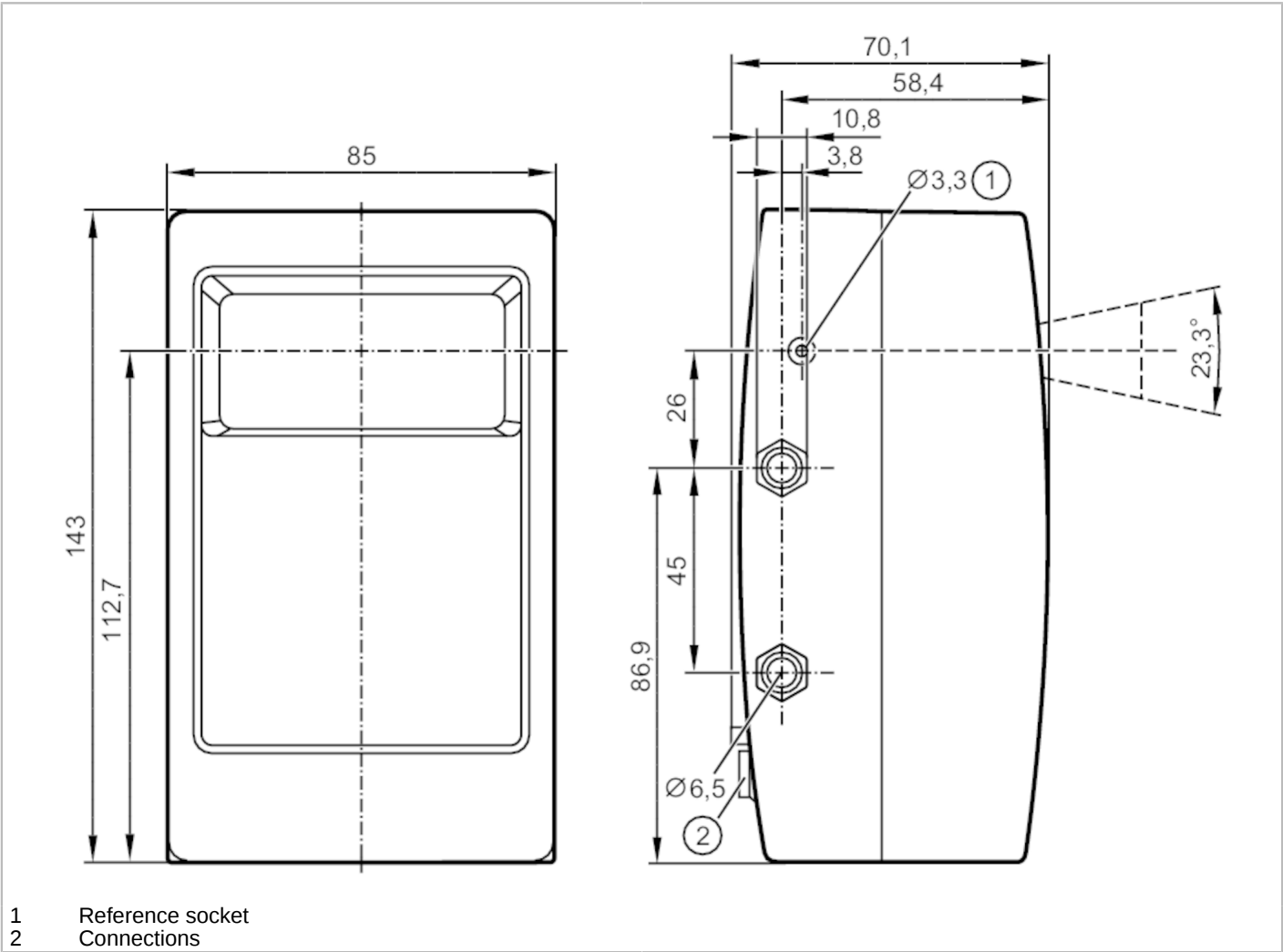


O3M151



3D sensor for mobile applications

O3MXOOKG/CAN/E3/GM/70



Product characteristics

Type of light		Infrared light
Image resolution 3D	[px]	64 x 16
Angle of aperture 3D	[°]	70 x 23
Image repetition frequency 3D	[Hz]	25 / 33 / 50

Application

Application	output of 3D image data
-------------	-------------------------

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



3D sensor for mobile applications

O3MXOOKG/CAN/E3/GM/70

Monitoring range		
Image resolution 3D	[px]	64 x 16
Angle of aperture 3D	[°]	70 x 23
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]	1087
Dimensions	[mm]	143 x 85 x 70.1

O3M151



3D sensor for mobile applications

O3MXOOKG/CAN/E3/GM/70

Material	housing: diecast aluminium; disc: gorilla glass
----------	---

Accessories

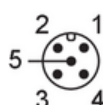
Items supplied	Protective covers
----------------	-------------------

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	7	2
10	14	4.1
15	21	6.5
30	42	12.2



3D sensor for mobile applications

O3MXOOKG/CAN/E3/GM/70

measuring range for object recognition

object type / object size	application condition	Measuring range [m]
vehicle	sunny (~120 klx)	0.25...30
	cloudy (~20 klx)	0.25...40
	darkness	0.25...50
person	sunny (~120 klx)	0.25...12
	cloudy (~20 klx)	0.25...16
	darkness	0.25...20
retroreflector	sunny (~120 klx)	1...40
	cloudy (~20 klx)	1...60
	darkness	1...80
software variant:		OD object recognition

measuring range for ROI

application condition	Measuring range [m]
	typical value
sunny (~120 klx)	0.25...12
cloudy (~20 klx)	0.25...15
darkness	0.25...30
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