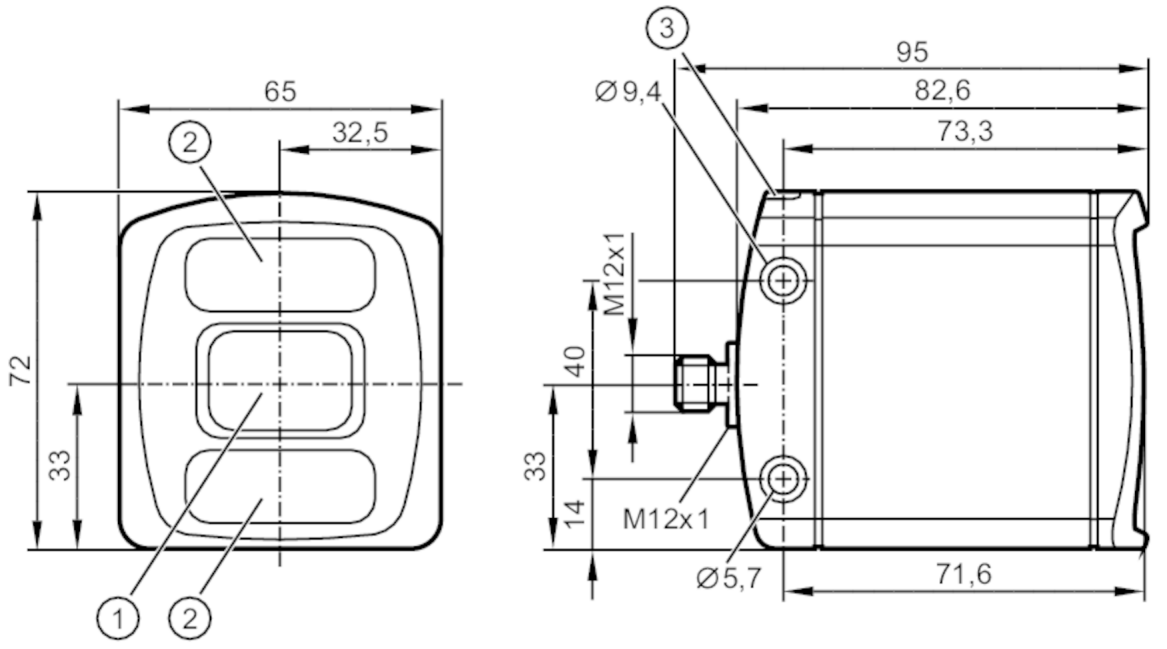
O3D302

3D sensor

O3DIRDKG/E1/GM/S/60



1 lens
2 Illumination unit
3 LED 2-colour yellow/green

Product characteristics		
Image resolution 3D	[px]	176 x 132
Angle of aperture 3D	[°]	60 x 45; (nominal value without lens distortion correction)
Max. reading rate	[Hz]	25
Application		
Application		dimensioning of the object; completeness monitoring; Level monitoring; distance monitoring; volume monitoring
Electrical data		
Operating voltage	[V]	20.4...28.8 DC; (EN 61131-2)
Current consumption	[mA]	< 2400; (peak current pulsed; typical value: 420; maximum value: 1600)
Power consumption	[W]	10; (typical value)
Protection class		III
Image sensor		PMD 3D ToF-Chip
Internal lighting		yes; (infrared: 850 nm invisible radiation LED)
Inputs / outputs		
Number of inputs and outputs		Number of digital inputs: 2; Number of digital outputs: 3; Number of analogue outputs: 1
Inputs		
Trigger		24 V PNP/NPN (IEC 61131-2 Typ 3)
Number of digital inputs		2
Input circuit of digital inputs		24 V PNP/NPN; (configurable; IEC 61131-2 Typ 3)

O3D302

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Outputs		
Total number of outputs		3
Number of digital outputs		3; (configurable)
Output function		24 V PNP/NPN; (EN 61131-2)
Max. voltage drop switching output DC	[V]	1
Max. current load per output	[mA]	100
Number of analogue outputs		1
Analogue current output	[mA]	4...20
Max. load	[Ω]	500
Analogue voltage output	[V]	0...10
Min. load resistance	[Ω]	10000
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes
Detection zone		
Operating distance	[mm]	300...8000
Note on operating distance		object size: 200 x 200 mm
		reflectivity: 18 %
Image resolution 3D	[px]	176 x 132
Angle of aperture 3D	[°]	60 x 45; (nominal value without lens distortion correction)
Max. reading rate	[Hz]	25
Measuring/setting range		
Measuring range	[m]	< 30
Software / programming		
Parameter setting options		via PC with ifm Vision Assistant
Interfaces		
Communication interface		Ethernet
Ethernet		
Number of Ethernet interfaces		1
Transmission standard		10Base-T; 100Base-TX
Transmission rate		10; 100
Protocol		TCP/IP; PROFINET IO; EtherNet/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...50
Storage temperature	[°C]	-40...85
Protection		IP 65; IP 67
Max. immunity to extraneous light	[klx]	8; (with reduced measuring accuracy and repeatability: < 100)

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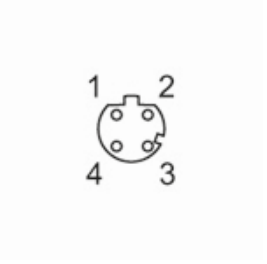
Tests / approvals			
EMC		DIN EN 61000-6-4	radiation of interference / industrial environments
		DIN EN 61000-6-2	immunity / industrial environments
Shock resistance		DIN EN 60068-2-27	50 g / (11 ms) not repetitive
		DIN EN 60068-2-27	40 g / (6 ms) repetitive
Vibration resistance		DIN EN 60068-2-6	2 g / (10...150 Hz)
		DIN EN 60068-2-64	2.3 g RMS / (10...500 Hz)
Photobiological safety		exempt group; (DIN EN 62471)	
Electrical protection		DIN EN 61010-2-201	electrical supply only via PELV circuits
MTTF	[years]	43.08	
Mechanical data			
Weight	[g]	772.35	
Dimensions	[mm]	72 x 65 x 82.6	
Materials		housing: diecast aluminium; front pane: Gorilla Glass; function display: PA	
Displays / operating elements			
Display		function	2 x LED, green Ethernet operation
		switching status	2 x LED, yellow OUT 1 OUT 2
Accessories			
Items supplied		Protective covers	
Remarks			
Pack quantity		1 pcs.	

Electrical connection - Ethernet

Connector: 1 x M12; coding: D



1	TD +
2	RD +
3	TD -
4	RD -

O3D302

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Electrical connection - Process connection

Connector: 1 x M12; coding: A

1	U+
2	trigger input
3	GND
4	switching output 1 (digital or analogue)
5	switching output 3 Ready
6	switching output 2 (digital)
7	switching input 1
8	switching input 2

Other data

field of view size with lens distortion correction

measuring range / distance [m]	Length [m]	Width [m]		
0.50	0.37	0.50		
1.00	0.75	1.00		
2.00	1.50	2.00		
3.00	2.25	3.00		
4.00	3.00	4.00		
5.00	3.75	5.00		