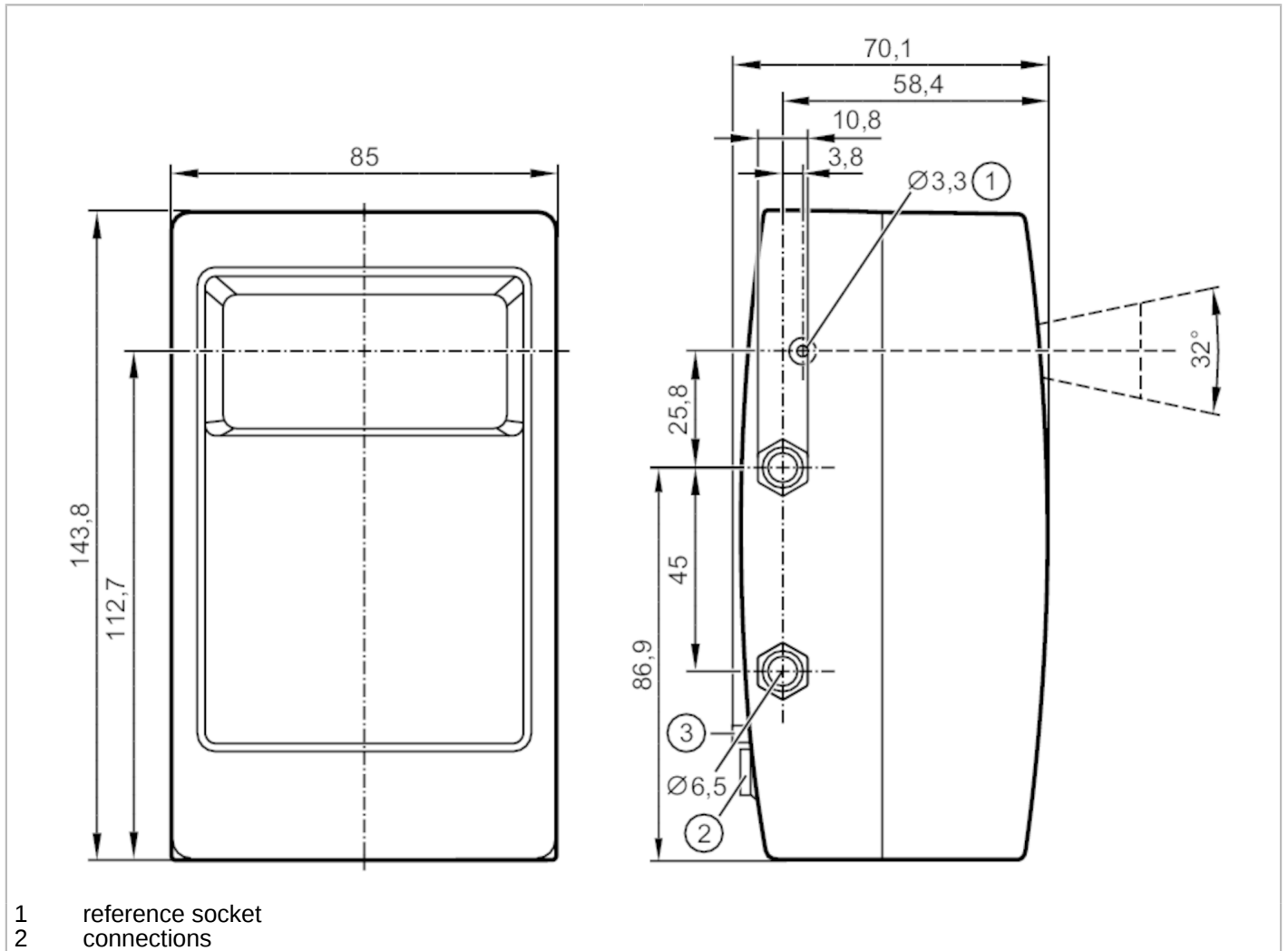


O3M161



3D sensor for mobile applications

O3MXOOKG/CAN/E3/GM/95



Product characteristics

Type of light		infrared light
Image resolution 3D	[px]	64 x 16
Angle of aperture 3D	[°]	95 x 32
Communication interface		CAN; Ethernet
Dimensions	[mm]	143.8 x 85 x 70.1

Application

Application	output of 3D image data
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Electrical data

Operating voltage	[V]	9...32 DC
Current consumption	[mA]	< 400
Power consumption	[W]	3.6
Protection class		III
Type of light		infrared light
Image sensor		PMD 3D ToF-Chip



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Detection zone			
Image resolution 3D	[px]	64 x 16	
Angle of aperture 3D	[°]	95 x 32	
Image repetition frequency 3D	[Hz]	25 / 33 / 50	
Software / programming			
Parameter setting options		via PC with ifm Vision Assistant	
Interfaces			
Communication interface		CAN; Ethernet	
Number of CAN interfaces		1	
Number of Ethernet interfaces		1	
Note on interfaces		Output of preprocessed data via CAN interface	
CAN			
Transmission rate		250 (125...1000) kBaud	
Protocol		CANopen; UDS	
Factory settings		J1939 interface: Default	
		device address (ECU): 239	
		UDS interface: 500 (125...1000) kBaud	
Usage type		parameter setting; data transmission	
Ethernet			
Protocol		UDP/IP	
Factory settings		IP address: 192.168.1.1	
		subnet mask: 255.255.255.0	
		target IP address: 255.255.255.255	
		target port: 42000	
Usage type		data transmission	
Operating conditions			
Ambient temperature	[°C]	-40...85	
Note on ambient temperature		with high image repetition frequency of 25 Hz	
Storage temperature	[°C]	-40...105	
Protection		IP 67; IP 69K; (with mounted connectors or protective caps)	
Max. immunity to extraneous light	[klx]	120	
Tests / approvals			
EMC		DIN EN 61000-6-4	industrial environments
		DIN EN 61000-6-2	industrial environments
Shock resistance		DIN EN 60068-2-27	30 g / 6 ms bump
Vibration resistance		DIN EN 60068-2-6	10 g / 10...500 Hz swept sine
		DIN EN 60068-2-64	10...2000 Hz noise
Electrical protection		DIN EN 61010-2-201	electric shock / electrical supply only via PELV circuits
MTTF	[years]		78

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Mechanical data

Weight	[g]	1022
Dimensions	[mm]	143.8 x 85 x 70.1
Materials		diecast aluminium

Accessories

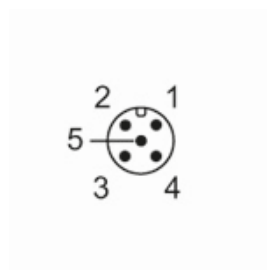
Items supplied	Protective covers
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Remarks

Remarks	The illumination unit is required for the operation of the sensor. Only use original ifm cables to connect sensor and illumination unit. The function-specific performance values can be found in the applicable documentation.
Pack quantity	1 pcs.

Electrical connection - CAN

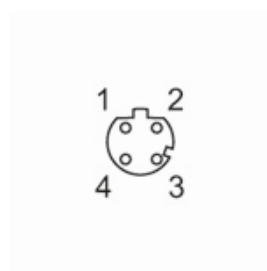
Connector: 1 x M12



1	Screen
2	9...32 V
3	GND
4	CAN-H
5	CAN-L

Electrical connection - Ethernet

Connector: 1 x M12



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



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Other data

field of view size with lens distortion correction

measuring range / distance [m]	Length [m]	Width [m]
5	11	2.9
10	21.8	5.7
15	32.7	8.6
30	65	17

measuring range for object recognition

object type / object size	application condition	Measuring range [m]
vehicle	sunny (~120 klx)	0.25...21
	cloudy (~20 klx)	0.25...30
	darkness	0.25...35
person	sunny (~120 klx)	0.25...9
	cloudy (~20 klx)	0.25...12
	darkness	0.25...15
retroreflector	sunny (~120 klx)	1...29
	cloudy (~20 klx)	1...42
	darkness	1...55
software variant:	OD object recognition	

measuring range for ROI

application condition	Measuring range [m]
	typical value
sunny (~120 klx)	0.25...8
cloudy (~20 klx)	0.25...11
darkness	0.25...21
software variant :	DI / BF distance image basic functions

measuring accuracy

application condition	measuring accuracy [cm]
	typical value
sunny (~120 klx)	± 15
cloudy (~20 klx)	± 10
darkness	± 5
software variant :	DI / BF distance image basic functions