

O2D510



Object recognition sensor

O2DCRDKG/E1/E4/EF/GM/TB/S/16



- 1 lens
- 2 Illumination unit



Product characteristics

Type of light	RGBW
Image resolution [px]	1280 x 960
Max. reading rate [Hz]	40

Application

Special feature	polarisation filter
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Electrical data

Operating voltage [V]	18...30 DC
Current consumption [mA]	< 300; (24V DC; with switched outputs: < 400 mA)
Protection class	III
Reverse polarity protection	yes

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Type of light	RGBW				
Wave length [nm]	625; 525; 453				
Image sensor	CMOS image sensor black/white				
Inputs / outputs					
Number of inputs and outputs	Number of digital inputs: 1; Number of digital outputs: 1				
Inputs					
Trigger	external; 24 V PNP/NPN (IEC 61131-2 Typ 3); TCP/IP; PROFINET; internal				
Number of digital inputs	1				
Outputs					
Electrical design	PNP/NPN; (parameterisable)				
Number of digital outputs	1; (configurable)				
Max. voltage drop switching output DC [V]	1				
Max. current load per output [mA]	100				
Short-circuit protection	yes				
Type of short-circuit protection	pulsed				
Overload protection	yes				
Detection zone					
Field of view size [mm]	Operating distance	field of view			
	85	28 x 21			
	300	92 x 69			
	500	152 x 114			
	1000	302 x 227			
	1500	453 x 340			
	2000	603 x 452			
	2500	753 x 564			
Operating distance [mm]	> 85				
Image resolution [px]	1280 x 960				
Lens type	standard				
Polarisation filter available	yes				
Max. reading rate [Hz]	40				
Software / programming					
Parameter setting options	via PC with ifm Vision Assistant				
Interfaces					
Communication interface	Ethernet				
Ethernet					
Number of Ethernet interfaces	1				
Transmission standard	10Base-T; 100Base-TX				
Transmission rate	10 MBit/s; 100 MBit/s				
Protocol	TCP/IP; PROFINET				

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Factory settings	IP address: 192.168.0.69
	subnet mask: 255.255.255.0 (Class C)
	gateway IP address: 192.168.0.201
	MAC address: see type label
Usage type	parameter setting; data transmission

Operating conditions		
Ambient temperature	[°C]	-10...50
Storage temperature	[°C]	-40...70
Max. relative air humidity	[%]	90; (non condensing)
Max. height above sea level	[m]	4000
Protection		IP 65
Pollution degree		2

Tests / approvals		
EMC	EN IEC 61000-6-4 radiation of interference	industrial environments
	EN IEC 61000-6-2 immunity	industrial environments
Shock resistance	EN 60068-2-27	50 g 11 ms / not repetitive
	EN 60068-2-27	40 g 6 ms / repetitive
Vibration resistance	EN 60068-2-6	2 g (10 ... 150 Hz)
Photobiological safety		risk group 1; (EN 62471)
Electrical protection	EN IEC 61010-2-201	electrical supply only via PELV circuits

Mechanical data		
Weight	[g]	622.35
Type of mounting		screw mounting; (bore hole M4 x 7mm)
Dimensions	[mm]	45 x 45 x 86
Materials		housing: diecast zinc powder-coated; front pane: Gorillaglas; LED window: PC; pushbutton: POM
Sealing material		FKM
Tightening torque	[Nm]	2.1

Displays / operating elements		
Display	function	2 x LED, green
	function	2 x LED, yellow
	Multi-function button	2 x LED, green/yellow
Operating elements	1	Multi-function button

Accessories	
Accessories (optional)	Mounting accessories
	Protective panes

Remarks	
Pack quantity	1 pcs.

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Electrical connection - Ethernet

Connector: 1 x M12; coding: D; Moulded body: stainless steel; Sealing: FKM



1	TxD+
2	RxD+
3	TxD-
4	RxD-
	screen connected

Electrical connection - supply

Connector: 1 x M12; coding: L; Moulded body: stainless steel



1	24 V DC
2	not used / trigger input
3	GND
4	not used / Ready / OUT1
5	not used