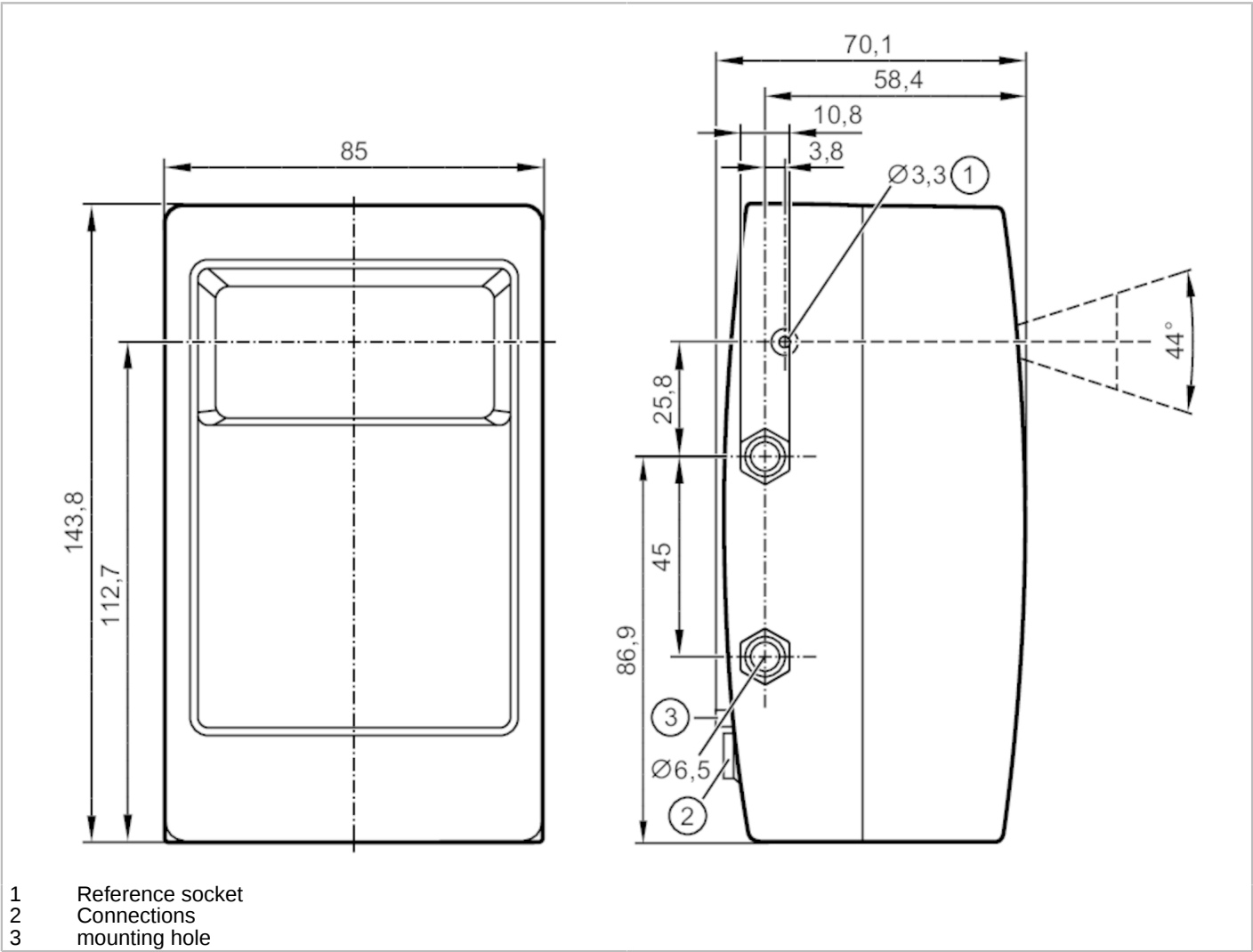


O3M171



3D sensor for mobile applications

O3MXOOKG/CAN/E3/GM/97



Product characteristics

Type of light	Infrared light
Image resolution 3D [px]	64 x 16
Angle of aperture 3D [°]	97 x 44
Image repetition frequency 3D [Hz]	25 / 33 / 50

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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Monitoring range		
Image resolution 3D	[px]	64 x 16
Angle of aperture 3D	[°]	97 x 44
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 25Hz
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 safety	DIN EN 61010-2-201	electric shock / electrical supply only via PELV circuits
MTTF	[years]	78
Mechanical data		
Weight	[g]	1095.7
Dimensions	[mm]	143.8 x 85 x 70.1

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Material	housing: diecast aluminium; disc: gorilla glass
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Accessories

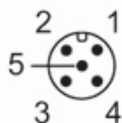
Items supplied	Protective covers
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Remarks

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; coding: A



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

Electrical connection - Ethernet

Connector: 1 x M12; coding: D



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

Other data

Field of view size with lens distortion correction

Measuring range / distance [m]	Length [m]	Width [m]
5	11.3	4.0
10	22.6	8.1
15	33.9	12.1
30	67.8	24.2



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measuring range for object recognition

object type / object size	application condition	Measuring range [m]
vehicle	sunny (~120 klx)	0.25...17
	cloudy (~20 klx)	0.25...25
	darkness	0.25...29
person	sunny (~120 klx)	0.25...7
	cloudy (~20 klx)	0.25...10
	darkness	0.25...12
retroreflector	sunny (~120 klx)	1...24
	cloudy (~20 klx)	1...35
	darkness	1...46
software variant:		OD object recognition

measuring range for ROI

application condition	Measuring range [m]
	typical value
sunny (~120 klx)	0.25...7
cloudy (~20 klx)	0.25...9
darkness	0.25...17
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