

MC033X

Macro lens for 2/3" detectors, magnification 0.33 x, C-mount

SPECIFICATIONS

Optical specifications

Magnification	(x)	0.333
Working distance ¹	(mm)	102.0
Focal length	(mm)	28.2
F/# (wF/#) ²		5.3 (7)
Distortion	(%)	< 0.05
Field depth ³	(mm)	2.50

Object field of view

with 1/3" detector (4.8 x 3.6 mm)	(mm x mm)	14.40 x 10.80
with 1/2.5" detector (5.70 x 4.28 mm)	(mm x mm)	17.10 x 12.80
with 1/2" detector (6.4 x 4.8 mm)	(mm x mm)	19.20 x 14.40
with 1/1.8" detector (7.13 x 5.33 mm)	(mm x mm)	21.40 x 16.10
with 2/3" - 5 MP detector (8.50 x 7.09 mm)	(mm x mm)	25.40 x 21.20

Mechanical specifications

Length ²	(mm)	31.0
Diameter	(mm)	15.0
Height	(mm)	30
Mass	(g)	63
Mount		C

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NOTES

- 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.
- 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

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.



LTBC series

Continuous LED backlight

LTBC054054-W	Continuos LED backlight, 54x54 illumination area, white
LTBC054054-G	Continuos LED backlight, 54x54 illumination area, green



LTBFC series

Continuous flat side-emitting LED backlights

LTPVR070-00-1-W-24V	Flat side-emitting LED backlight, 70X70 mm illumination area, white, 24V
LTPVR070-00-1-R-24V	Flat side-emitting LED backlight, 70X70 mm illumination area, red, 24V
LTPVR070-00-1-G-24V	Flat side-emitting LED backlight, 70X70 mm illumination area, green, 24V
LTPVR070-00-1-B-24V	Flat side-emitting LED backlight, 70X70 mm illumination area, blue, 24V
LTPVRG070-00-1-W-24V	Flat side-emitting LED backlight, thin borders, 70X70 mm illumination area, white, 24V



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.

LTPVRG070-00-1-R-24V	Flat side-emitting LED backlight, thin borders, 70X70 mm illumination area, red, 24V
LTPVRG070-00-1-G-24V	Flat side-emitting LED backlight, thin borders, 70X70 mm illumination area, green, 24V
LTPVRG070-00-1-B-24V	Flat side-emitting LED backlight, thin borders, 70X70 mm illumination area, blue, 24V



LTDMC series (discontinued models)

Continuous LED domes

LT4WRG150-00-1-W-24V	LED dome light, 185 mm outer diameter, white, 24V
LT4WRG150-00-1-R-24V	LED dome light, 185 mm outer diameter, red, 24V
LT4WRG150-00-1-G-24V	LED dome light, 185 mm outer diameter, green, 24V
LT4WRG150-00-1-B-24V	LED dome light, 185 mm outer diameter, blue, 24V



LTLAIC series (discontinued models)

Continuous LED low angle diffused ring lights

LT2RZF070-60-2-W-24V	LED ring light, 2 LED rows, 76.2 mm outer diameter, 60°, white, 24V
LT2RZF070-60-2-R-24V	LED ring light, 2 LED rows, 76.2 mm outer diameter, 60°, red, 24V
LT2RZF070-60-2-G-24V	LED ring light, 2 LED rows, 76.2 mm outer diameter, 60°, green, 24V
LT2RZF070-60-2-B-24V	LED ring light, 2 LED rows, 76.2 mm outer diameter, 60°, blue, 24V



LTRNDC series

Continuous LED direct ring lights

LTZGK070-45-3-R-24V	LED ring light, 3 LED rows, outer diameter 70 mm, 45°, red, 24V
LTZGK070-45-3-G-24V	LED ring light, 3 LED rows, outer diameter 70 mm, 45°, green, 24V
LTZGK070-45-3-B-24V	LED ring light, 3 LED rows, outer diameter 70 mm, 45°, blue, 24V
LTZGK070-45-3-W-24V	LED ring light, 3 LED rows, outer diameter 70 mm, 45°, white, 24V



LTLA series

High power strobed LED low angle diffused ring lights

LTLAB2-R	Diffusive strobed low angle ring light illuminator - medium size high power red
LTLAB2-G	Diffusive strobed low angle ring light illuminator - medium size high power green
LTLAB2-W	Diffusive strobed low angle ring light illuminator - medium size high power white
LTLAC1-W	Diffusive strobed low angle ring light illuminator - large size medium power white
LTLAC2-R	Diffusive strobed low angle ring light illuminator - large size high power red
LTLAC2-G	Diffusive strobed low angle ring light illuminator - large size high power green
LTLAC2-W	Diffusive strobed low angle ring light illuminator - large size high power white



LTLAIC series

Continuous LED low angle diffused ring lights

LT3RZF080-60-1-W-24V	LED ring light, 1 LED row, 81 mm outer diameter, 60°, white, 24V
LT3RZF080-60-1-R-24V	LED ring light, 1 LED row, 81 mm outer diameter, 60°, red, 24V
LT3RZF080-60-1-G-24V	LED ring light, 1 LED row, 81 mm outer diameter, 60°, green, 24V
LT3RZF080-60-1-B-24V	LED ring light, 1 LED row, 81 mm outer diameter, 60°, blue, 24V



LTLADC series

Continuous LED low angle direct ring lights

LTZZO130-75-3-W-24V	LED low angle ring light, 3 LED rows, outer diameter 131 mm, 75°, white, 24V
LTZZO130-75-3-R-24V	LED low angle ring light, 3 LED rows, outer diameter 131 mm, 75°, red, 24V
LTZZO130-75-3-G-24V	LED low angle ring light, 3 LED rows, outer diameter 131 mm, 75°, green, 24V
LTZZO130-75-3-B-24V	LED low angle ring light, 3 LED rows, outer diameter 131 mm, 75°, blue, 24V



LTRNOB series

LED ring illuminators - oblique type

LTRN050R45	Ring LED illuminator, inner diam. 15.2 mm, oblique type, red 630 nm
LTRN050G45	Ring LED illuminator, inner diam. 15.2 mm, oblique type, green 525 nm
LTRN050B45	Ring LED illuminator, inner diam. 15.2 mm, oblique type, blue 470 nm
LTRN050W45	Ring LED illuminator, inner diameter 15.2 mm, oblique type, white



LTD series

Continuous LED domes

LT5WRG150-00-1-R-24V	LED dome light, 185 mm outer diameter, red, 24V
LT5WRG150-00-1-G-24V	LED dome light, 185 mm outer diameter, green, 24V
LT5WRG150-00-1-B-24V	LED dome light, 185 mm outer diameter, blue, 24V
LT5WRG150-00-1-W-24V	LED dome light, 185 mm outer diameter, white, 24V



LTDM series

High power strobed LED domes

LTDMA1-R	Diffusive strobed dome illuminator - small size medium power red
LTDMA1-G	Diffusive strobed dome illuminator - small size medium power green
LTDMA1-W	Diffusive strobed dome illuminator - small size medium power white
LTDMB2-R	Diffusive strobed dome illuminator - medium size high power red
LTDMB2-G	Diffusive strobed dome illuminator - medium size high power green
LTDMB2-W	Diffusive strobed dome illuminator - medium size high power white



LTBRDC series

Continuous LED bar lights

LTZPFL040-00-6-R-24V	LED bar light, 6 LED rows, 40X26.3 illumination area, red, 24V
LTZPFL040-00-6-G-24V	LED bar light, 6 LED rows, 40X26.3 illumination area, green, 24V
LTZPFL040-00-6-B-24V	LED bar light, 6 LED rows, 40X26.3 illumination area, blue, 24V
LTZPFL040-00-6-W-24V	LED bar light, 6 LED rows, 40X26.3 illumination area, white, 24V



LTCXC series

Continuous LED coaxial lights

LT2QOG040-00-X-W-24V	LED coaxial light, 48x48 mm light emitting area, white, 24V
LT2QOG040-00-X-R-24V	LED coaxial light, 48x48 mm light emitting area, red, 24V
LT2QOG040-00-X-G-24V	LED coaxial light, 48x48 mm light emitting area, green, 24V
LT2QOG040-00-X-B-24V	LED coaxial light, 48x48 mm light emitting area, blue, 24V



COE-G series

GenICam® PoE C-mount cameras

COE-013-M-POE-030-IR-C	Area Scan camera PYTHON 1300, CMOS, Global shutter, 1280 x 1024, 1.3 MP, 4.8 pix, 1/2", mono, 90 fps, GigE, POE, C - mount, Glass filter
COE-013-C-POE-030-IR-C	Area Scan camera PYTHON 1300, CMOS, Global shutter, 1280 x 1024, 1.3 MP, 4.8 pix, 1/2", color, 90 fps, GigE, POE, C - mount, Infrared cut filter
COE-023-M-POE-050-IR-C	Area Scan camera PYTHON 2000, CMOS, Global shutter, 1920 x 1200, 2.3 MP, 4.8 pix, 2/3", mono, 51 fps, GigE, POE, C - mount, Glass filter
COE-023-C-POE-050-IR-C	Area Scan camera PYTHON 2000, CMOS, Global shutter, 1920 x 1200, 2.3 MP, 4.8 pix, 2/3", color, 51 fps, GigE, POE, C - mount, Infrared cut filter
COE-032-M-POE-040-IR-C	Area Scan camera IMX265, CMOS, Global shutter, 2048 x 1536, 3.1 MP, 3.45 pix, 1/1.8", mono, 37.5 fps, GigE, POE, C - mount, Glass filter
COE-032-C-POE-040-IR-C	Area Scan camera IMX265, CMOS, Global shutter, 2048 x 1536, 3.1 MP, 3.45 pix, 1/1.8", color, 37.5 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", mono, 14 fps, GigE, POE, C - mount, Glass filter
COE-050-M-POE-050-IR-C	Area Scan camera IMX264, CMOS, Global shutter, 2448 x 2048, 5 MP, 3.45 pix, 2/3", mono, 23.5 fps, GigE, POE, C - mount, Glass filter
COE-050-C-POE-050-IR-C	Area Scan camera IMX264, CMOS, Global shutter, 2448 x 2048, 5 MP, 3.45 pix, 2/3", color, 23.5 fps, GigE, POE, C - mount, Infrared cut 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", mono, 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



mvBlueCOUGAR series

GigE / Dual GigE cameras with Smart Features

RT-mvBC-X104i	Camera with interface GigE (1GB/s), sensor size 1/1.8", mpixel 3.19, resolution 2064 x 1544, sensor name IMX265, sensor type CMOS
RT-mvBC-XD104h	Camera with interface Dual GigE (2GB/s), sensor size 1/1.8", mpixel 3.19, resolution 2064 x 1544, sensor name IMX252, 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-X105b	Camera with interface GigE (1GB/s), sensor size 2/3", mpixel 5.07, resolution 2464 x 2056, sensor name IMX264, sensor type CMOS
RT-mvBC-XD105a	Camera with interface Dual GigE (2GB/s), sensor size 2/3", mpixel 5.01, resolution 2448 x 2048, sensor name IMX250, 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



COE-U series

GenICam® C-mount USB3 cameras

COE-013-M-USB-030-IR-C	Area Scan camera PYTHON 1300, CMOS, Global shutter, 1280 x 1024, 1.3 MP, 4.8 pix, 1/2", mono, 210 fps, USB 3.0, C - mount, Glass filter
COE-013-C-USB-030-IR-C	Area Scan camera PYTHON 1300, CMOS, Global shutter, 1280 x 1024, 1.3 MP, 4.8 pix, 1/2", color, 90 fps, USB 3.0, C - mount, Infrared cut filter
COE-050-M-USB-050-IR-C	Area Scan camera IMX264, CMOS, Global shutter, 2448 x 2048, 5 MP, 3.45 pix, 2/3", mono, 35 fps, USB 3.0, C - mount, Glass 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 cameras with Smart Features

RT-mvBF3-2032a	USB3 Vision camera with Sony Pregius CMOS sensor IMX265
RT-mvBF3-2032	USB3 Vision camera with Sony Pregius CMOS sensor IMX252
RT-mvBF3-2051a	USB3 Vision camera with Sony Pregius CMOS sensor IMX264
RT-mvBF3-2051	USB3 Vision camera with Sony Pregius CMOS sensor IMX250
RT-mvBF3-2064	USB3 vision camera with Sony Pregius CMOS sensor IMX178