



1D/2D code readers

O2IRRDKG/E1/E2/EF/VF/TB/W



- 1 lens
- 2 illumination unit
- 3 laser spots



Product characteristics		
Type of light		red light
Image resolution	[px]	1280 x 960
Max. reading rate	[Hz]	40
Application		
Special feature		polarisation filter
Electrical data		
Operating voltage	[V]	18...30 DC
Current consumption	[mA]	< 320; (24V DC typical)
Max. current consumption	[mA]	800; (18V DC, with switched outputs, memory stick active)



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Protection class	III
Reverse polarity protection	yes
Type of light	red light
Wave length [nm]	617
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; EtherNet/IP; internal
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Outputs

Total number of outputs	2
Electrical design	PNP/NPN; (parameterisable)
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	pulsed
Overload protection	yes

Detection zone

Field of view size	[mm]	Operating distance	field of view		
		35	25 x 19		
		300	184 x 138		
		500	304 x 228		
		1000	604 x 453		
Operating distance	[mm]	> 35			
Image resolution	[px]	1280 x 960			
Lens type		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			
Text recognition		yes			
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	teach button; via PC with ifm Vision Assistant
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Interfaces

Communication interface	Ethernet
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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; 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
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)
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 61010-2-01	electrical supply only via PELV circuits
MTTF	[years]	58

Mechanical data

Weight	[g]	603
Type of mounting		screw mounting; (bore hole M4 x 7 mm)



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Dimensions	[mm]	45 x 45 x 96
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
	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 panes and filter panes

Remarks

Pack quantity	1 pcs.
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Electrical connection

Electrical connection - Ethernet

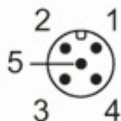
Connector: 1 x M12; coding: D; Moulded body: stainless steel; Sealing: FKM



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

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