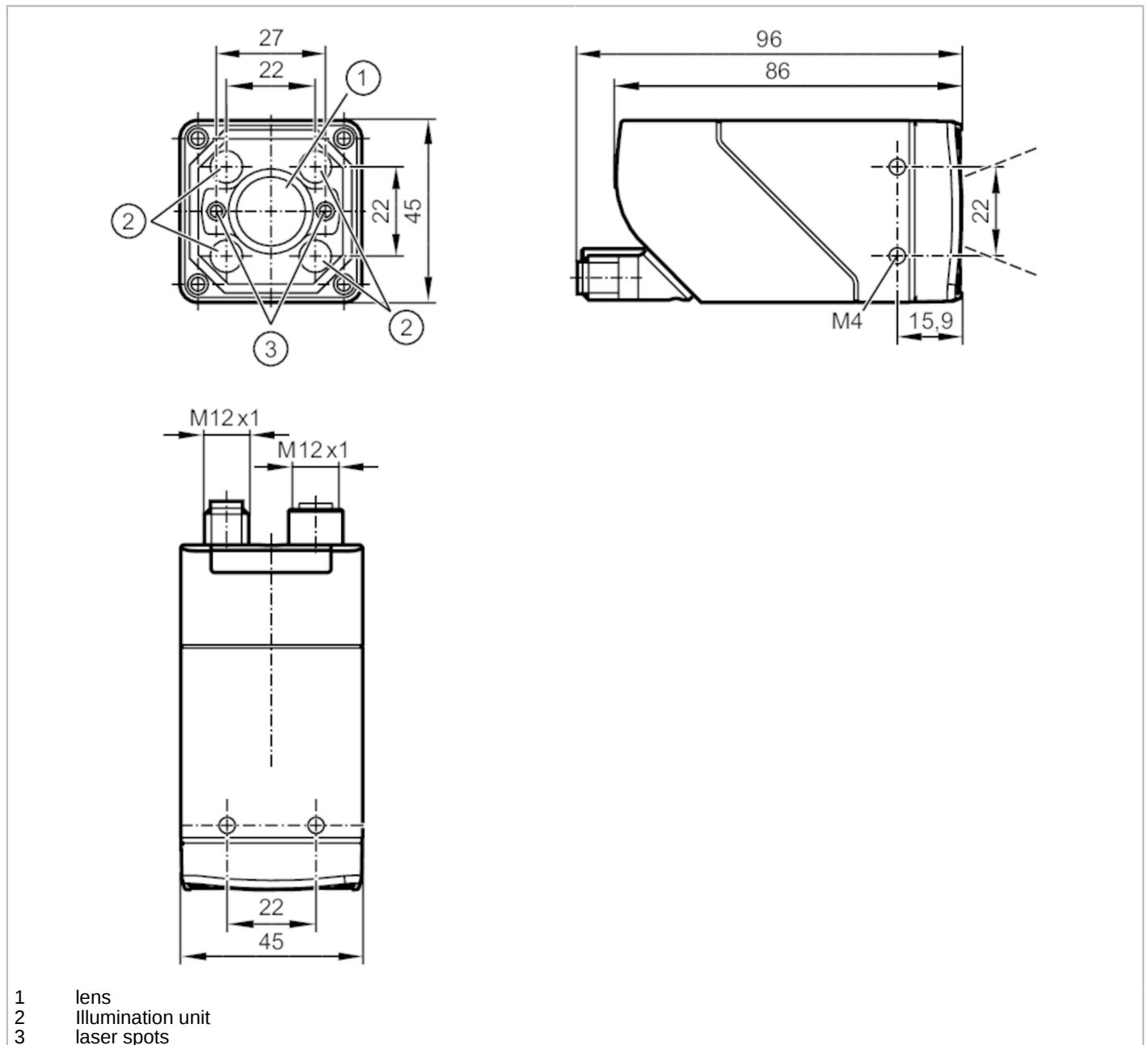


# O2I505



## 1D/2D code readers

O2IIRDKG/E1/E2/EF/VF/TB/T



- 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]    | < 400; (24V DC) |
| Protection class            | III             |
| Reverse polarity protection | yes             |
| Type of light               | infrared light  |

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|                                       |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |                  |
|---------------------------------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------|
| Wave length                           | [nm] | 850                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                  |
| Image sensor                          |      | CMOS image sensor black/white                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               |                  |
| <b>Inputs / outputs</b>               |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |                  |
| Number of inputs and outputs          |      | Number of digital inputs: 1; Number of digital outputs: 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               |                  |
| <b>Inputs</b>                         |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |                  |
| Trigger                               |      | external; 24 V PNP/NPN (IEC 61131-2 Typ 3); TCP/IP; EtherNet/IP; internal                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               |                  |
| Number of digital inputs              |      | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                  |
| <b>Outputs</b>                        |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |                  |
| Total number of outputs               |      | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                  |
| Number of digital outputs             |      | 2; (configurable)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |                  |
| Output function                       |      | 24 V PNP/NPN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |                  |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                  |
| <b>Detection zone</b>                 |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |                  |
| Field of view size                    | [mm] | Operating distance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | field of view |                  |
|                                       |      | 200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 38 x 29       |                  |
|                                       |      | 300                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 58 x 43       |                  |
|                                       |      | 500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 96 x 72       |                  |
|                                       |      | 1000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 192 x 144     |                  |
| Operating distance                    | [mm] | > 200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |                  |
| Image resolution                      | [px] | 1280 x 960                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |               |                  |
| Lens type                             |      | Telephoto lens                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |                  |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |                  |
| Omnidirectional reading               |      | yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               |                  |
| Max. inclination to the image plane   | [°]  | 45                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |                  |
| Max. reading rate                     | [Hz] | 40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |               |                  |
| <b>Software / programming</b>         |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |                  |
| Parameter setting options             |      | teach button; via PC with ifm Vision Assistant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |               |                  |



## 1D/2D code readers

O2IIRDKG/E1/E2/EF/VF/TB/T

| 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<br>subnet mask: 255.255.255.0 (Class C)<br>gateway IP address: 192.168.0.201<br>MAC address: see type label |                                          |
| Usage type                    | parameter setting; data transmission                                                                                                 |                                          |
| Operating conditions          |                                                                                                                                      |                                          |
| Ambient temperature           | [°C]                                                                                                                                 | -10...50                                 |
| Storage temperature           | [°C]                                                                                                                                 | -40...70                                 |
| Protection                    | IP 65                                                                                                                                |                                          |
| Tests / approvals             |                                                                                                                                      |                                          |
| EMC                           | EN 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 except for deviations pursuant to Laser Notice No. 50, dated June 2007.                                    |                                          |
| Photobiological safety        | exempt group; (EN 62471)                                                                                                             |                                          |
| Electrical protection         | EN 61010-2-201                                                                                                                       | electrical supply only via PELV circuits |
| Mechanical data               |                                                                                                                                      |                                          |
| Weight                        | [g]                                                                                                                                  | 604.5                                    |
| Dimensions                    | [mm]                                                                                                                                 | 45 x 45 x 86                             |
| Materials                     | housing: diecast zinc powder-coated; front pane: Gorillaglas; LED window: PC; pushbutton: POM                                        |                                          |
| Sealing material              | FKM                                                                                                                                  |                                          |
| 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                              |



## 1D/2D code readers

O2IIRDKG/E1/E2/EF/VF/TB/T

| Accessories            |                                   |
|------------------------|-----------------------------------|
| Accessories (optional) | Operating software                |
|                        | Mounting accessories              |
|                        | Adapter cable                     |
|                        | protective panes and filter panes |

| Remarks       |        |
|---------------|--------|
| Pack quantity | 1 pcs. |

### Electrical connection

#### Electrical connection - Ethernet

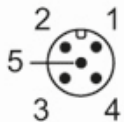
Connector: 1 x M12; coding: D; Moulded body: stainless steel; Sealing: FKM



|   |      |
|---|------|
| 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 /<br>trigger output with external illumination |