



### Model Number

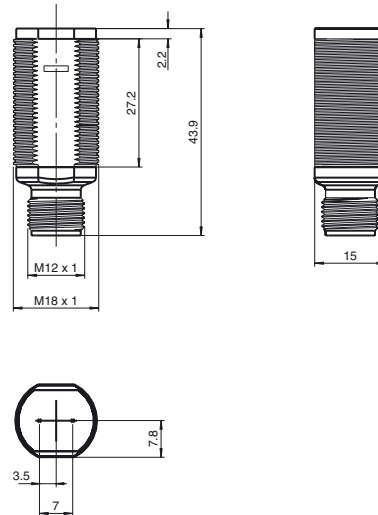
**GD18/GV18/59/102/159**

Thru-beam sensor  
Plastic connector M12 x 1, 3-pin

### Features

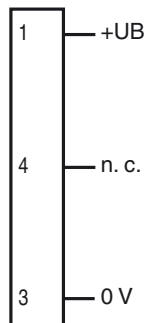
- Short design in M18 plastic housing
- 4 LEDs indicator for 360° all-round visibility
- Optimal price/power ratio

### Dimensions

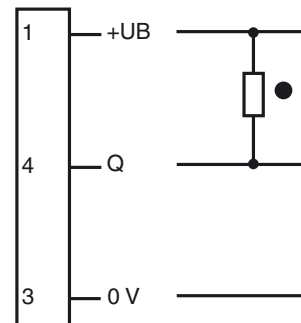


### Electrical connection

#### Emitter

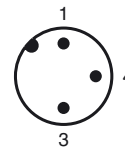


#### Receiver



- = Light on
- = Dark on

### Pinning according



## Technical data

### General specifications

|                            |  |
|----------------------------|--|
| Effective detection range  | 0 ... 20 m   |
| Threshold detection range  | 25 m   |
| Light source               | LED, red 640 nm  |
| Approvals                  | CE, cULus Listed 57M3 (Only in association with UL Class 2 power supply) |
| Light type                 | red, modulated light   |
| Diameter of the light spot | approx. 1300 mm at 25 m  |
| Angle of divergence        | approx. 3 °  |
| Optical face               | frontal  |
| Ambient light limit        | 30000 Lux  |

### Indicators/operating means

|                   |  |
|-------------------|--|
| Operating display | green LED, statically lit Power on   |
| Function display  | Receiver: LED yellow, lights up when light beam is unblocked, flashes when falling short of the stability control ; OFF when light beam is interrupted |

### Electrical specifications

|                              |   |
|------------------------------|---|
| Operating voltage            | 10 ... 30 V DC  |
| Protection class             | II, rated insulation voltage $\bar{U}$ 250 V AC with degree of pollution 1-2 according to IEC 60664-1 |
| No-load supply current $I_0$ | < 20 mA   |

### Output

|                         |  |
|-------------------------|--|
| Switching type          | dark ON                                    |
| Signal output           | 1 npn, short-circuit proof, open collector |
| Switching voltage       | max. 30 V DC                               |
| Switching current       | max. 100 mA                                |
| Voltage drop $U_d$      | $\leq 1.5$ V DC                            |
| Switching frequency $f$ | 500 Hz                                     |
| Response time           | $\leq 1$ ms                                |

### Standard conformity

|           |              |
|-----------|--------------|
| Standards | EN 60947-5-2 |
|-----------|--------------|

### Ambient conditions

|                     |                               |
|---------------------|-------------------------------|
| Ambient temperature | -25 ... 60 °C (248 ... 333 K) |
| Storage temperature | -40 ... 70 °C (233 ... 343 K) |

### Mechanical specifications

|                   |                                   |
|-------------------|-----------------------------------|
| Protection degree | IP67                              |
| Connection        | Plastic connector M12 x 1 ; 3-pin |
| Material          |                                   |
| Housing           | PC                                |
| Optical face      | PMMA                              |
| Mass              | < 10 g                            |

### Characteristic response curve

GD18/GV18...

