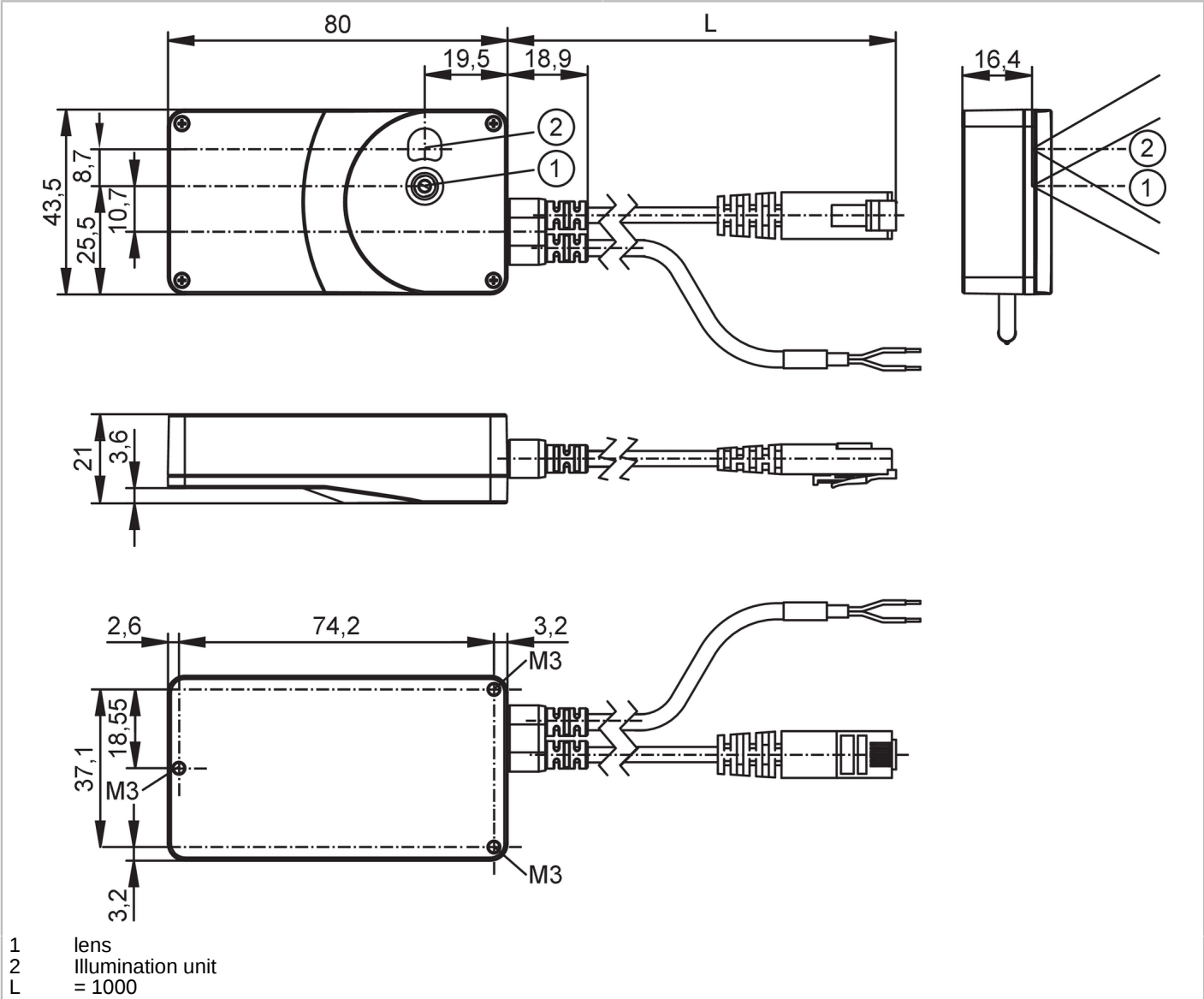


O3X120

ToF camera

O3X100KG/E1/GM/S/60



Product characteristics		
Type of light		Infrared light
Image resolution 3D	[px]	224 x 172
Angle of aperture 3D	[°]	58 x 44
Max. reading rate	[Hz]	20
Application		
Application		output of 3D image data
Electrical data		
Operating voltage tolerance	[%]	-15...20
Operating voltage	[V]	24 DC
Current consumption	[mA]	< 170; (mean value at 24 VDC; peak current pulsed: <350)
Power consumption	[W]	4
Protection class		III



ToF camera

O3XI00KG/E1/GM/S/60

Overvoltage category	II
Type of light	Infrared light
Wave length [nm]	850
Image sensor	PMD 3D ToF-Chip
Integrated lighting	yes; (infrared: 850 nm invisible radiation)

Monitoring range	
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 [°]	58 x 44
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

Tests / approvals		
EMC	DIN EN IEC 61000-6-4	radiation of interference
	DIN EN IEC 61000-6-2	noise 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	

O3X120



ToF camera

O3XI00KG/E1/GM/S/60

Notes on laser protection	Caution:	invisible laser radiation
	laser class:	1
		IEC 60825-1:2014
		Complies with 21 CFR 1040.10 except for conformance with IEC 60825-1 Ed. 3, as described in Laser Notice No. 56, dated May 8, 2019.
Electrical safety	DIN EN IEC 61010-2-201	electrical supply only via PELV circuits
MTTF	[years]	59

Mechanical data

Weight	[g]	241.1
Dimensions	[mm]	80 x 43.5 x 21
Material	housing: diecast zinc; front lens Illu: PMMA	

Remarks

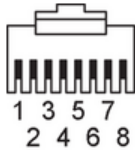
Pack quantity	1 pcs.
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Electrical connection

Cable: 1 m, PVC

Electrical connection - Ethernet RJ45 connector

Connector: 1 x RJ45; Contacts: 8

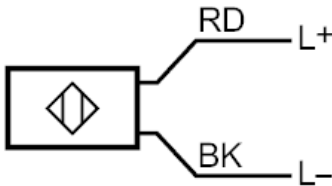


RJ45_Steckverbinder

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

Electrical connection - supply voltage

Connection



BK =	Core colors :
RD =	black
	red

O3X120



ToF camera

O3XI00KG/E1/GM/S/60

Other data

Field of view size

	without lens distortion correction		
Measuring range / distance [m]	Length [m]	Width [m]	
0.50	0.50	0.40	
1.00	1.10	0.80	
1.50	1.60	1.20	
2.00	2.20	1.70	
2.50	2.70	2.10	
3.00	3.30	2.50	

Repeatability

Measuring range / distance [m]	Exposure time [μs]	Repeatability	Accuracy [mm]
		Measured distance values (1 Sigma) on grey objects	
		reflectivity 18 % [mm]	
0.1...0.25	200	± 4	± 5
0.25...0.5	400	± 4	± 5
0.5...1	1000	± 6	± 10
1...2	2000	± 12	± 20
2...3	2000	± 50	± 40

Repeatability

based on

distance measurement of an individual pixel

Measured at

center 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%