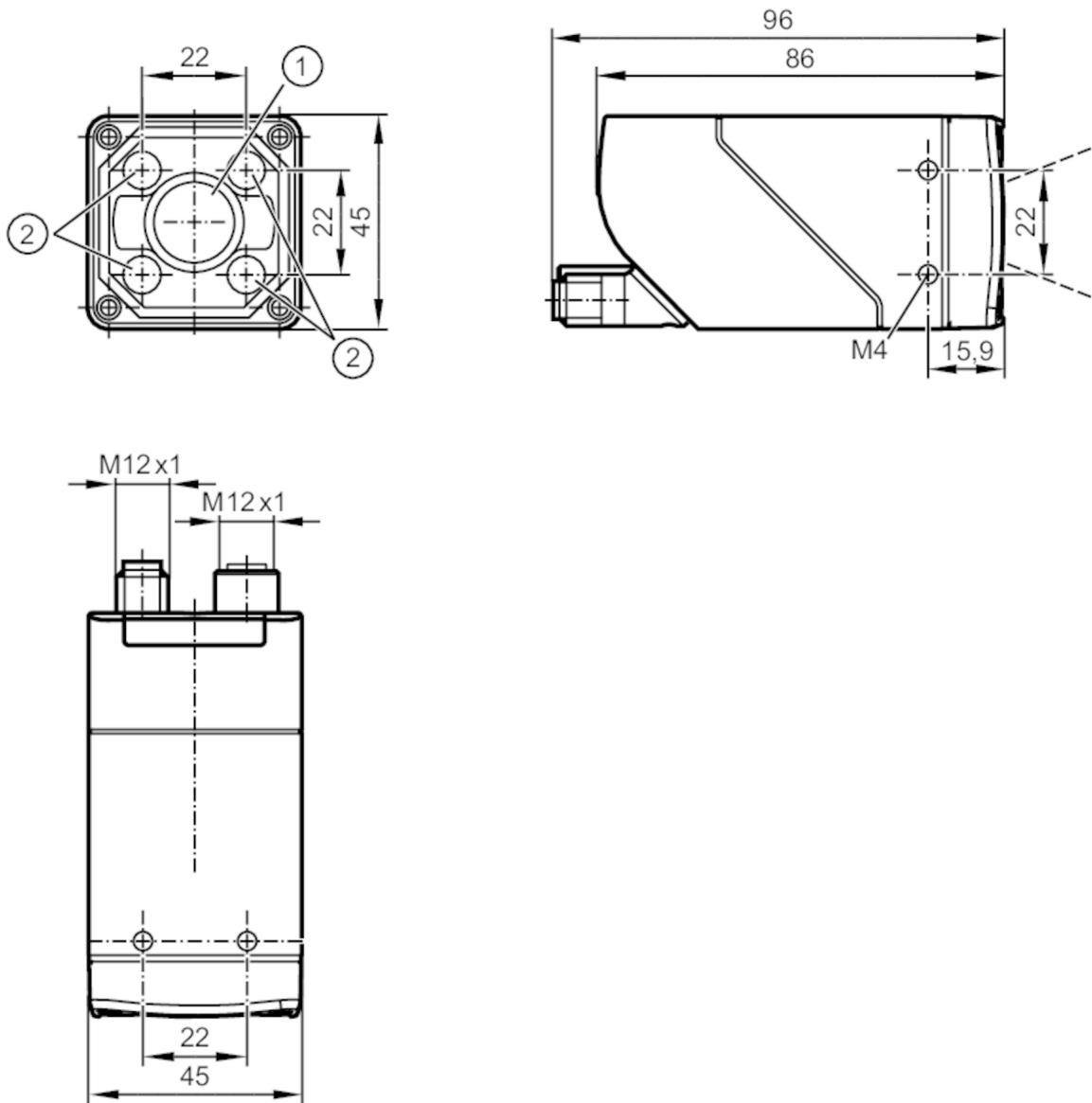


# O2D530



## Object recognition sensor

O2DIRDKG/E1/E4/EF/GM/TB/S/16



- 1 lens
- 2 Illumination unit



| 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; with switched outputs: < 400 mA) |
| Protection class            |      | III                                              |
| Reverse polarity protection |      | yes                                              |
| Type of light               |      | Infrared light                                   |
| Wave length                 | [nm] | 850                                              |



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|                                           |                                                                        |               |  |  |  |
|-------------------------------------------|------------------------------------------------------------------------|---------------|--|--|--|
| Image sensor                              | CMOS image sensor black/white                                          |               |  |  |  |
| Inputs / outputs                          |                                                                        |               |  |  |  |
| Number of inputs and outputs              | Number of digital inputs: 1; Number of digital outputs: 1              |               |  |  |  |
| Inputs                                    |                                                                        |               |  |  |  |
| Trigger                                   | external; 24 V PNP/NPN (IEC 61131-2 Typ 3); TCP/IP; PROFINET; internal |               |  |  |  |
| Number of digital inputs                  | 1                                                                      |               |  |  |  |
| Outputs                                   |                                                                        |               |  |  |  |
| Electrical design                         | PNP/NPN; (configurable)                                                |               |  |  |  |
| Number of digital outputs                 | 1; (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     |  |  |  |
|                                           | 1500                                                                   | 453 x 340     |  |  |  |
|                                           | 2000                                                                   | 603 x 452     |  |  |  |
|                                           | 2500                                                                   | 753 x 564     |  |  |  |
| Operating distance [mm]                   | > 85                                                                   |               |  |  |  |
| Image resolution [px]                     | 1280 x 960                                                             |               |  |  |  |
| Lens type                                 | standard                                                               |               |  |  |  |
| Max. reading rate [Hz]                    | 40                                                                     |               |  |  |  |
| Software / programming                    |                                                                        |               |  |  |  |
| Parameter setting options                 | 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; PROFINET                                                       |               |  |  |  |
| 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                                   |               |  |  |  |

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| 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             |                                            | 2                                                                                              |
| 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        |                                            | exempt group; (EN 62471)                                                                       |
| Electrical safety             | EN IEC 61010-2-201                         | electrical supply only via PELV circuits                                                       |
| Mechanical data               |                                            |                                                                                                |
| Weight                        | [g]                                        | 619.6                                                                                          |
| 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.                                                                                         |

# O2D530

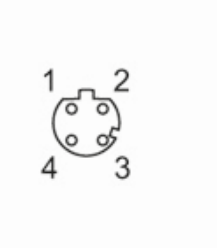


## Object recognition sensor

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### Electrical connection - Ethernet

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



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

### Electrical connection - supply

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



|   |                          |
|---|--------------------------|
| 1 | 24 V DC                  |
| 2 | not used / trigger input |
| 3 | GND                      |
| 4 | not used / Ready / OUT1  |
| 5 | not used                 |