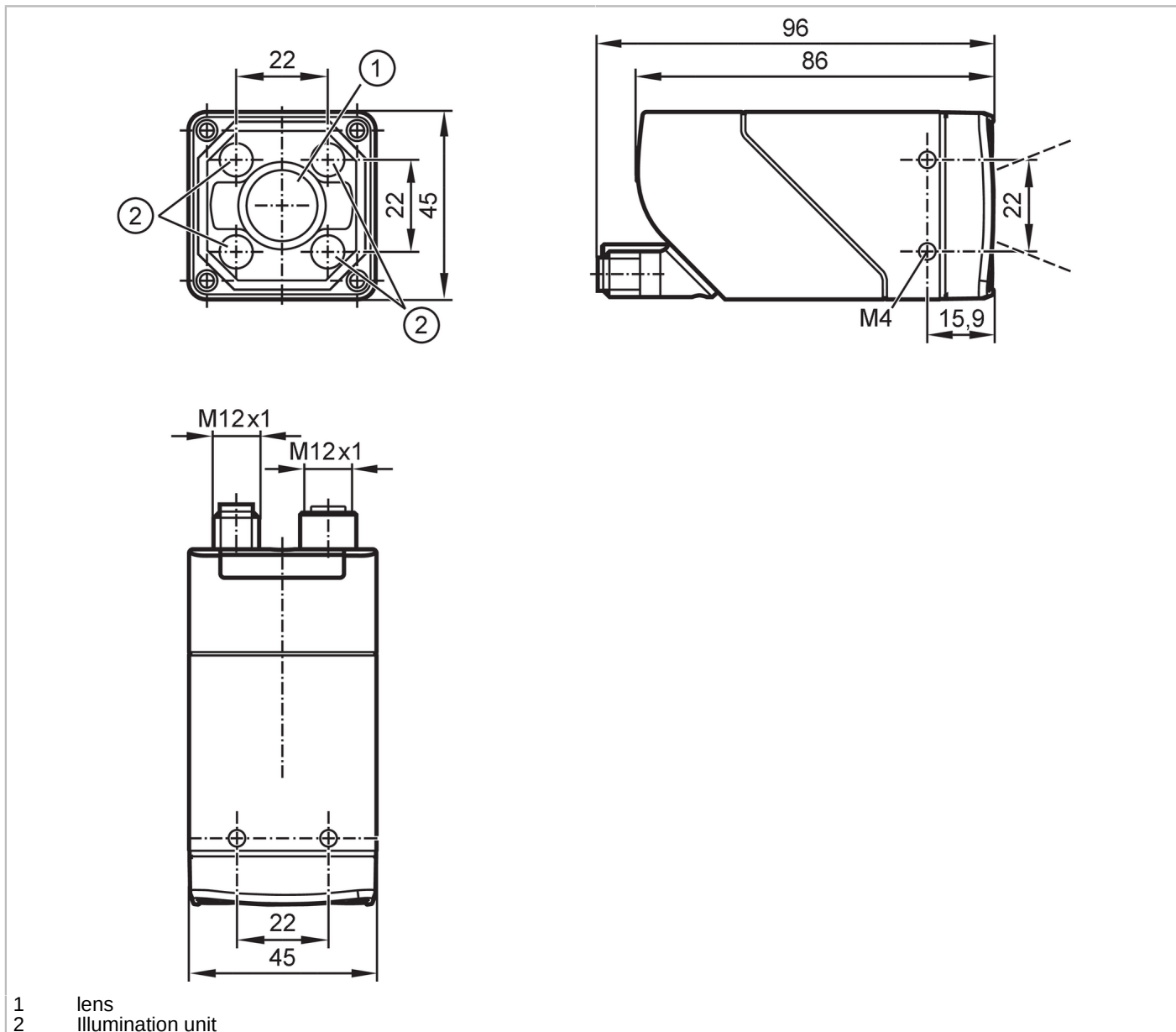


O2D500



Object recognition sensor

O2DCRDKG/E1/E2/EF/GM/TB/S/16



Product characteristics

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

Application

| | |
|-----------------|---------------------|
| Special feature | polarization filter |
|-----------------|---------------------|

Electrical data

| | |
|-------------------------------|--|
| Operating voltage [V] | 18...30 DC |
| Current consumption [mA] | < 300; (24V DC typical) |
| Max. current consumption [mA] | 1100; (18V DC, with switched outputs, memory stick active) |
| Protection class | III |
| Reverse polarity protection | yes |

O2D500



Object recognition sensor

O2DCRDKG/E1/E2/EF/GM/TB/S/16

| | |
|----------------------|-------------------------------|
| Overvoltage category | II |
| Type of light | RGBW |
| Wave length [nm] | 625; 525; 453 |
| Image sensor | CMOS image sensor black/white |

Inputs / outputs

| | |
|------------------------------|---|
| Number of inputs and outputs | Number of digital inputs: 3; Number of digital outputs: 5 |
|------------------------------|---|

Inputs

| | |
|---------------------------------|---|
| Trigger | external; 24 V PNP/NPN (IEC 61131-2 Typ 3); TCP/IP; EtherNet/IP; internal |
| Number of digital inputs | 3 |
| Input circuit of digital inputs | 24 V PNP/NPN; (type 3 (IEC 61131-2)) |

Outputs

| | |
|---|-------------------------|
| Electrical design | PNP/NPN; (configurable) |
| Number of digital outputs | 5; (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 | | |
| 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 | | |
| Bewegungsgeschwindigkeit [m/s] | | 7 | | |
| Polarization filter available | | yes | | |
| 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 |

O2D500



Object recognition sensor

O2DCRDKG/E1/E2/EF/GM/TB/S/16

| | |
|------------------|--|
| 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) |
| Photobiological safety | | risk group 1; (EN 62471) |
| Electrical safety | EN IEC 61010-2-01 | electrical supply only via PELV circuits |
| MTTF | [years] | 57 |
| UL approval | Ta | -10...50 °C |
| | Enclosure type | 1 |
| | voltage supply | Limited Energy |
| | File number UL | E364788 |

Mechanical data

| | | |
|-------------------|------|--|
| Weight | [g] | 620.1 |
| 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: 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 |
| | 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. |
|---------------|--------|

O2D500



Object recognition sensor

O2DCRDKG/E1/E2/EF/GM/TB/S/16

Electrical connection - Ethernet

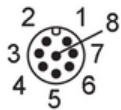
Connector: 1 x M12; coding: D; Contacts: 4; Moulded body: stainless steel; sealing: FKM



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

Electrical connection - supply

Connector: 1 x M12; coding: A; Contacts: 8; Moulded body: stainless steel



| | |
|---|-----------------------------|
| 1 | 24 V DC |
| 2 | trigger input |
| 3 | GND |
| 4 | Switching output OUT5 |
| 5 | Switching output OUT3 Ready |
| 6 | Switching output OUT4 |
| 7 | Switching output OUT1 / IN1 |
| 8 | Switching output OUT2 / IN2 |