

# PCCD013

Wide lateral viewing angle catadioptric lens, for 1/3" detectors

## SPECIFICATIONS

Detector type		1/3"
Image circle Ø	(mm)	3.6
Field of view (diameter x height)		
Minimum	(mm x mm)	7.5 x 5
Typical	(mm x mm)	15 x 10
Maximum	(mm x mm)	25 x 17
Extended with PCCDLFAT	(mm x mm)	35 x 26
Optical specifications		
Wavelength range	(nm)	450 .. 650
Working distance	(mm)	28 .. 53
Working distance with PCCDLFAT	(mm)	5 .. 11
CTF @ 50 lp/mm	(%)	> 35
F/#		6-24
Mechanical specifications		
Diameter	(mm)	143
Length	(mm)	110.5
Mass	(g)	980
Mount		C

Last update: 2017-12-15

## NOTES

- PCCDLFAT is an accessory designed to extend the FOV of PCCD optics and inspect objects with even larger diameters (beyond 25 mm)

## COMPATIBLE PRODUCTS

Despite the efforts made to generate an error-free compatibility list, we always recommend to consult the Opto Engineering® technical support department before purchasing a compatible product. Opto Engineering® shall not be liable for any damage or malfunctioning caused by the incorrect selection of a compatible product.



LTRNOB series

LED ring illuminators - oblique type

LTRN165R45	Ring LED illuminator, inner diameter 136 mm, oblique type, red 630 nm
LTRN165G45	Ring LED illuminator, inner diameter 136 mm, oblique type, green 525 nm
LTRN165B45	Ring LED illuminator, inner diameter 136 mm, oblique type, blue 470 nm
LTRN165W45	Ring LED illuminator, inner diameter 136 mm, oblique type, white
LTRN245R35	Ring LED illuminator, inner diameter 148 mm, oblique type, red 630 nm
LTRN245G35	Ring LED illuminator, inner diameter 148 mm, oblique type, green 525 nm
LTRN245B35	Ring LED illuminator, inner diameter 148 mm, oblique type, blue 470 nm
LTRN245W35	Ring LED illuminator, inner diameter 148 mm, oblique type, white



LTRNOBHP series

High power LED ring illuminators, oblique type

LTRNHP165R45	High power LED ring illuminators, oblique type, inner diam. 132,5mm, red, 625 nm
LTRNHP165G45	High power LED ring illuminators, oblique type, inner diam. 132,5mm, green, 525 nm
LTRNHP165B45	High power LED ring illuminators, oblique type, inner diam. 132,5mm, blue, 475 nm



All product specifications and data are subject to change without notice to improve reliability, functionality, design or other. Photos and pictures are for illustration purposes only.

**LTRNHP165W45** High power LED ring illuminators, oblique type, inner diam. 132,5mm, white, 6200 k



CMHO series

Clamping mechanics

**CMHOPCCD** Clamping mechanics for PCCD 0xx lenses



OI series

Replacement ocular lenses

**OICD013** Replacement ocular lens for PCCD013 optics



Accessories

Accessories and add-ons to make the most of Opto Engineering lenses.

**PCCDLFAT** Interchangeable attachment for extra-wide PCCD field of view

**RT-mvBC-X104iC** CMOS camera GIGE, 2064 x 1544 color, 1/1.8", 37 Hz, IR cut, C-mount, I/O

**RT-mvBC-X105bC** CMOS camera GIGE, 2464 x 2056 Colour sensor, 2/3", 23.5 Hz, IR cut, C-mount, I/O



COE-G series

GeniCam@ PoE cameras

**COE-003-M-POE-020-IR-C** Area Scan camera RJ33B4AD0DT, CCD, Global shutter, 640 x 480, 0.3 MP, 7.4 pix, 1/3", Gray, 200 fps, GigE, POE, C - mount, Glass filter

**COE-003-C-POE-020-IR-C** Area Scan camera RJ33B4AD0DT, CCD, Global shutter, 640 x 480, 0.3 MP, 7.4 pix, 1/3", Color, 200 fps, GigE, POE, C - mount, Infrared cut filter

**COE-012-M-POE-020-IR-C** Area Scan camera RJ33J4CA3DE, CCD, Global shutter, 1280 x 960, 1.2 MP, 3.75 pix, 1/3", Gray, 30 fps, GigE, POE, C - mount, Glass filter

**COE-012-C-POE-020-IR-C** Area Scan camera RJ33J4CA3DE, CCD, Global shutter, 1280 x 960, 1.2 MP, 3.75 pix, 1/3", Color, 30 fps, GigE, POE, C - mount, Infrared cut filter

**COE-050-M-POE-023-IR-C** Area Scan camera MT9P031, CMOS, Rolling shutter, 2592 x 1944, 5 MP, 2.2 pix, 1/2.5", Gray, 14 fps, GigE, POE, C - mount, Glass filter

**COE-106-M-POE-031-IR-C-2** Area Scan camera MT9J003, CMOS, Rolling shutter, 3840 x 2748, 10.6 MP, 1.67 pix, 1/2.3", Gray, 11 fps, GigE, POE, C - mount, Glass filter

**COE-106-C-POE-031-IR-C** Area Scan camera MT9J003, CMOS, Global shutter, 3840 x 2748, 10.6 MP, 1.67 pix, 1/2.3", Color, 7 fps, GigE, POE, C - mount, Infrared cut filter



COE-U series

USB 3.0 GeniCam@ cameras

**COE-016-M-USB-021-IR-C** Area Scan camera IMX273, CMOS, Global shutter, 1440 x 1080, 1.6 MP, 3.45 pix, 1/2.9", Gray, 165 fps, USB 3.0, C - mount, Glass filter

**COE-016-C-USB-021-IR-C** Area Scan camera IMX273, CMOS, Global shutter, 1440 x 1080, 1.6 MP, 3.45 pix, 1/2.9", Color, 165 fps, USB 3.0, C - mount, Infrared cut filter

**COE-050-C-USB-023-IR-C** Area Scan camera AR0521, CMOS, Rolling shutter, 2592 x 1944, 5 MP, 2.2 pix, 1/2.5", Color, 31 fps, USB 3.0, C - mount, Infrared cut filter



mvBlueFOX3-2 series

USB3 vision camera with Sony Pregius CMOS sensors

**RT-mvBF3-2004** USB3 vision camera with Sony Pregius CMOS sensor IMX287

**RT-mvBF3-2016** USB3 vision camera with Sony Pregius CMOS sensor IMX273



mvBlueCOUGAR series

GigE & Dual GigE Vision cameras

**RT-mvBC-X100f** Camera with interface GigE (1GB/s), sensor size 1/2.9", mpixel 0.4, resolution 728 x 544, sensor name IMX287, sensor type CMOS

**RT-mvBC-X102f** Camera with interface GigE (1GB/s), sensor size 1/2.9", mpixel 1.58, resolution 1456 x 1088, sensor name IMX273, sensor type CMOS

**RT-mvBC-XD102f** Camera with interface Dual GigE (2GB/s), sensor size 1/2.9", mpixel 1.58, resolution 1456 x 1088, sensor name IMX273, sensor type CMOS

**RT-mvBC-X105** Camera with interface GigE (1GB/s), sensor size 1/2.5", mpixel 5.04, resolution 2592 x 1944, sensor name MT9P031, sensor type CMOS

RT-mvBC-X1010 Camera with interface GigE (1GB/s), sensor size 1/2.3", mpixel 10.66, resolution 3856 x 2764, sensor name MT9J003, sensor type CMOS

---