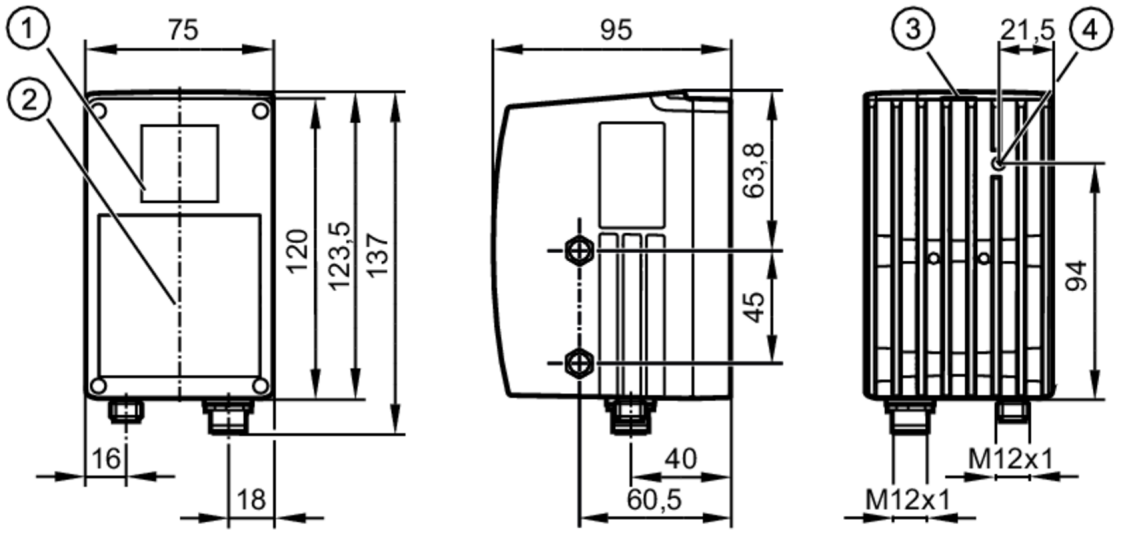
O3D200

3D sensor

PMD 3D SENSOR

For 8-pole sockets the core colours are not standardised.
Please note the wiring of the sensor and the sockets (see data sheet).



1 lens
2 Illumination unit
3 Display / pushbuttons / LEDs
4 focus adjustment screw

Product characteristics		
Image resolution 3D	[px]	64 x 48
Angle of aperture 3D	[°]	40 x 30
Max. reading rate	[Hz]	20
Electrical data		
Operating voltage tolerance	[%]	10
Operating voltage	[V]	24 DC
Current consumption	[mA]	peak current pulsed: 3250; typical value: 960
Power consumption	[W]	16
Protection class		III
Image sensor		PMD 3D ToF-Chip
Internal lighting		yes; (infrared: 850 nm invisible radiation LED class 1)
Inputs / outputs		
Number of inputs and outputs		Number of digital inputs: 2; Number of digital outputs: 2
Inputs		
Trigger		24 V PNP (IEC 61131-2 Typ 1)
Number of digital inputs		2

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Input circuit of digital inputs		24 V PNP; (configurable; IEC 61131-2 Typ 1)
Outputs		
Total number of outputs		2
Number of digital outputs		2; (configurable)
Output function		24 V PNP
Max. voltage drop switching output DC	[V]	1
Max. current load per output	[mA]	100
Analogue current output	[mA]	4...20
Max. load	[Ω]	300
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		
Image resolution 3D	[px]	64 x 48
Angle of aperture 3D	[°]	40 x 30
Max. reading rate	[Hz]	20
Software / programming		
Parameter setting options		via two pushbuttons and 10-segment display or via PC / notebook with operating software
Interfaces		
Communication interface		Ethernet
Ethernet		
Number of Ethernet interfaces		1
Transmission standard		10Base-T; 100Base-TX
Transmission rate		10; 100
Factory settings		IP address: 192.168.0.69
		subnet mask: 255.255.255.0
		gateway IP address: 192.168.0.201
		MAC address: see type label
Operating conditions		
Ambient temperature	[°C]	-10...50
Storage temperature	[°C]	-40...85
Protection		IP 67
Tests / approvals		
MTTF	[years]	55
Mechanical data		
Weight	[g]	1179
Dimensions	[mm]	123.5 x 75 x 95
Materials		housing: diecast aluminium; front pane: PMMA; display window: PC

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Displays / operating elements		
Display	switching status	4 x LED, yellow
		4 x LED, green
		10-segment display, 4-digit

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	0 V
4	OUT 1 / analogue output
5	Ready
6	OUT 2
7	IN 1 / switching input 1
8	IN 2 / switching input 2

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Other data

Field of view size

measuring range / distance	Length	Width	center pixel [mm]	minimum object surface
500	420	290	7 x 7	13 x 13
1000	840	580	13 x 13	26 x 26
1500	1260	870	20 x 20	39 x 39
2000	1680	1160	26 x 26	53 x 53
2500	2100	1450	33 x 33	66 x 66
3000	2520	1740	39 x 39	79 x 79
3500	2940	2030	46 x 46	92 x 92
4000	3360	2320	53 x 53	105 x 105
4500	3780	2610	59 x 59	118 x 118
5000	4200	2900	66 x 66	131 x 131
5500	4620	3190	72 x 72	144 x 144
6000	5040	3480	79 x 79	158 x 158
			For reliable detection the object must be detected by at least 2 x 2 pixels	