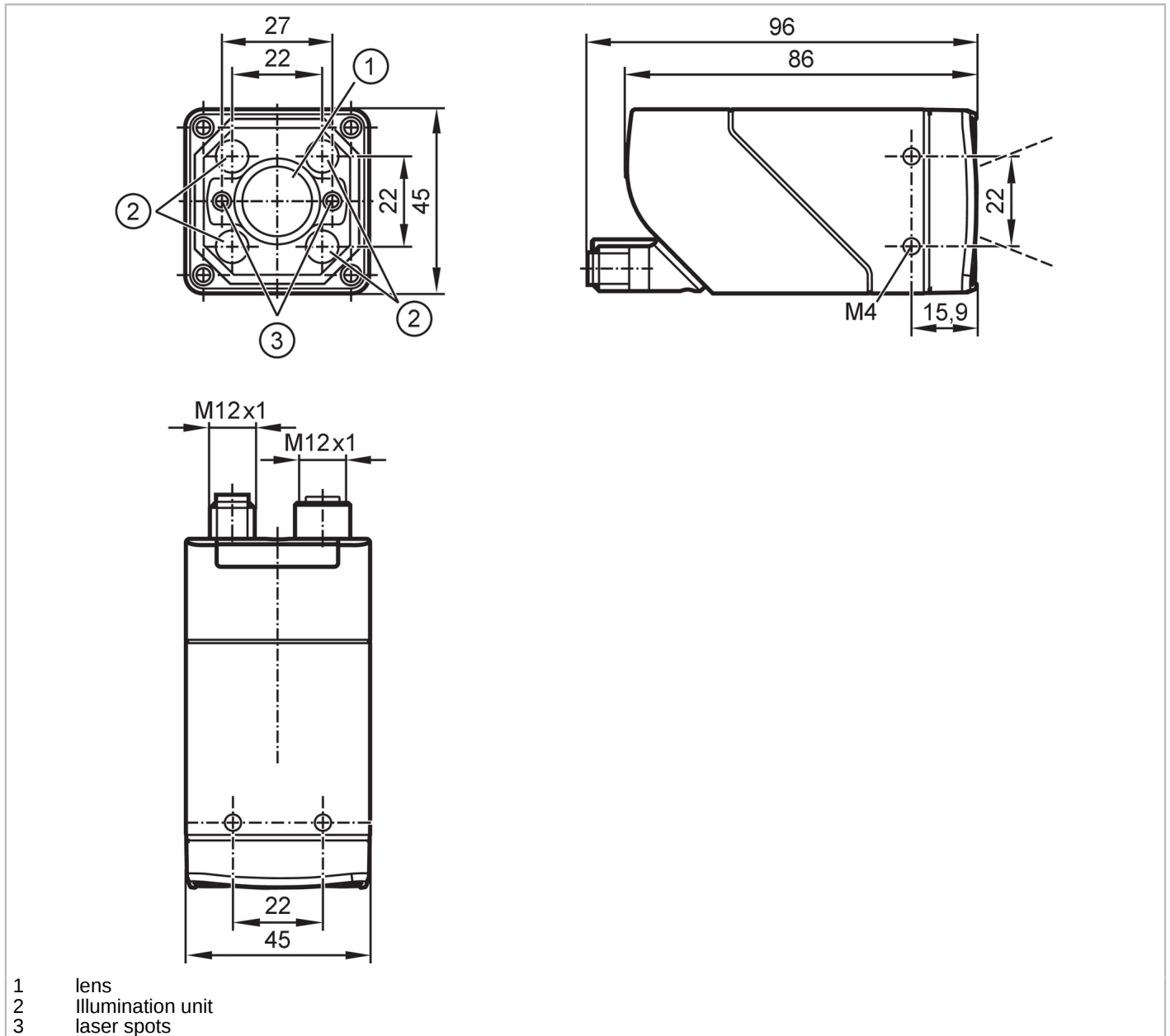


O2I500



1D/2D code readers

O2IRRDKG/E1/E2/EF/VF/TB/S



- 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) |
| Protection class | III |

O2I500



1D/2D code readers

O2IRRDKG/E1/E2/EF/VF/TB/S

| | |
|-----------------------------|-------------------------------|
| Reverse polarity protection | yes |
| Overvoltage category | II |
| 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 |
|------------------------------|------------------------------|

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; (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 | | |
| | 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 | | | |
| Polarisation filter available | yes | | | |
| Omnidirectional reading | yes | | | |

O2I500



1D/2D code readers

O2IRRDKG/E1/E2/EF/VF/TB/S

| | | |
|-------------------------------------|------|----|
| 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 |
|---------------------------|--|

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



1D/2D code readers

O2IRRDKG/E1/E2/EF/VF/TB/S

| Mechanical data | |
|------------------------|---|
| Weight [g] | 601 |
| Type of mounting | screw mounting; (bore hole M4 x 7 mm) |
| Dimensions [mm] | 45 x 45 x 96 |
| Materials | housing: diecast zinc powder-coated; front pane: gorilla glass; 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. |

Electrical connection

Electrical connection - Ethernet

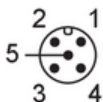
Connector: 1 x M12; coding: D; Contacts: 4; Moulded body: stainless steel; Sealing: FKM



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

Electrical connection - supply

Connector: 1 x M12; coding: A; Contacts: 5; 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 |