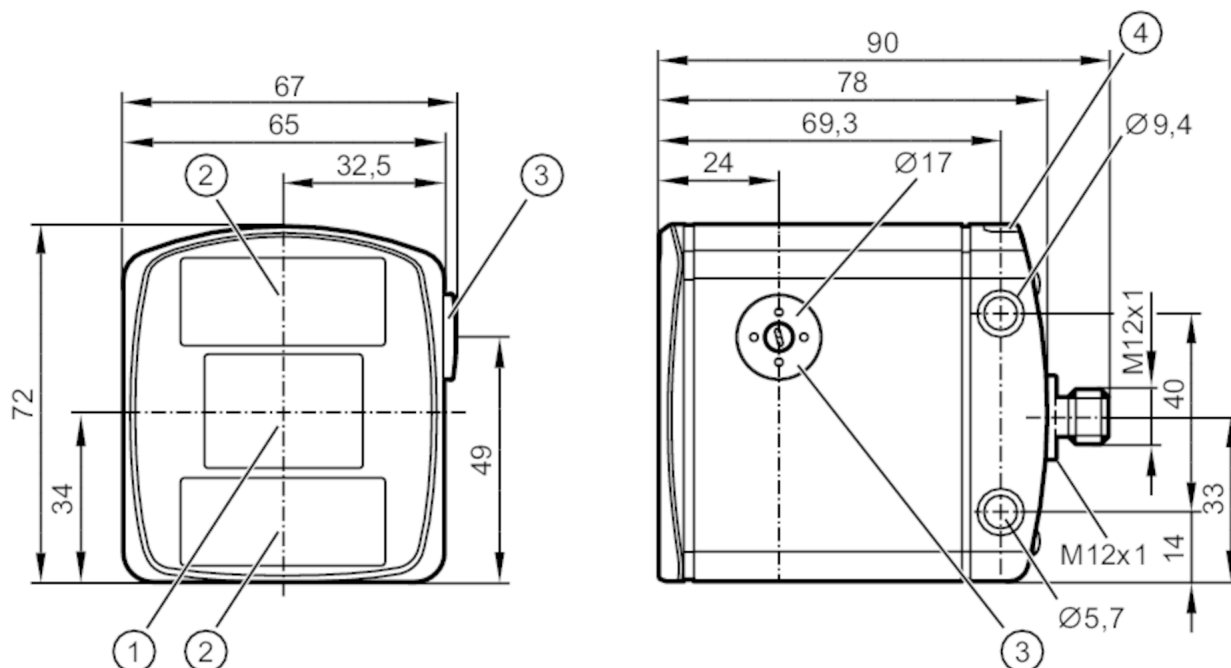


O3D310



3D sensor

O3DIRDKG/E1/GM/T/40



- 1 lens
- 2 illumination unit
- 3 focus adjustment screw
- 4 LED 2-colour yellow/green



Product characteristics

Image resolution 3D	[px]	176 x 132
Angle of aperture 3D	[°]	40 x 30; (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
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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
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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)



3D sensor

O3DIRDKG/E1/GM/T/40

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...10000
Note on operating distance	object size: 200 x 200 mm
	reflectivity: 18 %
Image resolution 3D [px]	176 x 132
Angle of aperture 3D [°]	40 x 30; (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; IP 69K
Max. immunity to extraneous light [klx]	8; (with reduced measuring accuracy and repeatability: < 100)

O3D310



3D sensor

O3DIRDKG/E1/GM/T/40

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]	1217.5
Dimensions	[mm]	72 x 67.1 x 82.6
Materials	housing: stainless steel (316L/1.4404); front pane: PMMA; 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	USB memory stick with software and documentation	
	Protective covers	
Remarks		
Pack quantity	1 pcs.	
Electrical connection - Ethernet		
Connector: 1 x M12; coding: D		
		
1	TD +	
2	RD +	
3	TD -	
4	RD -	



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

O3D310

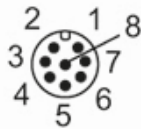


3D sensor

O3DIRDKG/E1/GM/T/40

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	0.26	0.35		
1.00	0.52	0.69		
2.00	1.04	1.39		
3.00	1.56	2.08		
4.00	2.08	2.78		
5.00	2.61	3.47		