge	white, 6300 K	4999	24	20	0.5	24-48 (36 recommended)	40	43.5	38.5	5.3
LTPVRG25X36-00-1-R-24V	36	25	3 borders and 1 edge to edge	red, 630 nm	2329	24	15	0.4	24-48 (36 recommended)	50	43.5	38.5	5.3
LTPVRG25X36-00-1-G-24V	36	25	3 borders and 1 edge to edge	green, 525 nm	4374	24	20	0.5	24-48 (36 recommended)	40	43.5	38.5	5.3
LTPVRG25X36-00-1-B-24V	36	25	3 borders and 1 edge to edge	blue, 470 nm	4650	24	20	0.5	24-48 (36 recommended)	40	43.5	38.5	5.3
LTPVRG31X58-00-1-W-24V	58	31	3 borders and 1 edge to edge	white, 6300 K	TBA	24	30	0.7	24-48 (36 recommended)	80	60.0	43.5	5.3
LTPVRG31X58-00-1-R-24V	58	31	3 borders and 1 edge to edge	red, 630 nm	1776	24	30	0.7	24-48 (36 recommended)	170	60.0	43.5	5.3
LTPVRG31X58-00-1-G-24V	58	31	3 borders and 1 edge to edge	green, 525 nm	3880	24	30	0.7	24-48 (36 recommended)	80	60.0	43.5	5.3
LTPVRG31X58-00-1-B-24V	58	31	3 borders and 1 edge to edge	blue, 470 nm	5360	24	30	0.7	24-48 (36 recommended)	80	60.0	43.5	5.3
LTPVRG070-00-1-W-24V	70	70	3 borders and 1 edge to edge	white, 6300 K	11470	24	90	2.2	24-48 (36 recommended)	320	98.5	84.5	5.3
LTPVRG070-00-1-R-24V	70	70	3 borders and 1 edge to edge	red, 630 nm	2170	24	90	2.2	24-48 (36 recommended)	420	98.5	84.5	5.3
LTPVRG070-00-1-G-24V	70	70	3 borders and 1 edge to edge	green, 525 nm	TBA	24	90	2.2	24-48 (36 recommended)	500	98.5	84.5	5.3
LTPVRG070-00-1-B-24V	70	70	3 borders and 1 edge to edge	blue, 470 nm	TBA	24	90	2.2	24-48 (36 recommended)	500	98.5	84.5	5.3

Last update 31/07/2023

- 1 ±15%. See datasheet for measurements distance.
- 2 Tolerance ± 2%.
- 3 Constant voltage power supply.
- 4 Constant current power supply.

Ordering information

Our part numbers are coded as LTPVR(G)xxxxx-yy-z-a-bbV where:

- xxxxx defines the lighting area length and width. If the lighting length and width are equal, only one size is indicated.
- yy defines the light angle (for this series the angle is 00 = 0°)
- z defines the number of LED rows
- a defines the color: R = red, G = green, B = blue, W = white. Contact us for additional wavelengths.
- bb defines the supply voltage. Optional 12V version is available.



LTPRHP3W series

3W LED pattern projectors

Part number	LIGHTING SPECIFICATIONS			ELECTRICAL SPECIFICATIONS						MECHANICAL SPECIFICATIONS		
	Active area diam.	Light color, peak wavelength	Illuminance	Operating mode	Supply voltage	Power cons.	Max pulse current	Connector	Cables	Mount	Diameter	Length
	(mm)		(klux) 1	2	(V) 3	(W)	(mA) 4				(mm)	(mm)
LTPRHP3W-R	11	red, 625 nm	9	Continuous and strobe	12-24	4.5	2000	M8	CB244P1500 included	C	38.5	90.8
LTPRHP3W-G	11	green, 525 nm	14	Continuous and strobe	12-24	4.5	2000	M8	CB244P1500 included	C	38.5	90.8
LTPRHP3W-B	11	blue, 460 nm	3	Continuous and strobe	12-24	4.5	2000	M8	CB244P1500 included	C	38.5	90.8
LTPRHP3W-W	11	white, 6000 K	30	Continuous and strobe	12-24	4.5	2000	M8	CB244P1500 included	C	38.5	90.8
LTPRHP3W-IR850	11	IR, 850 nm	n.a.	Continuous and strobe	12-24	4.5	2000	M8	CB244P1500 included	C	38.5	90.8

Last update 25/07/2024

- 1** With a 35 mm lens, F/N 1.4 at 100 mm working distance without projection pattern at maximum driving current. Estimated value.
- 2** To pulse LTPRHP3W, models built-in electronics must be bypassed in order to drive the LED directly.

- 3** Tolerance ± 10%.
- 4** At pulse width ≤ 10 ms and duty cycle ≤ 10%. Built-in electronics board must be bypassed (see tech info).

LT2PRXP series

40W continuous and strobe LED pattern projectors



NEW

Part number	LIGHTING SPECIFICATIONS				ELECTRICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS				
	Active area diam.	Light color, peak wavelength	Irradiance (continuous)	Irradiance (strobe)	Operating mode	Supply voltage	Power cons.	Peak power cons.	Connector	Mount	Length	Width	Height
	(mm)		(W/m²) 1	(W/m²) 1		(V) 2	(W) 2	(W) 3			(mm)	(mm)	(mm)
LT2PRXP-W	17.6	white, 5700 K	6520	10750	Continuous and strobe	24	24.0	45.6	1x M12 straight plug male connector	C	100.7	59.1	59.1
LT2PRXP-UV405	17.6	UV, 405 nm	6580	9720	Continuous and strobe	24	31.2	48.0	1x M12 straight plug male connector	C	100.7	59.1	59.1
LT2PRXP-B	17.6	blue, 465 nm	9100	13100	Continuous and strobe	24	31.2	45.6	1x M12 straight plug male connector	C	100.7	59.1	59.1
LT2PRXP-G	17.6	green, 525 nm	2380	4190	Continuous and strobe	24	20.4	48.0	1x M12 straight plug male connector	C	100.7	59.1	59.1
LT2PRXP-R	17.6	red, 625 nm	3100	6370	Continuous and strobe	24	25.2	45.6	1x M12 straight plug male connector	C	100.7	59.1	59.1
LT2PRXP-IR850	17.6	IR, 850 nm	4850	13300	Continuous and strobe	24	14.88	45.6	1x M12 straight plug male connector	C	100.7	59.1	59.1
LT2PRXP-W-C	17.6	white, 5700 K	-	10750	Strobe	-	-	43.2	1x M12 straight plug male connector	C	67.5	45.0	45
LT2PRXP-UV405-C	17.6	UV, 405 nm	-	9720	Strobe	-	-	44.4	1x M12 straight plug male connector	C	67.5	46.0	93
LT2PRXP-B-C	17.6	blue, 465 nm	-	13100	Strobe	-	-	43.8	1x M12 straight plug male connector	C	67.5	46.0	93
LT2PRXP-G-C	17.6	green, 525 nm	-	4190	Strobe	-	-	42.8	1x M12 straight plug male connector	C	67.5	46.0	93
LT2PRXP-R-C	17.6	red, 625 nm	-	6370	Strobe	-	-	37.2	1x M12 straight plug male connector	C	67.5	46.0	93
LT2PRXP-IR850-C	17.6	IR, 850 nm	-	13300	Strobe	-	-	45.0	1x M12 straight plug male connector	C	67.5	46.0	93

Last update 01/07/2024

- 1** At pattern emitting surface.
- 2** Continuous mode, using the integrated electronic driver.
- 3** Strobe mode.



LT2PRUP series

100W continuous and strobe LED pattern projectors

NEW

Part number	LIGHTING SPECIFICATIONS				ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS			
	Active area diam. (mm)	Light color, peak wavelength	Irradiance (continuous) (W/m ²)	Irradiance (strobe) (W/m ²)	Operating mode	Supply voltage (V)	Power cons. (W)	Peak power cons. (W)	Connector	Mount	Length (mm)	Width (mm)	Height (mm)
			1	1		2	2	3					
LT2PRUP-W	17.6	white, 5700 K	14300	25000	Continuous and strobe	24	60.0	115.2	1x M12 straight plug male connector	C	118.5	77.3	77.3
LT2PRUP-CG	17.6	converted green, 540 nm	10500	20300	Continuous and strobe	24	48.0	115.2	1x M12 straight plug male connector	C	118.5	77.3	77.3
LT2PRUP-UV405	17.6	UV, 405 nm	15500	26500	Continuous and strobe	24	62.4	115.2	1x M12 straight plug male connector	C	118.5	77.3	77.3
LT2PRUP-B	17.6	blue, 465 nm	18000	30700	Continuous and strobe	24	62.4	115.2	1x M12 straight plug male connector	C	118.5	77.3	77.3
LT2PRUP-G	17.6	green, 525 nm	4950	9690	Continuous and strobe	24	39.6	108	1x M12 straight plug male connector	C	118.5	77.3	77.3
LT2PRUP-R	17.6	red, 625 nm	6080	14150	Continuous and strobe	24	50.9	110.4	1x M12 straight plug male connector	C	118.5	77.3	77.3
LT2PRUP-IR850	17.6	IR, 850 nm	7520	25700	Continuous and strobe	24	25.4	105.6	1x M12 straight plug male connector	C	118.5	77.3	77.3

Last update 01/07/2024

- 1 At pattern emitting surface.
- 2 Continuous mode, using the integrated electronic driver.
- 3 Strobe mode.



LTPRSMHP3W series

3W tilting LED pattern projectors

Part number	LIGHTING SPECIFICATIONS				ELECTRICAL SPECIFICATIONS						MECHANICAL SPECIFICATIONS		
	Active area (mm x mm)	Max pattern tilt (deg)	Light color, peak wavelength	Illuminance (klux)	Operating mode	Supply voltage (V)	Power cons. (W)	Max pulse current (mA)	Connector	Cables	Mount	Diameter (mm)	Length (mm)
				1	2	3	4						
LTPRSMHP3W-R	8 x 8	45	red, 625 nm	9	Continuous and strobe	12-24	4.5	2000	M8	CB244P1500 included	C	70	104.06
LTPRSMHP3W-G	8 x 8	45	green, 525 nm	14	Continuous and strobe	12-24	4.5	2000	M8	CB244P1500 included	C	70	104.06
LTPRSMHP3W-B	8 x 8	45	blue, 460 nm	3	Continuous and strobe	12-24	4.5	2000	M8	CB244P1500 included	C	70	104.06
LTPRSMHP3W-W	8 x 8	45	white, 6000 K	30	Continuous and strobe	12-24	4.5	2000	M8	CB244P1500 included	C	70	104.06

Last update 03/06/2024

- 1 With a 35 mm lens, F/N 1.4 at 100 mm working distance without projection pattern at maximum driving current. Estimated value.
- 2 To pulse LTRPSMHP3W, models built-in electronics must be bypassed in order to drive the LED directly.
- 3 Tolerance ± 10%.
- 4 At pulse width ≤ 10 ms and duty cycle ≤ 10%. Built-in electronics board must be bypassed (see tech info).



LTRNST series

LED ring illuminators - straight type

RING LIGHT • Light angle 0° • DIFFUSED

Part number	LIGHTING SPECIFICATIONS						ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS		
	Illumination area		Emission angle (deg)	Optimal WD (mm)	Number of LED rows	Light color, peak wavelength	Supply voltage (V)	Current (mA)	Power cons. (W)	Max pulse voltage (V)	Max pulse current (mA)	Outer diam. (mm)	Aperture diam. (mm)	Height (mm)
	outer diam. (mm)	inner diam. (mm)												
LTRN 023RD	90	40	0	55-85	1	red, 630 nm	24	200	4.8	24-48	600	104.0	28.0	39.6
LTRN 023GR	90	40	0	55-85	1	green, 525 nm	24	220	5.3	24-48	660	104.0	28.0	39.6
LTRN 023BL	90	40	0	55-85	1	blue, 470 nm	24	220	5.3	24-48	660	104.0	28.0	39.6
LTRN 023NW	90	40	0	55-85	1	white, 6300 K	24	480	11.5	24-48	1440	104.0	28.0	39.6
LTRN 016RD	107	57	0	85-150	1	red, 630 nm	24	300	7.2	24-48	900	120.6	37.7	39.6
LTRN 016GR	107	57	0	85-150	1	green, 525 nm	24	275	6.6	24-48	825	120.6	37.7	39.6
LTRN 016BL	107	57	0	85-150	1	blue, 470 nm	24	315	7.6	24-48	945	120.6	37.7	39.6
LTRN 016NW	107	57	0	85-150	1	white, 6300 K	24	650	15.6	24-48	1950	120.6	37.7	39.6
LTRN 024RD	107	57	0	85-150	1	red, 630 nm	24	300	7.2	24-48	900	120.6	44.0	39.6
LTRN 024GR	107	57	0	85-150	1	green, 525 nm	24	275	6.6	24-48	825	120.6	44.0	39.6
LTRN 024BL	107	57	0	85-150	1	blue, 470 nm	24	315	7.6	24-48	945	120.6	44.0	39.6
LTRN 024NW	107	57	0	85-150	1	white, 6300 K	24	650	15.6	24-48	1950	120.6	44.0	39.6
LTRN 032RD	143	93	0	160-240	1	red, 630 nm	24	400	9.6	24-48	1200	156.6	56.0	39.6
LTRN 032GR	143	93	0	160-240	1	green, 525 nm	24	385	9.2	24-48	1155	156.6	56.0	39.6
LTRN 032BL	143	93	0	160-240	1	blue, 470 nm	24	434	10.4	24-48	1302	156.6	56.0	39.6
LTRN 032NW	143	93	0	160-240	1	white, 6300 K	24	840	20.2	24-48	2520	156.6	56.0	39.6
LTRN 036RD	143	93	0	160-240	1	red, 630 nm	24	400	9.6	24-48	1200	156.6	61.0	39.6
LTRN 036GR	143	93	0	160-240	1	green, 525 nm	24	385	9.2	24-48	1155	156.6	61.0	39.6
LTRN 036BL	143	93	0	160-240	1	blue, 470 nm	24	434	10.4	24-48	1302	156.6	61.0	39.6
LTRN 036NW	143	93	0	160-240	1	white, 6300 K	24	840	20.2	24-48	2520	156.6	61.0	39.6
LTRN 048RD	143	93	0	160-240	1	red, 630 nm	24	400	9.6	24-48	1200	156.6	75.0	39.6
LTRN 048GR	143	93	0	160-240	1	green, 525 nm	24	385	9.2	24-48	1155	156.6	75.0	39.6
LTRN 048BL	143	93	0	160-240	1	blue, 470 nm	24	434	10.4	24-48	1302	156.6	75.0	39.6
LTRN 048NW	143	93	0	160-240	1	white, 6300 K	24	840	20.2	24-48	2520	156.6	75.0	39.6
LTRN 056RD	143	93	0	160-240	1	red, 630 nm	24	400	9.6	24-48	1200	156.6	80.0	39.6
LTRN 056GR	143	93	0	160-240	1	green, 525 nm	24	385	9.2	24-48	1155	156.6	80.0	39.6
LTRN 056BL	143	93	0	160-240	1	blue, 470 nm	24	434	10.4	24-48	1302	156.6	80.0	39.6
LTRN 056NW	143	93	0	160-240	1	white, 6300 K	24	840	20.2	24-48	2520	156.6	80.0	39.6
LTRN 064RD	178	120	0	280-365	1	red, 630 nm	24	500	12.0	24-48	1500	192.0	100.0	39.6
LTRN 064GR	178	120	0	280-365	1	green, 525 nm	24	522	12.5	24-48	1566	192.0	100.0	39.6
LTRN 064BL	178	120	0	280-365	1	blue, 470 nm	24	567	13.6	24-48	1701	192.0	100.0	39.6
LTRN 064NW	178	120	0	280-365	1	white, 6300 K	24	960	23.0	24-48	2880	192.0	100.0	39.6
LTRN 064IR	178	120	0	280-365	2	IR, 850 nm	24	600	14.4	24-48	1800	192.0	100.0	39.6
LTRN 064UV	178	120	0	280-365	2	UV, 365 nm	24	480	11.5	24-48	1440	192.0	100.0	39.6
LTRN 240NW	398	325	0	150-300	1	white, 6300 K	24	2400	57.6	24-48	7200	412.0	322.0	39.6

1 Tolerance ± 2%.

2 Constant power supply. 36 recommended.

3 Constant current power supply.

Following page →

LIGHTING • Ring lights • LTRNST series

Part number	LIGHTING SPECIFICATIONS						ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS		
	Illumination area		Emission angle (deg)	Optimal WD (mm)	Number of LED rows	Light color, peak wavelength	Supply voltage (V)	Current (mA)	Power cons. (W)	Max pulse voltage (V)	Max pulse current (mA)	Outer diam. (mm)	Aperture diam. (mm)	Height (mm)
	outer diam. (mm)	inner diam. (mm)												
LTRN 080RD	178	120	0	280-365	1	red, 630 nm	24	500	12.0	24-48	1500	192.0	116.0	39.6
LTRN 080GR	178	120	0	280-365	1	green, 525 nm	24	522	12.5	24-48	1566	192.0	116.0	39.6
LTRN 080BL	178	120	0	280-365	1	blue, 470 nm	24	567	13.6	24-48	1701	192.0	116.0	39.6
LTRN 080NW	178	120	0	280-365	1	white, 6300 K	24	960	23.0	24-48	2880	192.0	116.0	39.6
LTRN 096RD	207	157	0	350-450	1	red, 630 nm	24	600	14.4	24-48	1800	221.0	143.0	39.6
LTRN 096GR	207	157	0	350-450	1	green, 525 nm	24	550	13.2	24-48	1650	221.0	143.0	39.6
LTRN 096BL	207	157	0	350-450	1	blue, 470 nm	24	650	15.6	24-48	1950	221.0	143.0	39.6
LTRN 096NW	207	157	0	350-450	1	white, 6300 K	24	1200	28.8	24-48	3600	221.0	143.0	39.6
LTRN 120RD	276	226	0	280-365	1	red, 630 nm	24	875	21.0	24-48	2650	290.0	180.0	39.6
LTRN 120GR	276	226	0	280-365	1	green, 525 nm	24	1690	40.6	24-48	5070	290.0	180.0	39.6
LTRN 120BL	276	226	0	280-365	1	blue, 470 nm	24	1690	40.6	24-48	5070	290.0	180.0	39.6
LTRN 120NW	276	226	0	280-365	1	white, 6300 K	24	1690	40.6	24-48	5070	290.0	180.0	39.6
LTRN 144RD	276	226	0	280-365	1	red, 630 nm	24	875	21.0	24-48	2650	290.0	200.0	39.6
LTRN 144GR	276	226	0	280-365	1	green, 525 nm	24	1690	40.6	24-48	5070	290.0	200.0	39.6
LTRN 144BL	276	226	0	280-365	1	blue, 470 nm	24	1690	40.6	24-48	5070	290.0	200.0	39.6
LTRN 144NW	276	226	0	280-365	1	white, 6300 K	24	1690	40.6	24-48	5070	290.0	200.0	39.6
LTRN 192RD	306	264	0	110-150	1	red, 630 nm	24	1200	28.8	24-48	3600	320.0	260.1	39.6
LTRN 192GR	306	264	0	110-150	1	green, 525 nm	24	1200	28.8	24-48	3600	320.0	260.1	39.6
LTRN 192BL	306	264	0	110-150	1	blue, 470 nm	24	1200	28.8	24-48	3600	320.0	260.1	39.6
LTRN 192NW	306	264	0	110-150	1	white, 6300 K	24	1200	28.8	24-48	3600	320.0	260.1	39.6
LTRN 240RD	398	325	0	150-300	1	red, 630 nm	24	2400	56.7	24-48	7200	412.0	322.0	39.6
LTRN 240GR	398	325	0	150-300	1	green, 525 nm	24	2400	56.7	24-48	7200	412.0	322.0	39.6
LTRN 240BL	398	325	0	150-300	1	blue, 470 nm	24	2400	56.7	24-48	7200	412.0	322.0	39.6
LTRN 240NW	398	325	0	150-300	1	white, 6300 K	24	2400	57.6	24-48	7200	412.0	322.0	39.6

Last update 31/07/2023

1 Tolerance ± 2%. 2 Constant voltage power supply. 36 recommended. 3 Constant current power supply.



LTRNDC series

Continuous LED direct ring lights

RING LIGHT • Light angle 0°, 15°, 30°, 45° • DIRECT

Part number	LIGHTING SPECIFICATIONS					ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS		
	Illumination area		Emission angle (deg)	Number of LED rows	Light color, peak wavelength	Supply voltage (V)	Current (mA)	Power cons. (W)	Max pulse voltage (V)	Max pulse current (mA)	Outer diam. (mm)	Aperture diam. (mm)	Height (mm)
outer diam. (mm)	inner diam. (mm)	1											
LZGK040-00-2-R-24V	36.0	16.0	0	2	red, 630 nm	24	60	1.4	24-48	440	43.0	15.0	20.0
LZGK040-00-2-G-24V	36.0	16.0	0	2	green, 525 nm	24	75	1.8	24-48	500	43.0	15.0	20.0
LZGK040-00-2-B-24V	36.0	16.0	0	2	blue, 470 nm	24	75	1.8	24-48	500	43.0	15.0	20.0
LZGK040-00-2-W-24V	36.0	16.0	0	2	white, 6300 K	24	75	1.8	24-48	500	43.0	15.0	20.0
LZGK050-00-2-R-24V	47.7	25.5	0	2	red, 630 nm	24	90	2.2	24-48	540	54.0	23.5	20.0
LZGK050-00-2-G-24V	47.7	25.5	0	2	green, 525 nm	24	120	2.9	24-48	800	54.0	23.5	20.0
LZGK050-00-2-B-24V	47.7	25.5	0	2	blue, 470 nm	24	120	2.9	24-48	800	54.0	23.5	20.0
LZGK050-00-2-W-24V	47.7	25.5	0	2	white, 6300 K	24	120	2.9	24-48	800	54.0	23.5	20.0
LZGK070-00-3-R-24V	62.0	28.2	0	3	red, 630 nm	24	180	4.3	24-48	920	70.0	26.0	20.0
LZGK070-00-3-G-24V	62.0	28.2	0	3	green, 525 nm	24	225	5.4	24-48	1460	70.0	26.0	20.0
LZGK070-00-3-B-24V	62.0	28.2	0	3	blue, 470 nm	24	225	5.4	24-48	1460	70.0	26.0	20.0
LZGK070-00-3-W-24V	62.0	28.2	0	3	white, 6300 K	24	225	5.4	24-48	1500	70.0	26.0	20.0
LZGK090-00-4-R-24V	84.0	42.2	0	4	red, 630 nm	24	270	6.5	24-48	1540	92.0	40.0	20.0
LZGK090-00-4-G-24V	84.0	42.2	0	4	green, 525 nm	24	345	8.3	24-48	2300	92.0	40.0	20.0
LZGK090-00-4-B-24V	84.0	42.2	0	4	blue, 470 nm	24	345	8.3	24-48	2300	92.0	40.0	20.0
LZGK090-00-4-W-24V	84.0	42.2	0	4	white, 6300 K	24	345	8.3	24-48	2300	92.0	40.0	20.0
LZGK050-15-2-R-24V	44.0	28.0	15	2	red, 630 nm	24	90	2.2	24-48	550	50.0	28.0	16.0
LZGK050-15-2-G-24V	44.0	28.0	15	2	green, 525 nm	24	105	2.5	24-48	700	50.0	28.0	16.0
LZGK050-15-2-B-24V	44.0	28.0	15	2	blue, 470 nm	24	105	2.5	24-48	700	50.0	28.0	16.0
LZGK050-15-2-W-24V	44.0	28.0	15	2	white, 6300 K	24	105	2.5	24-48	700	50.0	28.0	16.0
LZGK070-15-3-R-24V	67.0	37.0	15	3	red, 630 nm	24	180	4.3	24-48	1090	70.0	32.0	20.5
LZGK070-15-3-G-24V	67.0	37.0	15	3	green, 525 nm	24	240	5.8	24-48	1600	70.0	32.0	20.5
LZGK070-15-3-B-24V	67.0	37.0	15	3	blue, 470 nm	24	240	5.8	24-48	1680	70.0	32.0	20.5
LZGK070-15-3-W-24V	67.0	37.0	15	3	white, 6300 K	24	240	5.8	24-48	1640	70.0	32.0	20.5
LZGK070-15-2-UV375-24V	62.0	37.0	15	2	UV, 375 nm	24	220	5.3	24-48	720	70.0	32.0	20.5
LZGK090-15-4-R-24V	85.0	49.4	15	4	red, 630 nm	24	330	7.9	24-48	1690	92.0	47.0	20.5
LZGK090-15-4-G-24V	85.0	49.4	15	4	green, 525 nm	24	420	10.1	24-48	2800	92.0	47.0	20.5
LZGK090-15-4-B-24V	85.0	49.4	15	4	blue, 470 nm	24	420	10.1	24-48	2800	92.0	47.0	20.5
LZGK090-15-4-W-24V	85.0	49.4	15	4	white, 6300 K	24	420	10.1	24-48	2800	92.0	47.0	20.5
LZGK090-15-3-UV375-24V	92.0	49.4	15	3	UV, 375 nm	24	300	7.2	24-48	1200	92.0	47.0	20.5
LZGK100-15-5-R-24V	95.0	48.0	15	5	red, 630 nm	24	450	10.8	24-48	2730	103.0	48.0	22.0
LZGK100-15-5-G-24V	95.0	48.0	15	5	green, 525 nm	24	570	13.7	24-48	3800	103.0	48.0	22.0
LZGK100-15-5-B-24V	95.0	48.0	15	5	blue, 470 nm	24	570	13.7	24-48	3800	103.0	48.0	22.0
LZGK100-15-5-W-24V	95.0	48.0	15	5	white, 6300 K	24	570	13.7	24-48	3800	103.0	48.0	22.0

1 Tolerance ± 2%.

2 Constant voltage power supply, 36 recommended.

3 Constant current power supply.

Following page →

LIGHTING • Ring lights • LTRNDC series

Part number	LIGHTING SPECIFICATIONS					ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS		
	Illumination area		Emission angle (deg)	Number of LED rows	Light color, peak wavelength	Supply voltage (V)	Current (mA)	Power cons. (W)	Max pulse voltage (V)	Max pulse current (mA)	Outer diam. (mm)	Aperture diam. (mm)	Height (mm)
	outer diam. (mm)	inner diam. (mm)											
LTZGK040-30-1-UV375-24V	39.0	22.2	30	1	UV, 375 nm	24	24	1.1	24-48	200	46.0	20.0	16.5
LTZGK040-30-2-R-24V	39.0	22.2	30	2	red, 630 nm	24	75	1.8	24-48	450	46.0	20.0	16.5
LTZGK040-30-2-G-24V	39.0	22.2	30	2	green, 525 nm	24	105	2.5	24-48	680	46.0	20.0	16.5
LTZGK040-30-2-B-24V	39.0	22.2	30	2	blue, 470 nm	24	105	2.5	24-48	680	46.0	20.0	16.5
LTZGK040-30-2-W-24V	39.0	22.2	30	2	white, 6300 K	24	105	2.5	24-48	700	46.0	20.0	16.5
LTZGK050-30-2-R-24V	46.0	23.0	30	2	red, 630 nm	24	90	2.2	24-48	550	54.0	23.5	18.3
LTZGK050-30-2-G-24V	46.0	23.0	30	2	green, 525 nm	24	120	2.9	24-48	800	54.0	23.5	18.3
LTZGK050-30-2-B-24V	46.0	23.0	30	2	blue, 470 nm	24	120	2.9	24-48	800	54.0	23.5	18.3
LTZGK050-30-2-W-24V	46.0	23.0	30	2	white, 6300 K	24	120	2.9	24-48	800	54.0	23.5	18.3
LTZGK070-30-3-R-24V	63.0	34.7	30	3	red, 630 nm	24	180	4.3	24-48	1090	70.0	32.0	20.0
LTZGK070-30-3-G-24V	63.0	34.7	30	3	green, 525 nm	24	225	5.4	24-48	1460	70.0	32.0	20.0
LTZGK070-30-3-B-24V	63.0	34.7	30	3	blue, 470 nm	24	225	5.4	24-48	1460	70.0	32.0	20.0
LTZGK070-30-3-W-24V	63.0	34.7	30	3	white, 6300 K	24	225	5.4	24-48	1500	70.0	32.0	20.0
LTZGK090-30-4-R-24V	84.0	51.2	30	4	red, 630 nm	24	345	8.3	24-48	2090	92.0	48.0	22.0
LTZGK090-30-4-G-24V	84.0	51.2	30	4	green, 525 nm	24	435	10.4	24-48	2900	92.0	48.0	22.0
LTZGK090-30-4-B-24V	84.0	51.2	30	4	blue, 470 nm	24	435	10.4	24-48	2900	92.0	48.0	22.0
LTZGK090-30-4-W-24V	84.0	51.2	30	4	white, 6300 K	24	435	10.4	24-48	2980	92.0	48.0	22.0
LTZGK070-45-3-R-24V	62.5	35.0	45	3	red, 630 nm	24	195	4.7	24-48	1440	70.0	35.0	21.0
LTZGK070-45-3-G-24V	62.5	35.0	45	3	green, 525 nm	24	240	5.8	24-48	1560	70.0	35.0	21.0
LTZGK070-45-3-B-24V	62.5	35.0	45	3	blue, 470 nm	24	240	5.8	24-48	1560	70.0	35.0	21.0
LTZGK070-45-3-W-24V	62.5	35.0	45	3	white, 6300 K	24	240	5.8	24-48	1600	70.0	35.0	21.0
LTZGK100-45-5-R-24V	95.0	48.0	45	5	red, 630 nm	24	465	11.2	24-48	2380	100.0	48.0	30.0
LTZGK100-45-5-G-24V	95.0	48.0	45	5	green, 525 nm	24	600	14.4	24-48	4000	100.0	48.0	30.0
LTZGK100-45-5-B-24V	95.0	48.0	45	5	blue, 470 nm	24	600	14.4	24-48	4000	100.0	48.0	30.0
LTZGK100-45-5-W-24V	95.0	48.0	45	5	white, 6300 K	24	600	14.4	24-48	4000	100.0	48.0	30.0

Last update 31/07/2023

- 1** Tolerance ± 2%.
- 2** Constant voltage power supply. 36 recommended.
- 3** Constant current power supply.

Ordering information

Our part numbers are coded as **LTZGKxxx-yy-z-a-bbV** where:

- **xxx** defines the lighting diameter.
- **yy** defines the light angle (for this series the angle is 00 = 0°, 15 = 15°, 30 = 30°, 45 = 45°).
- **z** defines the number of LED rows.
- **a** defines the color: R = red, G = green, B = blue, W = white, UV375 = UV light, 375 nm. Contact us for additional wavelengths.
- **bb** defines the supply voltage. Optional 12V version is available.

All accessories including lighting extension cables (CB series), diffusers (DFTL series), polarizers (PLLT series) and mounting brackets (CMLT series) must be ordered separately. Optional connectors: LTRNDC series is available with JST connector per standard. For M8 or M12 connectors (available as optional) add -M8 or -M12 at the end of the part number. Examples: LTZGK040-00-2-W-24V-M8, LTZGK040-00-2-W-24V-M12



LTRNAD series

Compact diffused LED ring lights

RING LIGHT • Light angle 0°, 15°, 30° • DIFFUSED

Part number	LIGHTING SPECIFICATIONS						ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS		
	Illumination area		Emission angle (deg)	Optimal WD (mm)	Number of LED rows	Light color, peak wavelength	Supply voltage (V)	Current (mA)	Power cons. (W)	Max pulse voltage (V)	Max pulse current (mA)	Outer diam. (mm)	Aperture diam. (mm)	Height (mm)
	outer diam. (mm)	inner diam. (mm)												
LT4RTF050-00-1-W-24V	31.8	8.0	0	10-20	1	white, 6300 K	24	108	2.6	24-48	2700	56.0	8.0	18.0
LT4RTF050-00-1-R-24V	31.8	8.0	0	10-20	1	red, 630 nm	24	108	2.6	24-48	2700	56.0	8.0	18.0
LT4RTF050-00-1-G-24V	31.8	8.0	0	10-20	1	green, 525 nm	24	108	2.2	24-48	2700	56.0	8.0	18.0
LT4RTF050-00-1-B-24V	31.8	8.0	0	10-20	1	blue, 470 nm	24	108	2.2	24-48	2700	56.0	8.0	18.0
LT4RTF080-00-1-W-24V	71.8	21.0	0	20-30	1	white, 6300 K	24	196	4.7	24-48	4200	81.0	21.0	18.0
LT4RTF080-00-1-R-24V	71.8	21.0	0	20-30	1	red, 630 nm	24	196	4.7	24-48	4200	81.0	21.0	18.0
LT4RTF080-00-1-G-24V	71.8	21.0	0	20-30	1	green, 525 nm	24	196	4.7	24-48	4200	81.0	21.0	18.0
LT4RTF080-00-1-B-24V	71.8	21.0	0	20-30	1	blue, 470 nm	24	196	4.7	24-48	4200	81.0	21.0	18.0
LT4RTF100-00-1-W-24V	95.8	30.0	0	40-50	1	white, 6300 K	24	225	5.4	24-48	5400	105.2	30.0	18.0
LT4RTF100-00-1-R-24V	95.8	30.0	0	40-50	1	red, 630 nm	24	225	5.4	24-48	5400	105.2	30.0	18.0
LT4RTF100-00-1-G-24V	95.8	30.0	0	40-50	1	green, 525 nm	24	225	5.4	24-48	5400	105.2	30.0	18.0
LT4RTF100-00-1-B-24V	95.8	30.0	0	40-50	1	blue, 470 nm	24	225	5.4	24-48	5400	105.2	30.0	18.0
LT4RTF130-00-1-W-24V	121.3	45.0	0	65-75	1	white, 6300 K	24	300	7.2	24-48	6900	131.5	45.0	18.0
LT4RTF130-00-1-R-24V	121.3	45.0	0	65-75	1	red, 630 nm	24	300	7.2	24-48	6900	131.5	45.0	18.0
LT4RTF130-00-1-G-24V	121.3	45.0	0	65-75	1	green, 525 nm	24	300	7.2	24-48	6900	131.5	45.0	18.0
LT4RTF130-00-1-B-24V	121.3	45.0	0	65-75	1	blue, 470 nm	24	300	7.2	24-48	6900	131.5	45.0	18.0
LT4RTF080-15-1-W-24V	71.8	19.0	15	34-89	1	white, 6300 K	24	196	4.7	24-48	4200	81.0	19.0	17.5
LT4RTF080-15-1-R-24V	71.8	19.0	15	34-89	1	red, 630 nm	24	196	4.7	24-48	4200	81.0	19.0	17.5
LT4RTF080-15-1-G-24V	71.8	19.0	15	34-89	1	green, 525 nm	24	196	4.7	24-48	4200	81.0	19.0	17.5
LT4RTF080-15-1-B-24V	71.8	19.0	15	34-89	1	blue, 470 nm	24	196	4.7	24-48	4200	81.0	19.0	17.5
LT4RTF100-15-1-W-24V	95.8	37.0	15	40-80	1	white, 6300 K	24	225	5.4	24-48	5400	105.2	35.0	17.5
LT4RTF100-15-1-R-24V	95.8	37.0	15	40-80	1	red, 630 nm	24	225	5.4	24-48	5400	105.2	35.0	17.5
LT4RTF100-15-1-G-24V	95.8	37.0	15	40-80	1	green, 525 nm	24	225	5.4	24-48	5400	105.2	35.0	17.5
LT4RTF100-15-1-B-24V	95.8	37.0	15	40-80	1	blue, 470 nm	24	225	5.4	24-48	5400	105.2	35.0	17.5
LT4RTF130-15-1-W-24V	121.3	47.6	15	80-160	1	white, 6300 K	24	300	7.2	24-48	6900	131.5	45.6	17.5
LT4RTF130-15-1-R-24V	121.3	47.6	15	80-160	1	red, 630 nm	24	300	7.2	24-48	6900	131.5	45.6	17.5
LT4RTF130-15-1-G-24V	121.3	47.6	15	80-160	1	green, 525 nm	24	300	7.2	24-48	6900	131.5	45.6	17.5
LT4RTF130-15-1-B-24V	121.3	47.6	15	80-160	1	blue, 470 nm	24	300	7.2	24-48	6900	131.5	45.6	17.5
LT4RTF050-30-1-W-24V	31.8	14.0	30	8-16	1	white, 6300 K	24	108	2.6	24-48	2700	56.0	12.0	17.5
LT4RTF050-30-1-R-24V	31.8	14.0	30	8-16	1	red, 630 nm	24	108	2.6	24-48	2700	56.0	12.0	17.5
LT4RTF050-30-1-G-24V	31.8	14.0	30	8-16	1	green, 525 nm	24	108	2.6	24-48	2700	56.0	12.0	17.5
LT4RTF050-30-1-B-24V	31.8	14.0	30	8-16	1	blue, 470 nm	24	108	2.6	24-48	2700	56.0	12.0	17.5
LT4RTF080-30-1-W-24V	71.8	27.0	30	16-36	1	white, 6300 K	24	196	4.7	24-48	4200	81.0	25.0	17.5
LT4RTF080-30-1-R-24V	71.8	27.0	30	16-36	1	red, 630 nm	24	196	4.7	24-48	4200	81.0	25.0	17.5
LT4RTF080-30-1-G-24V	71.8	27.0	30	16-36	1	green, 525 nm	24	196	4.7	24-48	4200	81.0	25.0	17.5
LT4RTF080-30-1-B-24V	71.8	27.0	30	16-36	1	blue, 470 nm	24	196	4.7	24-48	4200	81.0	25.0	17.5
LT4RTF100-30-1-W-24V	95.8	46.0	30	30-50	1	white, 6300 K	24	225	5.4	24-48	5400	105.2	44.0	17.5
LT4RTF100-30-1-R-24V	95.8	46.0	30	30-50	1	red, 630 nm	24	225	5.4	24-48	5400	105.2	44.0	17.5
LT4RTF100-30-1-G-24V	95.8	46.0	30	30-50	1	green, 525 nm	24	225	5.4	24-48	5400	105.2	44.0	17.5
LT4RTF100-30-1-B-24V	95.8	46.0	30	30-50	1	blue, 470 nm	24	225	5.4	24-48	5400	105.2	44.0	17.5
LT4RTF130-30-1-W-24V	121.3	62.0	30	57-85	1	white, 6300 K	24	299	7.2	24-48	6900	131.5	66.0	17.5
LT4RTF130-30-1-R-24V	121.3	62.0	30	57-85	1	red, 630 nm	24	299	7.2	24-48	6900	131.5	66.0	17.5
LT4RTF130-30-1-G-24V	121.3	62.0	30	57-85	1	green, 525 nm	24	299	7.2	24-48	6900	131.5	66.0	17.5
LT4RTF130-30-1-B-24V	121.3	62.0	30	57-85	1	blue, 470 nm	24	299	7.2	24-48	6900	131.5	66.0	17.5

Last update 31/07/2023

- 1 Tolerance ± 2%.
- 2 Constant voltage power supply. 36 recommended.
- 3 Constant current power supply.



LTLA series

High power strobed LED low angle diffused ring lights

RING LIGHT • HIGH POWER • Light angle 60° • DIFFUSED

Part number	LIGHTING SPECIFICATIONS					
	Illumination area diam. (mm)	Optimal WD (mm)	Number of LEDs	Light color, peak wavelength	Illuminance (klux)	Diffuser
LTLA B2-W	60	5-50	40	white, > 6000 K	210	yes
LTLA B2-G	60	5-50	40	green, 525 nm	180	yes
LTLA B2-R	60	5-50	40	red, 625 nm	150	yes
LTLA C1-W	100	5-50	40	white, > 6000 K	70	yes
LTLA C2-W	100	5-50	80	white, > 6000 K	250	yes
LTLA C2-G	100	5-50	80	green, 525 nm	220	yes
LTLA C2-R	100	5-50	80	red, 625 nm	170	yes

Part number	ELECTRICAL SPECIFICATIONS							MECHANICAL SPECIFICATIONS		
	Power supply mode (V)	Min pulse current (A)	Max pulse current (A)	Max pulse duration (ms)	Max duty-cycle (%)	Estimated MTBF (hours)	Connector	Outer diam. (mm)	Aperture diam. (mm)	Height (mm)
LTLA B2-W	Strobe only, constant current driving	3.5	17.0	1.0	1.5	> 50000	M12	166.5	133.0	38.0
LTLA B2-G	Strobe only, constant current driving	3.5	17.0	1.0	1.5	> 50000	M12	166.5	133.0	38.0
LTLA B2-R	Strobe only, constant current driving	3.5	17.0	1.0	1.5	> 50000	M12	166.5	133.0	38.0
LTLA C1-W	Strobe only, constant current driving	3.5	7.5	1.0	1.5	> 50000	M12	206.0	206.0	76.0
LTLA C2-W	Strobe only, constant current driving	3.5	17.0	1.0	1.5	> 50000	M12	206.0	206.0	76.0
LTLA C2-G	Strobe only, constant current driving	3.5	17.0	1.0	1.5	> 50000	M12	206.0	206.0	76.0
LTLA C2-R	Strobe only, constant current driving	3.5	17.0	1.0	1.5	> 50000	M12	206.0	206.0	76.0

Last update 31/07/2023

- 1 Measured at maximum current and maximum working distance.
- 2 At 25°C. At max pulse width (1 ms), max pulse frequency = 15 Hz.
- 3 At 25°C.

Ordering information

It is easy to select the right illuminator for your application: our part numbers are coded as **LTLA xy-z**, where **x** defines the illuminator size (B = medium, C = large), **y** refers to the power intensity (1 = medium, 2 = high) and **z** refers to color (W = white, R = red, G = green). For instance, LTLA B2-R is a diffuse strobe low angle ring light illuminator - medium size high power red.



LTLAIC series

Continuous LED low angle diffused ring lights

RING LIGHT • Light angle 45°, 60° • DIFFUSED

Part number	LIGHTING SPECIFICATIONS						ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS		
	Illumination area		Emission angle	Optimal WD	Number of LED rows	Light color, peak wavelength	Supply voltage	Current	Power cons.	Max pulse voltage	Max pulse current	Outer diam.	Aperture diam.	Height
	outer diam. (mm)	inner diam. (mm)												
1	2	3												
LT3RZF050-45-1-W-24V	44.4	12.0	45	5-14	1	white, 6300 K	24	120	2.9	24-48	450	56.4	10.0	35.0
LT3RZF050-45-1-R-24V	44.4	12.0	45	5-14	1	red, 630 nm	24	120	2.9	24-48	450	56.4	10.0	35.0
LT3RZF050-45-1-G-24V	44.4	12.0	45	5-14	1	green, 525 nm	24	120	2.9	24-48	450	56.4	10.0	35.0
LT3RZF050-45-1-B-24V	44.4	12.0	45	5-14	1	blue, 470 nm	24	120	2.9	24-48	450	56.4	10.0	35.0
LT3RZF080-45-1-W-24V	69.0	32.5	45	5-25	1	white, 6300 K	24	180	4.3	24-48	670	81.0	30.5	35.0
LT3RZF080-45-1-R-24V	69.0	32.5	45	5-25	1	red, 630 nm	24	180	4.3	24-48	670	81.0	30.5	35.0
LT3RZF080-45-1-G-24V	69.0	32.5	45	5-25	1	green, 525 nm	24	180	4.3	24-48	670	81.0	30.5	35.0
LT3RZF080-45-1-B-24V	69.0	32.5	45	5-25	1	blue, 470 nm	24	180	4.3	24-48	670	81.0	30.5	35.0
LT3RZF100-45-1-W-24V	93.2	47.6	45	5-39	1	white, 6300 K	24	270	6.5	24-48	1000	105.2	45.6	35.0
LT3RZF100-45-1-R-24V	93.2	47.6	45	5-39	1	red, 630 nm	24	270	6.5	24-48	1000	105.2	45.6	35.0
LT3RZF100-45-1-G-24V	93.2	47.6	45	5-39	1	green, 525 nm	24	270	6.5	24-48	1000	105.2	45.6	35.0
LT3RZF100-45-1-B-24V	93.2	47.6	45	5-39	1	blue, 470 nm	24	270	6.5	24-48	1000	105.2	45.6	35.0
LT3RZF100-45-1-RGBW-24V a	95.0	46.0	45	5-39	1	RGBW	24	270	6.5	24-48	1000	105.2	45.6	35.0
LT3RZF130-45-1-W-24V	119.5	76.0	45	24-49	1	white, 6300 K	24	360	8.6	24-48	2010	131.5	74.0	35.0
LT3RZF130-45-1-R-24V	119.5	76.0	45	24-49	1	red, 630 nm	24	360	8.6	24-48	2010	131.5	74.0	35.0
LT3RZF130-45-1-G-24V	119.5	76.0	45	24-49	1	green, 525 nm	24	360	8.6	24-48	2010	131.5	74.0	35.0
LT3RZF130-45-1-B-24V	119.5	76.0	45	24-49	1	blue, 470 nm	24	360	8.6	24-48	2010	131.5	74.0	35.0
LT3RZF050-60-1-W-24V	44.0	12.0	60	5-15	1	white, 6300 K	24	120	2.9	24-48	450	56.4	10.0	35.0
LT3RZF050-60-1-R-24V	44.0	12.0	60	5-15	1	red, 630 nm	24	120	2.9	24-48	450	56.4	10.0	35.0
LT3RZF050-60-1-G-24V	44.0	12.0	60	5-15	1	green, 525 nm	24	120	2.9	24-48	450	56.4	10.0	35.0
LT3RZF050-60-1-B-24V	44.0	12.0	60	5-15	1	blue, 470 nm	24	120	2.9	24-48	450	56.4	10.0	35.0
LT3RZF080-60-1-W-24V	69.0	38.2	60	5-15	1	white, 6300 K	24	180	4.3	24-48	670	81.0	36.2	35.0
LT3RZF080-60-1-R-24V	69.0	38.2	60	5-15	1	red, 630 nm	24	180	4.3	24-48	670	81.0	36.2	35.0
LT3RZF080-60-1-G-24V	69.0	38.2	60	5-15	1	green, 525 nm	24	180	4.3	24-48	670	81.0	36.2	35.0
LT3RZF080-60-1-B-24V	69.0	38.2	60	5-15	1	blue, 470 nm	24	180	4.3	24-48	670	81.0	36.2	35.0
LT3RZF100-60-1-W-24V	93.2	59.0	60	5-20	1	white, 6300 K	24	270	6.5	24-48	1000	105.2	57.0	35.0
LT3RZF100-60-1-R-24V	93.2	59.0	60	5-20	1	red, 630 nm	24	270	6.5	24-48	1000	105.2	57.0	35.0
LT3RZF100-60-1-G-24V	93.2	59.0	60	5-20	1	green, 525 nm	24	270	6.5	24-48	1000	105.2	57.0	35.0
LT3RZF100-60-1-B-24V	93.2	59.0	60	5-20	1	blue, 470 nm	24	270	6.5	24-48	1000	105.2	57.0	35.0
LT3RZF100-60-1-RGBW-24V a	95.0	46.0	60	5-20	1	RGBW	24	270	6.5	24-48	1000	105.2	57.0	35.0
LT3RZF130-60-1-W-24V	119.5	86.0	60	7-26	1	white, 6300 K	24	360	8.6	24-48	2010	131.5	84.0	35.0
LT3RZF130-60-1-R-24V	119.5	86.0	60	7-26	1	red, 630 nm	24	360	8.6	24-48	2010	131.5	84.0	35.0
LT3RZF130-60-1-G-24V	119.5	86.0	60	7-26	1	green, 525 nm	24	360	8.6	24-48	2010	131.5	84.0	35.0
LT3RZF130-60-1-B-24V	119.5	86.0	60	7-26	1	blue, 470 nm	24	360	8.6	24-48	2010	131.5	84.0	35.0

Last update 31/07/2023

- 1 Tolerance ± 2%.
- 2 Constant voltage power supply. 36 recommended.
- 3 Constant current power supply.

LTLADC series

Continuous LED low angle direct ring lights

Part number	LIGHTING SPECIFICATIONS					ELECTRICAL SPECIFICATIONS						MECHANICAL SPECIFICATIONS		
	outer diam. (mm)	inner diam. (mm)	Number of LED rows	Emission angle (deg)	Light color, peak wavelength	Supply voltage (V) 1	Current (mA)	Power cons. (W)	Channels	Max pulse voltage (V) 2	Max pulse current (mA) 3	Outer diam. (mm)	Aperture diam. (mm)	Height (mm)
LTZZO070-60-2-W-24V	66.5	41	2	60	white, 6300 K	24	195	4.7	1	24-48	1270	74	41	20.5
LTZZO070-60-2-R-24V	66.5	41	2	60	red, 630 nm	24	150	3.6	1	24-48	910	74	41	20.5
LTZZO070-60-2-G-24V	66.5	41	2	60	green, 525 nm	24	195	4.7	1	24-48	1270	74	41	20.5
LTZZO070-60-2-B-24V	66.5	41	2	60	blue, 470 nm	24	195	4.7	1	24-48	1270	74	41	20.5
LTZZO090-60-2-W-24V	83	57	2	60	white, 6300 K	24	240	5.8	1	24-48	1600	90	57	20.5
LTZZO090-60-2-R-24V	83	57	2	60	red, 630 nm	24	180	4.3	1	24-48	1090	90	57	20.5
LTZZO090-60-2-G-24V	83	57	2	60	green, 525 nm	24	240	5.8	1	24-48	1560	90	57	20.5
LTZZO090-60-2-B-24V	83	57	2	60	blue, 470 nm	24	240	5.8	1	24-48	1560	90	57	20.5
LTZZO090-60-2-IR850-24V	83	57	2	60	IR, 850 nm	24	120	2.9	1	24-48	660	90	57	20.5
LTZZO100-60-2-W-24V	93	67	2	60	white, 6300 K	24	270	6.5	1	24-48	1800	100	67	20.5
LTZZO100-60-2-R-24V	93	67	2	60	red, 630 nm	24	210	5.0	1	24-48	1240	100	67	20.5
LTZZO100-60-2-G-24V	93	67	2	60	green, 525 nm	24	270	6.5	1	24-48	1800	100	67	20.5
LTZZO100-60-2-B-24V	93	67	2	60	blue, 470 nm	24	270	6.5	1	24-48	1800	100	67	20.5
LTZZO150-60-3-W-24V	140	114	3	60	white, 6300 K	24	630	15.1	1	24-48	4200	151	114	23.5
LTZZO150-60-3-R-24V	140	114	3	60	red, 630 nm	24	495	11.9	1	24-48	2540	151	114	23.5
LTZZO150-60-3-G-24V	140	114	3	60	green, 525 nm	24	630	15.1	1	24-48	4090	151	114	23.5
LTZZO150-60-3-B-24V	140	114	3	60	blue, 470 nm	24	630	15.1	1	24-48	4090	151	114	23.5
LTZZO200-60-2-W-24V	190	167	2	60	white, 6300 K	24	585	14.0	1	24-48	3900	202	167	20.5
LTZZO200-60-2-R-24V	190	167	2	60	red, 630 nm	24	450	10.8	1	24-48	2730	202	167	20.5
LTZZO200-60-2-G-24V	190	167	2	60	green, 525 nm	24	585	14.0	1	24-48	3800	202	167	20.5
LTZZO200-60-2-B-24V	190	167	2	60	blue, 470 nm	24	585	14.0	1	24-48	3420	202	167	20.5
LTZZO130-75-3-W-24V	118	94	3	75	white, 6300 K	24	540	13.0	1	24-48	3600	131	94	24.5
LTZZO130-75-3-R-24V	118	94	3	75	red, 630 nm	24	420	10.1	1	24-48	2550	131	94	24.5
LTZZO130-75-3-G-24V	118	94	3	75	green, 525 nm	24	540	13.0	1	24-48	3150	131	94	24.5
LTZZO130-75-3-B-24V	118	94	3	75	blue, 470 nm	24	540	13.0	1	24-48	3160	131	94	24.5
LTZZO130-75-3-W-24V-CH4	116	94	3	75	white, 6300 K	24	135	3.2	4	24-48	3690	131	94	24.5
LTZZO130-75-3-R-24V-CH4	116	94	3	75	red, 630 nm	24	90	2.2	4	24-48	1960	131	94	24.5
LTZZO130-75-3-G-24V-CH4	116	94	3	75	green, 525 nm	24	540	13.0	4	24-48	4900	131	94	24.5
LTZZO130-75-3-B-24V-CH4	116	94	3	75	blue, 470 nm	24	540	13.0	4	24-48	3160	131	94	24.5
LTZZO170-75-3-W-24V	170	154	3	75	white, 6300 K	24	735	17.7	1	24-48	4900	175	136	24.5
LTZZO170-75-3-R-24V	170	154	3	75	red, 630 nm	24	570	13.7	1	24-48	2920	175	136	24.5
LTZZO170-75-3-G-24V	170	154	3	75	green, 525 nm	24	735	17.7	1	24-48	4800	175	136	24.5
LTZZO170-75-3-B-24V	170	154	3	75	blue, 470 nm	24	735	17.7	1	24-48	4900	175	136	24.5
LTZZO050-90-1-W-24V	27	24	1	90	white, 6300 K	24	60	1.4	1	24-48	400	56	24	10.5
LTZZO050-90-1-R-24V	27	24	1	90	red, 630 nm	24	45	1.1	1	24-48	270	56	24	10.5
LTZZO050-90-1-G-24V	27	24	1	90	green, 525 nm	24	60	1.4	1	24-48	440	56	24	10.5
LTZZO050-90-1-B-24V	27	24	1	90	blue, 470 nm	24	60	1.4	1	24-48	440	56	24	10.5



RING LIGHT • Light angle 60°, 75°, 90° • DIRECT

Part number	LIGHTING SPECIFICATIONS					ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS			
	Illumination area		Number of LED rows	Emission angle (deg)	Light color, peak wavelength	Supply voltage (V)	Current (mA)	Power cons. (W)	Channels	Max pulse voltage (V)	Max pulse current (mA)	Outer diam. (mm)	Aperture diam. (mm)	Height (mm)
	outer diam. (mm)	inner diam. (mm)												
LTZZO080-90-1-W-24V	51	50	1	90	white, 6300 K	24	105	2.5	1	24-48	700	80	50	10.5
LTZZO080-90-1-R-24V	51	50	1	90	red, 630 nm	24	75	1.8	1	24-48	430	80	50	10.5
LTZZO080-90-1-G-24V	51	50	1	90	green, 525 nm	24	105	2.5	1	24-48	770	80	50	10.5
LTZZO080-90-1-B-24V	51	50	1	90	blue, 470 nm	24	105	2.5	1	24-48	770	80	50	10.5
LTZZO100-90-1-W-24V	72	71	1	90	white, 6300 K	24	135	3.2	1	24-48	900	101	71	10.5
LTZZO100-90-1-R-24V	72	71	1	90	red, 630 nm	24	105	2.5	1	24-48	640	101	71	10.5
LTZZO100-90-1-G-24V	72	71	1	90	green, 525 nm	24	135	3.2	1	24-48	900	101	71	10.5
LTZZO100-90-1-B-24V	72	71	1	90	blue, 470 nm	24	135	3.2	1	24-48	900	101	71	10.5
LTZZO120-90-1-W-24V	117	96	1	90	white, 6300 K	24	180	4.3	1	24-48	580	125	95	10.3
LTZZO120-90-1-R-24V	117	96	1	90	red, 630 nm	24	160	3.8	1	24-48	340	125	95	10.3
LTZZO120-90-1-G-24V	117	96	1	90	green, 525 nm	24	160	3.8	1	24-48	576	125	95	10.3
LTZZO120-90-1-B-24V	117	96	1	90	blue, 470 nm	24	160	3.8	1	24-48	576	125	95	10.3
LTZZO150-90-1-W-24V	122	121	1	90	white, 6300 K	24	210	5.0	1	24-48	1400	151	121	10.5
LTZZO150-90-1-R-24V	122	121	1	90	red, 630 nm	24	165	4.0	1	24-48	1220	151	121	10.5
LTZZO150-90-1-G-24V	122	121	1	90	green, 525 nm	24	210	5.0	1	24-48	1400	151	121	10.5
LTZZO150-90-1-B-24V	122	121	1	90	blue, 470 nm	24	210	5.0	1	24-48	1400	151	121	10.5
LTZZO180-90-1-W-24V	152	151	1	90	white, 6300 K	24	255	6.1	1	24-48	1700	181	151	10.5
LTZZO180-90-1-R-24V	152	151	1	90	red, 630 nm	24	195	4.7	1	24-48	1180	181	151	10.5
LTZZO180-90-1-G-24V	152	151	1	90	green, 525 nm	24	255	6.1	1	24-48	1700	181	151	10.5
LTZZO180-90-1-B-24V	152	151	1	90	blue, 470 nm	24	255	6.1	1	24-48	1700	181	151	10.5
LTZZO210-90-1-W-24V	182	181	1	90	white, 6300 K	24	300	7.2	1	24-48	2000	211	181	10.5
LTZZO210-90-1-R-24V	182	181	1	90	red, 630 nm	24	240	5.8	1	24-48	1450	211	181	10.5
LTZZO210-90-1-G-24V	182	181	1	90	green, 525 nm	24	300	7.2	1	24-48	1950	211	181	10.5
LTZZO210-90-1-B-24V	182	181	1	90	blue, 470 nm	24	300	7.2	1	24-48	1950	211	181	10.5

Last update 31/07/2023

- 1** Tolerance ± 2%.
- 2** Constant voltage power supply. 36 recommended.
- 3** Constant current power supply.

Ordering information

Our part numbers are coded as **LTZZOxxx-yy-z-a-bbV** where:

- **xxx** defines the lighting diameter.
- **yy** defines the light angle (for this series the angle is 75 = 75°).
- **z** defines the number of LED rows.
- **a** defines the color: R = red, G = green, B = blue, W = white, UV375 = UV light, 375 nm. Contact us for additional wavelengths.
- **bb** defines the supply voltage. Optional 12V version is available.
- **CH4** denotes 4-channel models.

All accessories including lighting extension cables (CB series), diffusers (DFLT series), polarizers (PLLT series) must be ordered separately.

Optional connectors: The LTLADC series is available with JST connector per standard. For M8 or M12 connectors (available as optional) add -M8 or -M12 at the end of the part number.

Examples: LTZZO130-75-3-W-24V-M8, LTZZO130-75-3-W-24V-M12



LTRNOB series

LED ring illuminators - oblique type

RING LIGHT • Light angle 20°, 25°, 30°, 45° • DIFFUSED

Part number	LIGHTING SPECIFICATIONS						ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS		
	Outer diam. (mm)	Inner diam. (mm)	Emission angle (deg)	Optimal WD (mm)	Number of LED rows	Light color, peak wavelength	Supply voltage (V) 1	Current (mA)	Power cons. (W)	Max pulse voltage (V) 2	Max pulse current (mA) 3	Outer diam. (mm)	Aperture diam. (mm)	Height (mm)
LTRN 050 R45	49.0	19.0	45	20-80	2	red, 630 nm	24	60	1.5	24-48	180	53.5	15.2	22.0
LTRN 050 G45	49.0	19.0	45	20-80	2	green, 525 nm	24	70	1.7	24-48	210	53.5	15.2	22.0
LTRN 050 B45	49.0	19.0	45	20-80	2	blue, 470 nm	24	105	2.5	24-48	315	53.5	15.2	22.0
LTRN 050 W45	49.0	19.0	45	20-80	2	white, 6300 K	24	105	2.5	24-48	315	53.5	15.2	22.0
LTRN 075 R45	65.4	43.8	45	20-50	1	red, 630 nm	24	75	1.8	24-48	225	75.4	28.0	32.0
LTRN 075 G45	65.4	43.8	45	20-50	1	green, 525 nm	24	60	1.5	24-48	180	75.4	28.0	32.0
LTRN 075 B45	65.4	43.8	45	20-50	1	blue, 470 nm	24	60	1.5	24-48	180	75.4	28.0	32.0
LTRN 075 W45	65.4	43.8	45	20-50	1	white, 6300 K	24	90	2.2	24-48	270	75.4	28.0	32.0
LTRN 075 IR45	65.4	43.8	45	20-50	1	IR, 850 nm	24	120	2.9	24-48	360	75.4	28.0	32.0
LTRN 075 UV45	65.4	43.8	45	20-50	1	UV, 365 nm	24	480	11.5	24-48	1440	75.4	28.0	32.0
LTRN 075 RGBW a	65.4	46.8	45	55-74	1	RGBW	24	90	2.2	24-48	755	75.4	28.0	22.0
LTRN 165 R45	164.5	134.5	45	30-50	1	red, 630 nm	24	500	12.0	24-48	1500	175.0	135.0	36.5
LTRN 165 G45	164.5	134.5	45	30-50	1	green, 525 nm	24	400	9.6	24-48	1200	175.0	135.0	36.5
LTRN 165B45	164.5	134.5	45	30-50	1	blue, 470 nm	24	480	11.6	24-48	1440	175.0	135.0	36.5
LTRN 165W45	164.5	134.5	45	30-50	1	white, 6300 K	24	800	19.2	24-48	2400	175.0	135.0	36.5
LTRN 165 IR45	164.5	134.5	45	30-50	1	IR, 850 nm	24	510	12.2	24-48	1530	175.0	135.0	36.5
LTRN 165 UV45	164.5	134.5	45	30-50	1	UV, 365 nm	24	350	8.4	24-48	1050	175.0	135.0	36.5
LTRN 210 R20	195.6	116.5	20	55-95	1	red, 630 nm	24	600	14.4	24-48	1800	210.0	116.0	40.0
LTRN 210 G20	195.6	116.5	20	55-95	1	green, 525 nm	24	560	13.5	24-48	1580	210.0	116.0	40.0
LTRN 210B20	195.6	116.5	20	55-95	1	blue, 470 nm	24	630	15.2	24-48	1890	210.0	116.0	40.0
LTRN 210 W20	195.6	116.5	20	55-95	1	white, 6300 K	24	840	20.2	24-48	2000	210.0	116.0	40.0
LTRN 210 RGBW a	195.6	119.5	20	45-65	1	RGBW	24	840	20.2	24-48	1680	210.0	116.0	39.6
LTRN 232 W45	220.0	186.0	45	55-75	2	white, 6300 K	24	690	16.6	24-48	5210	232.0	185.0	36.5
LTRN 245R25	225.0	160.0	25	20-80	1	red, 630 nm	24	750	18.0	24-48	2000	245.0	157.0	48.0
LTRN 245 G25	225.0	160.0	25	20-80	1	green, 525 nm	24	850	20.4	24-48	2000	245.0	157.0	48.0
LTRN 245B25	225.0	160.0	25	20-80	1	blue, 470 nm	24	650	15.6	24-48	1950	245.0	157.0	48.0
LTRN 245 W25	225.0	160.0	25	20-80	1	white, 6300 K	24	1120	26.9	24-48	2000	245.0	157.0	48.0
LTRN 245 IR25	225.0	160.0	25	20-80	1	IR, 850 nm	24	720	17.3	24-48	2160	245.0	157.0	48.0
LTRN 245 UV25	225.0	160.0	25	20-80	1	UV, 365 nm	24	420	10.1	24-48	1260	245.0	157.0	48.0
LTRN 245 R35	225.0	160.0	35	20-80	1	red, 630 nm	24	750	18.0	24-48	2000	245.0	143.0	48.0
LTRN 245 G35	225.0	160.0	35	20-80	1	green, 525 nm	24	850	20.4	24-48	2000	245.0	143.0	48.0
LTRN 245 B35	225.0	160.0	35	20-80	1	blue, 470 nm	24	650	15.6	24-48	1950	245.0	143.0	48.0
LTRN 245 W35	225.0	160.0	35	20-80	1	white, 6300 K	24	1120	26.9	24-48	2000	245.0	143.0	48.0
LTRN 245 IR35	225.0	160.0	35	20-80	1	IR, 850 nm	24	720	17.3	24-48	2160	245.0	143.0	48.0
LTRN 245 UV35	225.0	160.0	35	20-80	1	UV, 365 nm	24	420	10.1	24-48	1260	245.0	143.0	48.0
LTRN 245 R45	225.0	160.0	45	20-80	1	red, 630 nm	24	750	18.0	24-48	2000	245.0	117.0	48.0
LTRN 245 G45	225.0	160.0	45	20-80	1	green, 525 nm	24	850	20.4	24-48	2000	245.0	117.0	48.0
LTRN 245 B45	225.0	160.0	45	20-80	1	blue, 470 nm	24	650	15.6	24-48	1950	245.0	117.0	48.0
LTRN 245 W45	225.0	160.0	45	20-80	1	white, 6300 K	24	1120	26.9	24-48	2000	245.0	117.0	48.0
LTRN 245 IR45	225.0	160.0	45	20-80	1	IR, 850 nm	24	750	18.0	24-48	2160	245.0	117.0	48.0
LTRN 245 UV45	225.0	160.0	45	20-80	1	UV, 365 nm	24	420	10.1	24-48	1260	245.0	117.0	48.0
LTRN 245 RGBW a	225.0	160.0	45	45-65	1	RGBW	24	1120	26.9	24-48	2240	245.0	117.0	48.0

Last update 30/07/2024

- 1 Tolerance ± 2%.
- 2 Constant voltage power supply. 36 recommended.
- 3 Constant current power supply.

a defines the color: R = red, G = green, B = blue, W = white, RGBW = red, green, blue and white. Contact us for additional wavelengths.



LTRNOBHP series

High power LED ring illuminators - oblique type

RING LIGHT • HIGH POWER • Light angle 20°, 25°, 45° • DIFFUSED

Part number	LIGHTING SPECIFICATIONS							Diffuser
	illumination area outer diam. (mm)	illumination area inner diam. (mm)	Emission angle (deg)	Optimal WD (mm)	Number of LEDs	Light color, peak wavelength	Illuminance (klux) 1	
LTRNHP 075 R45	65.0	43.5	45	20-50	48	red, 625 nm	n.a.	yes
LTRNHP 075 G45	65.0	43.5	45	20-50	48	green, 525 nm	n.a.	yes
LTRNHP 075 B45	65.0	43.5	45	20-50	48	blue, 475 nm	n.a.	yes
LTRNHP 075 W45	65.0	43.5	45	20-50	48	white, 6200 K	n.a.	yes
LTRNHP 165 R45	162.0	133.5	45	30-50	63	red, 625 nm	n.a.	yes
LTRNHP 165 G45	162.0	133.5	45	30-50	63	green, 525 nm	n.a.	yes
LTRNHP 165 B45	162.0	133.5	45	30-50	63	blue, 475 nm	n.a.	yes
LTRNHP 165 W45	162.0	133.5	45	30-50	63	white, 6200 K	n.a.	yes
LTRNHP 210 R20	182.0	117.5	20	50-100	81	red, 625 nm	n.a.	yes
LTRNHP 210 G20	182.0	117.5	20	50-100	84	green, 525 nm	n.a.	yes
LTRNHP 210 B20	182.0	117.5	20	50-100	84	blue, 475 nm	n.a.	yes
LTRNHP 210 W20	182.0	117.5	20	50-100	84	white, 6200 K	n.a.	yes
LTRNHP 245 R25	215.0	160.0	25	20-80	90	red, 625 nm	n.a.	yes
LTRNHP 245 G25	215.0	160.0	25	20-80	98	green, 525 nm	n.a.	yes
LTRNHP 245 B25	215.0	160.0	25	20-80	98	blue, 475 nm	n.a.	yes
LTRNHP 245 W25	215.0	160.0	25	20-80	98	white, 6200 K	n.a.	yes

Part number	ELECTRICAL SPECIFICATIONS							MECHANICAL SPECIFICATIONS		
	Supply voltage (V) 2	Current (mA) 3	Power cons. (W)	Max pulse current (A) 4	Peak power cons. (W)	Max pulse duration (ms)	Connector	Outer diam. (mm)	Inner diam. (mm)	Height (mm)
LTRNHP 075 R45	24	420	10	2.8	79	1	WEIPU SP2110/P5	86.0	28.0	38.0
LTRNHP 075 G45	24	420	10	6.0	163	1	WEIPU SP2110/P5	86.0	28.0	38.0
LTRNHP 075 B45	24	420	10	6.0	163	1	WEIPU SP2110/P5	86.0	28.0	38.0
LTRNHP 075 W45	24	420	10	7.2	178	1	WEIPU SP2110/P5	86.0	28.0	38.0
LTRNHP 165 R45	24	1670	40	7.0	169	1	WEIPU SP2110/P5	190.0	132.5	42.0
LTRNHP 165 G45	24	1670	40	9.0	239	1	WEIPU SP2110/P5	190.0	132.5	42.0
LTRNHP 165 B45	24	1670	40	9.0	221	1	WEIPU SP2110/P5	190.0	132.5	42.0
LTRNHP 165 W45	24	1670	40	13.5	293	1	WEIPU SP2110/P5	190.0	132.5	42.0
LTRNHP 210 R20	24	2090	50	9.0	217	1	WEIPU SP2110/P5	210.0	116.5	42.0
LTRNHP 210 G20	24	2090	50	12.0	319	1	WEIPU SP2110/P5	210.0	116.5	42.0
LTRNHP 210 B20	24	2090	50	12.0	294	1	WEIPU SP2110/P5	210.0	116.5	42.0
LTRNHP 210 W20	24	2090	50	18.0	391	1	WEIPU SP2110/P5	210.0	116.5	42.0
LTRNHP 245 R25	24	2710	65	10.0	241	1	WEIPU SP2110/P5	245.0	157.0	50.0
LTRNHP 245 G25	24	2710	65	14.0	372	1	WEIPU SP2110/P5	245.0	157.0	50.0
LTRNHP 245 B25	24	2710	65	14.0	343	1	WEIPU SP2110/P5	245.0	157.0	50.0
LTRNHP 245 W25	24	2710	65	20.0	434	1	WEIPU SP2110/P5	245.0	157.0	50.0

Last update 31/07/2023

- 1 Measured at minimum working distance.
- 2 Tolerance ± 2%.
- 3 With constant driving voltage.
- 4 At 25°C. At max pulse width (1 ms), max pulse frequency = 15 Hz.



LTCXC series

Continuous LED coaxial lights

COAXIAL LIGHT • DIFFUSED

Part number	LIGHTING SPECIFICATIONS					ELECTRICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS			
	Illumination area		Optimal WD	Light color, peak wavelength	Illuminance	Supply voltage	Current	Power cons.	Max pulse voltage	Max pulse current	Length	Width	Height
	width	height											
LT2QOG025-00-X-W-24V	26	27	20-40	white, 6300 K	17500	24	160	3.9	24-48	800	54.0	33.0	33.0
LT2QOG025-00-X-R-24V	26	27	20-40	red, 630 nm	4910	24	150	3.6	24-48	1200	54.0	33.0	33.0
LT2QOG025-00-X-G-24V	26	27	20-40	green, 525 nm	14000	24	160	3.9	24-48	800	54.0	33.0	33.0
LT2QOG025-00-X-B-24V	26	27	20-40	blue, 470 nm	11400	24	160	3.9	24-48	960	54.0	33.0	33.0
LT2QOG025-00-X-UV365-24V	26	27	20-40	UV, 365 nm	-	24	30	0.7	24-48	270	54.0	33.0	33.0
LT2QOG040-00-X-W-24V	48	48	20-50	white, 6300 K	15400	24	350	8.4	24-48	2500	107.5	60.0	66.0
LT2QOG040-00-X-R-24V	48	48	20-50	red, 630 nm	4050	24	146	3.5	24-48	2000	107.5	60.0	66.0
LT2QOG040-00-X-G-24V	48	48	20-50	green, 525 nm	11100	24	350	8.4	24-48	2500	107.5	60.0	66.0
LT2QOG040-00-X-B-24V	48	48	20-50	blue, 470 nm	10600	24	350	8.4	24-48	2500	107.5	60.0	66.0
LT2QOG040-00-X-UV365-24V	48	48	20-50	UV, 365 nm	-	24	60	1.4	24-48	400	107.5	60.0	66.0
LT2QOG040-00-X-RGBW-24V a	48	48	40-60	RGBW	3610	24	220	5.3	24-48	270	107.5	60.0	66.0
LT2QOG070-00-X-W-24V	70	70	40-60	white, 6300 K	13200	24	560	13.5	24-48	3500	139.6	89.0	95.0
LT2QOG070-00-X-R-24V	70	70	40-60	red, 630 nm	4670	24	525	12.6	24-48	3760	139.6	89.0	95.0
LT2QOG070-00-X-G-24V	70	70	40-60	green, 525 nm	6230	24	560	13.5	24-48	3500	139.6	89.0	95.0
LT2QOG070-00-X-B-24V	70	70	40-60	blue, 470 nm	TBA	24	560	13.5	24-48	3500	139.6	89.0	95.0
LT2QOG070-00-X-RGBW-24V a	70	70	40-60	RGBW	7240	24	320	7.7	24-48	1580	139.6	89.0	95.0
LT2QOG100-00-X-W-24V	100	100	40-60	white, 6300 K	17300	24	781	18.8	24-48	5500	166.5	120.0	123.8
LT2QOG100-00-X-R-24V	100	100	40-60	red, 630 nm	5310	24	450	10.8	24-48	4980	166.5	120.0	123.8
LT2QOG100-00-X-G-24V	100	100	40-60	green, 525 nm	11300	24	781	18.8	24-48	5500	166.5	120.0	123.8
LT2QOG100-00-X-B-24V	100	100	40-60	blue, 470 nm	26800	24	781	18.8	24-48	5500	166.5	120.0	123.8
LT3QOG150-00-X-W-24V	150	150	100-120	white, 6300 K	14918	24	891	21.4	24-48	3650	217.5	160.0	160.4
LT3QOG150-00-X-R-24V	150	150	100-120	red, 630 nm	3011	24	1056	25.4	24-48	2430	217.5	160.0	160.4
LT3QOG150-00-X-G-24V	150	150	100-120	green, 525 nm	TBA	24	891	21.4	24-48	3650	217.5	160.0	160.4
LT3QOG150-00-X-B-24V	150	150	100-120	blue, 470 nm	1085	24	891	21.4	24-48	3650	217.5	160.0	160.4
LT3QOG200-00-X-W-24V	200	200	100-120	white, 6300 K	20277	24	1584	38.0	24-48	6480	260.5	219.0	213.0
LT3QOG200-00-X-R-24V	200	200	100-120	red, 630 nm	TBA	24	1350	32.4	24-48	3660	260.5	219.0	213.0
LT3QOG200-00-X-G-24V	200	200	100-120	green, 525 nm	TBA	24	1584	38.0	24-48	6480	260.5	219.0	213.0
LT3QOG200-00-X-B-24V	200	200	100-120	blue, 470 nm	TBA	24	1584	38.0	24-48	6480	260.5	219.0	213.0
LT3QOG250-00-X-W-24V	250	250	100-120	white, 6300 K	19548	24	2250	54.0	24-48	8950	309.5	269.0	260.6
LT3QOG250-00-X-R-24V	250	250	100-120	red, 630 nm	3348	24	1944	46.7	24-48	5710	309.5	269.0	260.6
LT3QOG250-00-X-G-24V	250	250	100-120	green, 525 nm	TBA	24	2250	54.0	24-48	8950	309.5	269.0	260.6
LT3QOG250-00-X-B-24V	250	250	100-120	blue, 470 nm	1588	24	2250	54.0	24-48	8950	309.5	269.0	260.6

Last update 19/03/2024

- 1 ± 15% at 130 mm working distance.
- 2 Tolerance ± 2%.
- 3 Constant voltage power supply. 36 recommended.
- 4 Constant current power supply.

Ordering information

Our part numbers are coded as **LT2QOGxxx-yy-X-a-bbV** where:

- **xxx** defines the lighting area width and length.
- **yy** defines the light angle (for this series the angle is 00 = 0°).
- **a** defines the color: R = red, G = green, B = blue, W = white, UV365 = UV light, 365 nm, RGBW = red, green, blue and white. Contact us for additional wavelengths.
- **bb** defines the supply voltage. Optional 12V version is available.

All accessories including lighting extension cables (CB series) and mounting brackets (CMLT series) must be ordered separately.

Optional connectors: LTCXC series is available with JST connector per standard. For M8 or M12 connectors (available as optional) add -M8 or -M12 at the end of the part number.

Examples: LT2QOG040-00-X-W-24V-M8, LT2QOG040-00-X-W-24V-M12



LTBRZ3 series

LED bar lights with integrated driving electronics

BAR LIGHT • DIRECT

Part number	Illumination area		LIGHTING SPECIFICATIONS				ELECTRICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS		
	width (mm)	height (mm)	Emission angle (deg)	Light color, peak wavelength	Diffuser	Polarization film (lux)	Supply voltage (V) ¹	Peak power cons. (W)	Operation mode	Daisy-chain	Width (mm)	Height (mm)	Thickness (mm)
LTBRZ3-C-R-10	295	25	10	red, 630 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-R-10-DC	295	25	10	red, 630 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-R-10-PH	295	25	10	red, 630 nm	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-R-10-PH-DC	295	25	10	red, 630 nm	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-R-10-PV	295	25	10	red, 630 nm	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-R-10-PV-DC	295	25	10	red, 630 nm	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-R-20	295	25	20	red, 630 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-R-20-DC	295	25	20	red, 630 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-R-20-PH	295	25	20	red, 630 nm	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-R-20-PH-DC	295	25	20	red, 630 nm	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-R-20-PV	295	25	20	red, 630 nm	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-R-20-PV-DC	295	25	20	red, 630 nm	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-R-30	295	25	30	red, 630 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-R-30-DC	295	25	30	red, 630 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-R-30-PH	295	25	30	red, 630 nm	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-R-30-PH-DC	295	25	30	red, 630 nm	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-R-30-PV	295	25	30	red, 630 nm	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-R-30-PV-DC	295	25	30	red, 630 nm	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-R-50	295	25	50	red, 630 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-R-50-DC	295	25	50	red, 630 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-R-50-PH	295	25	50	red, 630 nm	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-R-50-PH-DC	295	25	50	red, 630 nm	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-R-50-PV	295	25	50	red, 630 nm	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-R-50-PV-DC	295	25	50	red, 630 nm	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-R-EL	295	25	30x15 elliptical	red, 630 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-R-EL-DC	295	25	30x15 elliptical	red, 630 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-R-EL-PH	295	25	30x15 elliptical	red, 630 nm	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-R-EL-PH-DC	295	25	30x15 elliptical	red, 630 nm	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-R-EL-PV	295	25	30x15 elliptical	red, 630 nm	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-R-EL-PV-DC	295	25	30x15 elliptical	red, 630 nm	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-R-BL	295	25	backlight	red, 630 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-R-BL-DC	295	25	backlight	red, 630 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-R-BL-PH	295	25	backlight	red, 630 nm	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-R-BL-PH-DC	295	25	backlight	red, 630 nm	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-R-BL-PV	295	25	backlight	red, 630 nm	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-R-BL-PV-DC	295	25	backlight	red, 630 nm	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-G-10	295	25	10	green, 530 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-G-10-DC	295	25	10	green, 530 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-G-10-PH	295	25	10	green, 530 nm	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-G-10-PH-DC	295	25	10	green, 530 nm	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-G-10-PV	295	25	10	green, 530 nm	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-G-10-PV-DC	295	25	10	green, 530 nm	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-G-20	295	25	20	green, 530 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-G-20-DC	295	25	20	green, 530 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-G-20-PH	295	25	20	green, 530 nm	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-G-20-PH-DC	295	25	20	green, 530 nm	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-G-20-PV	295	25	20	green, 530 nm	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-G-20-PV-DC	295	25	20	green, 530 nm	yes	vertical	24	18	Continuous	yes	307	66	33

¹ Tolerance ± 2%.

Following page →

LIGHTING • Bar lights • LTBRZ3 series

Part number	LIGHTING SPECIFICATIONS						ELECTRICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS		
	Illumination area		Emission angle (deg)	Light color, peak wavelength	Diffuser	Polarization film (lux)	Supply voltage (V) 1	Peak power cons. (W)	Operation mode	Daisy-chain	Width (mm)	Height (mm)	Thickness (mm)
	width (mm)	height (mm)											
LTBRZ3-C-G-30	295	25	30	green, 530 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-G-30-DC	295	25	30	green, 530 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-G-30-PH	295	25	30	green, 530 nm	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-G-30-PH-DC	295	25	30	green, 530 nm	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-G-30-PV	295	25	30	green, 530 nm	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-G-30-PV-DC	295	25	30	green, 530 nm	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-G-50	295	25	50	green, 530 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-G-50-DC	295	25	50	green, 530 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-G-50-PH	295	25	50	green, 530 nm	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-G-50-PH-DC	295	25	50	green, 530 nm	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-G-50-PV	295	25	50	green, 530 nm	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-G-50-PV-DC	295	25	50	green, 530 nm	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-G-EL	295	25	30x15 elliptical	green, 530 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-G-EL-DC	295	25	30x15 elliptical	green, 530 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-G-EL-PH	295	25	30x15 elliptical	green, 530 nm	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-G-EL-PH-DC	295	25	30x15 elliptical	green, 530 nm	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-G-EL-PV	295	25	30x15 elliptical	green, 530 nm	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-G-EL-PV-DC	295	25	30x15 elliptical	green, 530 nm	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-G-BL	295	25	backlight	green, 530 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-G-BL-DC	295	25	backlight	green, 530 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-G-BL-PH	295	25	backlight	green, 530 nm	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-G-BL-PH-DC	295	25	backlight	green, 530 nm	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-G-BL-PV	295	25	backlight	green, 530 nm	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-G-BL-PV-DC	295	25	backlight	green, 530 nm	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-B-10	295	25	10	blue, 470 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-B-10-DC	295	25	10	blue, 470 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-B-10-PH	295	25	10	blue, 470 nm	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-B-10-PH-DC	295	25	10	blue, 470 nm	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-B-10-PV	295	25	10	blue, 470 nm	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-B-10-PV-DC	295	25	10	blue, 470 nm	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-B-20	295	25	20	blue, 470 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-B-20-DC	295	25	20	blue, 470 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-B-20-PH	295	25	20	blue, 470 nm	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-B-20-PH-DC	295	25	20	blue, 470 nm	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-B-20-PV	295	25	20	blue, 470 nm	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-B-20-PV-DC	295	25	20	blue, 470 nm	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-B-30	295	25	30	blue, 470 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-B-30-DC	295	25	30	blue, 470 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-B-30-PH	295	25	30	blue, 470 nm	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-B-30-PH-DC	295	25	30	blue, 470 nm	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-B-30-PV	295	25	30	blue, 470 nm	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-B-30-PV-DC	295	25	30	blue, 470 nm	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-B-50	295	25	50	blue, 470 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-B-50-DC	295	25	50	blue, 470 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-B-50-PH	295	25	50	blue, 470 nm	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-B-50-PH-DC	295	25	50	blue, 470 nm	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-B-50-PV	295	25	50	blue, 470 nm	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-B-50-PV-DC	295	25	50	blue, 470 nm	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-B-EL	295	25	30x15 elliptical	blue, 470 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-B-EL-DC	295	25	30x15 elliptical	blue, 470 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-B-EL-PH	295	25	30x15 elliptical	blue, 470 nm	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-B-EL-PH-DC	295	25	30x15 elliptical	blue, 470 nm	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-B-EL-PV	295	25	30x15 elliptical	blue, 470 nm	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-B-EL-PV-DC	295	25	30x15 elliptical	blue, 470 nm	yes	vertical	24	18	Continuous	yes	307	66	33

Part number	LIGHTING SPECIFICATIONS						ELECTRICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS		
	Illumination area		Emission angle (deg)	Light color, peak wavelength	Diffuser	Polarization film (lux)	Supply voltage (V) ¹	Peak power cons. (W)	Operation mode	Daisy-chain	Width (mm)	Height (mm)	Thickness (mm)
	width (mm)	height (mm)											
LTBRZ3-C-B-BL	295	25	backlight	blue, 470 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-B-BL-DC	295	25	backlight	blue, 470 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-B-BL-PH	295	25	backlight	blue, 470 nm	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-B-BL-PH-DC	295	25	backlight	blue, 470 nm	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-B-BL-PV	295	25	backlight	blue, 470 nm	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-B-BL-PV-DC	295	25	backlight	blue, 470 nm	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-W-10	295	25	10	white, 6500 K	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-W-10-DC	295	25	10	white, 6500 K	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-W-10-PH	295	25	10	white, 6500 K	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-W-10-PH-DC	295	25	10	white, 6500 K	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-W-10-PV	295	25	10	white, 6500 K	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-W-10-PV-DC	295	25	10	white, 6500 K	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-W-20	295	25	20	white, 6500 K	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-W-20-DC	295	25	20	white, 6500 K	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-W-20-PH	295	25	20	white, 6500 K	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-W-20-PH-DC	295	25	20	white, 6500 K	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-W-20-PV	295	25	20	white, 6500 K	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-W-20-PV-DC	295	25	20	white, 6500 K	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-W-30	295	25	30	white, 6500 K	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-W-30-DC	295	25	30	white, 6500 K	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-W-30-PH	295	25	30	white, 6500 K	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-W-30-PH-DC	295	25	30	white, 6500 K	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-W-30-PV	295	25	30	white, 6500 K	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-W-30-PV-DC	295	25	30	white, 6500 K	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-W-50	295	25	50	white, 6500 K	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-W-50-DC	295	25	50	white, 6500 K	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-W-50-PH	295	25	50	white, 6500 K	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-W-50-PH-DC	295	25	50	white, 6500 K	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-W-50-PV	295	25	50	white, 6500 K	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-W-50-PV-DC	295	25	50	white, 6500 K	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-W-EL	295	25	30x15 elliptical	white, 6500 K	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-W-EL-DC	295	25	30x15 elliptical	white, 6500 K	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-W-EL-PH	295	25	30x15 elliptical	white, 6500 K	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-W-EL-PH-DC	295	25	30x15 elliptical	white, 6500 K	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-W-EL-PV	295	25	30x15 elliptical	white, 6500 K	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-W-EL-PV-DC	295	25	30x15 elliptical	white, 6500 K	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-W-BL	295	25	backlight	white, 6500 K	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-W-BL-DC	295	25	backlight	white, 6500 K	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-W-BL-PH	295	25	backlight	white, 6500 K	yes	horizontal	24	18	Continuous	no	307	66	33
LTBRZ3-C-W-BL-PH-DC	295	25	backlight	white, 6500 K	yes	horizontal	24	18	Continuous	yes	307	66	33
LTBRZ3-C-W-BL-PV	295	25	backlight	white, 6500 K	yes	vertical	24	18	Continuous	no	307	66	33
LTBRZ3-C-W-BL-PV-DC	295	25	backlight	white, 6500 K	yes	vertical	24	18	Continuous	yes	307	66	33
LTBRZ3-C-IR-10	295	25	10	IR, 860 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-IR-10-DC	295	25	10	IR, 860 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-IR-20	295	25	20	IR, 860 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-IR-20-DC	295	25	20	IR, 860 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-IR-30	295	25	30	IR, 860 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-IR-30-DC	295	25	30	IR, 860 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-IR-50	295	25	50	IR, 860 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-IR-50-DC	295	25	50	IR, 860 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-IR-EL	295	25	30x15 elliptical	IR, 860 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-IR-EL-DC	295	25	30x15 elliptical	IR, 860 nm	yes	no	24	18	Continuous	yes	307	66	33
LTBRZ3-C-IR-BL	295	25	backlight	IR, 860 nm	yes	no	24	18	Continuous	no	307	66	33
LTBRZ3-C-IR-BL-DC	295	25	backlight	IR, 860 nm	yes	no	24	18	Continuous	yes	307	66	33

¹ Tolerance ± 2%.

LIGHTING • Bar lights • LTBRZ3 series

Part number	LIGHTING SPECIFICATIONS						ELECTRICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS		
	Illumination area		Emission angle (deg)	Light color, peak wavelength	Diffuser	Polarization film (lux)	Supply voltage (V) 1	Peak power cons. (W)	Operation mode	Daisy-chain	Width (mm)	Height (mm)	Thickness (mm)
	width (mm)	height (mm)											
LTBRZ3-P-R-10	295	25	10	red, 630 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-R-10-DC	295	25	10	red, 630 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-R-10-PH	295	25	10	red, 630 nm	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-R-10-PH-DC	295	25	10	red, 630 nm	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-R-10-PV	295	25	10	red, 630 nm	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-R-10-PV-DC	295	25	10	red, 630 nm	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-R-20	295	25	20	red, 630 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-R-20-DC	295	25	20	red, 630 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-R-20-PH	295	25	20	red, 630 nm	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-R-20-PH-DC	295	25	20	red, 630 nm	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-R-20-PV	295	25	20	red, 630 nm	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-R-20-PV-DC	295	25	20	red, 630 nm	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-R-30	295	25	30	red, 630 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-R-30-DC	295	25	30	red, 630 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-R-30-PH	295	25	30	red, 630 nm	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-R-30-PH-DC	295	25	30	red, 630 nm	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-R-30-PV	295	25	30	red, 630 nm	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-R-30-PV-DC	295	25	30	red, 630 nm	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-R-50	295	25	50	red, 630 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-R-50-DC	295	25	50	red, 630 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-R-50-PH	295	25	50	red, 630 nm	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-R-50-PH-DC	295	25	50	red, 630 nm	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-R-50-PV	295	25	50	red, 630 nm	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-R-50-PV-DC	295	25	50	red, 630 nm	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-R-EL	295	25	30x15 elliptical	red, 630 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-R-EL-DC	295	25	30x15 elliptical	red, 630 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-R-EL-PH	295	25	30x15 elliptical	red, 630 nm	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-R-EL-PH-DC	295	25	30x15 elliptical	red, 630 nm	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-R-EL-PV	295	25	30x15 elliptical	red, 630 nm	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-R-EL-PV-DC	295	25	30x15 elliptical	red, 630 nm	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-R-BL	295	25	backlight	red, 630 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-R-BL-DC	295	25	backlight	red, 630 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-R-BL-PH	295	25	backlight	red, 630 nm	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-R-BL-PH-DC	295	25	backlight	red, 630 nm	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-R-BL-PV	295	25	backlight	red, 630 nm	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-R-BL-PV-DC	295	25	backlight	red, 630 nm	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-G-10	295	25	10	green, 530 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-G-10-DC	295	25	10	green, 530 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-G-10-PH	295	25	10	green, 530 nm	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-G-10-PH-DC	295	25	10	green, 530 nm	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-G-10-PV	295	25	10	green, 530 nm	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-G-10-PV-DC	295	25	10	green, 530 nm	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-G-20	295	25	20	green, 530 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-G-20-DC	295	25	20	green, 530 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-G-20-PH	295	25	20	green, 530 nm	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-G-20-PH-DC	295	25	20	green, 530 nm	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-G-20-PV	295	25	20	green, 530 nm	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-G-20-PV-DC	295	25	20	green, 530 nm	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-G-30	295	25	30	green, 530 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-G-30-DC	295	25	30	green, 530 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-G-30-PH	295	25	30	green, 530 nm	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-G-30-PH-DC	295	25	30	green, 530 nm	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-G-30-PV	295	25	30	green, 530 nm	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-G-30-PV-DC	295	25	30	green, 530 nm	yes	vertical	24	100	Strobe	yes	307	66	33

Part number	LIGHTING SPECIFICATIONS						ELECTRICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS		
	Illumination area		Emission angle	Light color, peak wavelength	Diffuser	Polarization film	Supply voltage	Peak power cons.	Operation mode	Daisy-chain	Width	Height	Thickness
	width (mm)	height (mm)	(deg)			(lux)	(V) ¹	(W)			(mm)	(mm)	(mm)
LTBRZ3-P-G-50	295	25	50	green, 530 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-G-50-DC	295	25	50	green, 530 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-G-50-PH	295	25	50	green, 530 nm	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-G-50-PH-DC	295	25	50	green, 530 nm	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-G-50-PV	295	25	50	green, 530 nm	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-G-50-PV-DC	295	25	50	green, 530 nm	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-G-EL	295	25	30x15 elliptical	green, 530 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-G-EL-DC	295	25	30x15 elliptical	green, 530 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-G-EL-PH	295	25	30x15 elliptical	green, 530 nm	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-G-EL-PH-DC	295	25	30x15 elliptical	green, 530 nm	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-G-EL-PV	295	25	30x15 elliptical	green, 530 nm	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-G-EL-PV-DC	295	25	30x15 elliptical	green, 530 nm	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-G-BL	295	25	backlight	green, 530 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-G-BL-DC	295	25	backlight	green, 530 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-G-BL-PH	295	25	backlight	green, 530 nm	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-G-BL-PH-DC	295	25	backlight	green, 530 nm	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-G-BL-PV	295	25	backlight	green, 530 nm	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-G-BL-PV-DC	295	25	backlight	green, 530 nm	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-B-10	295	25	10	blue, 470 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-B-10-DC	295	25	10	blue, 470 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-B-10-PH	295	25	10	blue, 470 nm	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-B-10-PH-DC	295	25	10	blue, 470 nm	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-B-10-PV	295	25	10	blue, 470 nm	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-B-10-PV-DC	295	25	10	blue, 470 nm	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-B-20	295	25	20	blue, 470 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-B-20-DC	295	25	20	blue, 470 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-B-20-PH	295	25	20	blue, 470 nm	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-B-20-PH-DC	295	25	20	blue, 470 nm	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-B-20-PV	295	25	20	blue, 470 nm	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-B-20-PV-DC	295	25	20	blue, 470 nm	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-B-30	295	25	30	blue, 470 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-B-30-DC	295	25	30	blue, 470 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-B-30-PH	295	25	30	blue, 470 nm	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-B-30-PH-DC	295	25	30	blue, 470 nm	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-B-30-PV	295	25	30	blue, 470 nm	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-B-30-PV-DC	295	25	30	blue, 470 nm	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-B-50	295	25	50	blue, 470 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-B-50-DC	295	25	50	blue, 470 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-B-50-PH	295	25	50	blue, 470 nm	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-B-50-PH-DC	295	25	50	blue, 470 nm	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-B-50-PV	295	25	50	blue, 470 nm	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-B-50-PV-DC	295	25	50	blue, 470 nm	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-B-EL	295	25	30x15 elliptical	blue, 470 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-B-EL-DC	295	25	30x15 elliptical	blue, 470 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-B-EL-PH	295	25	30x15 elliptical	blue, 470 nm	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-B-EL-PH-DC	295	25	30x15 elliptical	blue, 470 nm	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-B-EL-PV	295	25	30x15 elliptical	blue, 470 nm	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-B-EL-PV-DC	295	25	30x15 elliptical	blue, 470 nm	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-B-BL	295	25	backlight	blue, 470 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-B-BL-DC	295	25	backlight	blue, 470 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-B-BL-PH	295	25	backlight	blue, 470 nm	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-B-BL-PH-DC	295	25	backlight	blue, 470 nm	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-B-BL-PV	295	25	backlight	blue, 470 nm	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-B-BL-PV-DC	295	25	backlight	blue, 470 nm	yes	vertical	24	100	Strobe	yes	307	66	33

¹ Tolerance ± 2%.

LIGHTING • Bar lights • LTBRZ3 series

Part number	LIGHTING SPECIFICATIONS						ELECTRICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS		
	Illumination area		Emission angle	Light color, peak wavelength	Diffuser	Polarization film	Supply voltage	Peak power cons.	Operation mode	Daisy-chain	Width	Height	Thickness
	width (mm)	height (mm)	(deg)			(lux)	(V) ¹	(W)			(mm)	(mm)	(mm)
LTBRZ3-P-W-10	295	25	10	white, 6500 K	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-W-10-DC	295	25	10	white, 6500 K	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-W-10-PH	295	25	10	white, 6500 K	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-W-10-PH-DC	295	25	10	white, 6500 K	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-W-10-PV	295	25	10	white, 6500 K	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-W-10-PV-DC	295	25	10	white, 6500 K	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-W-20	295	25	20	white, 6500 K	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-W-20-DC	295	25	20	white, 6500 K	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-W-20-PH	295	25	20	white, 6500 K	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-W-20-PH-DC	295	25	20	white, 6500 K	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-W-20-PV	295	25	20	white, 6500 K	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-W-20-PV-DC	295	25	20	white, 6500 K	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-W-30	295	25	30	white, 6500 K	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-W-30-DC	295	25	30	white, 6500 K	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-W-30-PH	295	25	30	white, 6500 K	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-W-30-PH-DC	295	25	30	white, 6500 K	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-W-30-PV	295	25	30	white, 6500 K	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-W-30-PV-DC	295	25	30	white, 6500 K	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-W-50	295	25	50	white, 6500 K	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-W-50-DC	295	25	50	white, 6500 K	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-W-50-PH	295	25	50	white, 6500 K	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-W-50-PH-DC	295	25	50	white, 6500 K	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-W-50-PV	295	25	50	white, 6500 K	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-W-50-PV-DC	295	25	50	white, 6500 K	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-W-EL	295	25	30x15 elliptical	white, 6500 K	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-W-EL-DC	295	25	30x15 elliptical	white, 6500 K	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-W-EL-PH	295	25	30x15 elliptical	white, 6500 K	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-W-EL-PH-DC	295	25	30x15 elliptical	white, 6500 K	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-W-EL-PV	295	25	30x15 elliptical	white, 6500 K	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-W-EL-PV-DC	295	25	30x15 elliptical	white, 6500 K	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-W-BL	295	25	backlight	white, 6500 K	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-W-BL-DC	295	25	backlight	white, 6500 K	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-W-BL-PH	295	25	backlight	white, 6500 K	yes	horizontal	24	100	Strobe	no	307	66	33
LTBRZ3-P-W-BL-PH-DC	295	25	backlight	white, 6500 K	yes	horizontal	24	100	Strobe	yes	307	66	33
LTBRZ3-P-W-BL-PV	295	25	backlight	white, 6500 K	yes	vertical	24	100	Strobe	no	307	66	33
LTBRZ3-P-W-BL-PV-DC	295	25	backlight	white, 6500 K	yes	vertical	24	100	Strobe	yes	307	66	33
LTBRZ3-P-IR-10	295	25	10	IR, 860 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-IR-10-DC	295	25	10	IR, 860 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-IR-20	295	25	20	IR, 860 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-IR-20-DC	295	25	20	IR, 860 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-IR-30	295	25	30	IR, 860 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-IR-30-DC	295	25	30	IR, 860 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-IR-50	295	25	50	IR, 860 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-IR-50-DC	295	25	50	IR, 860 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-IR-EL	295	25	30x15 elliptical	IR, 860 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-IR-EL-DC	295	25	30x15 elliptical	IR, 860 nm	yes	no	24	100	Strobe	yes	307	66	33
LTBRZ3-P-IR-BL	295	25	backlight	IR, 860 nm	yes	no	24	100	Strobe	no	307	66	33
LTBRZ3-P-IR-BL-DC	295	25	backlight	IR, 860 nm	yes	no	24	100	Strobe	yes	307	66	33

Last update 05/09/2024

¹ Tolerance ± 2%.

Ordering information

Our part numbers are coded as **LTBRZ3-x-y-w-p-e**, where:

-x defines the operation mode of the barlight: C means continuous mode only, P means pulsed mode only.

-y defines the colour: R is Red, 630 nm, G is Green, 530 nm, B is Blue, 470 nm, W is white, 6500K colour temperature, IR is Infrared, 850nm.

-w defines the beam angle: 10 means that each LED emits a circular beam with an aperture of ~10°; 20 means that each LED emits a circular beam with an aperture of ~20°;

30 means that each LED emits a circular beam with an aperture of ~30°; 50 means that each LED emits a circular beam with an aperture of ~50°;

EL means that each LED emits an elliptical beam with a horizontal aperture of ~35° and a vertical aperture of ~15°; BL means that LEDs emit a uniform pattern suitable for backlight applications.

-p defines the presence of a polarizing film: PH means that the polarizing axis of the film is parallel to the width of the illuminator;

PV means that the polarizing axis of the film is parallel to the height of the illuminator; Leave this field empty if the polarizer is not required.

-e defines the presence of a daisy chain connector; Leave this field empty if the daisy-chain is not required.

For additional options, such as wavelengths, optical, electrical or mechanical customization, contact us.

LTBR SQ series

Combined continuous LED bar lights

Part number	LIGHTING SPECIFICATIONS					ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS			
	Illumination area		Number of LED rows	Emission angle (deg)	Light color, peak wavelength	Supply voltage (V)	Current (mA)	Power cons. (W)	Channels	Max pulse voltage (V)	Max pulse current (mA)	Length (mm)	Width (mm)	Height (mm)
	outer size (mm)	inner size (mm)												
LTZPFE040-00-3-W-24V	120.0	70	3	0-90	white, 6300 K	24	168	4.0	4	24-48	520	120	70	34.2
LTZPFE040-00-3-R-24V	120.0	70	3	0-90	red, 630 nm	24	132	3.2	4	24-48	740	120	70	34.2
LTZPFE040-00-3-G-24V	120.0	70	3	0-90	green, 525 nm	24	168	4.0	4	24-48	490	120	70	34.2
LTZPFE040-00-3-B-24V	120.0	70	3	0-90	blue, 470 nm	24	168	4.0	4	24-48	540	120	70	34.2
LTZPFE040-00-3-IR850-24V	120	70	3	0-90	IR, 850 nm	24	180	4.3	4	24-48	1200	120	70	34.2
LTZPFE040-00-3-RGB-24V a	120	70	3	0-90	RGB	24	300	7.2	12	24-48	3000	120	70	34.2
LTZPFE080-00-3-W-24V	160	110	3	0-90	white, 6300 K	24	336	8.1	4	24-48	1040	160	110	34.2
LTZPFE080-00-3-R-24V	160	110	3	0-90	red, 630 nm	24	264	6.3	4	24-48	1480	160	110	34.2
LTZPFE080-00-3-G-24V	160	110	3	0-90	green, 525 nm	24	336	8.1	4	24-48	980	160	110	34.2
LTZPFE080-00-3-B-24V	160	110	3	0-90	blue, 470 nm	24	336	8.1	4	24-48	1090	160	110	34.2
LTZPFE080-00-3-IR850-24V	160	110	3	0-90	IR, 850 nm	24	360	8.6	4	24-48	2400	160	110	34.2
LTZPFE080-00-3-RGB-24V a	160	110	3	0-90	RGB	24	600	14.4	12	24-48	6000	160	110	34.2
LTZPFE120-00-3-W-24V	200	150	3	0-90	white, 6300 K	24	504	12.1	4	24-48	1560	200	150	34.2
LTZPFE120-00-3-R-24V	200	150	3	0-90	red, 630 nm	24	396	9.5	4	24-48	2220	200	150	34.2
LTZPFE120-00-3-G-24V	200	150	3	0-90	green, 525 nm	24	504	12.1	4	24-48	1460	200	150	34.2
LTZPFE120-00-3-B-24V	200	150	3	0-90	blue, 470 nm	24	504	12.1	4	24-48	1630	200	150	34.2
LTZPFE120-00-3-IR850-24V	200	150	3	0-90	IR, 850 nm	24	540	13.0	4	24-48	3600	200	150	34.2
LTZPFE120-00-3-RGB-24V a	200	150	3	0-90	RGB	24	900	21.6	12	24-48	9000	200	150	34.2
LTZPFE160-00-3-W-24V	240	190	3	0-90	white, 6300 K	24	672	16.1	4	24-48	2016	240	190	34.2
LTZPFE160-00-3-R-24V	240	190	3	0-90	red, 630 nm	24	528	12.7	4	24-48	2960	240	190	34.2
LTZPFE160-00-3-G-24V	240	190	3	0-90	green, 525 nm	24	672	16.1	4	24-48	1950	240	190	34.2
LTZPFE160-00-3-B-24V	240	190	3	0-90	blue, 470 nm	24	672	16.1	4	24-48	2180	240	190	34.2
LTZPFE160-00-3-IR850-24V	240	190	3	0-90	IR, 850 nm	24	720	12.3	4	24-48	4800	240	190	34.2
LTZPFE160-00-3-RGB-24V a	240	190	3	0-90	RGB	24	1200	28.8	12	24-48	6400	240	190	34.2
LTZPFE200-00-3-W-24V	280	230	3	0-90	white, 6300 K	24	840	20.2	4	24-48	2600	280	230	34.2
LTZPFE200-00-3-R-24V	280	230	3	0-90	red, 630 nm	24	660	15.8	4	24-48	3700	280	230	34.2
LTZPFE200-00-3-G-24V	280	230	3	0-90	green, 525 nm	24	840	20.2	4	24-48	2440	280	230	34.2
LTZPFE200-00-3-B-24V	280	230	3	0-90	blue, 470 nm	24	840	20.2	4	24-48	2720	280	230	34.2
LTZPFE200-00-3-IR850-24V	280	230	3	0-90	IR, 850 nm	24	900	21.6	4	24-48	6000	280	230	34.2
LTZPFE200-00-3-RGB-24V a	280	230	3	0-90	RGB	24	1500	36.0	12	24-48	15000	280	230	34.2
LTZPFE040-00-6-W-24V	120	70	6	0-90	white, 6300 K	24	288	6.9	4	24-48	910	120	70	34.2
LTZPFE040-00-6-R-24V	120	70	6	0-90	red, 630 nm	24	312	7.5	4	24-48	1430	120	70	34.2
LTZPFE040-00-6-G-24V	120	70	6	0-90	green, 525 nm	24	288	6.9	4	24-48	890	120	70	34.2
LTZPFE040-00-6-B-24V	120	70	6	0-90	blue, 470 nm	24	288	6.9	4	24-48	910	120	70	34.2
LTZPFE040-00-6-IR850-24V	120	70	6	0-90	IR, 850 nm	24	288	6.9	4	24-48	1740	120	70	34.2
LTZPFE040-00-6-RGB-24V a	120	70	6	0-90	RGB	24	400	9.6	12	24-48	1590	120	70	34.2



BAR LIGHT • DIRECT

Part number	LIGHTING SPECIFICATIONS					ELECTRICAL SPECIFICATIONS						MECHANICAL SPECIFICATIONS		
	Illumination area		Number of LED rows	Emission angle (deg)	Light color, peak wavelength	Supply voltage (V)	Current (mA)	Power cons. (W)	Channels	Max pulse voltage (V)	Max pulse current (mA)	Length (mm)	Width (mm)	Height (mm)
	outer size (mm)	inner size (mm)												
LTZPFE080-00-6-W-24V	160	110	6	0-90	white, 6300 K	24	576	13.8	4	24-48	1810	160	110	34.2
LTZPFE080-00-6-R-24V	160	110	6	0-90	red, 630 nm	24	624	15.0	4	24-48	2860	160	110	34.2
LTZPFE080-00-6-G-24V	160	110	6	0-90	green, 525 nm	24	576	13.8	4	24-48	1790	160	110	34.2
LTZPFE080-00-6-B-24V	160	110	6	0-90	blue, 470 nm	24	576	13.8	4	24-48	1810	160	110	34.2
LTZPFE080-00-6-IR850-24V	160	110	6	0-90	IR, 850 nm	24	576	13.8	4	24-48	3470	160	110	34.2
LTZPFE080-00-6-RGB-24V a	160	110	6	0-90	RGB	24	800	19.2	12	24-48	3170	160	110	34.2
LTZPFE120-00-6-W-24V	200	150	6	0-90	white, 6300 K	24	864	20.7	4	24-48	2720	200	150	34.2
LTZPFE120-00-6-R-24V	200	150	6	0-90	red, 630 nm	24	936	22.5	4	24-48	4290	200	150	34.2
LTZPFE120-00-6-G-24V	200	150	6	0-90	green, 525 nm	24	864	20.7	4	24-48	2680	200	150	34.2
LTZPFE120-00-6-B-24V	200	150	6	0-90	blue, 470 nm	24	864	20.7	4	24-48	2720	200	150	34.2
LTZPFE120-00-6-IR850-24V	200	150	6	0-90	IR, 850 nm	24	864	20.7	4	24-48	5210	200	150	34.2
LTZPFE120-00-6-RGB-24V a	200	150	6	0-90	RGB	24	1200	28.8	12	24-48	4750	200	150	34.2
LTZPFE160-00-6-W-24V	240	190	6	0-90	white, 6300 K	24	1152	27.7	4	24-48	3630	240	190	34.2
LTZPFE160-00-6-R-24V	240	190	6	0-90	red, 630 nm	24	1248	30.0	4	24-48	5720	240	190	34.2
LTZPFE160-00-6-G-24V	240	190	6	0-90	green, 525 nm	24	1152	27.7	4	24-48	3570	240	190	34.2
LTZPFE160-00-6-B-24V	240	190	6	0-90	blue, 470 nm	24	1152	27.7	4	24-48	3630	240	190	34.2
LTZPFE160-00-6-IR850-24V	240	190	6	0-90	IR, 850 nm	24	1152	27.7	4	24-48	6950	240	190	34.2
LTZPFE160-00-6-RGB-24V a	240	190	6	0-90	RGB	24	1600	38.4	12	24-48	6340	240	190	34.2
LTZPFE200-00-6-W-24V	280	230	6	0-90	white, 6300 K	24	1140	34.6	4	24-48	4530	280	230	34.2
LTZPFE200-00-6-R-24V	280	230	6	0-90	red, 630 nm	24	1560	37.4	4	24-48	7150	280	230	34.2
LTZPFE200-00-6-G-24V	280	230	6	0-90	green, 525 nm	24	1440	34.6	4	24-48	4470	280	230	34.2
LTZPFE200-00-6-B-24V	280	230	6	0-90	blue, 470 nm	24	1440	34.6	4	24-48	4530	280	230	34.2
LTZPFE200-00-6-IR850-24V	280	230	6	0-90	IR, 850 nm	24	1140	34.6	4	24-48	8680	280	230	34.2
LTZPFE200-00-6-RGB-24V a	280	230	6	0-90	RGB	24	2000	48.0	12	24-48	7920	280	230	34.2

Last update 31/07/2023

- 1 Tolerance ± 2%.
- 2 Constant voltage power supply. 36 recommended.

- 3 Constant current power supply.

Ordering information

Our part numbers are coded as **LTZPFExxx-yy-z-a-bbV** where:

- **xxx** defines the lighting area length
- **yy** defines the light angle (for this series the angle is 00 = 0°)
- **z** defines the number of LED rows
- **a** defines the color: R = red, G = green, B = blue, W = white, UV365 = UV light, 365 nm, IR850 = IR light, 850 nm. Contact us for additional wavelengths.
- **bb** defines the supply voltage. Optional 12V version is available.

All accessories including lighting extension cables (CB series), diffusers (DFLT series) and polarizers (PLLT series) must be ordered separately.

Standard connector: JST. Optional connectors: M8 or M12.

For M8 or M12 connectors (available as optional) add -M8 or -M12 at the end of the part number. Examples: LTZPFE040-00-6-W-24V-M8, LTZPFE040-00-6-W-24V-M12

LTBRLS series

Compact LED bar lights



BAR LIGHT • DIRECT

Part number	LIGHTING SPECIFICATIONS					ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS		
	Illumination area		Number of LED rows	Light color, peak wavelength	Illuminance (lux)	Supply voltage	Current	Power cons.	Max pulse voltage	Max pulse current	Length	Width	Height
	width (mm)	height (mm)											
LT2VZPG065-00-1-W-24V	66	10.3	1	white, 6300 K	9800	24	150	3.6	24-48	1000	68.0	20.2	19.8
LT2VZPG065-00-1-R-24V	66	10.3	1	red, 630 nm	5660	24	150	3.6	24-48	1000	68.0	20.2	19.8
LT2VZPG065-00-1-G-24V	66	10.3	1	green, 525 nm	7630	24	150	3.6	24-48	1000	68.0	20.2	19.8
LT2VZPG065-00-1-B-24V	66	10.3	1	blue, 470 nm	13570	24	150	3.6	24-48	1000	68.0	20.2	19.8
LT2VZPG130-00-1-W-24V	131	10.3	1	white, 6300 K	17600	24	160	3.8	24-48	2000	133.0	20.2	19.8
LT2VZPG130-00-1-R-24V	131	10.3	1	red, 630 nm	15000	24	160	3.8	24-48	1970	133.0	20.2	19.8
LT2VZPG130-00-1-G-24V	131	10.3	1	green, 525 nm	TBA	24	160	3.8	24-48	2000	133.0	20.2	19.8
LT2VZPG130-00-1-B-24V	131	10.3	1	blue, 470 nm	TBA	24	160	3.8	24-48	2000	133.0	20.2	19.8
LT2VZPG195-00-1-W-24V	196	10.3	1	white, 6300 K	TBA	24	240	5.8	24-48	1620	198.0	20.2	19.8
LT2VZPG195-00-1-R-24V	196	10.3	1	red, 630 nm	TBA	24	230	5.5	24-48	1580	198.0	20.2	19.8
LT2VZPG195-00-1-G-24V	196	10.3	1	green, 525 nm	TBA	24	240	5.8	24-48	1620	198.0	20.2	19.8
LT2VZPG195-00-1-B-24V	196	10.3	1	blue, 470 nm	TBA	24	240	5.8	24-48	1620	198.0	20.2	19.8
LT2VZPG260-00-1-W-24V	261	10.3	1	white, 6300 K	TBA	24	320	7.7	24-48	2106	263.0	20.2	19.8
LT2VZPG260-00-1-R-24V	261	10.3	1	red, 630 nm	TBA	24	320	7.7	24-48	2106	263.0	20.2	19.8
LT2VZPG260-00-1-G-24V	261	10.3	1	green, 525 nm	TBA	24	320	7.7	24-48	2106	263.0	20.2	19.8
LT2VZPG260-00-1-B-24V	261	10.3	1	blue, 470 nm	TBA	24	320	7.7	24-48	2106	263.0	20.2	19.8
LT2VZPG325-00-1-W-24V	326	10.3	1	white, 6300 K	TBA	24	400	9.6	24-48	2632	328.0	20.2	19.8
LT2VZPG325-00-1-R-24V	326	10.3	1	red, 630 nm	TBA	24	390	9.4	24-48	2602	328.0	20.2	19.8
LT2VZPG325-00-1-G-24V	326	10.3	1	green, 525 nm	TBA	24	400	9.6	24-48	2632	328.0	20.2	19.8
LT2VZPG325-00-1-B-24V	326	10.3	1	blue, 470 nm	TBA	24	400	9.6	24-48	2632	328.0	20.2	19.8

Last update 31/07/2023

- 1 ± 15%. See datasheet for measurements distance.
- 2 Tolerance ± 2%.
- 3 Constant voltage power supply. 36 recommended.
- 4 Constant current power supply.



LTSP series

60W LED Spot Lights

NEW

SPOT LIGHT • Light angle 26°, 32°, 61°, 77° • HIGH POWER

Part number	LIGHTING SPECIFICATIONS					ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS	
	Illumination area diam. (mm)	Emission angle (°)	Light color, peak wavelength	Irradiance (continuous) (W/m ²) ¹	Irradiance (strobe) (W/m ²) ¹	Operating mode	Supply voltage (V)	Power cons. (continuous) (W)	Peak power cons. (strobe) (W)	Connector	Diameter (mm)	Depth (mm)
LTSP50-W	50	77	White 5700K	32	106	Continuous and strobe	24	10.8	60.0	M12 straight plug male connector	52.0	75.0
LTSP50-R	50	56	Red 625nm	34	145	Continuous and strobe	24	9.1	60.0	M12 straight plug male connector	52.0	75.0
LTSP50-G	50	50	Green 528nm	25	65	Continuous and strobe	24	10.8	60.0	M12 straight plug male connector	52.0	75.0
LTSP50-B	50	80	Blue 451nm	54	74	Continuous and strobe	24	10.8	60.0	M12 straight plug male connector	52.0	75.0
LTSP50-IR850	50	56	IR 850nm	42	144	Continuous and strobe	24	10.8	60.0	M12 straight plug male connector	52.0	75.0
LTSP50-W-10L	50	26	White 5700K	455	1800	Continuous and strobe	24	10.8	60.0	M12 straight plug male connector	52.0	75.0
LTSP50-R-10L	50	19	Red 625nm	496	2460	Continuous and strobe	24	9.1	60.0	M12 straight plug male connector	52.0	75.0
LTSP50-G-10L	50	17	Green 528nm	355	1100	Continuous and strobe	24	10.8	60.0	M12 straight plug male connector	52.0	75.0
LTSP50-B-10L	50	27	Blue 451nm	779	1260	Continuous and strobe	24	10.8	60.0	M12 straight plug male connector	52.0	75.0
LTSP50-IR850-10L	50	19	IR 850nm	600	2440	Continuous and strobe	24	10.8	60.0	M12 straight plug male connector	52.0	75.0
LTSP50-W-30L	50	32	White 5700K	343	1144	Continuous and strobe	24	10.8	60.0	M12 straight plug male connector	52.0	75.0
LTSP50-R-30L	50	23	Red 625nm	374	1563	Continuous and strobe	24	9.1	60.0	M12 straight plug male connector	52.0	75.0
LTSP50-G-30L	50	21	Green 528nm	267	699	Continuous and strobe	24	10.8	60.0	M12 straight plug male connector	52.0	75.0
LTSP50-B-30L	50	33	Blue 451nm	588	801	Continuous and strobe	24	10.8	60.0	M12 straight plug male connector	52.0	75.0
LTSP50-IR850-30L	50	23	IR 850nm	453	1551	Continuous and strobe	24	10.8	60.0	M12 straight plug male connector	52.0	75.0
LTSP50-W-60L	50	61	White 5700K	162	506	Continuous and strobe	24	10.8	60.0	M12 straight plug male connector	52.0	75.0
LTSP50-R-60L	50	45	Red 625nm	176	692	Continuous and strobe	24	9.1	60.0	M12 straight plug male connector	52.0	75.0
LTSP50-G-60L	50	40	Green 528nm	126	309	Continuous and strobe	24	10.8	60.0	M12 straight plug male connector	52.0	75.0
LTSP50-B-60L	50	63	Blue 451nm	277	354	Continuous and strobe	24	10.8	60.0	M12 straight plug male connector	52.0	75.0
LTSP50-IR850-60L	50	45	IR 850nm	213	686	Continuous and strobe	24	10.8	60.0	M12 straight plug male connector	52.0	75.0

Last update 29/08/2024

¹ At emitting surface.

Ordering information

Our part numbers are coded as **LTSP50 - X-YYL**, where:
 - **YYL** defines the lens angle in degrees (°)
 - **X** defines the color. R = red, G = green, B = blue, W = white, IR850 = Infrared 850 nm.

LTSP spotlights feature a wide range of compatible optical filters to be ordered separately:
 - for horizontal/vertical linear polarizers, refer to PLLT series,
 - for protective covers, refer to PCLT series.
 Contact us for more customization options.

LDSC series

LED sources



* RT

Part number	LIGHTING SPECIFICATIONS	ELECTRICAL SPECIFICATIONS		MECHANICAL SPECIFICATIONS	
	Light color, peak wavelength	Supply voltage (V)	Power consumption (W)	Diameter (mm)	Length (mm)
RT-LVW-00614	white, > 4000 K	12	0.3	14.0	36.0
RT-LVG-00614	green, 520 nm	12	0.3	14.0	36.0

Last update 16/02/2024

LTDMC series

Continuous LED domes

Part number	LIGHTING SPECIFICATIONS					ELECTRICAL SPECIFICATIONS						MECHANICAL SPECIFICATIONS		
	Illumination area		Optimal WD	Number of LED rows	Light color, peak wavelength	Supply voltage	Current	Power cons.	Channels	Max pulse voltage	Max pulse current	Outer diam.	Aperture diam.	Height
	outer diam. (mm)	inner diam. (mm)												
1	2	3												
LT5WRG050-00-1-R-24V	37.4	10.0	20-50	1	red, 630 nm	24	243	5.8	1	24-48	1400	68.0	10.0	33.8
LT5WRG050-00-1-R-24V-CH4	37.4	10.0	20-50	1	red, 630 nm	24	280	6.7	4	24-48	1080	68.0	10.0	33.8
LT5WRG050-00-1-G-24V	37.4	10.0	20-50	1	green, 525 nm	24	315	7.6	1	24-48	1600	68.0	10.0	33.8
LT5WRG050-00-1-G-24V-CH4	37.4	10.0	20-50	1	green, 525 nm	24	280	6.7	4	24-48	1080	68.0	10.0	33.8
LT5WRG050-00-1-B-24V	37.4	10.0	20-50	1	blue, 470 nm	24	315	7.6	1	24-48	1600	68.0	10.0	33.8
LT5WRG050-00-1-B-24V-CH4	37.4	10.0	20-50	1	blue, 470 nm	24	280	6.7	4	24-48	1080	68.0	10.0	33.8
LT5WRG050-00-1-W-24V	37.4	10.0	20-50	1	white, 6300 K	24	315	7.6	1	24-48	1620	68.0	10.0	33.8
LT5WRG050-00-1-W-24V-CH4	37.4	10.0	20-50	1	white, 6300 K	24	280	6.7	4	24-48	1080	68.0	10.0	33.8
LT5WRG050-00-1-IR850-24V	37.4	10.0	20-50	1	IR, 850 nm	24	240	5.8	1	24-48	1110	68.0	10.0	33.8
LT5WRG070-00-1-R-24V	61.0	20.0	20-50	1	red, 630 nm	24	378	9.1	1	24-48	2180	95.0	20.0	44.5
LT5WRG070-00-1-R-24V-CH4	61.0	20.0	20-50	1	red, 630 nm	24	420	10.1	4	24-48	1620	95.0	20.0	33.8
LT5WRG070-00-1-G-24V	61.0	20.0	20-50	1	green, 525 nm	24	490	11.8	1	24-48	2480	95.0	20.0	44.5
LT5WRG070-00-1-G-24V-CH4	61.0	20.0	20-50	1	green, 525 nm	24	420	10.1	4	24-48	1620	95.0	20.0	33.8
LT5WRG070-00-1-B-24V	61.0	20.0	20-50	1	blue, 470 nm	24	490	11.8	1	24-48	2480	95.0	20.0	44.5
LT5WRG070-00-1-B-24V-CH4	61.0	20.0	20-50	1	blue, 470 nm	24	420	10.1	4	24-48	1620	95.0	20.0	33.8
LT5WRG070-00-1-W-24V	61.0	20.0	20-50	1	white, 6300 K	24	490	11.8	1	24-48	2520	95.0	20.0	44.5
LT5WRG070-00-1-W-24V-CH4	61.0	20.0	20-50	1	white, 6300 K	24	420	10.1	4	24-48	1620	95.0	20.0	33.8
LT5WRG070-00-1-IR850-24V	61.0	20.0	20-50	1	IR, 850 nm	24	360	8.6	1	24-48	1670	95.0	20.0	44.5
LT5WRG100-00-1-R-24V	85.4	25.0	40-80	1	red, 630 nm	24	540	13.0	1	24-48	3090	118.0	25.0	56.8
LT5WRG100-00-1-R-24V-CH4	85.4	25.0	40-80	1	red, 630 nm	24	700	16.8	4	24-48	2700	118.0	25.0	56.8
LT5WRG100-00-1-G-24V	85.4	25.0	40-80	1	green, 525 nm	24	700	16.8	1	24-48	3600	118.0	25.0	56.8
LT5WRG100-00-1-G-24V-CH4	85.4	25.0	40-80	1	green, 525 nm	24	700	16.8	4	24-48	2700	118.0	25.0	56.8
LT5WRG100-00-1-B-24V	85.4	25.0	40-80	1	blue, 470 nm	24	700	16.8	1	24-48	3600	118.0	25.0	56.8
LT5WRG100-00-1-B-24V-CH4	85.4	25.0	40-80	1	blue, 470 nm	24	700	16.8	4	24-48	2700	118.0	25.0	56.8
LT5WRG100-00-1-W-24V	85.4	25.0	40-80	1	white, 6300 K	24	700	16.8	1	24-48	3600	118.0	25.0	56.8
LT5WRG100-00-1-W-24V-CH4	85.4	25.0	40-80	1	white, 6300 K	24	700	16.8	4	24-48	2700	118.0	25.0	56.8
LT5WRG100-00-1-IR850-24V	85.4	25.0	40-80	1	IR, 850 nm	24	480	11.5	1	24-48	2230	118.0	25.0	56.8
LT5WRG150-00-1-R-24V	138.0	40.0	50-80	1	red, 630 nm	24	900	21.6	1	24-48	4200	185.0	40.0	89.8
LT5WRG150-00-1-R-24V-CH4	138.0	40.0	50-80	1	red, 630 nm	24	980	23.5	4	24-48	3780	185.0	40.0	89.8
LT5WRG150-00-1-G-24V	138.0	40.0	50-80	1	green, 525 nm	24	930	22.3	1	24-48	3820	185.0	40.0	89.8
LT5WRG150-00-1-G-24V-CH4	138.0	40.0	50-80	1	green, 525 nm	24	980	23.5	4	24-48	3780	185.0	40.0	89.8
LT5WRG150-00-1-B-24V	138.0	40.0	50-80	1	blue, 470 nm	24	930	22.3	1	24-48	3820	185.0	40.0	89.8
LT5WRG150-00-1-B-24V-CH4	138.0	40.0	50-80	1	blue, 470 nm	24	980	23.5	4	24-48	3780	185.0	40.0	89.8
LT5WRG150-00-1-W-24V	138.0	40.0	50-80	1	white, 6300 K	24	930	22.3	1	24-48	4200	185.0	40.0	89.8
LT5WRG150-00-1-W-24V-CH4	138.0	40.0	50-80	1	white, 6300 K	24	980	23.5	4	24-48	3780	185.0	40.0	89.8
LT5WRG150-00-1-RGBW-24V	138.0	40.0	50-80	1	RGBW	24	135	3.2	4	24-48	690	185.0	40.0	89.8
LT5WRG150-00-1-IR850-24V	138.0	40.0	50-80	1	IR, 850 nm	24	840	20.2	1	24-48	14000	185.0	40.0	89.8
LT5WRG200-00-1-R-24V	193.0	50.0	50-100	1	red, 630 nm	24	1330	32.0	1	24-48	6300	232.0	50.0	112.8
LT5WRG200-00-1-R-24V-CH4	193.0	50.0	50-100	1	red, 630 nm	24	345	8.3	4	24-48	5400	232.0	50.0	112.8
LT5WRG200-00-1-G-24V	193.0	50.0	50-100	1	green, 525 nm	24	1380	33.1	1	24-48	6300	232.0	50.0	112.8
LT5WRG200-00-1-G-24V-CH4	193.0	50.0	50-100	1	green, 525 nm	24	1380	33.1	4	24-48	5400	232.0	50.0	112.8



DOME LIGHT • INDIRECT

Part number	LIGHTING SPECIFICATIONS					ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS			
	outer diam. (mm)	inner diam. (mm)	Optimal WD (mm)	Number of LED rows	Light color, peak wavelength	Supply voltage (V)	Current (mA)	Power cons. (W)	Channels	Max pulse voltage (V)	Max pulse current (mA)	Outer diam. (mm)	Aperture diam. (mm)	Height (mm)
						1				2	3			
LT5WRG200-00-1-B-24V	193.0	50.0	50-100	1	blue, 470 nm	24	1380	33.1	1	24-48	6300	232.0	50.0	112.8
LT5WRG200-00-1-B-24V-CH4	193.0	50.0	50-100	1	blue, 470 nm	24	1380	33.1	4	24-48	5400	232.0	50.0	112.8
LT5WRG200-00-1-W-24V	193.0	50.0	50-100	1	white, 6300 K	24	1380	33.1	1	24-48	6300	232.0	50.0	112.8
LT5WRG200-00-1-W-24V-CH4	193.0	50.0	50-100	1	white, 6300 K	24	345	8.3	4	24-48	5400	232.0	50.0	112.8
LT5WRG200-00-1-RGBW-24V	193.0	50.0	50-80	1	RGBW	24	270	6.5	4	24-48	1230	232.0	50.0	112.8
LT5WRG200-00-1-IR850-24V	193.0	50.0	50-100	1	IR, 850 nm	24	1080	25.9	1	24-48	18000	232.0	50.0	112.8
LT5WRG250-00-1-R-24V	240.0	50.0	50-100	1	red, 630 nm	24	1500	36.0	1	24-48	7800	284.0	50.0	139.4
LT5WRG250-00-1-R-24V-CH4	240.0	50.0	50-100	1	red, 630 nm	24	400	9.6	4	24-48	7020	284.0	50.0	139.4
LT5WRG250-00-1-G-24V	240.0	50.0	50-100	1	green, 525 nm	24	1600	38.4	1	24-48	7800	284.0	50.0	139.4
LT5WRG250-00-1-G-24V-CH4	240.0	50.0	50-100	1	green, 525 nm	24	400	9.6	4	24-48	7020	284.0	50.0	139.4
LT5WRG250-00-1-B-24V	240.0	50.0	50-100	1	blue, 470 nm	24	1600	38.4	1	24-48	7800	284.0	50.0	139.4
LT5WRG250-00-1-B-24V-CH4	240.0	50.0	50-100	1	blue, 470 nm	24	400	9.6	4	24-48	7020	284.0	50.0	139.4
LT5WRG250-00-1-W-24V	240.0	50.0	50-100	1	white, 6300 K	24	1600	38.4	1	24-48	7800	284.0	50.0	139.4
LT5WRG250-00-1-W-24V-CH4	240.0	50.0	50-100	1	white, 6300 K	24	400	9.6	4	24-48	7020	284.0	50.0	139.4
LT5WRG250-00-1-RGBW-24V	240.0	50.0	50-100	1	RGBW	24	330	7.9	4	24-48	700	284.0	50.0	139.4
LT5WRG250-00-1-IR850-24V	240.0	50.0	50-100	1	IR, 850 nm	24	1440	34.6	1	24-48	24000	284.0	50.0	139.4
LT4WRG360-00-1-R-24V	300.0	36.5	45-95	1	red, 630 nm	24	1550	37.2	1	24-48	6240	381.0	36.5	189.0
LT4WRG360-00-1-R-24V-CH4	300.0	36.5	45-95	1	red, 630 nm	24	387	9.3	4	24-48	5940	381.0	36.5	189.0
LT4WRG360-00-1-G-24V	300.0	36.5	45-95	1	green, 525 nm	24	1550	37.2	1	24-48	6240	381.0	36.5	189.0
LT4WRG360-00-1-G-24V-CH4	300.0	36.5	45-95	1	green, 525 nm	24	387	9.3	4	24-48	5940	381.0	36.5	189.0
LT4WRG360-00-1-B-24V	300.0	36.5	45-95	1	blue, 470 nm	24	1550	37.2	1	24-48	6240	381.0	36.5	189.0
LT4WRG360-00-1-B-24V-CH4	300.0	36.5	45-95	1	blue, 470 nm	24	387	9.3	4	24-48	5940	381.0	36.5	189.0
LT4WRG360-00-1-W-24V	300.0	36.5	45-95	1	white, 6300 K	24	1550	37.2	1	24-48	6240	381.0	36.5	189.0
LT4WRG360-00-1-W-24V-CH4	300.0	36.5	45-95	1	white, 6300 K	24	387	9.3	4	24-48	5940	381.0	36.5	189.0

Last update 31/07/2023

- 1** Tolerance ± 2%.
- 2** Constant voltage power supply. 36 recommended.
- 3** Constant current power supply.

Ordering information

Our part numbers are coded as **LT5WRGxxx-yy-z-a-bbV** where:

- **xxx** defines the lighting diameter.
- **yy** defines the light angle (for this series the angle is 00 = 0°).
- **z** defines the number of LED rows.
- **a** defines the color: R = red, G = green, B = blue, W = white, IR850 = Infrared 850 nm, RGBW = red, green, blue and white. Contact us for additional wavelengths.
- **bb** defines the supply voltage. The optional 12V version is available.
- **CH4** denotes 4-channel models.

All accessories including lighting extension cables (CB series) and mounting brackets (CMLT series) must be ordered separately.

Optional connectors: LTDMC series is available with JST connector per standard. For M8 or M12 connectors (available as optional) add -M8 or -M12 at the end of the part number.

Examples: LT5WRG050-00-1-W-24V-**M8**, LT5WRG050-00-1-W-24V-**M12**



LTDM series

High power strobe LED domes

DOME LIGHT • INDIRECT • HIGH POWER

Part number	LIGHTING SPECIFICATIONS				
	Illumination area diam. (mm)	Optimal WD (mm)	Number of LEDs	Light color, peak wavelength	Illuminance (klux) ¹
LTDMA1-W	40	5-50	15	white, > 6000 K	175
LTDMA1-G	40	5-50	15	green, 525 nm	125
LTDMA1-R	40	5-50	15	red, 625 nm	70
LTDMB2-W	60	5-50	40	white, > 6000 K	160
LTDMB2-G	60	5-50	40	green, 528 nm	145
LTDMB2-R	60	5-50	40	red, 625 nm	115
LTDMC1-W	100	5-50	40	white, > 6000 K	50
LTDMC2-W	100	5-50	80	white, > 6000 K	140
LTDMC2-G	100	5-50	80	green, 528 nm	125
LTDMC2-R	100	5-50	80	red, 625 nm	100

Part number	ELECTRICAL SPECIFICATIONS						MECHANICAL SPECIFICATIONS			
	Supply voltage (V)	Min pulse current (A)	Max pulse current (A)	Max pulse duration (ms) ²	Max duty-cycle (%)	Estimated MTBF (hours) ³	Connector	Length (mm)	Width (mm)	Height (mm)
LTDMA1-W	Strobe only, constant current driving	3.5	7.5	1.0	1.5	> 50000	M8	107.0	84.0	53.0
LTDMA1-G	Strobe only, constant current driving	3.5	7.5	1.0	1.5	> 50000	M8	107.0	84.0	53.0
LTDMA1-R	Strobe only, constant current driving	3.5	7.5	1.0	1.5	> 50000	M8	107.0	84.0	53.0
LTDMB2-W	Strobe only, constant current driving	3.5	17.0	1.0	1.5	> 50000	M12	166.5	133.0	90.0
LTDMB2-G	Strobe only, constant current driving	3.5	17.0	1.0	1.5	> 50000	M12	166.5	133.0	90.0
LTDMB2-R	Strobe only, constant current driving	3.5	17.0	1.0	1.5	> 50000	M12	166.5	133.0	90.0
LTDMC1-W	Strobe only, constant current driving	3.5	7.5	1.0	1.5	> 50000	M12	206.0	206.0	128.0
LTDMC2-W	Strobe only, constant current driving	3.5	17.0	1.0	1.5	> 50000	M12	206.0	206.0	128.0
LTDMC2-G	Strobe only, constant current driving	3.5	17.0	1.0	1.5	> 50000	M12	206.0	206.0	128.0
LTDMC2-R	Strobe only, constant current driving	3.5	17.0	1.0	1.5	> 50000	M12	206.0	206.0	128.0

Last update 31/07/2023

- ¹ Measured at maximum current and maximum working distance.
- ² At 25°C. At max pulse width (1 ms), max pulse frequency = 15 Hz.
- ³ At 25°C.

Ordering information

Our part numbers are coded as **LTDMxy-z**, where x defines the illuminator size (A = small, B = medium, C = large), y refers to the power intensity (1 = medium, 2 = high) and z refers to color (W = white, R = red, G = green).

For instance LTDMB2-R is a diffusive strobed dome illuminator - medium size high power red.



LTDMLA series

High power strobe dome + low angle illumination systems

DOME LIGHT • INDIRECT • HIGH POWER

Part number	LIGHTING SPECIFICATIONS								
	Illumination area diam. (mm)	Optimal WD (mm)	DOME			RING LIGHT			Diffuser
			Number of LEDs	Light color, peak wavelength	Illuminance (klux) ¹	Number of LEDs	Light color, peak wavelength	Illuminance (klux) ¹	
LTDMLAB2-WW	60	5-50	40	white, > 6000 K	160	40	white, > 6000 K	210	yes
LTDMLAC1-WW	100	5-50	40	white, > 6000 K	50	40	white, > 6000 K	70	yes
LTDMLAC2-WW	100	5-50	80	white, > 6000 K	140	80	white, > 6000 K	250	yes

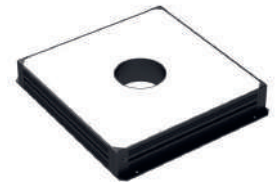
Part number	ELECTRICAL SPECIFICATIONS							MECHANICAL SPECIFICATIONS		
	Supply voltage (V)	Min pulse current (A)	Max pulse current (A)	Max pulse duration (ms) ²	Max duty-cycle (%)	Estimated MTBF (hours) ³	Connector	Length (mm)	Width (mm)	Height (mm)
LTDMLAB2-WW	Strobe only, constant current driving	3.5	17.0	1.0	1.5	> 50000	M12	166.5	133.0	104.0
LTDMLAC1-WW	Strobe only, constant current driving	3.5	7.5	1.0	1.5	> 50000	M12	206.0	206.0	147.0
LTDMLAC2-WW	Strobe only, constant current driving	3.5	17.0	1.0	1.5	> 50000	M12	206.0	206.0	147.0

Last update 31/07/2023

¹ Measured at maximum current and maximum working distance. ² At 25°C. At max pulse width (1 ms), max pulse frequency = 15 Hz. ³ At 25°C.

Ordering information

It's easy to select the right illuminator for your application: our part numbers are coded as **LTDMLAxy-WW** where **x** defines the illuminator size (B = medium, C = large), **y** refers to the power intensity (1 = medium, 2 = high). For instance LTDMLB2-WW is a diffusive strobed dome + low angle illumination system - medium size, high power, dome white, ring light white.



LTPH series

Diffused continuous LED flat dome lights

DOME LIGHT • DIFFUSED

Part number	LIGHTING SPECIFICATIONS					ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS		
	Illumination area width (mm)	height (mm)	Hole diameter (mm)	Light color, peak wavelength	Illuminance (lux) ¹	Supply voltage (V) ²	Current (mA)	Power consumption (W)	Max pulse voltage (V) ³	Max pulse current (mA) ⁴	Length (mm)	Width (mm)	Height (mm)
LTPVZE160X160D50-X-W-24V	160.0	160.0	50.0	white, 6300 K	21400	24	705	16.9	24-48	1410	196.0	178.0	30.0
LTPVZE160X160D50-X-R-24V	160.0	160.0	50.0	red, 630 nm	21400	24	505	12.6	24-48	1010	196.0	178.0	30.0
LTPVZE160X160D50-X-G-24V	160.0	160.0	50.0	green, 525 nm	21400	24	705	16.9	24-48	1410	196.0	178.0	30.0
LTPVZE160X160D50-X-B-24V	160.0	160.0	50.0	blue, 470 nm	TBA	24	705	16.9	24-48	1410	196.0	178.0	30.0
LTPVZE240X240D50-X-W-24V	240.0	240.0	50.0	white, 6300 K	TBA	24	1530	36.7	24-48	3060	258.0	176.0	30.0
LTPVZE240X240D50-X-R-24V	240.0	240.0	50.0	red, 630 nm	TBA	24	1530	36.7	24-48	3060	258.0	176.0	30.0
LTPVZE240X240D50-X-G-24V	240.0	240.0	50.0	green, 525 nm	TBA	24	1530	36.7	24-48	3060	258.0	176.0	30.0
LTPVZE240X240D50-X-B-24V	240.0	240.0	50.0	blue, 470 nm	TBA	24	1530	36.7	24-48	3060	258.0	176.0	30.0
LTPVZE320X320D50-X-W-24V	320.0	320.0	50.0	white, 6300 K	TBA	24	2856	68.8	24-48	4950	336.0	318.0	30.0
LTPVZE320X320D50-X-R-24V	320.0	320.0	50.0	red, 630 nm	TBA	24	2145	51.5	24-48	4590	336.0	318.0	30.0
LTPVZE320X320D50-X-G-24V	320.0	320.0	50.0	green, 525 nm	TBA	24	2856	68.8	24-48	4590	336.0	318.0	30.0
LTPVZE320X320D50-X-B-24V	320.0	320.0	50.0	blue, 470 nm	TBA	24	2856	68.8	24-48	4590	336.0	318.0	30.0
LTPVZE400X400D50-X-W-24V	400.0	400.0	50.0	white, 6300 K	TBA	24	4410	105.8	24-48	13230	436.0	418.0	30.0
LTPVZE400X400D50-X-R-24V	400.0	400.0	50.0	red, 630 nm	TBA	24	4200	105.8	24-48	12710	436.0	418.0	30.0
LTPVZE400X400D50-X-G-24V	400.0	400.0	50.0	green, 525 nm	TBA	24	4410	105.8	24-48	13230	436.0	418.0	30.0
LTPVZE400X400D50-X-B-24V	400.0	400.0	50.0	blue, 470 nm	TBA	24	4410	105.8	24-48	13230	436.0	418.0	30.0
LTPVZE480X480D50-X-W-24V	480.0	480.0	50.0	white, 6300 K	TBA	24	6465	155.2	24-48	12930	516.0	498.0	30.0
LTPVZE480X480D50-X-R-24V	480.0	480.0	50.0	red, 630 nm	TBA	24	6165	155.2	24-48	12630	516.0	498.0	30.0
LTPVZE480X480D50-X-G-24V	480.0	480.0	50.0	green, 525 nm	TBA	24	6465	155.2	24-48	12930	516.0	498.0	30.0
LTPVZE480X480D50-X-B-24V	480.0	480.0	50.0	blue, 470 nm	TBA	24	6465	155.2	24-48	12930	516.0	498.0	30.0

Last update 31/07/2023

¹ ± 15%. See datasheet for measurements distance. ² Tolerance ± 2%. ³ Constant voltage power supply. 36 recommended. ⁴ Constant current power supply.



LTTNC series

Continuous LED tunnel lights

TUNNEL LIGHT • INDIRECT

Part number	LIGHTING SPECIFICATIONS					ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS		
	Illumination area		Optimal WD	Number of LED rows	Light color, peak wavelength	Supply voltage	Current	Power cons.	Max pulse voltage	Max pulse current	Length	Width	Height
	width	length											
	(mm)	(mm)	(mm)			(V)	(mA)	(W)	(V)	(mA)	(mm)	(mm)	(mm)
						1			2	3			
LT3WRH150-00-1-W-24V	76	147	20-60	1	white, 6300 K	24	400	9.6	24-48	1200	163.0	177.6	106.5
LT3WRH150-00-1-R-24V	76	147	20-60	1	red, 630 nm	24	450	10.8	24-48	1350	163.0	177.6	106.5
LT3WRH150-00-1-G-24V	76	147	20-60	1	green, 525 nm	24	400	9.6	24-48	1200	163.0	177.6	106.5
LT3WRH150-00-1-B-24V	76	147	20-60	1	blue, 470 nm	24	400	9.6	24-48	1200	163.0	177.6	106.5
LT3WRH200-00-1-W-24V	126	147	40-60	1	white, 6300 K	24	400	9.6	24-48	1200	163.0	227.2	131.5
LT3WRH200-00-1-R-24V	126	147	40-60	1	red, 630 nm	24	450	10.8	24-48	1350	163.0	227.2	131.5
LT3WRH200-00-1-G-24V	126	147	40-60	1	green, 525 nm	24	400	9.6	24-48	1200	163.0	227.2	131.5
LT3WRH200-00-1-B-24V	126	147	40-60	1	blue, 470 nm	24	400	9.6	24-48	1200	163.0	227.2	131.5

Last update 31/07/2023

- 1 Tolerance ± 2%.
- 2 Constant voltage power supply. 36 recommended.
- 3 Constant current power supply.

Our part numbers are coded as **LT3WRHxxx-yy-z-a-bbV** where:

- **xxx** defines the lighting width.
- **yy** defines the light angle (for this series the angle is 00 = 0°).
- **z** defines the number of LED rows.
- **a** defines the color: R = red, G = green, B = blue, W = white. Contact us for additional wavelengths.
- **bb** defines the supply voltage. Optional 12V version is available.

Lighting extension cables (CB series) are not included and must be ordered separately.

Optional connectors: LTTNC series is available with JST connector per standard. For M8 or M12 connectors (available as optional) add -M8 or -M12 at the end of the part number.

Examples: LT3WRH150-00-1-W-24V-M8, LT3WRH150-00-1-W-24V-M12

LTLNC series

Continuous LED line lights



LINE LIGHT • FOCUSED

Part number	LIGHTING SPECIFICATIONS						
	Illumination area		Optimal WD (mm)	Number of LEDs	Light color, peak wavelength	Illuminance (klux) 1	Irradiance (W/m²) 1
	width (mm)	height (mm)					
LTLNC 050-W	50	15	20-100	12	white, 6500 K	n.a.	-
LTLNC 050-R	50	15	20-100	9	red, 625 nm	n.a.	-
LTLNC 050-G	50	15	20-100	12	green, 525 nm	n.a.	-
LTLNC 050-B	50	15	20-100	12	blue, 475 nm	n.a.	-
LTLNC 050-IR850	50	15	20-100	11	IR, 850 nm	-	n.a.
LTLNC 100-W	100	15	20-100	21	white, 6500 K	n.a.	-
LTLNC 100-R	100	15	20-100	18	red, 625 nm	n.a.	-
LTLNC 100-G	100	15	20-100	21	green, 525 nm	n.a.	-
LTLNC 100-B	100	15	20-100	21	blue, 475 nm	n.a.	-
LTLNC 100-IR850	100	15	20-100	22	IR, 850 nm	-	n.a.
LTLNC 150-W	150	15	20-100	28	white, 6500 K	n.a.	-
LTLNC 150-R	150	15	20-100	27	red, 625 nm	n.a.	-
LTLNC 150-G	150	15	20-100	28	green, 525 nm	n.a.	-
LTLNC 150-B	150	15	20-100	28	blue, 475 nm	n.a.	-
LTLNC 150-IR850	150	15	20-100	33	IR, 850 nm	-	n.a.
LTLNC 200-W	200	15	20-100	28	white, 6500 K	n.a.	-
LTLNC 200-R	200	15	20-100	27	red, 625 nm	n.a.	-
LTLNC 200-G	200	15	20-100	28	green, 525 nm	n.a.	-
LTLNC 200-B	200	15	20-100	28	blue, 475 nm	n.a.	-
LTLNC 200-IR850	200	15	20-100	33	IR, 850 nm	-	n.a.
LTLNC 300-W	300	15	20-100	42	white, 6500 K	n.a.	-
LTLNC 300-R	300	15	20-100	36	red, 625 nm	n.a.	-
LTLNC 300-G	300	15	20-100	42	green, 525 nm	n.a.	-
LTLNC 300-B	300	15	20-100	42	blue, 475 nm	n.a.	-
LTLNC 300-IR850	300	15	20-100	44	IR, 850 nm	-	n.a.

Part number	ELECTRICAL SPECIFICATIONS							MECHANICAL SPECIFICATIONS		
	Supply voltage	Current	Power consumption	Typical pulse voltage	Max pulse current	Peak power consumption	Connector	Length	Width	Height
	(V) 2	(mA) 3	(W)	(V)	(mA)	(W)		(mm)	(mm)	(mm)
LTLNC 050-W	24	600	15	55	2900	160	M8	80	32	60
LTLNC 050-R	24	600	15	28	1000	28	M8	80	32	60
LTLNC 050-G	24	600	15	39	2000	78	M8	80	32	60
LTLNC 050-B	24	600	15	41	2000	82	M8	80	32	60
LTLNC 050-IR850	24	300	7.2	59	1500	89	M8	80	32	60
LTLNC 100-W	24	1050	26	42	4350	183	M8	150	32	60
LTLNC 100-R	24	1000	24	31	2000	62	M8	150	32	60
LTLNC 100-G	24	1050	26	31	3000	93	M8	150	32	60
LTLNC 100-B	24	1050	26	31	3000	93	M8	150	32	60
LTLNC 100-IR850	24	600	15	60	3000	180	M8	150	32	60
LTLNC 150-W	24	1400	34	42	5800	244	M8	200	32	60
LTLNC 150-R	24	1500	36	31	3000	93	M8	200	32	60
LTLNC 150-G	24	1400	34	31	4000	124	M8	200	32	60
LTLNC 150-B	24	1400	34	31	4000	124	M8	200	32	60
LTLNC 150-IR850	24	900	22	60	4500	270	M8	200	32	60
LTLNC 200-W	24	1600	39	41	6000	246	M8	250	32	60
LTLNC 200-R	24	1650	40	31	3000	93	M8	250	32	60
LTLNC 200-G	24	1600	39	32	4000	128	M8	250	32	60
LTLNC 200-B	24	1600	39	32	4000	128	M8	250	32	60
LTLNC 200-IR850	24	1050	26	55	4500	248	M8	250	32	60
LTLNC 300-W	24	2100	51	44	9000	396	M8	350	32	60
LTLNC 300-R	24	2000	48	31	4000	124	M8	350	32	60
LTLNC 300-G	24	2100	51	33	6000	198	M8	350	32	60
LTLNC 300-B	24	2100	51	33	6000	198	M8	350	32	60
LTLNC 300-IR850	24	1200	29	60	6000	360	M8	350	32	60

Last update 31/07/2023

1 Measured at minimum working distance
2 Tolerance ± 2%.

3 With constant driving voltage.

LTLNM series

Flicker free high power focused modular LED line lights

Part number	Modules	LIGHTING SPECIFICATIONS						
		Illumination area		Focusing	Optimal WD (mm)	Number of LEDs	Light color, peak wavelength	Diffuser
		length (mm)	height (mm)					
LTLNM-0200-N-FC-W	1	200	20	near	10-100	48	white, 6200 K	no
LTLNM-0200-N-D-FC-W	1	200	20	near	10-100	48	white, 6200 K	yes
LTLNM-0200-F-FC-W	1	200	20	far	100-200	48	white, 6200 K	no
LTLNM-0200-F-D-FC-W	1	200	20	far	100-200	48	white, 6200 K	yes
LTLNM-0200-C-FC-W	1	200	20	collimated	10-200	48	white, 6200 K	no
LTLNM-0200-C-D-FC-W	1	200	20	collimated	10-200	48	white, 6200 K	yes
LTLNM-0400-N-FC-W	2	400	20	near	10-100	96	white, 6200 K	no
LTLNM-0400-N-D-FC-W	2	400	20	near	10-100	96	white, 6200 K	yes
LTLNM-0400-F-FC-W	2	400	20	far	100-200	96	white, 6200 K	no
LTLNM-0400-F-D-FC-W	2	400	20	far	100-200	96	white, 6200 K	yes
LTLNM-0400-C-FC-W	2	400	20	collimated	10-200	96	white, 6200 K	no
LTLNM-0400-C-D-FC-W	2	400	20	collimated	10-200	96	white, 6200 K	yes
LTLNM-0600-N-FC-W	3	600	20	near	10-100	144	white, 6200 K	no
LTLNM-0600-N-D-FC-W	3	600	20	near	10-100	144	white, 6200 K	yes
LTLNM-0600-F-FC-W	3	600	20	far	100-200	144	white, 6200 K	no
LTLNM-0600-F-D-FC-W	3	600	20	far	100-200	144	white, 6200 K	yes
LTLNM-0600-C-FC-W	3	600	20	collimated	10-200	144	white, 6200 K	no
LTLNM-0600-C-D-FC-W	3	600	20	collimated	10-200	144	white, 6200 K	yes
LTLNM-0800-N-FC-W	4	800	20	near	10-100	192	white, 6200 K	no
LTLNM-0800-N-D-FC-W	4	800	20	near	10-100	192	white, 6200 K	yes
LTLNM-0800-F-FC-W	4	800	20	far	100-200	192	white, 6200 K	no
LTLNM-0800-F-D-FC-W	4	800	20	far	100-200	192	white, 6200 K	yes
LTLNM-0800-C-FC-W	4	800	20	collimated	10-200	192	white, 6200 K	no
LTLNM-0800-C-D-FC-W	4	800	20	collimated	10-200	192	white, 6200 K	yes
LTLNM-1000-N-FC-W	5	1000	20	near	10-100	240	white, 6200 K	no
LTLNM-1000-N-D-FC-W	5	1000	20	near	10-100	240	white, 6200 K	yes
LTLNM-1000-F-FC-W	5	1000	20	far	100-200	240	white, 6200 K	no
LTLNM-1000-F-D-FC-W	5	1000	20	far	100-200	240	white, 6200 K	yes
LTLNM-1000-C-FC-W	5	1000	20	collimated	10-200	240	white, 6200 K	no
LTLNM-1000-C-D-FC-W	5	1000	20	collimated	10-200	240	white, 6200 K	yes
LTLNM-1200-N-FC-W	6	1200	20	near	10-100	288	white, 6200 K	no
LTLNM-1200-N-D-FC-W	6	1200	20	near	10-100	288	white, 6200 K	yes
LTLNM-1200-F-FC-W	6	1200	20	far	100-200	288	white, 6200 K	no
LTLNM-1200-F-D-FC-W	6	1200	20	far	100-200	288	white, 6200 K	yes
LTLNM-1200-C-FC-W	6	1200	20	collimated	10-200	288	white, 6200 K	no
LTLNM-1200-C-D-FC-W	6	1200	20	collimated	10-200	288	white, 6200 K	yes
LTLNM-1400-N-FC-W	7	1400	20	near	10-100	336	white, 6200 K	no
LTLNM-1400-N-D-FC-W	7	1400	20	near	10-100	336	white, 6200 K	yes
LTLNM-1400-F-FC-W	7	1400	20	far	100-200	336	white, 6200 K	no
LTLNM-1400-F-D-FC-W	7	1400	20	far	100-200	336	white, 6200 K	yes
LTLNM-1400-C-FC-W	7	1400	20	collimated	10-200	336	white, 6200 K	no
LTLNM-1400-C-D-FC-W	7	1400	20	collimated	10-200	336	white, 6200 K	yes
LTLNM-1600-N-FC-W	8	1600	20	near	10-100	384	white, 6200 K	no
LTLNM-1600-N-D-FC-W	8	1600	20	near	10-100	384	white, 6200 K	yes
LTLNM-1600-F-FC-W	8	1600	20	far	100-200	384	white, 6200 K	no
LTLNM-1600-F-D-FC-W	8	1600	20	far	100-200	384	white, 6200 K	yes
LTLNM-1600-C-FC-W	8	1600	20	collimated	10-200	384	white, 6200 K	no
LTLNM-1600-C-D-FC-W	8	1600	20	collimated	10-200	384	white, 6200 K	yes
LTLNM-1800-N-FC-W	9	1800	20	near	10-100	432	white, 6200 K	no
LTLNM-1800-N-D-FC-W	9	1800	20	near	10-100	432	white, 6200 K	yes
LTLNM-1800-F-FC-W	9	1800	20	far	100-200	432	white, 6200 K	no
LTLNM-1800-F-D-FC-W	9	1800	20	far	100-200	432	white, 6200 K	yes
LTLNM-1800-C-FC-W	9	1800	20	collimated	10-200	432	white, 6200 K	no
LTLNM-1800-C-D-FC-W	9	1800	20	collimated	10-200	432	white, 6200 K	yes
LTLNM-2000-N-FC-W	10	2000	20	near	10-100	480	white, 6200 K	no
LTLNM-2000-N-D-FC-W	10	2000	20	near	10-100	480	white, 6200 K	yes
LTLNM-2000-F-FC-W	10	2000	20	far	100-200	480	white, 6200 K	no
LTLNM-2000-F-D-FC-W	10	2000	20	far	100-200	480	white, 6200 K	yes
LTLNM-2000-C-FC-W	10	2000	20	collimated	10-200	480	white, 6200 K	no
LTLNM-2000-C-D-FC-W	10	2000	20	collimated	10-200	480	white, 6200 K	yes

Last update 31/07/2023



LINE LIGHT • FOCUSED/COLLIMATED • HIGH POWER

Part number	ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS		
	Supply voltage	Current	Power cons.	Power connector	I/O connector	Length	Width	Height
	(V) ¹	(mA)	(W)			(mm)	(mm)	(mm)
LTLNM-0200-N-FC-W	24	3	72	WEIPU SP2110/P2	M12, 5 pins	250	75	128
LTLNM-0200-N-D-FC-W	24	3	72	WEIPU SP2110/P2	M12, 5 pins	250	75	128
LTLNM-0200-F-FC-W	24	3	72	WEIPU SP2110/P2	M12, 5 pins	250	75	128
LTLNM-0200-F-D-FC-W	24	3	72	WEIPU SP2110/P2	M12, 5 pins	250	75	128
LTLNM-0200-C-FC-W	24	3	72.0	WEIPU SP2110/P2	M12, 5 pins	250	75	128
LTLNM-0200-C-D-FC-W	24	3	72	WEIPU SP2110/P2	M12, 5 pins	250	75	128
LTLNM-0400-N-FC-W	24	6	144	WEIPU SP2110/P2	M12, 5 pins	450	75	128
LTLNM-0400-N-D-FC-W	24	6	144	WEIPU SP2110/P2	M12, 5 pins	450	75	128
LTLNM-0400-F-FC-W	24	6	144	WEIPU SP2110/P2	M12, 5 pins	450	75	128
LTLNM-0400-F-D-FC-W	24	6	144	WEIPU SP2110/P2	M12, 5 pins	450	75	128
LTLNM-0400-C-FC-W	24	6	144	WEIPU SP2110/P2	M12, 5 pins	450	75	128
LTLNM-0400-C-D-FC-W	24	6	144	WEIPU SP2110/P2	M12, 5 pins	450	75	128
LTLNM-0600-N-FC-W	24	9	216	WEIPU SP2110/P2	M12, 5 pins	650	75	128
LTLNM-0600-N-D-FC-W	24	9	216	WEIPU SP2110/P2	M12, 5 pins	650	75	128
LTLNM-0600-F-FC-W	24	9	216	WEIPU SP2110/P2	M12, 5 pins	650	75	128
LTLNM-0600-F-D-FC-W	24	9	216	WEIPU SP2110/P2	M12, 5 pins	650	75	128
LTLNM-0600-C-FC-W	24	9	216	WEIPU SP2110/P2	M12, 5 pins	650	75	128
LTLNM-0600-C-D-FC-W	24	9	216	WEIPU SP2110/P2	M12, 5 pins	650	75	128
LTLNM-0800-N-FC-W	24	12	288	WEIPU SP2110/P2	M12, 5 pins	850	75	128
LTLNM-0800-N-D-FC-W	24	12	288	WEIPU SP2110/P2	M12, 5 pins	850	75	128
LTLNM-0800-F-FC-W	24	12	288	WEIPU SP2110/P2	M12, 5 pins	850	75	128
LTLNM-0800-F-D-FC-W	24	12	288	WEIPU SP2110/P2	M12, 5 pins	850	75	128
LTLNM-0800-C-FC-W	24	12	288	WEIPU SP2110/P2	M12, 5 pins	850	75	128
LTLNM-0800-C-D-FC-W	24	12	288	WEIPU SP2110/P2	M12, 5 pins	850	75	128
LTLNM-1000-N-FC-W	24	15	360	WEIPU SP2110/P2	M12, 5 pins	1050	75	128
LTLNM-1000-N-D-FC-W	24	15	360	WEIPU SP2110/P2	M12, 5 pins	1050	75	128
LTLNM-1000-F-FC-W	24	15	360	WEIPU SP2110/P2	M12, 5 pins	1050	75	128
LTLNM-1000-F-D-FC-W	24	15	360	WEIPU SP2110/P2	M12, 5 pins	1050	75	128
LTLNM-1000-C-FC-W	24	15	360	WEIPU SP2110/P2	M12, 5 pins	1050	75	128
LTLNM-1000-C-D-FC-W	24	15	360	WEIPU SP2110/P2	M12, 5 pins	1050	75	128
LTLNM-1200-N-FC-W	24	18	432	WEIPU SP2110/P2	M12, 5 pins	1250	75	128
LTLNM-1200-N-D-FC-W	24	18	432	WEIPU SP2110/P2	M12, 5 pins	1250	75	128
LTLNM-1200-F-FC-W	24	18	432	WEIPU SP2110/P2	M12, 5 pins	1250	75	128
LTLNM-1200-F-D-FC-W	24	18	432	WEIPU SP2110/P2	M12, 5 pins	1250	75	128
LTLNM-1200-C-FC-W	24	18	432	WEIPU SP2110/P2	M12, 5 pins	1250	75	128
LTLNM-1200-C-D-FC-W	24	18	432	WEIPU SP2110/P2	M12, 5 pins	1250	75	128
LTLNM-1400-N-FC-W	24	21	504	2x WEIPU SP2110/P2	M12, 5 pins	1450	75	128
LTLNM-1400-N-D-FC-W	24	21	504	2x WEIPU SP2110/P2	M12, 5 pins	1450	75	128
LTLNM-1400-F-FC-W	24	21	504	2x WEIPU SP2110/P2	M12, 5 pins	1450	75	128
LTLNM-1400-F-D-FC-W	24	21	504	2x WEIPU SP2110/P2	M12, 5 pins	1450	75	128
LTLNM-1400-C-FC-W	24	21	504	2x WEIPU SP2110/P2	M12, 5 pins	1450	75	128
LTLNM-1400-C-D-FC-W	24	21	504	2x WEIPU SP2110/P2	M12, 5 pins	1450	75	128
LTLNM-1600-N-FC-W	24	24	576	2x WEIPU SP2110/P2	M12, 5 pins	1650	75	128
LTLNM-1600-N-D-FC-W	24	24	576	2x WEIPU SP2110/P2	M12, 5 pins	1650	75	128
LTLNM-1600-F-FC-W	24	24	576	2x WEIPU SP2110/P2	M12, 5 pins	1650	75	128
LTLNM-1600-F-D-FC-W	24	24	576	2x WEIPU SP2110/P2	M12, 5 pins	1650	75	128
LTLNM-1600-C-FC-W	24	24	576	2x WEIPU SP2110/P2	M12, 5 pins	1650	75	128
LTLNM-1600-C-D-FC-W	24	24	576	2x WEIPU SP2110/P2	M12, 5 pins	1650	75	128
LTLNM-1800-N-FC-W	24	27	648	2x WEIPU SP2110/P2	M12, 5 pins	1850	75	128
LTLNM-1800-N-D-FC-W	24	27	648	2x WEIPU SP2110/P2	M12, 5 pins	1850	75	128
LTLNM-1800-F-FC-W	24	27	648	2x WEIPU SP2110/P2	M12, 5 pins	1850	75	128
LTLNM-1800-F-D-FC-W	24	27	648	2x WEIPU SP2110/P2	M12, 5 pins	1850	75	128
LTLNM-1800-C-FC-W	24	27	648	2x WEIPU SP2110/P2	M12, 5 pins	1850	75	128
LTLNM-1800-C-D-FC-W	24	27	648	2x WEIPU SP2110/P2	M12, 5 pins	1850	75	128
LTLNM-2000-N-FC-W	24	30	720	2x WEIPU SP2110/P2	M12, 5 pins	2050	75	128
LTLNM-2000-N-D-FC-W	24	30	720	2x WEIPU SP2110/P2	M12, 5 pins	2050	75	128
LTLNM-2000-F-FC-W	24	30	720	2x WEIPU SP2110/P2	M12, 5 pins	2050	75	128
LTLNM-2000-F-D-FC-W	24	30	720	2x WEIPU SP2110/P2	M12, 5 pins	2050	75	128
LTLNM-2000-C-FC-W	24	30	720	2x WEIPU SP2110/P2	M12, 5 pins	2050	75	128
LTLNM-2000-C-D-FC-W	24	30	720	2x WEIPU SP2110/P2	M12, 5 pins	2050	75	128

¹ Tolerance ± 2%.



LTLNE series

High power enhanced LED line lights

LINE LIGHT • FOCUSED/COLLIMATED • HIGH POWER

Part number	LIGHTING SPECIFICATIONS									ELECTRICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS		
	illumination area length (mm)	height (mm)	Type	Focusing	Optimal WD (mm)	Number of LEDs	Light color, peak wavelength	Illuminance (klux) ¹	Diffuser	Supply voltage (V) ²	Current (mA) ³	Power cons. (W)	Connector	Length (mm)	Width (mm)	Height (mm)
LTLNE-300-N-PC-W	300	20	direct	near	10-100	42	white, 6200 K	n.a.	no	24	2000	50	WEIPU SP1710/P9	340	95	40
LTLNE-300-N-FC-W	300	20	direct	near	10-100	42	white, 6200 K	n.a.	no	24	4000	100	WEIPU SP1710/P9	340	130	40
LTLNE-300-N-D-PC-W	300	20	direct	near	10-100	42	white, 6200 K	n.a.	yes	24	2000	50	WEIPU SP1710/P9	340	95	40
LTLNE-300-N-D-FC-W	300	20	direct	near	10-100	42	white, 6200 K	n.a.	yes	24	4000	100	WEIPU SP1710/P9	340	130	40
LTLNE-300-F-PC-W	300	20	direct	far	100-200	42	white, 6200 K	n.a.	no	24	2000	50.0	WEIPU SP1710/P9	340	95	40
LTLNE-300-F-FC-W	300	20	direct	far	100-200	42	white, 6200 K	n.a.	no	24	4000	100	WEIPU SP1710/P9	340	130	40
LTLNE-300-F-D-PC-W	300	20	direct	far	100-200	42	white, 6200 K	n.a.	yes	24	2000	50	WEIPU SP1710/P9	340	95	40
LTLNE-300-F-D-FC-W	300	20	direct	far	100-200	42	white, 6200 K	n.a.	yes	24	4000	100	WEIPU SP1710/P9	340	130	40
LTLNE-300-C-PC-W	300	20	direct	collimated	10-200	42	white, 6200 K	n.a.	no	24	2000	50	WEIPU SP1710/P9	340	95	40
LTLNE-300-C-FC-W	300	20	direct	collimated	10-200	42	white, 6200 K	n.a.	no	24	4000	100	WEIPU SP1710/P9	340	130	40
LTLNE-300-C-D-PC-W	300	20	direct	collimated	10-200	42	white, 6200 K	n.a.	yes	24	2000	50	WEIPU SP1710/P9	340	95	40
LTLNE-300-C-D-FC-W	300	20	direct	collimated	10-200	42	white, 6200 K	n.a.	yes	24	4000	100	WEIPU SP1710/P9	340	130	40
LTLNE-300-CX-N-PC-W	300	20	coaxial	near	10-100	42	white, 6200 K	n.a.	no	24	2000	50	WEIPU SP1710/P9	340	142	40
LTLNE-300-CX-N-FC-W	300	20	coaxial	near	10-100	42	white, 6200 K	n.a.	no	24	4000	100	WEIPU SP1710/P9	340	177	40
LTLNE-300-CX-N-D-PC-W	300	20	coaxial	near	10-100	42	white, 6200 K	n.a.	yes	24	2000	50	WEIPU SP1710/P9	340	142	40
LTLNE-300-CX-N-D-FC-W	300	20	coaxial	near	10-100	42	white, 6200 K	n.a.	yes	24	4000	100	WEIPU SP1710/P9	340	177	40
LTLNE-300-CX-F-PC-W	300	20	coaxial	far	100-200	42	white, 6200 K	n.a.	no	24	2000	50	WEIPU SP1710/P9	340	142	40
LTLNE-300-CX-F-FC-W	300	20	coaxial	far	100-200	42	white, 6200 K	n.a.	no	24	4000	100	WEIPU SP1710/P9	340	177	40
LTLNE-300-CX-F-D-PC-W	300	20	coaxial	far	100-200	42	white, 6200 K	n.a.	yes	24	2000	50	WEIPU SP1710/P9	340	142	40
LTLNE-300-CX-F-D-FC-W	300	20	coaxial	far	100-200	42	white, 6200 K	n.a.	yes	24	4000	100	WEIPU SP1710/P9	340	177	40
LTLNE-300-CX-C-PC-W	300	20	coaxial	collimated	10-200	42	white, 6200 K	n.a.	no	24	2000	50	WEIPU SP1710/P9	340	142	40
LTLNE-300-CX-C-FC-W	300	20	coaxial	collimated	10-200	42	white, 6200 K	n.a.	no	24	4000	100	WEIPU SP1710/P9	340	177	40
LTLNE-300-CX-C-D-PC-W	300	20	coaxial	collimated	10-200	42	white, 6200 K	n.a.	yes	24	2000	50	WEIPU SP1710/P9	340	142	40
LTLNE-300-CX-C-D-FC-W	300	20	coaxial	collimated	10-200	42	white, 6200 K	n.a.	yes	24	4000	100	WEIPU SP1710/P9	340	177	40
LTLNE-300-MR-N-PC-W	300	20	45° mirror	near	10-100	42	white, 6200 K	n.a.	no	24	2000	50	WEIPU SP1710/P9	340	142	40
LTLNE-300-MR-N-FC-W	300	20	45° mirror	near	10-100	42	white, 6200 K	n.a.	no	24	4000	100	WEIPU SP1710/P9	340	177	40
LTLNE-300-MR-N-D-PC-W	300	20	45° mirror	near	10-100	42	white, 6200 K	n.a.	yes	24	2000	50	WEIPU SP1710/P9	340	142	40
LTLNE-300-MR-N-D-FC-W	300	20	45° mirror	near	10-100	42	white, 6200 K	n.a.	yes	24	4000	100	WEIPU SP1710/P9	340	177	40
LTLNE-300-MR-F-PC-W	300	20	45° mirror	far	100-200	42	white, 6200 K	n.a.	no	24	2000	50	WEIPU SP1710/P9	340	142	40
LTLNE-300-MR-F-FC-W	300	20	45° mirror	far	100-200	42	white, 6200 K	n.a.	no	24	4000	100	WEIPU SP1710/P9	340	177	40
LTLNE-300-MR-F-D-PC-W	300	20	45° mirror	far	100-200	42	white, 6200 K	n.a.	yes	24	2000	50	WEIPU SP1710/P9	340	142	40
LTLNE-300-MR-F-D-FC-W	300	20	45° mirror	far	100-200	42	white, 6200 K	n.a.	yes	24	4000	100	WEIPU SP1710/P9	340	177	40
LTLNE-300-MR-C-PC-W	300	20	45° mirror	collimated	10-200	42	white, 6200 K	n.a.	no	24	2000	50	WEIPU SP1710/P9	340	142	40
LTLNE-300-MR-C-FC-W	300	20	45° mirror	collimated	10-200	42	white, 6200 K	n.a.	no	24	4000	100	WEIPU SP1710/P9	340	177	40
LTLNE-300-MR-C-D-PC-W	300	20	45° mirror	collimated	10-200	42	white, 6200 K	n.a.	yes	24	2000	50	WEIPU SP1710/P9	340	142	40
LTLNE-300-MR-C-D-FC-W	300	20	45° mirror	collimated	10-200	42	white, 6200 K	n.a.	yes	24	4000	100	WEIPU SP1710/P9	340	177	40

Last update 31/07/2023

¹ Measured at minimum working distance.
² Tolerance ± 2%.

³ With constant driving voltage.



LTVT series

Space-saving illumination system for double-side object inspection

SPECIALTIES • DIFFUSED/INDIRECT • HIGH POWER

Part number	LIGHTING SPECIFICATIONS								
	Illumination area diam. (mm)	Optimal WD (mm)	DOME			BACKLIGHT			
			Number of LEDs	Light color, peak wavelength	Illuminance (klux)	Number of LEDs	Light color, peak wavelength	Illuminance (klux)	Diffuser
LTVTA1-W	40	5-25	15	white, 6000 K	490	18	white, 6000 K	5	Yes
LTVTBENCH	40	5-25	15	white, 6000 K	490	18	white, 6000 K	5	Yes

Part number	Supply voltage (V)	ELECTRICAL SPECIFICATIONS								MECHANICAL SPECIFICATIONS		
		DOME		BACKLIGHT		Max pulse duration (ms)	Max duty-cycle (%)	Estimated MTBF (hours)	Connector	Length (mm)	Width (mm)	Height (mm)
		Min pulse current (A)	Max pulse current (A)	Min pulse current (A)	Max pulse current (A)							
LTVTA1-W	Strobe only, constant current driving	3.5	7.5	3.5	17.0	1.0	1.5	> 50000	M8	114.0	89.0	107.0
LTVTBENCH	Strobe only, constant current driving	3.5	7.5	3.5	17.0	1.0	1.5	> 50000	M8	600.0	100.0	155.5

- 1 Measured at maximum current and maximum working distance.
- 2 At 25°C. At max pulse width (1 ms), max pulse frequency = 15 Hz.
- 3 At 25°C.

OPFI series

Filters for telecentric lenses and fixed focal length lenses

Part number	MAIN OPTICAL SPECIFICATIONS						MECHANICAL SPECIFICATIONS		
	Type	Light color	Wavelength range (nm)	Cut-on	Cut-off	Spectral FWHM (nm)	Filter thread	Outer diam. (mm)	Clear aperture (mm)
				50% transmission (nm)	50% transmission (nm)				
FTBP470C25.4	band pass	blue	410 - 500	-	-	90	C-mount	25.4	18.5
FTBP525C25.4	band pass	green	500 - 550	-	-	50	C-mount	25.4	18.5
FTBP635C25.4	band pass	red	595 - 675	-	-	80	C-mount	25.4	18.5
FTBP660C25.4	band pass	dark red	640 - 695	-	-	55	C-mount	25.4	18.5
FTBP850C25.4	band pass	IR	800 - 880	-	-	80	C-mount	25.4	18.5
FTSP450C25.4	short pass	dark blue	370 - 440	-	440	-	C-mount	25.4	18.5
FTSP500C25.4	short pass	blue	365 - 495	-	495	-	C-mount	25.4	18.5
FTSP570C25.4	short pass	cyan	330 - 575	-	575	-	C-mount	25.4	18.5
FTSP700C25.4	UV+NIR cut off	VIS	400 - 700	400	700	-	C-mount	25.4	18.5
FTLP510C25.4	long pass	yellow	515 - 1100	515	-	-	C-mount	25.4	18.5
FTLP550C25.4	long pass	orange	555 - 1100	555	-	-	C-mount	25.4	18.5
FTLP590C25.4	long pass	red	595 - 1100	595	-	-	C-mount	25.4	18.5
FTLP640C25.4	long pass	dark red	640 - 1100	640	-	-	C-mount	25.4	18.5
FTBP470M27	band pass	blue	410 - 500	-	-	90	M27 x 0.5	30.0	22.5
FTBP525M27	band pass	green	500 - 550	-	-	50	M27 x 0.5	30.0	22.5
FTBP635M27	band pass	red	595 - 675	-	-	80	M27 x 0.5	30.0	22.5
FTBP660M27	band pass	dark red	640 - 695	-	-	55	M27 x 0.5	30.0	22.5
FTBP850M27	band pass	IR	800 - 880	-	-	80	M27 x 0.5	30.0	22.5
FTSP450M27	short pass	dark blue	370 - 440	-	440	-	M27 x 0.5	30.0	22.5
FTSP500M27	short pass	blue	365 - 495	-	495	-	M27 x 0.5	30.0	22.5
FTSP570M27	short pass	cyan	330 - 575	-	575	-	M27 x 0.5	30.0	22.5
FTSP700M27	UV+NIR cut off	VIS	400 - 700	400	700	-	M27 x 0.5	30.0	22.5
FTLP510M27	long pass	yellow	515 - 1100	515	-	-	M27 x 0.5	30.0	22.5
FTLP550M27	long pass	orange	555 - 1100	555	-	-	M27 x 0.5	30.0	22.5
FTLP590M27	long pass	red	595 - 1100	595	-	-	M27 x 0.5	30.0	22.5
FTLP640M27	long pass	dark red	640 - 1100	640	-	-	M27 x 0.5	30.0	22.5
FTBP470M30.5	band pass	blue	410 - 500	-	-	90	M30.5 x 0.5	33.5	25.5
FTBP525M30.5	band pass	green	500 - 550	-	-	50	M30.5 x 0.5	33.5	25.5
FTBP635M30.5	band pass	red	595 - 675	-	-	80	M30.5 x 0.5	33.5	25.5
FTBP660M30.5	band pass	dark red	640 - 695	-	-	55	M30.5 x 0.5	33.5	25.5
FTBP850M30.5	band pass	IR	800 - 880	-	-	80	M30.5 x 0.5	33.5	25.5
FTSP450M30.5	short pass	dark blue	370 - 440	-	440	-	M30.5 x 0.5	33.5	25.5
FTSP500M30.5	short pass	blue	365 - 495	-	495	-	M30.5 x 0.5	33.5	25.5
FTSP570M30.5	short pass	cyan	330 - 575	-	575	-	M30.5 x 0.5	33.5	25.5
FTSP700M30.5	UV+NIR cut off	VIS	400 - 700	400	700	-	M30.5 x 0.5	33.5	25.5
FTLP510M30.5	long pass	yellow	515 - 1100	515	-	-	M30.5 x 0.5	33.5	25.5
FTLP550M30.5	long pass	orange	555 - 1100	555	-	-	M30.5 x 0.5	33.5	25.5
FTLP590M30.5	long pass	red	595 - 1100	595	-	-	M30.5 x 0.5	33.5	25.5
FTLP640M30.5	long pass	dark red	640 - 1100	640	-	-	M30.5 x 0.5	33.5	25.5
FTBP470M35.5	band pass	blue	410 - 500	-	-	90	M35.5 x 0.5	38.5	30.5
FTBP525M35.5	band pass	green	500 - 550	-	-	50	M35.5 x 0.5	38.5	30.5
FTBP635M35.5	band pass	red	595 - 675	-	-	80	M35.5 x 0.5	38.5	30.5
FTBP660M35.5	band pass	dark red	640 - 695	-	-	55	M35.5 x 0.5	38.5	30.5
FTBP850M35.5	band pass	IR	800 - 880	-	-	80	M35.5 x 0.5	38.5	30.5
FTSP450M35.5	short pass	dark blue	370 - 440	-	440	-	M35.5 x 0.5	38.5	30.5
FTSP450M35.5	band pass	blue	410 - 500	-	-	90	C-mount	25.4	18.5
FTSP500M35.5	band pass	green	500 - 550	-	-	50	C-mount	25.4	18.5
FTSP570M35.5	band pass	red	595 - 675	-	-	80	C-mount	25.4	18.5

Last update 13/06/2024

1 Tolerance +/- 10 nm.



Part number	MAIN OPTICAL SPECIFICATIONS						MECHANICAL SPECIFICATIONS			
	Type	Light color	Wavelength range (nm)	Cut-on 50% transmission (nm)	Cut-off 50% transmission (nm)	Spectral FWHM (nm)	Filter thread	Outer diam. (mm)	Clear aperture (mm)	
				1	1	1				
FTSP700M35.5	UV+NIR cut off	VIS	400 - 700	400	700	-	M35.5 x 0.5	38.5	30.5	
FTLP510M35.5	long pass	yellow	515 - 1100	515	-	-	M35.5 x 0.5	38.5	30.5	
FTLP550M35.5	long pass	orange	555 - 1100	555	-	-	M35.5 x 0.5	38.5	30.5	
FTLP590M35.5	long pass	red	595 - 1100	595	-	-	M35.5 x 0.5	38.5	30.5	
FTLP640M35.5	long pass	dark red	640 - 1100	640	-	-	M35.5 x 0.5	38.5	30.5	
FTBP470M43	band pass	blue	410 - 500	-	-	90	M43 x 0.75	46.0	38.0	
FTBP525M43	band pass	green	500 - 550	-	-	50	M43 x 0.75	46.0	38.0	
FTBP635M43	band pass	red	595 - 675	-	-	80	M43 x 0.75	46.0	38.0	
FTBP660M43	band pass	dark red	640 - 695	-	-	55	M43 x 0.75	46.0	38.0	
FTBP850M43	band pass	IR	800 - 880	-	-	80	M43 x 0.75	46.0	38.0	
FTSP450M43	short pass	dark blue	370 - 440	-	440	-	M43 x 0.75	46.0	38.0	
FTSP500M43	short pass	blue	365 - 495	-	495	-	M43 x 0.75	46.0	38.0	
FTSP570M43	short pass	cyan	330 - 575	-	575	-	M43 x 0.75	46.0	38.0	
FTSP700M43	UV+NIR cut off	VIS	400 - 700	400	700	-	M43 x 0.75	46.0	38.0	
FTLP510M43	long pass	yellow	515 - 1100	515	-	-	M43 x 0.75	46.0	38.0	
FTLP550M43	long pass	orange	555 - 1100	555	-	-	M43 x 0.75	46.0	38.0	
FTLP590M43	long pass	red	595 - 1100	595	-	-	M43 x 0.75	46.0	38.0	
FTLP640M43	long pass	dark red	640 - 1100	640	-	-	M43 x 0.75	46.0	38.0	
FTBP470M52	band pass	blue	410 - 500	-	-	90	M52 x 0.75	55.0	47.0	
FTBP525M52	band pass	green	500 - 550	-	-	50	M52 x 0.75	55.0	47.0	
FTBP635M52	band pass	red	595 - 675	-	-	80	M52 x 0.75	55.0	47.0	
FTBP660M52	band pass	dark red	640 - 695	-	-	55	M52 x 0.75	55.0	47.0	
FTBP850M52	band pass	IR	800 - 880	-	-	80	M52 x 0.75	55.0	47.0	
FTSP450M52	short pass	dark blue	370 - 440	-	440	-	M52 x 0.75	55.0	47.0	
FTSP500M52	short pass	blue	365 - 495	-	495	-	M52 x 0.75	55.0	47.0	
FTSP570M52	short pass	cyan	330 - 575	-	575	-	M52 x 0.75	55.0	47.0	
FTSP700M52	UV+NIR cut off	VIS	400 - 700	400	700	-	M52 x 0.75	55.0	47.0	
FTLP510M52	long pass	yellow	515 - 1100	515	-	-	M52 x 0.75	55.0	47.0	
FTLP550M52	long pass	orange	555 - 1100	555	-	-	M52 x 0.75	55.0	47.0	
FTLP590M52	long pass	red	595 - 1100	595	-	-	M52 x 0.75	55.0	47.0	
FTLP640M52	long pass	dark red	640 - 1100	640	-	-	M52 x 0.75	55.0	47.0	
FTBP470TC	a	band pass	blue	410 - 500	-	-	90	TC insert	24.5	15.0
FTBP525TC	a	band pass	green	500 - 550	-	-	50	TC insert	24.5	15.0
FTBP635TC	a	band pass	red	595 - 675	-	-	80	TC insert	24.5	15.0
FTBP660TC	a	band pass	dark red	640 - 695	-	-	55	TC insert	24.5	15.0
FTBP850TC	a	band pass	IR	800 - 880	-	-	80	TC insert	24.5	15.0
FTBP880TC	a	band pass	IR	835 - 975	-	-	140	TC insert	24.5	15.0
FTSP450TC	a	short pass	dark blue	370 - 440	-	440	-	TC insert	24.5	15.0
FTSP500TC	a	short pass	blue	365 - 495	-	495	-	TC insert	24.5	15.0
FTSP570TC	a	short pass	cyan	330 - 575	-	575	-	TC insert	24.5	15.0
FTSP700TC	a	UV+NIR cut off	VIS	400 - 700	400	700	-	TC insert	24.5	15.0
FTLP510TC	a	long pass	yellow	515 - 1100	515	-	-	TC insert	24.5	15.0
FTLP550TC	a	long pass	orange	555 - 1100	555	-	-	TC insert	24.5	15.0
FTLP590TC	a	long pass	red	595 - 1100	595	-	-	TC insert	24.5	15.0
FTLP640TC	a	long pass	dark red	640 - 1100	640	-	-	TC insert	24.5	15.0
FTLP920TC	a	long pass	NIR	920 - 2300	920	-	-	TC insert	24.5	15.0
FTPR032TC	a	linear polarizing	VIS	-	-	-	-	TC insert	24.5	15.0

1 Tolerance +/- 10 nm.

a Except TC23004, TC23007, TC23009, TC23012 and all TC13xxx lenses for 1/3" sensor. Before purchasing a TC filter, please check its mechanical compatibility with the selected lens. Using the filter may cause some vignetting, depending on the size of the sensor.

CB series

Cables for machine vision cameras, optics and accessories



Part number	Type	Cable length (m)	ELECTRICAL SPECIFICATIONS	
			Side 1	Side 2
RT-A72-0418-03	Ethernet	3	RJ45 with locking screws	RJ45
RT-A72-0418-05	Ethernet	5	RJ45 with locking screws	RJ45
RT-A72-0418-10	Ethernet	10	RJ45 with locking screws	RJ45
RT-A72-0418-15	Ethernet	15	RJ45 with locking screws	RJ45
CBGPI0001	I/O	3	Circular Hirose - 12pin - female	Flying leads
RT-A65-7105-05	I/O	5	Circular Hirose - 12pin - female	Flying leads
RT-A65-7105-10	I/O	10	Circular Hirose - 12pin - female	Flying leads
RT-A65-7105-15	I/O	15	Circular Hirose - 12pin - female	Flying leads
CBGPI06PMF-3M	I/O	3	Circular Hirose - 6pin - male	Circular Hirose - 6pin - female
CBGPEL12P6P-03M	I/O	0.3	Circular Hirose - 12pin - female	Circular Hirose - 6pin - female
CBGPI012PY6P-3M	I/O	3	1x circular Hirose - 12pin - female, 1x circular Hirose - 6pin - female	Flying leads
COE-6P-OPEN1-030-01	I/O	3	Circular Hirose - 6pin - female	Flying leads
COE-6P-OPEN1-050-01	I/O	5	Circular Hirose - 6pin - female	Flying leads
COE-6P-OPEN1-100-01	I/O	10	Circular Hirose - 6pin - female	Flying leads
COE-6P-OPEN1-150-01	I/O	15	Circular Hirose - 6pin - female	Flying leads
COE-12P-OPEN1-030-01	I/O	3	Circular Hirose - 12pin - female	Flying leads
COE-12P-OPEN1-050-01	I/O	5	Circular Hirose - 12pin - female	Flying leads
CBMT002	Control	2	DB15HD male connector	DB15HD female connector
RT-70261132	Power	3	Schuko CEE 7/4	Flying leads

Last update 16/02/2024

CBLT series

Cables for LED illuminators



Part number	Type	Cable length (m)	ELECTRICAL SPECIFICATIONS	
			Side 1	Side 2
CBLT001	Power	5	M12 straight plug female connector	Flying leads
CBLT002	Power	5	M12 angled plug female connector	Flying leads
CBLT003	Power	5	M8 straight plug female connector	Flying leads
CBLT004	Power	5	M8 angled plug female connector	Flying leads
CBLT005	Power	5	M12 straight plug female connector	Flying leads
CBLT006	Power	5	M12 angled plug female connector	Flying leads
CBLT007	Power and I/O	5	WEIPU SP1711/S9	Flying leads
CBLT008	Power	5	WEIPU SP2111/S2	Flying leads
CBLT009	Power and I/O	5	M12 5 pins straight plug female connector	Flying leads
CBLT010	Power	5	WEIPU SP2111/S5	Flying leads
CBLT014	Power and I/O	5	M12 5 pins straight plug female connector	Flying leads
CBLT015	Power and I/O	5	M12 5 pins angled plug female connector	Flying leads
CBLT016	Power and I/O	0.5	M12 5 pins straight plug male connector	M12 5 pins straight plug female connector
CBLT017	Power and I/O	1	M12 5 pins straight plug male connector	M12 5 pins straight plug female connector
CBLT018	Power and I/O	2	M12 5 pins straight plug male connector	M12 5 pins straight plug female connector
CBLT020	Power and I/O	5	M12 5 pins straight plug female connector	Flying leads
CBLT021	Power and I/O	1	M12 5 pins straight plug male connector	M12 5 pins straight plug female connector
CB244P1500	Power	2	M8 straight plug female connector	Flying leads
CB244P1500L	Power	2	M8 angled plug female connector	Flying leads
CB244P1501	Power	2	M8 straight plug female connector	Flying leads
CB244P1501L	Power	2	M8 angled plug female connector	Flying leads
CBSLH-24V-F-3M	Power	3	JST SM 3 way female connector	Flying leads
CBSLH-24V-F-5M	Power	5	JST SM 3 way female connector	Flying leads
CBSLH-24V-F-3M-TB	Power	3	Terminal block	Flying leads
CBLTM12-5P-2M	Power and I/O	2	M12 5 pins straight plug female connector	Flying leads
CBLTM12-5P-5M	Power and I/O	5	M12 5 pins straight plug female connector	Flying leads
CBLTM12-5P-10M	Power and I/O	10	M12 5 pins straight plug female connector	Flying leads
ADPT001	Control	1	DSUB - DB9 connector	USB1.1 Type A

Last update 05/06/2024



LTDV series

LED lighting strobe controllers

Part number	ELECTRICAL SPECIFICATIONS						
	User interface	Status LEDs	Configuration software	Output channels	Output current range (A)	Synchronization inputs number 1	Synchronization outputs number
LTDV1CH-17V	12-way dip switch	Yes (for power on and trigger)	-	1, constant current	5 mA-160 mA (in steps of 5 mA) pulsed or continuous 100 mA-3.2 A (in steps of 100 mA) pulsed 1.5 A-17 A (in steps of 500 mA) pulsed	1 opto-isolated digital input	1 opto-isolated digital output
LTDVE1CH-40F	Ethernet 100 Mbps (using a Web browser or Modbus/TCP slave or Modbus/UDP slave); RS485 (via Modbus/RTU slave)	Yes (for all I/Os)	-	1, constant current	Pulsed up to 40A, continuous up to 4A	1 opto-isolated digital input	1 opto-isolated digital output
LTDVE2CH-20F	Ethernet 100 Mbps (using a Web browser or Modbus/TCP slave or Modbus/UDP slave); RS485 (via Modbus/RTU slave)	Yes (for all I/Os)	-	2, independent, constant current	2 independent channels: Pulsed up to 20A per channel, Continuous up to 2A per channel 1 shared channel: Up to 40A Pulsed or 4A Continuous	2 opto-isolated digital input	2 opto-isolated digital output
LTDVE4CH-20	Ethernet 100 Mbps (using a Web browser or Modbus/TCP slave or Modbus/UDP slave); RS485 (via Modbus/RTU slave)	Yes (for all I/Os)	-	4, independent, constant current	Up to 20A pulsed or 2A continuous (in steps of 1mA from zero to 200mA, 4mA from 201mA to 4000mA and 20mA from 4001mA to 20A)	4 opto-isolated digital input	4 opto-isolated digital output
LTDV6CH	RS485 (via Modbus/RTU slave)	Yes (for all I/Os)	LTSW included	6, independent, constant current	3.5A - 17.0 pulsed (in steps of 98 mA)	4 opto-isolated digital inputs	2 opto-isolated digital outputs
LTDVE8CH-20	Ethernet 100 Mbps (using a Web browser or Modbus/TCP slave or Modbus/UDP slave); RS485 (via Modbus/RTU slave)	Yes (for all I/Os)	-	8, independent, constant current	Up to 20A pulsed or 2A continuous (in steps of 1mA from zero to 200mA, 4mA from 201mA to 4000mA and 20mA from 4001mA to 20A)	8 opto-isolated digital input	8 opto-isolated digital output

Part number	ELECTRICAL SPECIFICATIONS						MECHANICAL SPECIFICATIONS			
	Pulse delay	Pulse width	Timing repeatability for pulse delay	Timing repeatability for pulse width	Supply voltage	Output voltage	Length	Width	Height	Mounting
	(µs) 2	(µs) 2	(µs) 3	(µs) 3	(V) 4	(V) 5	(mm) 5	(mm) 5	(mm) 5	
LTDV1CH-17V	-	-	-	-	24	0-12 (with step-up disabled) or 0-36 (with step-up enabled)	70	119	82	DIN rail
LTDVE1CH-40F	0 - 1.000.000	2 - 1.000.000	0.1	0.1	24	5-195	128	120	50	4 fixing slots
LTDVE2CH-20F	0 - 1.000.000	2 - 1.000.000	0.1	0.1	24	5-195	128	120	50	4 fixing slots
LTDVE4CH-20	0 - 1.000.000	10 - 1.000.000	0.1	0.1	24-48	0 - 36	195	135	75	DIN rail
LTDV6CH	0 - 65535	10 - 65535	0.1	0.1	24	0 - 36	205	123	84	DIN rail
LTDVE8CH-20	0 - 1.000.000	10 - 1.000.000	0.1	0.1	24-48	0 - 36	255	135	75	DIN rail

Last update 22/03/2024

1 Operate from 3.3V to 24V.

2 In variable resolution depending on selected value.

3 Digital processing.

4 24V supply must be regulated at ± 10%.





5 Including DIN rail where available on the product.

Ordering information

ADPT001 consists of - one RS485-USB adapter and - one cable for connection with LTDV6CH. In order to configure LTDV6CH via software a RS485 port must be provided. To be ordered separately.

LTIC series

LED lighting controllers

		ELECTRICAL SPECIFICATIONS				
Part number		Light control type	Operating Mode	Status LEDs	Supply voltage (V)	Input
DIN RAIL						
	LTIC1CH-A1-4	Analog (knob, 0-10V)	Continuous and pulsed	Yes (power on, enable and fault)	24-48 DC	Enable input (0-24 V), Thermal sensor input
	LTIC1CH-D1-4	Analog (knob, 0-10V); Ethernet 100 Mbps (using a Web browser or Modbus/TCP slave or Modbus/UDP slave); RS485 (via Modbus/RTU slave)	Continuous and pulsed	Yes (power on, enable and fault)	24-48 DC	Enable input (0-24 V), Thermal sensor input
	LTICGR1000-D1	Analog (knob)	Continuous	No	24 DC	-
	LTICGR1000-D1-PS-UK	Analog (knob)	Continuous	No	24 DC	-
	LTICGR1000-D1-PS-US	Analog (knob)	Continuous	No	24 DC	-
	LTICGR1000-D1-PS-EU	Analog (knob)	Continuous	No	24 DC	-
	LTICGR1000-D1-PS-UK-TB	Analog (knob)	Continuous	No	24 DC	-
	LTICGR1000-D1-PS-US-TB	Analog (knob)	Continuous	No	24 DC	-
	LTICGR1000-D1-PS-EU-TB	Analog (knob)	Continuous	No	24 DC	-
BENCHTOP						
	LTICOBU2000CH2-24V-A1UKTB	Analog (knob)	Continuous	No	100-240 AC	-
	LTICOBU2000CH2-24V-A1USTB	Analog (knob)	Continuous	No	100-240 AC	-
	LTICOBU2000CH2-24V-A1EUTB	Analog (knob)	Continuous	No	100-240 AC	-
	RT-PSP-12122-LV-UK	Analog (knob)	Continuous	No	100-240 AC	2 strobe/enable channels
	RT-PSP-12122-LV-US	Analog (knob)	Continuous	No	100-240 AC	2 strobe/enable channels
	RT-PSP-12122-LV-EU	Analog (knob)	Continuous	No	100-240 AC	2 strobe/enable channels

Last update 10/06/24



ELECTRICAL SPECIFICATIONS						MECHANICAL SPECIFICATIONS		
Output channels	Output voltage (V)	Max output current (A)	Max output power (W)	Output	Power cord	Length (mm)	Width (mm)	Height (mm)
1, constant current	24 - 48	4	100	Fault output (0-24 V); Colling fans output (0-24 V)	Not included	86	54	117
1, constant current	24 - 48	4	100	Fault output (0-24 V); Colling fans output (0-24 V)	Not included	86	54	117
1, constant current	24	2	48	-	Not included	55	24	90
1, constant current	24	2	48	-	Included (UK)	55	24	90
1, constant current	24	2	48	-	Included (US)	55	24	90
1, constant current	24	2	48	-	Included (EU)	55	24	90
1, constant current	24	2	48	-	Included (UK)	55	24	90
1, constant current	24	2	48	-	Included (US)	55	24	90
1, constant current	24	2	48	-	Included (EU)	55	24	90
-	-	-	-	-	-	-	-	-
2, constant current	24	1	24	-	Included (UK)	154	91	48
2, constant current	24	1	24	-	Included (US)	154	91	48
2, constant current	24	1	24	-	Included (EU)	154	91	48
2, constant current	12	1	12	-	Included (UK)	118	83	38
2, constant current	12	1	12	-	Included (US)	118	83	38
2, constant current	12	1	12	-	Included (EU)	118	83	38



MTDV series

Motion controller for bipolar stepper motors with additional encoder input

Part number	ELECTRICAL SPECIFICATIONS							
	User interface 1	Connectors	DC power supply (V)	Max power cons. (W)	Control type	Motion mode	Special features 2	Number of motors
MTDV1CH-22A2	Ethernet (TCP/IP)	1x RJ45, 1x USB Type A, 2x Terminal blocks, 1x DB15HD female	24	38	Closed-loop, open-loop	Positioning mode (relative and absolute) with 2 stage velocity ramp	Advanced motor drive with StealthChop™ and 256x SpreadCycle™, extremely silent operation, adjustable RUN and HOLD currents for optimized power consumption, advanced positioning control in closed-loop operation, motor homing based on encoder reference or limit switch, reduced EMI noise	1
MTDV2CH-22A2	Ethernet (TCP/IP)		24	71	Closed-loop, open-loop			2
MTDV3CH-22A3	Ethernet (TCP/IP)		24	96	Closed-loop, open-loop			3
MTDV4CH-22A4	Ethernet (TCP/IP)		24	96	Closed-loop, open-loop			4

Part number	ELECTRICAL SPECIFICATIONS				MECHANICAL SPECIFICATIONS				COMPATIBILITY
	Type	Number of encoders	Type	Output signals	Length (mm)	Width (mm) 3	Height (mm) 3	Mounting	Cable
MTDV1CH-22A2	Bipolar stepper	1	Linear/rotary, incremental	A, B, Z (index)	46.6	80.0	84.0	DIN rail	CBMT002, CBETH003
MTDV2CH-22A2	Bipolar stepper	2	Linear/rotary, incremental	A, B, Z (index)	62.0	80.0	84.0	DIN rail	CBMT002, CBETH003
MTDV3CH-22A3	Bipolar stepper	3	Linear/rotary, incremental	A, B, Z (index)	78.0	80.0	84.0	DIN rail	CBMT002, CBETH003
MTDV4CH-22A4	Bipolar stepper	4	Linear/rotary, incremental	A, B, Z (index)	94.0	80.0	84.0	DIN rail	CBMT002, CBETH003

Last update 26/07/2023

- 1 USB and RS485 interface could be implemented upon request.
- 2 StealthChop™ and SpreadCycle™ are property of their respective owners.
- 3 Excluded DIN rail.



CMT series

Precision alignment mechanics for lenses

Part number	MECHANICAL SPECIFICATIONS					
	Length (mm)	Width (mm)	Height (mm)	Optical axis height	Tilt axis a (°)	Tilt axis b (°)
CMTH064	175.0	137.0	145.0	80.0	± 1.2	± 1.2
CMTH080	230.0	152.0	153.5	80.0	± 0.9	± 0.9
CMTH096	265.0	179.0	187.0	100.0	± 0.8	± 0.8
CMTHCR064	126.0	126.0	17.5	-	± 1.0	± 1.0
CMTHCR080	143.0	143.0	17.5	-	± 1.0	± 1.0
CMTHCR096	176.0	176.0	17.5	-	± 0.8	± 0.8
CMTS064-096	145.5	145.0	28.5	-	± 0.6	± 0.6

Last update 20/02/2024



CMHO series

Clamping mechanics for lenses

Part number	MECHANICAL SPECIFICATIONS			
	Length (mm)	Width (mm)	Height (mm)	Optical axis height (mm)
CMHO 023	20.0	53.0	66.5	40.0
CMHO 016	20.0	62.5	71.3	40.0
CMHO 024	20.0	62.5	71.3	40.0
CMHO 036	110.0	97.0	125.5	80.0
CMHO 048	140.0	111.0	132.5	80.0
CMHO 056	162.0	116.0	135.0	80.0
CMHO 064	175.0	137.0	145.0	80.0
CMHO 080	230.0	152.0	153.0	80.0
CMHO 096	265.0	179.0	186.5	100.0
CMHO 120	204.0	220.0	240.0	130.0
CMHO 144	204.0	234.0	247.0	130.0
CMHO 192 R	255.0	330.0	303.1	173.1
CMHO 240 R	170.0	410.0	377.2	216.2
For TC12K				
CMHO TC12K 064	486.0	152.0	150.0	85.0
CMHO TC12K 080	486.0	152.0	185.0	85.0
For TC12M				
CMHO TC12M 096	265.0	179.0	186.5	100.0
For TC16M				
CMHO TC16M 012	143.0	65.5	81.3	50.0
CMHO TC16M 018	143.0	65.5	81.3	50.0
For MC12K				
CMHO MC12K 025	140.0	111.0	132.5	80.0
CMHO MC12K 067	140.0	111.0	132.5	80.0
CMHO MC12K 200	140.0	111.0	132.5	80.0
For PCCD				
CMHO PCCD	20.0	76.0	76.0	92.0
For Robotics				
CMHO RBCR 048	292.0	117.0	160.5	105.0
For HCBI				
CMHO HCBI	162.0	116.0	135.0	80.0
For HCBI				
CMHO HCSI	162.0	116.0	135.0	80.0

Last update 09/09/2024



CMHOOCR series

Clamping mechanics for CORE lenses

Part number	MECHANICAL SPECIFICATIONS			
	Width (mm)	Height (mm)	Thickness (mm)	Optical axis height (mm)
CMHOOCR 048	130.0	195.0	80.0	130.0
CMHOOCR 056	130.0	180.0	80.0	115.0
CMHOOCR 064	150.0	200.0	80.0	125.0
CMHOOCR 080	160.0	210.0	80.0	130.0
CMHOOCR 096	200.0	240.0	84.0	140.0
CMHOOCR 120	250.0	280.0	78.0	150.0

Last update 21/02/2024



CMPH series

Holders for calibration patterns

Part number	MECHANICAL SPECIFICATIONS			
	Length (mm)	Width (mm)	Height (mm)	Optical axis height (mm)
CMPH 004-024	18.0	45.0	68.5	40.0
CMPH 036-056	22.5	81.0	123.1	80.0
CMPH 064-096	23.0	129.0	145.5	80.0

Last update 20/02/2024



CMPT series

Mounting plates for optical benches

Part	MECHANICAL SPECIFICATIONS		
	Length (mm)	Width (mm)	Height (mm)
CMPT 004-009	199.6	56.0	10.0
CMPT 016-024	226.8	66.5	10.0
CMPT 036	477.0	103.0	15.0
CMPT 048	596.0	117.0	15.0
CMPT 056	631.0	122.0	15.0
CMPT 064	783.0	143.0	15.0
CMPT 080	868.0	158.0	15.0
CMPT 096	1005.2	185.0	20.0

Last update 20/02/2024



CMPTCR series

Mounting plates for CORE optical benches

Part number	MECHANICAL SPECIFICATIONS		
	Length (mm)	Width (mm)	Height (mm)
CMPTCR 048	351.4	130.0	15.0
CMPTCR 056	423.9	135.0	15.0
CMPTCR 064	473.7	140.0	15.0
CMPTCR 080	577.9	170.0	20.0
CMPTCR 096	695.9	190.0	20.0

Last update 20/02/2024



CMWF series

Holders for WI series

Part number	MECHANICAL SPECIFICATIONS		
	Active area (mm)	Clamping diameter (mm)	Height (mm)
CMWF 036	51.0	61.0	26.0
CMWF 048	65.0	75.0	29.0
CMWF 056	70.0	80.0	29.0
CMWF 064	90.0	100.0	29.0
CMWF 080	106.0	116.0	29.0
CMWF 096	133.0	143.0	29.0

Last update 20/02/2024



WI series

Protective windows for lenses

Part number	MAIN OPTICAL SPECIFICATIONS		MECHANICAL SPECIFICATIONS	
	Transmittance band	Substrate	Diameter (mm) 1	Thickness (mm)
WI 036	430-670	Borofloat	61	3
WI 048	430-670	Borofloat	75	3
WI 056	430-670	Borofloat	80	3
WI 064	430-670	Borofloat	100	3
WI 080	430-670	Borofloat	116	5
WI 096	430-670	Borofloat	143	5

Last update 20/02/2024

1 When a WI window is placed in front of a lens, its working distance increases of approximately $\frac{1}{3}$ of the window thickness.

Ordering information

CMWF mounting mechanics required (must be ordered separately).



CMMR series

45° first surface mirrors

Part number	MAIN OPTICAL SPECIFICATIONS		MECHANICAL SPECIFICATIONS						
	Coating (front)	Deviation angle (deg)	Clamping size (mm)	Clamping system	WD difference (mm) 1	Length (mm)	Width (mm)	Height (mm)	Mass (g)
CMMR 036	Aluminium reflective coating, R>90%, bandwidth 430-670 nm	90	61.0	locking	83.4	106.2	88.0	68.2	654
CMMR 048	Aluminium reflective coating, R>90%, bandwidth 430-670 nm	90	75.0	locking	98.1	123.1	102.0	100.1	852
CMMR 056	Aluminium reflective coating, R>90%, bandwidth 430-670 nm	90	80.0	locking	108.3	133.3	108.0	110.3	990
CMMR 064	Aluminium reflective coating, R>90%, bandwidth 430-670 nm	90	100.0	locking	118.2	143.2	128.0	120.2	1336
CMMR 080	Aluminium reflective coating, R>90%, bandwidth 430-670 nm	90	116.0	locking	137.9	162.9	144.0	139.9	1727
CMMR 096	Aluminium reflective coating, R>90%, bandwidth 430-670 nm	90	143.0	locking	156.0	182.5	171.0	159.5	2542
CMMR4K 060-L	Aluminium reflective coating, R>90%, bandwidth 430-670 nm	83.0 x 38.5	mounting screws	94.6	208.5	118.4	72.0	518	990
CMMR4K 060-V	Aluminium reflective coating, R>90%, bandwidth 430-670 nm	83.0 x 38.5	mounting screws	43.1	199.3	116.0	72.0	576	1336
CMMR4K 090-L	Aluminium reflective coating, R>90%, bandwidth 430-670 nm	114.0 x 38.5	mounting screws	126.3	214.0	150.1	72.0	565	1727
CMMR4K 090-V	Aluminium reflective coating, R>90%, bandwidth 430-670 nm	114.0 x 38.5	mounting screws	43.3	206.3	147.0	72.0	629	2542
CMMR4K 120-L	Aluminium reflective coating, R>90%, bandwidth 430-670 nm	144.0 x 38.5	mounting screws	155.3	242.0	187.6	72.0	658	990
CMMR4K 120-V	Aluminium reflective coating, R>90%, bandwidth 430-670 nm	144.0 x 38.5	mounting screws	43.3	199.3	177.0	72.0	659	1336
CMMR4K 180-L	Aluminium reflective coating, R>90%, bandwidth 430-670 nm	208.0 x 38.5	mounting screws	220.3	326.7	253.6	72.0	898	1727
CMMR4K 180-V	Aluminium reflective coating, R>90%, bandwidth 430-670 nm	208.0 x 38.5	mounting screws	57.3	267.3	241.0	72.0	879	2542

Last update 16/02/2024

1 Value to be subtracted from the objective or illuminator working distance when the CMMR is used. For the CMMR4K Series, the minimum value is reported.

Ordering information

Additional clamping mechanics are required to adequately support combination of CMMR with telecentric lenses and illuminators. CMHO series clamping mechanics can be used prior to verification of mechanical compatibility (see CMHO series mechanical drawings available online).

CMHO is not compatible with the combination of the following two products: CMMR and TC13xxx.



CMBS series

45° beam splitter

Part number	MAIN OPTICAL SPECIFICATIONS			
	Coating (front)	Coating (back)	Clear aperture (mm)	Deviation angle (deg)
CMBS 016	Beam splitter 50/50 @ 45°, bandwidth 430-670 nm	Normal reflectance <0.5%, bandwidth 430-670 nm	34.7	90
CMBS 036	Beam splitter 50/50 @ 45°, bandwidth 430-670 nm	Normal reflectance <0.5%, bandwidth 430-670 nm	53	90
CMBS 048	Beam splitter 50/50 @ 45°, bandwidth 430-670 nm	Normal reflectance <0.5%, bandwidth 430-670 nm	68	90
CMBS 056	Beam splitter 50/50 @ 45°, bandwidth 430-670 nm	Normal reflectance <0.5%, bandwidth 430-670 nm	76	90
CMBS 064	Beam splitter 50/50 @ 45°, bandwidth 430-670 nm	Normal reflectance <0.5%, bandwidth 430-670 nm	88	90
CMBS 080	Beam splitter 50/50 @ 45°, bandwidth 430-670 nm	Normal reflectance <0.5%, bandwidth 430-670 nm	108	90
CMBS 096	Beam splitter 50/50 @ 45°, bandwidth 430-670 nm	Normal reflectance <0.5%, bandwidth 430-670 nm	126	90

Part number	MECHANICAL SPECIFICATIONS						
	Clamping size (mm)	Clamping system	Length (mm)	Width (mm)	Height (mm)	Mass (g)	WD (mm) ¹
CMBS 016	37.7	lockring	85.8	64.0	85.8	464	52.2
CMBS 036	61.0	lockring	103.4	88.0	103.3	915	83.4
CMBS 048	75.0	lockring	121.0	102.0	121.0	1207	98.1
CMBS 056	80.0	lockring	131.3	108.0	131.3	1402	108.3
CMBS 064	100.0	lockring	141.2	128.0	141.2	1956	118.2
CMBS 080	116.0	lockring	160.9	144.0	160.9	2477	137.9
CMBS 096	143.0	lockring	179.0	171.0	179.0	3762	156.0

Last update 20/02/2024

¹ Value to be subtracted from the objective or illuminator working distance when the CMBS is used.

Ordering information

Additional clamping mechanics are required to adequately support combination of CMBS with telecentric lenses and illuminators. CMHO series clamping mechanics can be used prior to verification of mechanical compatibility (see CMHO series mechanical drawings available online).

CMHO is not compatible with the combination of the following two products: CMMR and TC13xxx.



RPOP series

Miscellaneous optical replacements

Part number	MECHANICAL SPECIFICATIONS				COMPATIBLE SERIES
	Outer diam.	Length (mm)	Width (mm)	Height (mm)	
PCMPMIRR	43.5	-	-	17.7	PCMP
PCCDLFAT	25.8	-	-	6.6	PCCD
PCBPTIP	20.0	-	-	18.0	PCBP
SPMI001	-	25.0	10.0	54.0	TCCAGE
SPMI002	-	25.0	13.0	54.0	TCCAGE
SPMI003	-	32.0	10.0	95.0	TCCAGE
SPPS001	-	45.0	16.4	49.8	TCCAGE
SPPS002	-	70.0	28.1	92.2	TCCAGE
CSCAGE048	25.0	-	-	50.0	TCCAGE
CSCAGE096	55.0	-	-	70.0	TCCAGE

Last update 13/02/2024

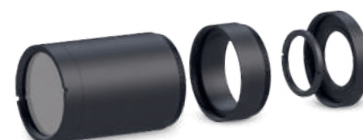


EXT series

Extenders and adapters

PART NUMBER	DESCRIPTIONS
RT-VM100	Extension tube kit 40, 20, 10, 5, 1, 0.5 mm
RT-VM400	C- to CS-mount 5mm adapter ring
RT-EX15CS	1.5X extender for CS-mount
RT-EX15C	1.5X extender for C-mount
RT-EX2CS	2X extender for CS-mount
RT-EX2C	2X extender for C-mount
RT-190400547	Adapter M42x1 FD 12 to C mount for cameras
RT-102201946	Adapter M42x1 FD 12 to F mount for cameras
RT-A-ADM42E34.5	Adapter M42x1 FD 46.5 to M42x1 FD 12

Last update 26/07/2023



IPT series

Dustproof & water resistant tubes for lenses

NEW

PART NUMBER	MECHANICAL SPECIFICATIONS				
	Type	Inner diameter (mm)	Inner length (mm)	Outer diameter (mm)	Outer length (mm)
IPT-D41L40	Tube with window	41.0	40.0	52.0	44.1
IPT-D41L65	Tube with window	41.0	65.0	52.0	69.1
IPT-D51L39	Tube with window	51.0	39.0	62.0	43.1
IPT-D51L65	Tube with window	51.0	65.0	62.0	69.1
IPT-D81L72	Tube with window	81.0	72.0	92.0	76.1
IPT-AR41-C	Adapter ring	41.0	-	52.0	9.3
IPT-AR51-C	Adapter ring	51.0	-	62.0	9.3
IPT-AR81-C	Adapter ring	81.0	-	92.0	9.3
IPT-E41	Extender tube	41.0	15.0	52.0	14.7
IPT-E51	Extender tube	51.0	15.0	62.0	14.7
IPT-E81	Extender tube	81.0	15.0	92.0	14.7

Last update 17/06/2024



CMLT series

Mounting brackets for lighting

Part number	Description	MECHANICAL SPECIFICATIONS				
		Length (mm)	Width (mm)	Height (mm)	Fixing holes	Number of included brackets
CMLTZPFL	L-bracket, 40x30x12 mm	30.0	12.0	40.0	2X Ø 3.20	2
CMLT2QOG040	Bracket 84x53x35 mm	84.0	35.0	53.0	4X Ø 3.20	1
CMLT5WRG050-00-X	Bracket for LED dome light, 68 mm outer diameter	79.0	70.0	20.0	6X Ø 3.50, 2X M4	1
CMLT5WRG070-00-X	Bracket for LED dome light, 95 mm outer diameter	110.5	100.0	20.0	6X Ø 3.50, 2X M4	1
CMLT5WRG100-00-X	Bracket for LED dome light, 118 mm outer diameter	134.5	125.0	20.0	6X Ø 3.50, 2X M4	1
CMLT5WRG150-00-X	Bracket for LED dome light, 185 mm outer diameter	200.0	190.0	25.0	7X Ø 3.50, 4X M4	1
CMLT5WRG200-00-X	Bracket for LED dome light, 232 mm outer diameter	250.0	240.0	30.0	4X Ø 3.50, 3X Ø 5.50, 4X M5	1
CMLT5WRG250-00-X	Bracket for LED dome light, 284 mm outer diameter	302.0	290.0	25.0	4X Ø 3.50, 3X Ø 6.50, 4X M6	1
CMLT5WRG360-00-X	Bracket for LED dome light, 381 mm outer diameter	402.5	381.0	25.0	4X Ø 3.50, 3X Ø 6.50, 4X M6	1
CMLTJA-M6-01	L-bracket for vertical mounting	51.0	27.0	51.0	3X Ø 6.50	2
CMLTVA-M6-01	L-bracket for horizontal mounting	51.0	40.0	51.0	3X Ø 6.50	2
CMLTOA-M6-00	Joint bracket	-	40.0	-	1X Ø 8.70	1

Last update 21/02/2024



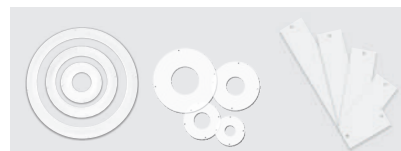
CLLT series

Collimating filters for LED illuminators

NEW

Part number	COMPATIBLE PRODUCTS		MECHANICAL SPECIFICATIONS
	Compatible series	Compatible products	Thickness (mm)
CLLT 3BC050050	LT3BC	LT3BC050050-X	3.7
CLLT 3BC050100	LT3BC	LT3BC050100-X	3.7
CLLT3BC050150	LT3BC	LT3BC050150-X	3.7
CLLT3BC100100	LT3BC	LT3BC100100-X	3.7
CLLT3BC100150	LT3BC	LT3BC100150-X	3.7
CLLT3BC150150	LT3BC	LT3BC150150-X	3.7
CLLT3BC150200	LT3BC	LT3BC150200-X	3.7
CLLT3BC200200	LT3BC	LT3BC200200-X	3.7
CLLT3BC200250	LT3BC	LT3BC200250-X	3.7
CLLT3BC200300	LT3BC	LT3BC200300-X	3.7
CLLT3BC250250	LT3BC	LT3BC250250-X	3.7
CLLT3BC300300	LT3BC	LT3BC300300-X	3.7

Last update 24/01/2024



DFLT series

Diffusing filters for LED illuminators

NEW MODELS

Part number	COMPATIBLE PRODUCTS		MECHANICAL SPECIFICATIONS
	Compatible series	Compatible products	Length (mm)
DFLTZGK040-00-2	LTRNDC	LTZGK040-00-2-X-24V	2.0
DFLTZGK050-00-2	LTRNDC	LTZGK050-00-2-X-24V	2.0
DFLTZGK070-00-3	LTRNDC	LTZGK070-00-3-X-24V	2.0
DFLTZGK090-00-4	LTRNDC	LTZGK090-00-4-X-24V	2.0
DFLTZGK050-15-2	LTRNDC	LTZGK050-15-2-X-24V	2.0
DFLTZGK070-15-3	LTRNDC	LTZGK070-15-3-X-24V	2.0
DFLTZGK090-15-4	LTRNDC	LTZGK090-15-4-X-24V	2.0
DFLTZGK100-15-5	LTRNDC	LTZGK100-15-5-X-24V	2.0
DFLTZZO070-60-2	LTLADC	LTZZO070-60-2-X-24V	2.0
DFLTZZO090-60-2	LTLADC	LTZZO090-60-2-X-24V	2.0
DFLTZZO100-60-2	LTLADC	LTZZO120-60-2-X-24V	2.0
DFLTZZO150-60-3	LTLADC	LTZZO150-60-3-X-24V	2.0
DFLTZZO200-60-2	LTLADC	LTZZO200-60-2-X-24V	2.0
DFLTZZO130-75-3	LTLADC	LTZZO130-75-3-X-24V	2.0
DFLTZZO170-75-3	LTLADC	LTZZO170-75-3-X-24V	2.0
DFLTZPFL040-00-3	LTBRDC	LTZPFL040-00-3-X-24V	2.0
DFLTZPFL080-00-3	LTBRDC	LTZPFL080-00-3-X-24V	2.0
DFLTZPFL120-00-3	LTBRDC	LTZPFL120-00-3-X-24V	2.0
DFLTZPFL160-00-3	LTBRDC	LTZPFL160-00-3-X-24V	2.0
DFLTZPFL200-00-3	LTBRDC	LTZPFL200-00-3-X-24V	2.0
DFLTZPFL040-00-6	LTBRDC	LTZPFL040-00-6-X-24V	2.0
DFLTZPFL080-00-6	LTBRDC	LTZPFL080-00-6-X-24V	2.0
DFLTZPFL120-00-6	LTBRDC	LTZPFL120-00-6-X-24V	2.0
DFLTZPFL160-00-6	LTBRDC	LTZPFL160-00-6-X-24V	2.0
DFLTZPFL200-00-6	LTBRDC	LTZPFL200-00-6-X-24V	2.0

Last update 24/01/2024

PLLT series

Polarizing filters for LED illuminators



NEW MODELS

Part number	COMPATIBLE PRODUCTS		MECHANICAL SPECIFICATIONS
	Compatible series	Compatible products	Length (mm)
PLLTSP50	LTSP	LTSF50-X	3.6
PLLT3BC050050-H	LT3BC	LT3BC050050-X	3.7
PLLT3BC050050-V	LT3BC	LT3BC050050-X	3.7
PLLT3BC050100-H	LT3BC	LT3BC050100-X	3.7
PLLT3BC050100-V	LT3BC	LT3BC050100-X	3.7
PLLT3BC050150-H	LT3BC	LT3BC050150-X	3.7
PLLT3BC050150-V	LT3BC	LT3BC050150-X	3.7
PLLT3BC100100-H	LT3BC	LT3BC100100-X	3.7
PLLT3BC100100-V	LT3BC	LT3BC100100-X	3.7
PLLT3BC100150-H	LT3BC	LT3BC100150-X	3.7
PLLT3BC100150-V	LT3BC	LT3BC100150-X	3.7
PLLT3BC150150-H	LT3BC	LT3BC150150-X	3.7
PLLT3BC150150-V	LT3BC	LT3BC150150-X	3.7
PLLT3BC150200-H	LT3BC	LT3BC150200-X	3.7
PLLT3BC150200-V	LT3BC	LT3BC150200-X	3.7
PLLT3BC200200-H	LT3BC	LT3BC200200-X	3.7
PLLT3BC200200-V	LT3BC	LT3BC200200-X	3.7
PLLT3BC200250-H	LT3BC	LT3BC200250-X	3.7
PLLT3BC200250-V	LT3BC	LT3BC200250-X	3.7
PLLT3BC200300-H	LT3BC	LT3BC200300-X	3.7
PLLT3BC200300-V	LT3BC	LT3BC200300-X	3.7
PLLT3BC250250-H	LT3BC	LT3BC250250-X	3.7
PLLT3BC250250-V	LT3BC	LT3BC250250-X	3.7
PLLT3BC300300-H	LT3BC	LT3BC300300-X	3.7
PLLT3BC300300-V	LT3BC	LT3BC300300-X	3.7
PLLT3BC400400-H	LT3BC	LT3BC400400-X	3.7
PLLT3BC400400-V	LT3BC	LT3BC400400-X	3.7
PLLT3BC500500-H	LT3BC	LT3BC500500-X	3.7
PLLT3BC500500-V	LT3BC	LT3BC500500-X	3.7
PLLTZGK040-00-2	LTRNDC	LTZGK040-00-2-X-24V	0.8
PLLTZGK050-00-2	LTRNDC	LTZGK050-00-2-X-24V	0.8
PLLTZGK070-00-3	LTRNDC	LTZGK070-00-3-X-24V	0.8
PLLTZGK090-00-4	LTRNDC	LTZGK090-00-4-X-24V	0.8
PLLTZGK050-15-2	LTRNDC	LTZGK050-15-2-X-24V	0.8
PLLTZGK070-15-3	LTRNDC	LTZGK070-15-3-X-24V	0.8
PLLTZGK090-15-4	LTRNDC	LTZGK090-15-4-X-24V	0.8
PLLTZGK100-15-5	LTRNDC	LTZGK100-15-5-X-24V	0.8
PLLTZO070-60-2	TLADC	LTZZO070-60-2-X-24V	0.8
PLLTZO090-60-2	TLADC	LTZZO090-60-2-X-24V	0.8
PLLTZO100-60-2	TLADC	LTZZO100-60-2-X-24V	0.8
PLLTZO150-60-3	TLADC	LTZZO150-60-3-X-24V	0.8
PLLTZO200-60-2	TLADC	LTZZO200-60-2-X-24V	0.8
PLLTZO130-75-3	TLADC	LTZZO130-75-3-X-24V	0.8
PLLTZO170-75-3	TLADC	LTZZO170-75-3-X-24V	0.8
PLLTZPFL040-00-3-H	LTBRDC	LTZPFL040-00-3-X-24V	0.8
PLLTZPFL040-00-3-V	LTBRDC	LTZPFL040-00-3-X-24V	0.8
PLLTZPFL080-00-3-H	LTBRDC	LTZPFL080-00-3-X-24V	0.8
PLLTZPFL080-00-3-V	LTBRDC	LTZPFL080-00-3-X-24V	0.8
PLLTZPFL120-00-3-H	LTBRDC	LTZPFL120-00-3-X-24V	0.8
PLLTZPFL120-00-3-V	LTBRDC	LTZPFL120-00-3-X-24V	0.8
PLLTZPFL160-00-3-H	LTBRDC	LTZPFL160-00-3-X-24V	0.8
PLLTZPFL160-00-3-V	LTBRDC	LTZPFL160-00-3-X-24V	0.8
PLLTZPFL200-00-3-H	LTBRDC	LTZPFL200-00-3-X-24V	0.8
PLLTZPFL200-00-3-V	LTBRDC	LTZPFL200-00-3-X-24V	0.8
PLLTZPFL040-00-6-H	LTBRDC	LTZPFL040-00-6-X-24V	0.8
PLLTZPFL040-00-6-V	LTBRDC	LTZPFL040-00-6-X-24V	0.8
PLLTZPFL080-00-6-H	LTBRDC	LTZPFL080-00-6-X-24V	0.8
PLLTZPFL080-00-6-V	LTBRDC	LTZPFL080-00-6-X-24V	0.8
PLLTZPFL120-00-6-H	LTBRDC	LTZPFL120-00-6-X-24V	0.8
PLLTZPFL120-00-6-V	LTBRDC	LTZPFL120-00-6-X-24V	0.8
PLLTZPFL160-00-6-H	LTBRDC	LTZPFL160-00-6-X-24V	0.8
PLLTZPFL160-00-6-V	LTBRDC	LTZPFL160-00-6-X-24V	0.8
PLLTZPFL200-00-6-H	LTBRDC	LTZPFL200-00-6-X-24V	0.8
PLLTZPFL200-00-6-V	LTBRDC	LTZPFL200-00-6-X-24V	0.8

Last update 22/08/2024



PCLT series

Protective covers for LED illuminators

NEW

Part number	COMPATIBLE PRODUCTS		MECHANICAL SPECIFICATIONS
	Compatible series	Compatible products	Thickness (mm)
PCLT3BC050050	LT3BC	LT3BC050050-X	3.0
PCLT3BC050100	LT3BC	LT3BC050100-X	3.0
PCLT3BC050150	LT3BC	LT3BC050150-X	3.0
PCLT3BC100100	LT3BC	LT3BC100100-X	3.0
PCLT3BC100150	LT3BC	LT3BC100150-X	3.0
PCLT3BC150150	LT3BC	LT3BC150150-X	3.0
PCLT3BC150200	LT3BC	LT3BC150200-X	3.0
PCLT3BC200200	LT3BC	LT3BC200200-X	3.0
PCLT3BC200250	LT3BC	LT3BC200250-X	3.0
PCLT3BC200300	LT3BC	LT3BC200300-X	3.0
PCLT3BC250250	LT3BC	LT3BC250250-X	3.0
PCLT3BC300300	LT3BC	LT3BC300300-X	3.0
PCLT3BC400400	LT3BC	LT3BC400400-X	3.0
PCLT3BC500500	LT3BC	LT3BC500500-X	3.0

Last update 22/08/2024



CPDPH series

Diffuser caps for telecentric illuminators

Part number	MECHANICAL SPECIFICATIONS		
	Diameter (mm)	Height (mm)	Diffusive diameter (mm)
CPDPH01	26.0	8.7	2.8
CPDPH02	26.0	8.7	0.8
CPDPH03	26.0	8.7	5.0
CPDPH04	26.0	11.8	12.0

Last update 26/07/2023



LTSCHP series

High-performance replacement LED modules

Part number	LIGHTING SPECIFICATIONS		ELECTRICAL SPECIFICATIONS				
	Light color, Wavelength	Diffusive diameter (mm)	Supply voltage (V)	Max power cons. (W)	LED forward voltage typical (V)	Max LED forward current (mA)	Max pulse current (mA)
			1		2	3	4
1W power sources							
LTSCHP 1W-R	red, 625 nm	-	12-24	2.5	2.4 (3)	350	2000
LTSCHP 1W-G	green, 525 nm	-	12-24	2.5	3.3 (4.0)	350	2000
LTSCHP 1W-B	blue, 460 nm	-	12-24	2.5	3.3 (4.0)	350	2000
LTSCHP 1W-W	white, 6000 K	-	12-24	2.5	2.8 (-)	350	2000
LTSCHP 1W-GZ	green, 525 nm	12	12-24	2.5	3.3 (4.0)	350	2000
LTSCCP 1W-G	green, 525 nm	24	12-24	2.5	3.3 (4.0)	350	2000
3W power sources							
LTSCHP 3W-R	red, 625 nm	-	12-24	4.5	2.4 (3)	720	2000
LTSCHP 3W-G	green, 525 nm	-	12-24	4.5	3.3 (4.0)	720	2000
LTSCHP 3W-B	blue, 460 nm	-	12-24	4.5	3.3 (4.0)	720	2000
LTSCHP 3W-W	white, 6000 K	-	12-24	4.5	2.8 (-)	720	2000

Last update 23/07/2024

- 1 Tolerance ± 10%.
- 2 At max forward current. Tolerance is ± 0.06V on forward voltage measurements.
- 3 In continuous mode (non-pulsed).
- 4 At pulse width ≤ 10 ms and duty cycle ≤ 10%. Built-in electronics board must be bypassed (see tech info).

RPLT series

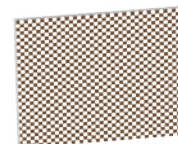
Replacement LED sources for LTSCHP series



Part number	LIGHTING SPECIFICATIONS	ELECTRICAL SPECIFICATIONS			MECHANICAL SPECIFICATIONS		
		Led forward voltage typical (max) (V)	Max led forward current (mA)	Max pulse current (mA)	Length (mm)	Width (mm)	Height (mm)
	Light color, peak Wavelength	1	2	3			
LED1W-R	red, 625 nm	1.8 (2.6)	1500	2000	21.0	21.0	3.6
LED1W-G	green, 525 nm	2.8 (4.0)	1500	2000	21.0	21.0	3.6
LED1W-B	blue, 460 nm	2.6 (3.4)	1500	2000	21.0	21.0	3.6
LED1W-W	white, 6000 K	2.8 (3.1)	1500	2000	21.0	21.0	3.6
LED1W-B	IR, 850 nm	2.6 (3.4)	1500	2000	21.0	21.0	3.6
LED1W-W	IR, 940 nm	2.8 (3.1)	1500	2000	21.0	21.0	3.6
LED1W-B	UV, 365 nm	2.6 (3.4)	1500	2000	21.0	21.0	3.6

Last update 29/07/2024

- 1 At max forward current. Tolerance is ± 0.06V on forward voltage measurements.
- 2 In continuous mode (non-pulsed).
- 3 At pulse width ≤ 10 ms and duty cycle ≤ 10%. Built-in electronics board must be bypassed (see tech info).

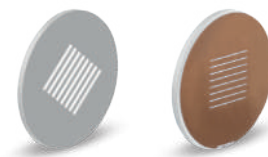


PTTC, PTCP series

Accurate calibration patterns for machine vision

Part	SPECIFICATIONS							
	Dimensions (W x H) (mm x mm)	Thickness (mm)	Active area (Wa x Ha) (mm x mm)	Square width (Ws) (mm)	Photomask type	Class	Grade	Certificate
						1	1	2
PT004-009	33 x 26	3	15 x 13	0.20	Chrome-on-glass	1	-	No
PT016-024	33 x 26	3	31 x 24	0.60	Chrome-on-glass	1	-	No
PT036-056	66 x 52	3	64 x 51	1.35	Chrome-on-glass	1	-	No
PT064-096	107 x 83	3	105 x 79	2.20	Chrome-on-glass	1	-	No
PT120-144	180 x 140	3	168 x 132	3.00	Chrome-on-glass	2	-	No
PT192-240	300 x 240	3	260 x 200	4.00	Chrome-on-glass	-	B	No
PT260-310	340 x 280	3	320 x 260	5.00	Chrome-on-glass	-	B	No
PT004-009-C	33 x 26	3	15 x 13	0.20	Chrome-on-glass	2	-	Yes
PT016-024-C	33 x 26	3	31 x 24	0.60	Chrome-on-glass	2	-	Yes
PT036-056-C	66 x 52	3	64 x 51	1.35	Chrome-on-glass	2	-	Yes
PT064-096-C	107 x 83	3	105 x 79	2.20	Chrome-on-glass	2	-	Yes
PT120-144-C	180 x 140	3	168 x 132	3.00	Chrome-on-glass	2	-	Yes
PT192-240-C	300 x 240	3	260 x 200	4.00	Chrome-on-glass	-	B	Yes
PT260-310-C	340 x 280	3	320 x 260	5.00	Chrome-on-glass	-	B	Yes
PT064-096-P	107 x 83	5	105 x 79	2.20	Film-on-glass	-	4	No
PT120-144-P	180 x 140	5	168 x 132	3.00	Film-on-glass	-	4	No
PT192-240-P	300 x 240	5	260 x 200	4.00	Film-on-glass	-	4	No
PT260-310-P	340 x 280	5	320 x 260	5.00	Film-on-glass	-	4	No
PTCP-S1-HR1-C	180 x 140	3	167.4 x 129.6	1.35	Chrome-on-glass	2	-	Yes
PTCP-M1-LR1-C	245 x 196	3	237.6 x 184.8	2.20	Chrome-on-glass	-	B	Yes
PTCP-M1-HR1-C	245 x 196	3	237.6 x 189.0	1.35	Chrome-on-glass	-	B	Yes
PTCP-L1-LR1-C	300 x 240	3	281.6 x 228.8	2.20	Chrome-on-glass	-	B	Yes
PTCP-L1-HR1-C	300 x 240	3	286.2 x 226.8	1.35	Chrome-on-glass	-	B	Yes
PTCP-S1-HR1-P	180 x 140	5	167.4 x 129.6	1.35	Film-on-glass	-	4	No
PTCP-M1-LR1-P	245 x 196	5	237.6 x 184.8	2.20	Film-on-glass	-	4	No
PTCP-M1-HR1-P	245 x 196	5	237.6 x 189.0	1.35	Film-on-glass	-	4	No
PTCP-L1-LR1-P	300 x 240	5	281.6 x 228.8	2.20	Film-on-glass	-	4	No
PTCP-L1-HR1-P	300 x 240	5	286.2 x 226.8	1.35	Film-on-glass	-	4	No

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PTPR series

Projection patterns for LED projectors




Part number	SPECIFICATIONS								
	Type	Process	Substrate	Coating	Line spacing (mm)	Line thickness (mm)	Dot size (mm x mm)	Geometrical accuracy (µm)	Edge sharpness (µm)
PT 0000 0100 P	Single line	Photolithography	Soda lime glass	Chrome on glass	-	0.05	-	2.0	1.4
PT 0000 0100 L	Single line	Laser engraving	Borofloat glass	Dichroic mirror	-	0.50	-	50	50
PT 0000 0200 P	Cross	Photolithography	Soda lime glass	Chrome on glass	-	0.05	-	2.0	1.4
PT 0000 0200 L	Cross	Laser engraving	Borofloat glass	Dichroic mirror	-	0.50	-	50	50
PT 0000 0300 P	Stripes	Photolithography	Soda lime glass	Chrome on glass	0.95	0.05	-	2.0	1.4
PT 0000 0300 L	Stripes	Laser engraving	Borofloat glass	Dichroic mirror	0.50	0.50	-	50	50
PT 0000 0400 P	Grid	Photolithography	Soda lime glass	Chrome on glass	0.95	0.05	-	2.0	1.4
PT 0000 0400 L	Grid	Laser engraving	Borofloat glass	Dichroic mirror	0.80	0.20	-	50	50
PT 0000 0500 P	Edge	Photolithography	Soda lime glass	Chrome on glass	-	-	-	2.0	1.4
PT 0000 0500 L	Edge	Laser engraving	Borofloat glass	Dichroic mirror	-	-	-	50	50
PTST 050 450 P	Stripes	Photolithography	Soda lime glass	Chrome on glass	0.45	0.05	-	2.0	1.4
PTST 050 200 P	Stripes	Photolithography	Soda lime glass	Chrome on glass	0.20	0.05	-	2.0	1.4
PTST 050 100 P	Stripes	Photolithography	Soda lime glass	Chrome on glass	0.10	0.05	-	2.0	1.4
PTST 050 050 P	Stripes	Photolithography	Soda lime glass	Chrome on glass	0.05	0.05	-	2.0	1.4
PTST 010 010 P	Stripes	Photolithography	Soda lime glass	Chrome on glass	0.01	0.01	-	2.0	1.4
PTST 020 020 P	Stripes	Photolithography	Soda lime glass	Chrome on glass	0.02	0.02	-	2.0	1.4
PTGR 050 450 P	Grid	Photolithography	Soda lime glass	Chrome on glass	0.45	0.05	-	2.0	1.4
PTGR 050 200 P	Grid	Photolithography	Soda lime glass	Chrome on glass	0.20	0.05	-	2.0	1.4
PTGR 050 100 P	Grid	Photolithography	Soda lime glass	Chrome on glass	0.10	0.05	-	2.0	1.4
PTGR 050 050 P	Grid	Photolithography	Soda lime glass	Chrome on glass	0.05	0.05	-	2.0	1.4
PTCD 010 P	Cloud of dots, density 10,5%	Photolithography	Soda lime glass	Chrome on glass	-	-	0.04 x 0.04	2.0	1.4
PTCD 020 P	Cloud of dots, density 20%	Photolithography	Soda lime glass	Chrome on glass	-	-	0.08 x 0.08	2.0	1.4
PTCD 035 P	Cloud of dots, density 35%	Photolithography	Soda lime glass	Chrome on glass	-	-	0.08 x 0.08	2.0	1.4

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PS series

Power supplies

Part number	ELECTRICAL SPECIFICATIONS					MECHANICAL SPECIFICATIONS				
	Supply voltage (V, AC)	Output channels	Output voltage (V, DC)	Max output current (A)	Max output power (W)	Power cord	Length (mm)	Width (mm)	Height (mm)	Mounting
 RT-SDR-120-24	88-264	1	24	5	120	Not included	113.500	40.000	125.200	DIN rail
 RT-SDR-240-48	88-264	1	48	5	240	Not included	113.500	63.000	125.200	DIN rail
 RT-POE15M-1AFE-R	100-240	1	56	0.275	15.4	Not included	106.200	39.500	27.250	Free installation

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OPTO ENGINEERING®

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