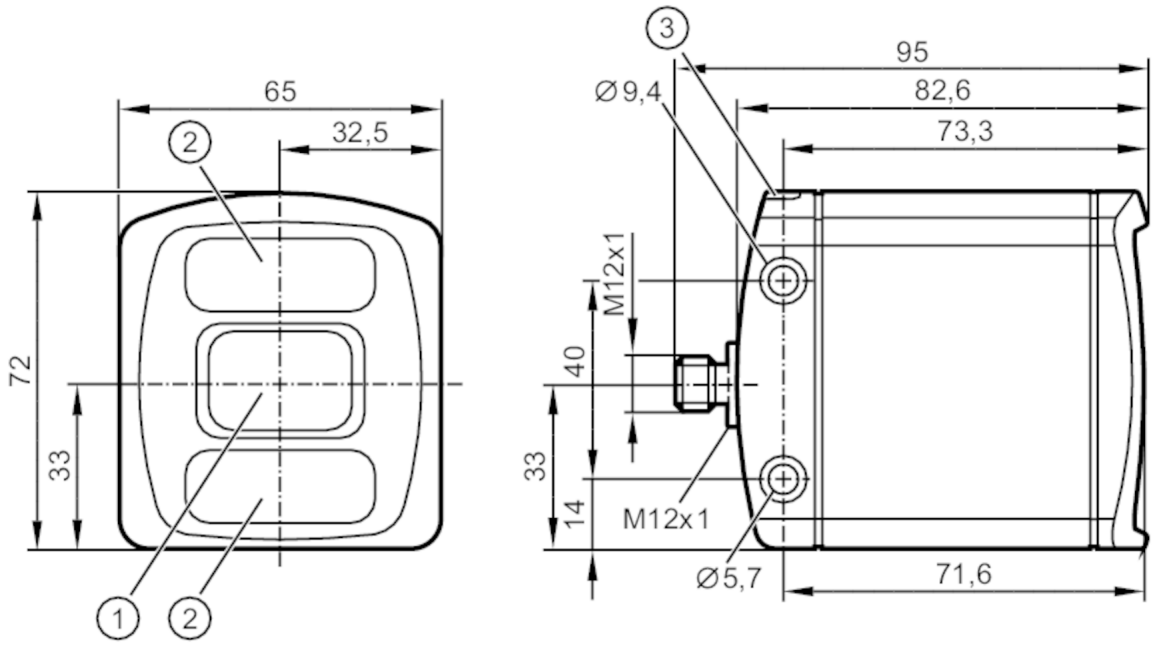
O3D303

ToF camera

O3DIRDKG/E1/GM/S/60



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

Product characteristics		
Image resolution 3D	[px]	352 x 264
Angle of aperture 3D	[°]	60 x 45; (nominal value without lens distortion correction)
Max. reading rate	[Hz]	25
Housing		rectangular
Application		
Application		output of 3D image data
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 outputs: 2
Inputs		
Trigger		24 V PNP/NPN (IEC 61131-2 Typ 3)
Outputs		
Total number of outputs		2

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Number of digital outputs		2; (configurable)
Output function		24 V PNP/NPN; (EN 61131-2)
Max. current load per output	[mA]	100
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]	352 x 264
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 or XML-RPC
Interfaces		
Communication interface		Ethernet
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...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)

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 safety	DIN EN 61010-2-201	electrical supply only via PELV circuits
MTTF [years]	45.02	

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Mechanical data		
Weight [g]	766.95	
Housing	rectangular	
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

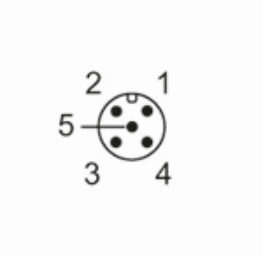
Connector: 1 x M12; coding: D



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

Electrical connection - Process connection

Connector: 1 x M12; coding: A



1	U+
2	trigger input
3	GND
4	switching output 1 Ready
5	switching output 2 cascading

O3D303

ToF camera

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Other data

Field of view size

	without lens distortion correction		with lens distortion correction	
measuring range / distance [m]	Length [m]	Width [m]	Length [m]	Width [m]
0.50	0.40	0.56	0.37	0.50
1.00	0.80	1.13	0.75	1.00
2.00	1.60	2.26	1.50	2.00
3.00	2.40	3.39	2.25	3.00
4.00	3.20	4.52	3.00	4.00
5.00	4.00	5.65	3.75	5.00