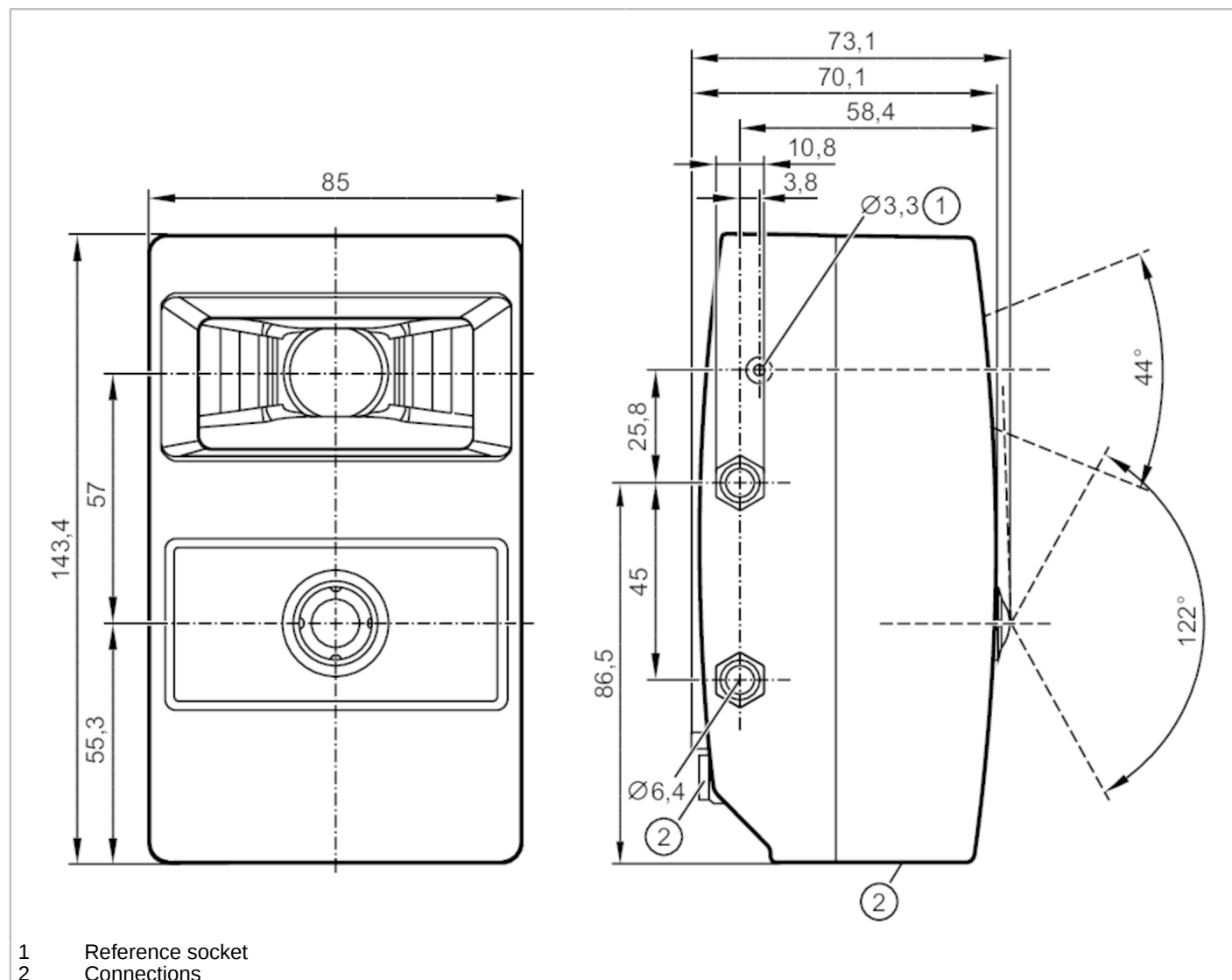


O3M271



3D sensor for mobile applications

O3MXOOKG/CAN/E3/GM/A1/97



Product characteristics

Type of light		Infrared light
Image resolution	[px]	640 x 480
Image resolution 3D	[px]	64 x 16
Angle of aperture	[°]	155 x 122
Angle of aperture 3D	[°]	97 x 44
Image repetition frequency	[Hz]	25
Image repetition frequency 3D	[Hz]	25 / 33 / 50

Application

Application	output of 3D image data; output of 2D image data
-------------	--

Electrical data

Operating voltage	[V]	9...32 DC
Current consumption	[mA]	< 600
Power consumption	[W]	4.6



3D sensor for mobile applications

O3MXOOKG/CAN/E3/GM/A1/97

Protection class	III	
Type of light	Infrared light	
Image sensor	PMD 3D ToF-Chip / 2D Chip	
Outputs		
Video output	PAL (720x576)	
Monitoring range		
Image resolution	[px]	640 x 480
Image resolution 3D	[px]	64 x 16
Angle of aperture	[°]	155 x 122
Angle of aperture 3D	[°]	97 x 44
Image repetition frequency	[Hz]	25
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	
Number of video interfaces (CVBS)	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
Max. relative air humidity	[%]	90; (non condensing)
Max. height above sea level	[m]	4000
Protection	IP 67; IP 69K; (with mounted connectors or protective caps)	



3D sensor for mobile applications

O3MXOOKG/CAN/E3/GM/A1/97

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...1000 Hz noise
Electrical safety	DIN EN 61010-2-201	electric shock / electrical supply only via PELV circuits
MTTF	[years]	58

Mechanical data

Weight	[g]	1154.8
Dimensions	[mm]	143.4 x 85 x 73.1
Material	housing: diecast aluminium; disc: gorilla glass	

Accessories

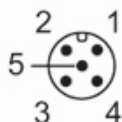
Items supplied	Protective covers
----------------	-------------------

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



3D sensor for mobile applications

O3MXOOKG/CAN/E3/GM/A1/97

Electrical connection - Ethernet

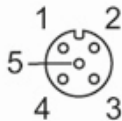
Connector: 1 x M12; coding: D



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

Electrical connection - Video

Connector: 1 x M12; coding: A



2	not used
3	GND
4	FBAS
5	not used

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



3D sensor for mobile applications

O3MXOOKG/CAN/E3/GM/A1/97

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