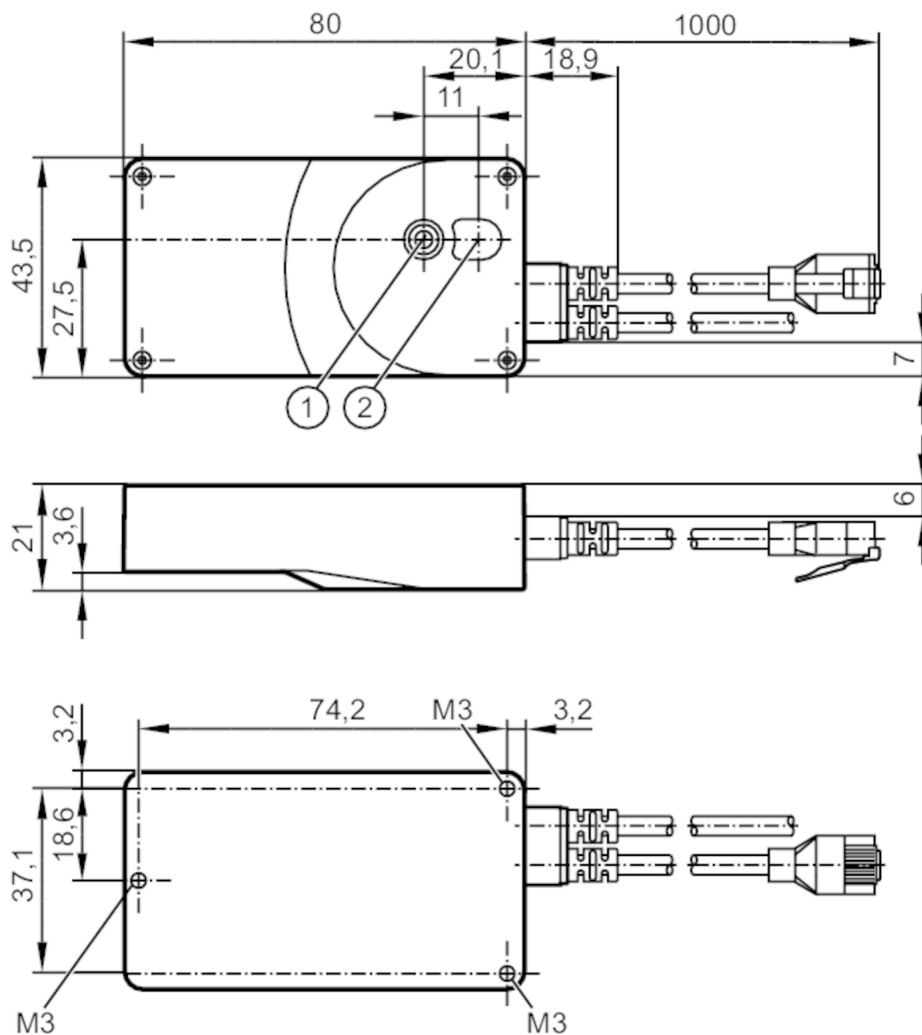


O3X100

3D camera

O3X100KG/E1/GM/S/60



- 1 lens
- 2 illumination unit



Product characteristics

Type of light	infrared light
Max. reading rate [Hz]	20
Communication interface	Ethernet
Laser protection class	1
Dimensions [mm]	80 x 43.5 x 21

Application

Application	output of 3D image data
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3D camera

O3X100KG/E1/GM/S/60

Electrical data		
Operating voltage	[V]	20.4...28.8 DC; (EN 61131-2)
Current consumption	[mA]	< 500; (peak current pulsed; typical value: 160)
Power consumption	[W]	3.7
Protection class		III
Type of light		infrared light
Wave length	[nm]	850
Image sensor		PMD 3D ToF-Chip
Internal lighting		yes; (infrared: 850 nm invisible radiation LED)
Detection zone		
Operating distance	[mm]	50...3000
Note on operating distance		object size: 200 x 200 mm reflectivity: 18 %
Image resolution 3D	[px]	224 x 172
Angle of aperture 3D	[°]	60 x 45
Max. reading rate	[Hz]	20
Measuring/setting range		
Measuring range	[m]	< 30; (depending on settings, object size, and reflectivity)
Software / programming		
Parameter setting options		via PC with ifm Vision Assistant or XML-RPC
Interfaces		
Communication interface		Ethernet
Usage type		parameter setting; data transmission
Ethernet		
Number of Ethernet interfaces		1
Transmission standard		10Base-T; 100Base-TX
Transmission rate		10; 100
Protocol		TCP/IP
Factory settings		IP address: 192.168.0.69 subnet mask: 255.255.255.0 gateway IP address: 192.168.0.201
Operating conditions		
Ambient temperature	[°C]	-10...40
Note on ambient temperature		Housing: < 45° C see operating instructions
Storage temperature	[°C]	-40...85
Protection		IP 50
Max. immunity to extraneous light	[klx]	8

O3X100



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Tests / approvals

EMC	DIN EN 61000-6-3	radiation of interference / residential, commercial and light-industrial environments
	DIN EN 61000-6-2	immunity / industrial environments
Shock resistance	DIN EN 60068-2-27	50 g / (11 ms) not repetitive
	DIN EN 60068-2-27	40 g / (6 ms) repetitive
Vibration resistance	DIN EN 60068-2-6	2 g / (10...150 Hz)
	DIN EN 60068-2-64	2.3 g RMS / (10...500 Hz)
Laser protection class		1
Notes on laser protection	Caution:	laser light
	laser class:	1
	IEC 60825-1:2014	
Electrical protection	DIN EN 61010-2-201	electrical supply only via PELV circuits

Mechanical data

Weight	[g]	266.5
Dimensions	[mm]	80 x 43.5 x 21
Materials		housing: diecast zinc; front lens: PMMA

Remarks

Pack quantity	1 pcs.
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Electrical connection

Cable: 1 m, PVC

RJ45	Ethernet
1	TD +
2	TD -
3	RD +
6	RD -

Connector: 1 x RJ45



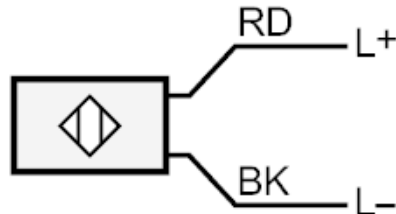
O3X100



3D camera

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Connection



Core colours :

BK = black

RD = red

Other data

Field of view size

measuring range / distance [m]	without lens distortion correction			
	Length [m]	Width [m]		
0.50	0.60	0.40		
1.00	1.10	0.80		
1.50	1.70	1.30		
2.00	2.30	1.70		
2.50	2.80	2.10		
3.00	3.40	2.50		

O3X100



3D camera

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Repeatability

measuring range / distance [m]	Exposure time [μ s]	Repeatability	Accuracy [mm]
		Measured distance values (1 Sigma) on grey objects	
		reflectivity 18 % [mm]	
0.1...0.25	200	± 5	± 5
0.25...0.5	400	± 5	± 5
0.5...1	1000	± 7	± 10
1...2	2000	± 15	± 20
2...3	2000	± 60	± 40

Repeatability

referred to

distance measurement of an individual pixel

Measured at

centre of image with median filter

Ambient temperature

20° C

Temperature drift

-10...+40° C [mm/K]

0.2

Relative accuracy

typical

± 4

measured at a reflectivity of 18% to 90%