

# OWLG/OWLS Series

DATASHEET



## OWLG/OWLS Series – Laser distance sensors

- Ultra compact design
- Measuring ranges up to 550mm
- Versions with laser line for rough surfaces (OWLS only)
- Measuring rate up to 5 kHz
- Robust metal housing with protection class IP67

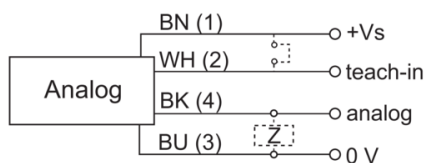
| OVERVIEW OWLG & OWLS MODELS |           |                       |                                 |
|-----------------------------|-----------|-----------------------|---------------------------------|
| <b>OWLG 1003</b>            | 16-26 mm  | Laser class 1 - Point | Analog current / analog voltage |
| <b>OWLG 2003</b>            | 16-26 mm  | Laser class 2 - Point | Analog current / analog voltage |
| <b>OWLG 1012</b>            | 16-120 mm | Laser class 1 - Point | Analog current / analog voltage |
| <b>OWLG 2012</b>            | 16-120 mm | Laser class 2 - Point | Analog current / analog voltage |
| <b>OWLS 4040</b>            | 50-350 mm | Laser class 2 - Point | Analog current / analog voltage |
| <b>OWLS 4040 L</b>          | 50-350 mm | Laser class 2 - Line  | Analog current / analog voltage |
| <b>OWLS 4060</b>            | 50-550 mm | Laser class 2 - Point | Analog current / analog voltage |
| <b>OWLS 4060 L</b>          | 50-550 mm | Laser class 2 - Line  | Analog current / analog voltage |

# OWLG/OWLS Series

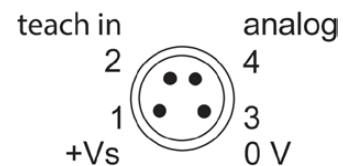
## TECHNICAL DETAILS

| GENERAL DATA                     |                         |                       |
|----------------------------------|-------------------------|-----------------------|
| Series                           | OLWG                    | OWLS                  |
| Measuring range                  | 16-26 mm / 16-120 mm    | 50-350 mm / 50-550 mm |
| Output circuit                   | 4 - 20 mA / 0 - 10 V    |                       |
| Measurement method               | Triangulation           |                       |
| Laser class                      | 1 or 2                  | 2                     |
| Wavelength                       | 660 nm                  |                       |
| Connection type                  | Connector M8 4-pin      |                       |
| Teach-in                         | Teach-in Taste / Extern |                       |
| Power indicator                  | LED green               |                       |
| Display of alert / contamination | LED red                 |                       |
| Electronics                      | Integrated              |                       |
| Measuring frequency              | 5000 Hz                 |                       |
| Supply voltage V DC              | 12 - 28 V DC            |                       |
| Power consumption max            | 100 mA                  |                       |
| Short circuit protection         | Yes                     |                       |
| Reverse polarity protection      | Yes                     |                       |
| Housing material                 | Zinc die casting        |                       |
| Front windscreen                 | Glass                   |                       |
| Protection class                 | IP67                    |                       |
| Dimensions (B x H x T)           | 13 x 37 x 34.5 mm       | 13.6 x 49 x 40.3 mm   |
| Construction type                | Cuboid                  |                       |
| Operating temperature range      | -10 - +50 °C            |                       |
| Ambient light safety             | < 100 kLux              |                       |

### CONNECTION DIAGRAM

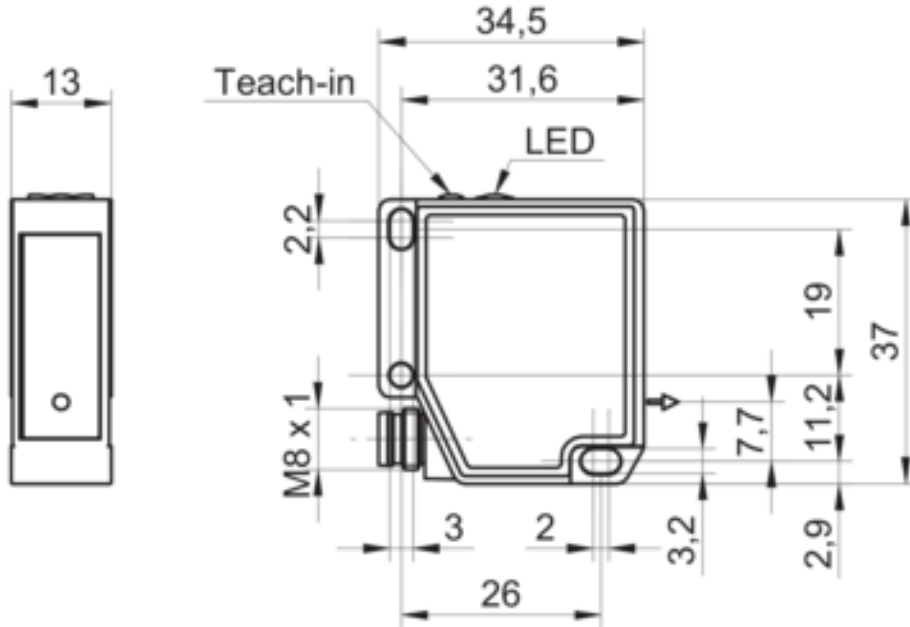


### PIN ASSIGNMENT

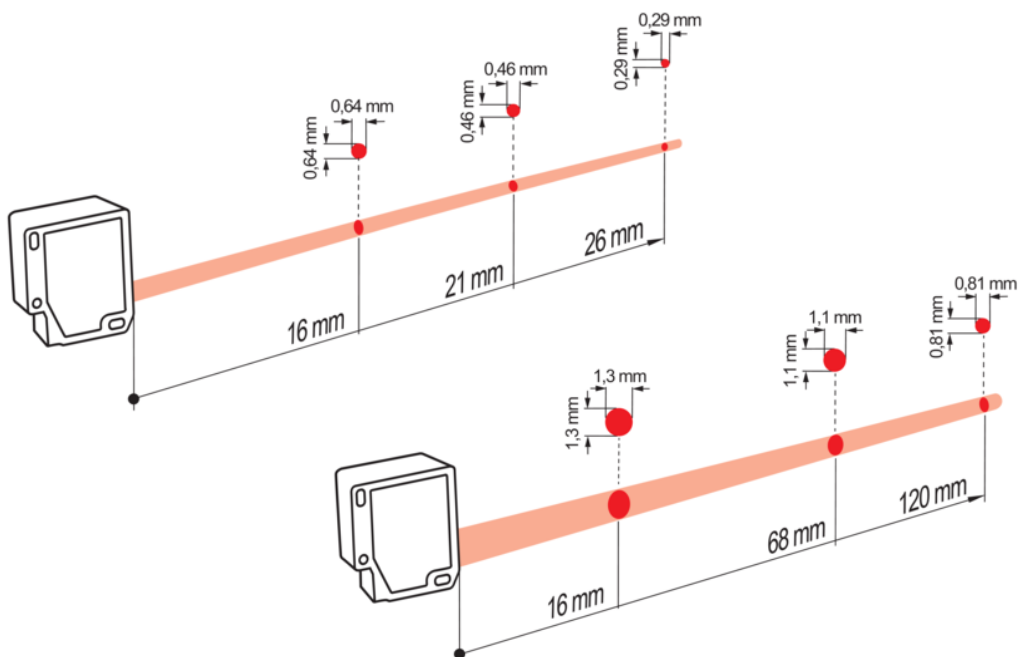


# OWLG/OWLS Series

OWLG SERIES DIMENSIONS (MM)

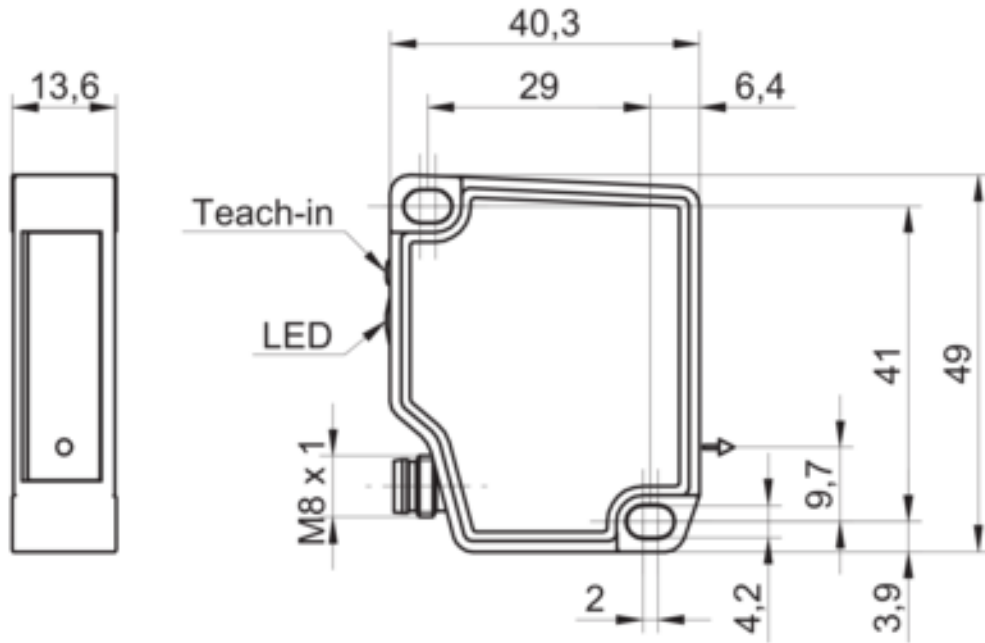


OWLG SERIES BEAM PATH (TYPICAL)

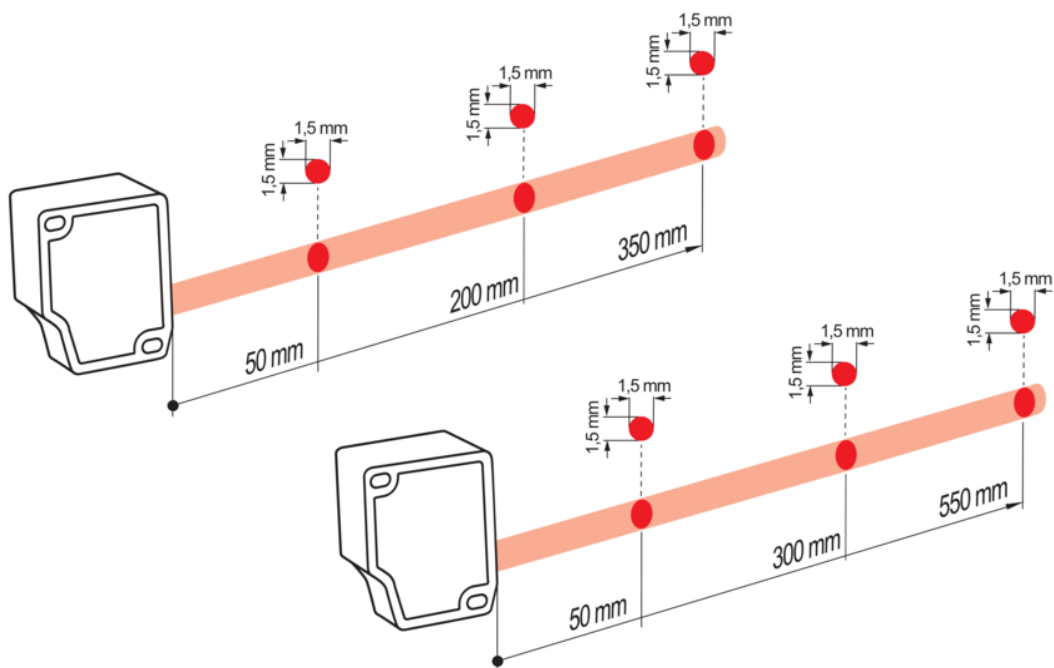


# OWLG/OWLS Series

OWLS SERIES DIMENSIONS (MM)



OWLS SERIES BEAM PATH (TYPICAL)



# OWLG/OWLS Series

## MODEL OVERVIEW OWLG

| MODEL OVERVIEW OWLG |                 |                 |                     |                   |           |               |                |
|---------------------|-----------------|-----------------|---------------------|-------------------|-----------|---------------|----------------|
| Product             | Measuring range | Repeat Accuracy | Linearity Deviation | Temperature Drift | Beam Type | Laser Class   | Output circuit |
| OWLG 1003 AE S2     | 16-26 mm        | 6 µm            | 0.13%               | < 0.01 %          | Point     | Laser Class 1 | 4 - 20 mA      |
| OWLG 1003 AA S2     |                 |                 |                     |                   |           |               | 0 - 10 V       |
| OWLG 2003 AE S2     |                 |                 |                     |                   |           | Laser Class 2 | 4 - 20 mA      |
| OWLG 2003 AA S2     |                 |                 |                     |                   |           |               | 0 - 10 V       |
| OWLG 1012 AE S2     | 16-120 mm       | 100 µm          | 0.14%               | < 0.04 %          | Point     | Laser Class 1 | 4 - 20 mA      |
| OWLG 1012 AA S2     |                 |                 |                     |                   |           |               | 0 - 10 V       |
| OWLG 2012 AE S2     |                 |                 |                     |                   |           | Laser Class 2 | 4 - 20 mA      |
| OWLG 2012 AA S2     |                 |                 |                     |                   |           |               | 0 - 10 V       |

## MODEL OVERVIEW OWLS

| MODEL OVERVIEW OWLS |                 |                 |                     |                   |           |               |                |
|---------------------|-----------------|-----------------|---------------------|-------------------|-----------|---------------|----------------|
| Product             | Measuring range | Repeat Accuracy | Linearity Deviation | Temperature Drift | Beam Type | Laser Class   | Output circuit |
| OWLS 4040 AE S2R    | 50-350 mm       | 280 µm          | 0.14%               | < 0.05 %          | Point     | Laser Class 2 | 4 - 20 mA      |
| OWLS 4040 AA S2R    |                 |                 |                     |                   |           |               | 0 - 10 V       |
| OWLS 4040 AE S2R L  |                 |                 |                     |                   | Line      |               | 4 - 20 mA      |
| OWLS 4040 AA S2R L  |                 |                 |                     |                   |           |               | 0 - 10 V       |
| OWLS 4060 AE S2R    | 50-550 mm       | 686 µm          | 0.25%               | < 0.08 %          | Point     | Laser Class 2 | 4 - 20 mA      |
| OWLS 4060 AA S2R    |                 |                 |                     |                   |           |               | 0 - 10 V       |
| OWLS 4060 AE S2R L  |                 |                 |                     |                   | Line      |               | 4 - 20 mA      |
| OWLS 4060 AA S2R L  |                 |                 |                     |                   |           |               | 0 - 10 V       |