

O2I501



1D / 2D code readers

O2IIRDKG/E1/E2/EF/VF/TB/S



- 1 lens
- 2 illumination unit
- 3 laser spots



Product characteristics

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

Electrical data

Operating voltage [V]	18...30 DC
Current consumption [mA]	< 300; (24V DC typical)
Max. current consumption [mA]	650; (18V DC, with switched outputs, memory stick active)
Protection class	III
Reverse polarity protection	yes

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Overvoltage category	II			
Type of light	Infrared light			
Wave length [nm]	850			
Image sensor	CMOS image sensor black/white			
Inputs / outputs				
Number of inputs and outputs	Number of digital outputs: 2			
Inputs				
Trigger	external; 24 V PNP/NPN (IEC 61131-2 Typ 3); TCP/IP; EtherNet/IP; internal			
Outputs				
Total number of outputs	2			
Electrical design	PNP/NPN; (configurable)			
Number of digital outputs	2; (configurable)			
Output function	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	yes (non-latching)			
Overload protection	yes			
Monitoring range				
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		
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			
Bewegungsgeschwindigkeit [m/s]	7			
Omnidirectional reading	yes			
Max. inclination to the image plane [°]	45			



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Max. reading rate	[Hz]	40
Software / programming		
Parameter setting options	teach button; 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; 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	
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)
Laser protection class	1	
Notes on laser protection	Caution:	Laser light
	laser class:	1
		EN / IEC60825-1:2007
		EN / IEC60825-1:2014
		Complies with 21 CFR 1040.10 except for compliance with IEC 60825-1 Ed. 3, as described in Laser Notice No. 56 dated 8 May 2019.
Photobiological safety	exempt group; (EN 62471)	
Electrical safety	EN IEC 61010-2-201	electrical supply only via PELV circuits
MTTF	[years]	53
UL approval	Ta	-10...50 °C
	Enclosure type	1
	voltage supply	Limited Energy
	File number UL	E364788
Mechanical data		
Weight	[g]	599.5

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Type of mounting	screw mounting; (bore hole M4 x 7 mm)
Dimensions [mm]	45 x 45 x 96
Material	housing: diecast zinc powder-coated; front lens: gorilla glass; 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
	Teach-Funktion	1 x LED, green
	Teach-Funktion	1 x LED, yellow
Operating elements	1 x	Teach-Taste

Accessories

Accessories (optional)	Operating software
	Mounting accessories
	Adapter cable
	protective and filter windows

Remarks

Pack quantity	1 pcs.
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Electrical connection

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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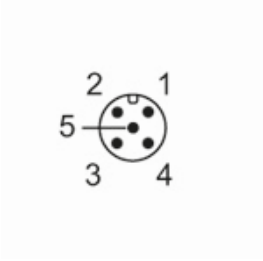


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Electrical connection - supply

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



1	U+
2	trigger input
3	0 V
4	Switching output 1 configurable
5	Switching output 2 configurable / trigger output with external illumination