

## Overview

- Adjustable reference distance (zero point position)
- Intuitive limitation of the measuring range
- Configurable switching output
- Selectable filters and trigger modes
- Additional data such as signal quality on request
- Export and import function for parameter sets



Picture similar



## Technical data

### General data

|                           |                            |
|---------------------------|----------------------------|
| Type                      | Distance measuring         |
| Version                   | OM70 laser line            |
| Measuring distance Sd     | 30 ... 70 mm               |
| Measuring range Mr        | 40 mm                      |
| Sweet spot                | 48 mm                      |
| Adjustment                | Webserver, Ethernet TCP/IP |
| Power on indication       | LED green                  |
| Output indicator          | LED yellow / LED red       |
| Ethernet link indication  | LED blue                   |
| Resolution                | 0.7 ... 1 µm               |
| Repeat accuracy           | 0.1 ... 0.3 µm             |
| Linearity error           | ± 0.06 % Mr                |
| Beam type                 | Line                       |
| Temperature drift         | 0,01 % Sde/K               |
| Hysteresis digital output | Adjustable                 |

### Light Source

|              |                        |
|--------------|------------------------|
| Light source | Pulsed red laser diode |
| Wave length  | 660 nm                 |
| Laser class  | 1                      |

### Electrical data

|                                    |                                                        |
|------------------------------------|--------------------------------------------------------|
| Response delay                     | 0.8 ms                                                 |
| Measuring frequency                | 2000 Hz                                                |
| Voltage supply range +Vs           | 15 ... 28 VDC                                          |
| Current consumption max. (no load) | 75 mA                                                  |
| Output circuit                     | Analog and digital                                     |
| Output signal                      | 4 ... 20 mA / 2 ... 10 mA / 0 ... 10 VDC / 0 ... 5 VDC |

### Electrical data

|                             |                |
|-----------------------------|----------------|
| Output current              | < 100 mA       |
| Switching output            | Push-pull      |
| Short circuit protection    | Yes            |
| Reverse polarity protection | Yes, Vs to GND |

### Communication interface

|           |                                                                    |
|-----------|--------------------------------------------------------------------|
| Interface | Ethernet TCP/IP                                                    |
| Protocol  | Profinet (Class B), Modbus TCP, OPC UA, UDP streaming, EtherNet/IP |
| Webserver | Yes                                                                |

### Mechanical data

|                  |                                 |
|------------------|---------------------------------|
| Width / diameter | 26 mm                           |
| Height / length  | 74 mm                           |
| Depth            | 55 mm                           |
| Type             | Rectangular, front view         |
| Housing material | Aluminum                        |
| Front (optics)   | Glass                           |
| Connection types | Connector M12 8 pin & M12 4 pin |
| Weight           | 135 g                           |

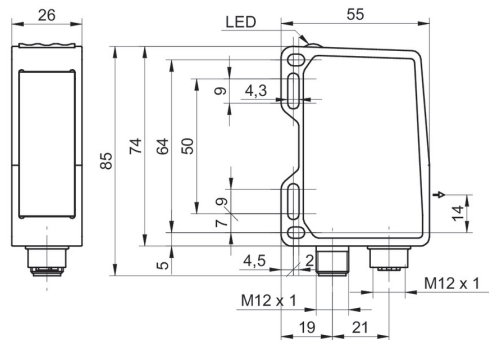
### Ambient conditions

|                         |                                                                                                                     |
|-------------------------|---------------------------------------------------------------------------------------------------------------------|
| Ambient light immunity  | < 28 kLux                                                                                                           |
| Protection class        | IP 67                                                                                                               |
| Operating temperature   | -10 ... +50 °C                                                                                                      |
| Storage temperature     | -20 ... +60 °C                                                                                                      |
| Vibration (sinusoidal)  | IEC 60068-2-6:2008<br>1 mm p-p at f = 10 - 55 Hz, duration 5 min per axis<br>30 min endurance at f = 55 Hz per axis |
| Shock (semi-sinusoidal) | IEC 60068-2-27:2009<br>30 g / 11 ms, 6 jolts per axis and direction                                                 |

### Remarks

- Measurement with Baumer standardized measuring equipment and targets (Measurement on 90% remission (white)). Values of Resolution, linearity error and repeat accuracy apply to a measurement with filter setting (Median: 9, Average: 128).

## Dimension drawing



- \* emitter axis

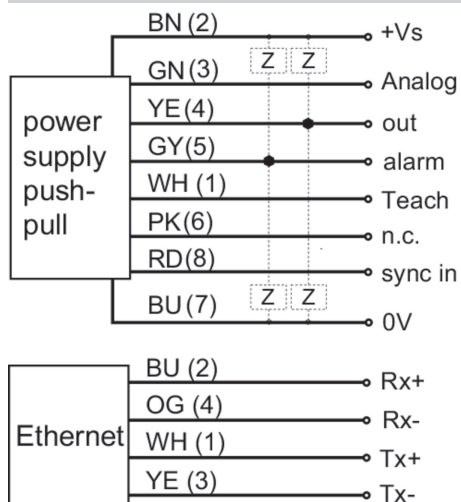
## Laser warning

**CLASS 1 LASER  
PRODUCT**

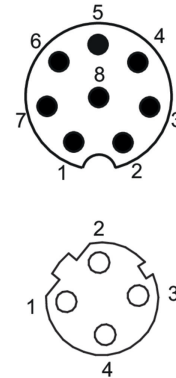
IEC 60825-1/2014

Complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC 60825-1 Ed. 3., as described in Laser Notice No. 56, dated May 8, 2019

## Connection diagram



## Pin assignment



**Beam characteristic (typically)**

