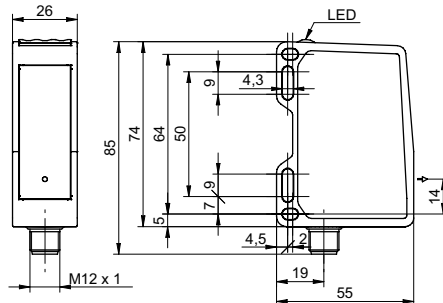


## Distance sensors

## OM70-11112019

### dimension drawing



\* emitter axis

### general data

|                           |                         |
|---------------------------|-------------------------|
| type                      | distance measuring      |
| version                   | OM70 laser line basic   |
| measuring distance Sd     | 40 ... 140 mm           |
| measuring range Mr        | 100 mm                  |
| focal range               | 110 ... 140 mm          |
| sweet spot                | 130 mm                  |
| adjustment                | Touch Display, RS485    |
| power on indication       | LED green               |
| output indicator          | LED yellow / LED red    |
| resolution                | 1,2 ... 2,5 µm 1) 2) 3) |
| repeat accuracy           | 0,3 ... 0,7 µm 1) 2) 3) |
| linearity error           | ± 0,07 % Mr 1) 2)       |
| light source              | pulsed red laser diode  |
| wave length               | 660 nm                  |
| laser class               | 1                       |
| beam type                 | line                    |
| temperature drift         | 0,015 % Sde/K 1) 2)     |
| hysteresis digital output | adjustable              |

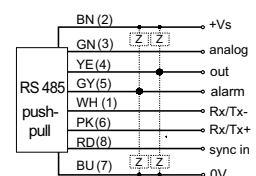
### electrical data

|                                    |                            |
|------------------------------------|----------------------------|
| response time / release time       | 0,8 ms 2)                  |
| measuring frequency                | 2500 Hz 2)                 |
| voltage supply range +Vs           | 15 ... 28 VDC              |
| current consumption max. (no load) | 75 mA                      |
| output circuit                     | analog and RS 485          |
| baud rate                          | 115200, adjustable         |
| output signal                      | 4 ... 20 mA / 0 ... 10 VDC |
| output current                     | < 100 mA                   |
| switching output                   | push-pull                  |
| short circuit protection           | yes                        |
| reverse polarity protection        | yes, Vs to GND             |

### photo



### connection diagram



### 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

## Distance sensors

OM70-11112019

### 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     |
| weight           | 130 g                   |

### ambient conditions

|                         |                                                                                                                                            |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| ambient light immunity  | < 35 kLux                                                                                                                                  |
| operating temperature   | -10 ... +50 °C                                                                                                                             |
| protection class        | IP 67                                                                                                                                      |
| vibration (sinusoidal)  | IEC 60068-2-6:2008<br>± 0.75 mm p-p at f = 10 - 58 Hz, 10 cycles per axis<br>10 g at f = 58 - 2000 Hz, 10 cycles per axis                  |
| shock (semi-sinusoidal) | IEC 60068-2-27:2009<br>50 g / 11 ms resp. 100 g / 6 ms, 10 jolts per axis and direction<br>100 g / 2 ms, 5000 jolts per axis and direction |



- 1) Measurement with Baumer standardized measuring equipment and targets depending on measuring distance Sd
- 2) Measurement on 90% remission (white)
- 3) Measurement with filtering

### beam characteristic (typically)

