



Object recognition sensor

O2UCRDKG/E1/E2/E4/IO/EF/GM/W/5A



- 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]	< 400; (18V DC typical)
Max. current consumption [mA]	< 800 (18V, with switched outputs , memory stick active)
Protection class	III



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Reverse polarity protection	yes	
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: 2	
Inputs		
Trigger	external; 24 V PNP/NPN (IEC 61131-2 Typ 3); TCP/IP; PROFINET; EtherNet/IP; IO-Link; internal	
Number of digital inputs	1	
Outputs		
Electrical design	PNP/NPN; (parameterisable)	
Number of digital outputs	2; (configurable)	
Max. voltage drop switching output DC [V]	2	
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]	distance	field of view
	15	17 x 13
	35	32 x 24
	85	69 x 52
	200	153 x 115
	500	373 x 280
	1000	739 x 554
	2000	1472 x 1104
	5000	3671 x 2753
Operating distance [mm]	> 15	
Image resolution [px]	1280 x 960	
Lens type	super wide angle	
Readable codes	Interleaved 2-of-5; Industrial 2-of-5; Code 39; Code 93; Code 128; Pharmacode; Codabar; EAN8; EAN8 Add-On 2; EAN8 Add-On 5; EAN13; EAN13 Add-On 2; EAN13 Add-On 5; UPC-A; UPC-A Add-On 2; UPC-A Add-On 5; UPC-E; UPC-E Add-On 2; UPC-E Add-On 5; GS1 DataBar Omnidirectional; GS1 DataBar Truncated; GS1 DataBar Stacked; GS1 DataBar Stacked Omnidirectional; GS1 DataBar Limited; GS1 DataBar Expanded; GS1 DataBar Expanded Stacked; GS1 - 128; MSI Barcode; ECC200; PDF-417; QR; Micro-QR; Aztec Code; GS1 ECC200; GS1 QR Code; GS1 Aztec Code	
Code quality based on		ISO / IEC 15415
		ISO / IEC 15416
		AIM DPM
		ISO/IEC TR 29158
		SEMI T10
Legible fonts	Industrial; Document; OCR-A; OCR-B; Pharma; Semi; Universal; Dot Print	
Polarisation filter available	yes	
Omnidirectional reading	yes	



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Max. inclination to the image plane	[°]	45
Max. reading rate	[Hz]	40

Software / programming

Parameter setting options	Multi-function button; via PC with ifm Vision Assistant
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Interfaces

Communication interface	Ethernet; IO-Link
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Ethernet

Number of Ethernet interfaces	1
Transmission standard	10Base-T; 100Base-TX
Transmission rate	10 MBit/s; 100 MBit/s
Protocol	TCP/IP; PROFINET; EtherNet/IP
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

IO-Link

Transmission type	COM3 (230,4 kBaud)				
IO-Link revision	1.1				
Required master port type	A				
Supported DeviceIDs	<table> <tr> <th>Type of operation</th><th>DeviceID</th></tr> <tr> <td>default</td><td>1699</td></tr> </table>	Type of operation	DeviceID	default	1699
Type of operation	DeviceID				
default	1699				

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		3

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]	598.1
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	

O2U542



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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

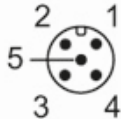
Connector: 1 x M12; coding: D; Moulded body: stainless steel; Sealing: FKM



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

Electrical connection - supply

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



1	U+
2	trigger input
3	0 V
4	switching output 1 configurable / IO-Link
5	switching output 2 configurable / trigger output with external illumination