

O2U540



Object recognition sensor

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



- 1 lens
- 2 Illumination unit



Product characteristics

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

Application

System	polarization 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 DC, with switched outputs, memory stick active)
Protection class	III

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Reverse polarity protection	yes
Overvoltage category	II
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 outputs: 2
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Inputs

Trigger	external; 24 V PNP/NPN (IEC 61131-2 Typ 3); TCP/IP; PROFINET; EtherNet/IP; IO-Link; internal
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Outputs

Electrical design	PNP/NPN; (configurable)
Number of digital outputs	2; (configurable)
Output function	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	yes (non-latching)
Overload protection	yes

Monitoring range

Field of view size [mm]	distance	Field of view
	15	-
	35	-
	85	28 x 11
	200	62 x 47
	500	152 x 114
	1000	302 x 227
	2000	602 x 452
	5000	1502 x 1127
Operating distance [mm]	> 85	
Image resolution [px]	1280 x 960	
Lens type	standard	
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	
Text recognition	yes	



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Polarization filter available	yes
Omnidirectional reading	yes
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	
Profiles	Common - I&D	Identification and Diagnosis
	Function	Locator
	Function	ProductURI
Required master port class	A	
Min. process cycle time [ms]	4.2	
Supported DeviceIDs	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
Degree of soiling	3

Tests / approvals

EMC	EN IEC 61000-6-4 radiation of interference	industrial environments
	EN IEC 61000-6-2 noise 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 safety	EN IEC 61010-2-201	electrical supply only via PELV circuits
MTTF [years]	54	

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UL approval	Ta	-10...50 °C
	Enclosure type	1
	voltage supply	Limited Energy
	File number UL	E364788

Mechanical data		
Weight	[g]	627.6
Type of mounting	screw mounting; (bore hole M4 x 7mm)	
Dimensions	[mm]	45 x 45 x 86
Material	housing: diecast zinc powder-coated; front lens: Gorillaglas; LED window: PC; pushbuttons: 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.	

Electrical connection - Ethernet

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



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

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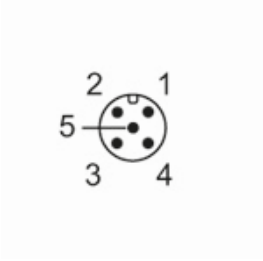


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Electrical connection - supply

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