

TCZR036

Bi-telecentric zoom with motorized controls, magnification 0.25x to 2x, for detectors up to 2/3"

SPECIFICATIONS

Magnification	(x)	0.250	0.500	1.000	2.000
Image circle Ø	(mm)	11.0	11.0	11.0	11.0
Object field of view		(mm x mm)			
with 1/3" detector (4.8 x 3.6 mm)		19.2 x 14.4	9.6 x 7.2	4.8 x 3.6	2.4 x 1.8
with 1/2.5" detector (5.70 x 4.28 mm)		22.8 x 17.1	11.4 x 8.5	5.7 x 4.2	2.8 x 2.1
with 1/2" detector (6.4 x 4.8 mm)		25.6 x 19.2	12.8 x 9.6	6.4 x 4.8	3.2 x 2.4
with 1/1.8" detector (7.13 x 5.37 mm)		28.5 x 21.4	14.2 x 10.7	7.1 x 5.3	3.5 x 2.6
with 2/3" - 5 MP detector (8.45 x 7.07 mm)		33.7 x 28.2	16.8 x 14.1	8.4 x 7.0	4.2 x 3.5

Optical specifications

Working distance	(mm)	74.0	...	...	...
wF/# (1)		12	...	...	...
Telecentricity (2)	(deg)	< 0.05	...	...	...
Distortion	(%)	< 0.05	< 0.04	< 0.04	< 0.08
Field depth (3)	(mm)	11	2.8	0.7	0.2
CTF @ 70 lp/mm	(%)	> 40	> 35	> 40	> 35
Reference point repeatability at 1 σ (4)	(μ m)	< 6	< 5	< 2	< 4
Max. image displacement between magnification changes (image side)	(μ m)	350			

Mechanical specifications

Length	(mm)	212.0	...	...	...
Diameter	(mm)	56	...	...	...
Mass	(g)	1620	...	...	...
Mount		C	...	...	...
Min. time for magnification change (5)	(s)	2.5	...	...	...

Electrical specifications

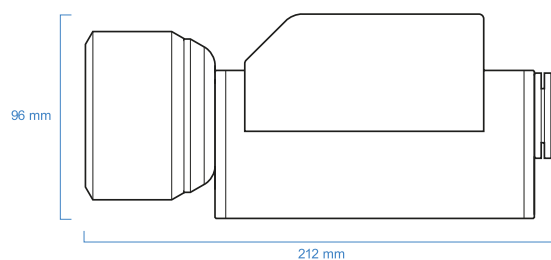
Input voltage (6)	(V)	24	...	...	...
Power consumption	(W)	10	...	...	...
Interface		USB 2.0	...	...	...

NOTES

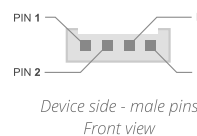
- Working F/#: the real F/# of a lens when used as a macro. Lenses with smaller apertures can be supplied on request
- Maximum slope of principal rays inside the lens: when converted to millirad, it gives the maximum measurement error for any millimeter of object displacement
- At the borders of the 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 3.9 μ m.
- Image side, σ = standard deviation.
- Refers to the time between subsequent changes of magnification. Set at factory to 2.75 s.
- ± 2 %

COMPATIBLE PRODUCTS

CMHOTCZR	Clamping mechanics for TCZR
COCB243P0600	Electric cable for TCZR and MCZR products
COCBUSB20	USB cable for TCZR and MCZR products



CONNECTION



Pinout reference

PIN	FUNCTION
1	Shielding pin
2	GND
3	Power supply (+24 V)
4	-

