

## 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



## Technical data

### general data

|                           |                            |
|---------------------------|----------------------------|
| type                      | distance measuring         |
| version                   | OM70 laser point basic     |
| measuring distance Sd     | 100 ... 600 mm             |
| measuring range Mr        | 500 mm                     |
| sweet spot                | 500 mm                     |
| adjustment                | Webserver, Ethernet TCP/IP |
| power on indication       | LED green                  |
| output indicator          | LED yellow / LED red       |
| ethernet link indication  | LED blue                   |
| resolution                | 3 ... 24 µm                |
| repeat accuracy           | 1 ... 9 µm                 |
| linearity error           | ± 0,12 % Mr                |
| light source              | pulsed red laser diode     |
| wave length               | 660 nm                     |
| laser class               | 1                          |
| beam type                 | point                      |
| temperature drift         | 0,04 % So/K                |
| hysteresis digital output | adjustable                 |

### electrical data

|                                       |                                                           |
|---------------------------------------|-----------------------------------------------------------|
| response delay                        | 0,8 ms                                                    |
| measuring frequency                   | 2000 Hz                                                   |
| voltage supply range +Vs              | 15 ... 28 VDC                                             |
| current consumption max.<br>(no load) | 75 mA                                                     |
| output circuit                        | analog and digital                                        |
| output signal                         | 4 ... 20 mA / 2 ... 10 mA / 0 ... 10 VDC /<br>0 ... 5 VDC |

### electrical data

|                             |                                                |
|-----------------------------|------------------------------------------------|
| output current              | < 100 mA                                       |
| switching output            | push-pull                                      |
| short circuit protection    | yes                                            |
| reverse polarity protection | yes, Vs to GND                                 |
| interface                   | Ethernet TCP/IP                                |
| protocol                    | Profinet, Modbus TCP, OPC UA, UDP<br>streaming |
| 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                           |

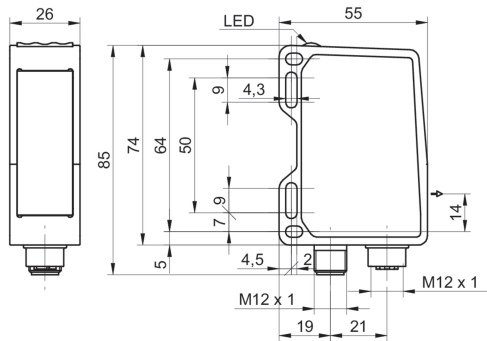
### ambient conditions

|                         |                                                                                                                        |
|-------------------------|------------------------------------------------------------------------------------------------------------------------|
| ambient light immunity  | < 300 kLux                                                                                                             |
| operating temperature   | -10 ... +50 °C                                                                                                         |
| protection class        | IP 67                                                                                                                  |
| storage temperature     | -20 ... +60 °C                                                                                                         |
| vibration (sinusoidal)  | IEC 60068-2-6:2008<br>1 mm p-p at f = 10 - 55 Hz, duration 5<br>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                                                    |

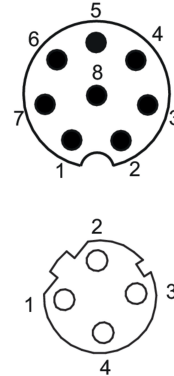
## remarks

- 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).

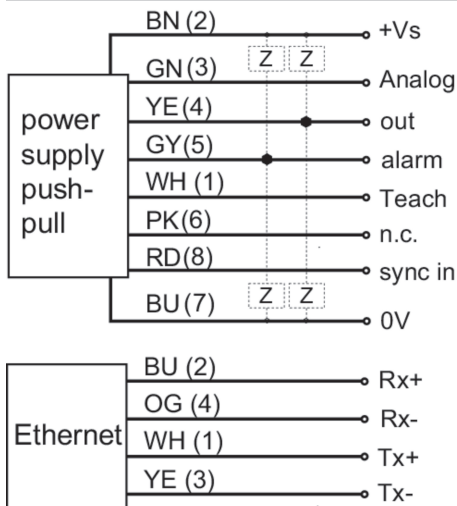
## dimension drawing



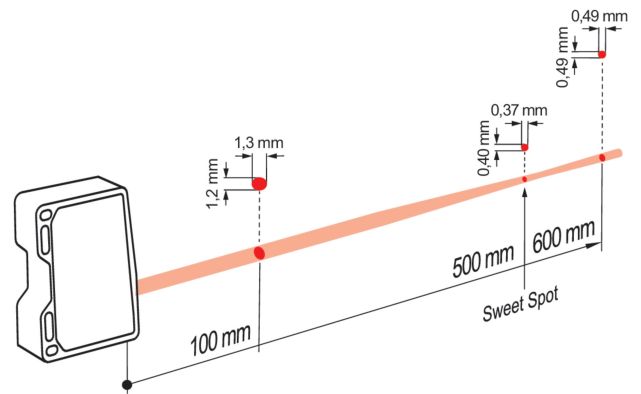
## pin assignment



## connection diagram



## beam characteristic (typically)



## laser warning

**CLASS 1 LASER  
PRODUCT**

IEC 60825-1/2014

Complies with 21 CFR 1040.10 and 1040.11  
except for deviations pursuant to laser  
notice No. 50, dated June 24, 2007