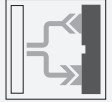


# Diffuse mode sensor

## GLV30-LL-1227/40a/53/92



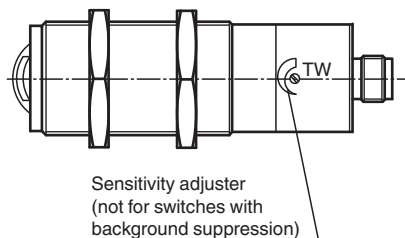
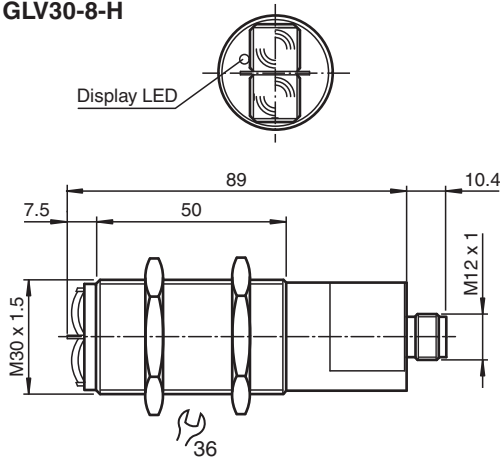
- M30 nickel plated brass threaded housing
- Light-on/dark-on switching
- For glass fibre light guide
- Extensive fiber optic product selection as accessories

Diffuse mode sensor



### Dimensions

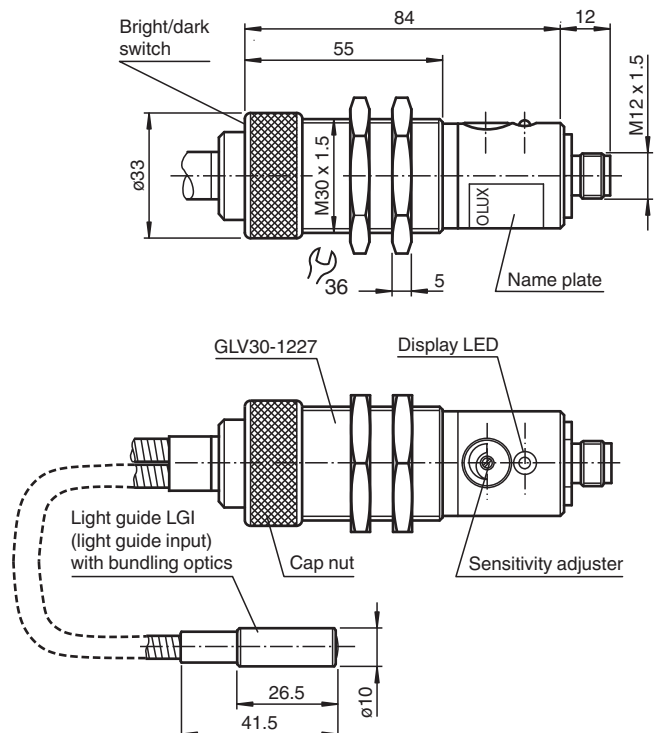
GLV30-8-2500  
GLV30-8-H



Unit connector



GLV30-LL...



## Technical Data

### General specifications

|                            |  |                                                                                                            |
|----------------------------|--|------------------------------------------------------------------------------------------------------------|
| Detection range            |  | without fiberoptic cable : 0 ... 1700 mm , with fiberoptic cable see selection table for fiberoptic cables |
| Adjustment range           |  | 250 ... 1700 mm (on use without fiberoptics)                                                               |
| Reference target           |  | standard white 200 mm x 200 mm (only for retroreflective fiberoptic cables)                                |
| Light source               |  | IREDD                                                                                                      |
| Light type                 |  | modulated infrared light                                                                                   |
| Diameter of the light spot |  | approx. 400 mm at 1700 mm sensor range                                                                     |
| Opening angle              |  | approx. 15 °                                                                                               |
| Ambient light limit        |  | 50000 Lux                                                                                                  |

### Indicators/operating means

|                    |  |                                         |
|--------------------|--|-----------------------------------------|
| Function indicator |  | LED yellow, lights up with receiver lit |
| Control elements   |  | Sensitivity adjuster, light/dark switch |

### Electrical specifications

|                        |                |                |
|------------------------|----------------|----------------|
| Operating voltage      | U <sub>B</sub> | 10 ... 30 V DC |
| Ripple                 |                | 10 %           |
| No-load supply current | I <sub>0</sub> | 40 mA          |

### Output

|                    |                  |                                    |
|--------------------|------------------|------------------------------------|
| Switching type     |                  | light/dark on                      |
| Signal output      |                  | 1 PNP, not short-circuit protected |
| Switching voltage  |                  | max. 30 V DC                       |
| Switching current  |                  | max. 500 mA                        |
| Response time      |                  | 2 ms                               |
| De-energized delay | t <sub>off</sub> | 7 ms                               |

### Conformity

|                  |  |              |
|------------------|--|--------------|
| Product standard |  | EN 60947-5-2 |
|------------------|--|--------------|

### Approvals and certificates

|              |  |                                                              |
|--------------|--|--------------------------------------------------------------|
| UL approval  |  | cULus Listed, Class 2 Power Source, Type 1 enclosure         |
| CCC approval |  | CCC approval / marking not required for products rated ≤36 V |

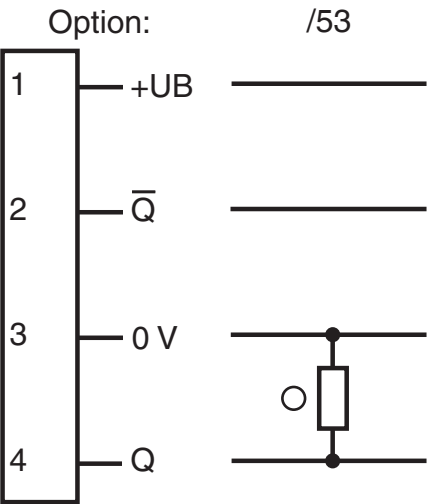
### Ambient conditions

|                     |  |                               |
|---------------------|--|-------------------------------|
| Ambient temperature |  | -20 ... 60 °C (-4 ... 140 °F) |
| Storage temperature |  | -20 ... 75 °C (-4 ... 167 °F) |

### Mechanical specifications

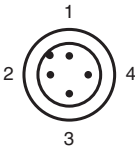
|                      |  |                            |
|----------------------|--|----------------------------|
| Degree of protection |  | IP65                       |
| Connection           |  | 4-pin, M12 metal connector |
| Material             |  |                            |
| Housing              |  | brass, nickel-plated       |
| Optical face         |  | glass                      |
| Mass                 |  | 370 g                      |

Connection Assignment



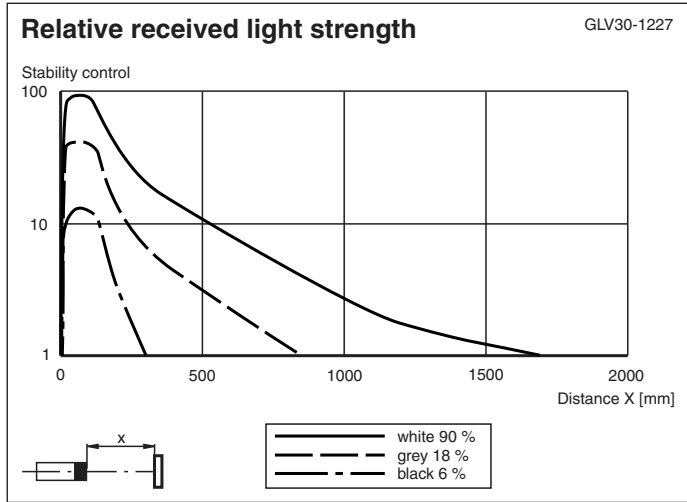
○ = Light on  
● = Dark on

Connection Assignment

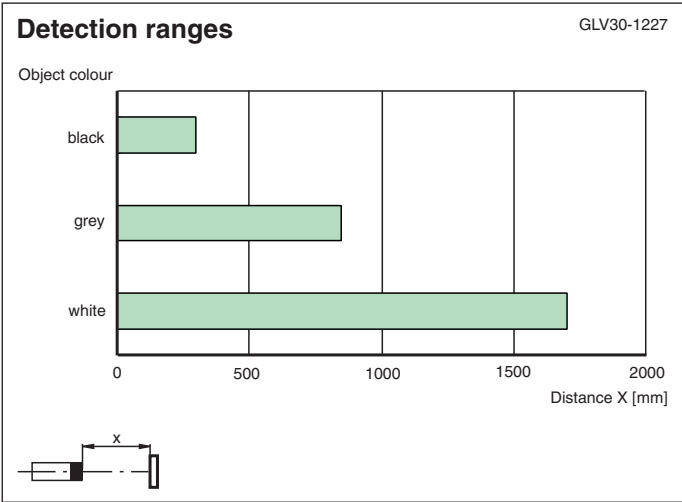


Wire colors in accordance with EN 60947-5-2

|   |    |         |
|---|----|---------|
| 1 | BN | (brown) |
| 2 | WH | (white) |
| 3 | BU | (blue)  |
| 4 | BK | (black) |



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## Selection table for fibre

|                                                                | Model number             | Max. sensing range /<br>detection range in mm | Figure |
|----------------------------------------------------------------|--------------------------|-----------------------------------------------|--------|
| glass fibre optics, single path<br>with metal-silicone coating | LLE 18/30-2,3-0,5-Z1     | 420                                           | 1      |
|                                                                | LLE 18/30-2,3-1,0-Z 1    | 300                                           | 1      |
|                                                                | LLE 18/30-2,3-2,0-Z 1    | 200                                           | 1      |
|                                                                | LLE 18/30-2,3-1,0-WR     | 300                                           | 2      |
|                                                                | LLE 18/30-2,3-0,5-WC3    | 400                                           | 3      |
|                                                                | LLE 18/30-2,3-1,0-WC14   | 300                                           | 4      |
|                                                                | LLE 18/30-2,3-1,0-WC32   | 250                                           | 5      |
|                                                                | LLE 18/30-2,3-1,0-WC5    | 300                                           | 6      |
|                                                                | LLE 18/30-2,3-1,0-WC10   | 300                                           | 7      |
|                                                                | LLE 18/30-2,3-1,0-WC0    | 230                                           | 8      |
|                                                                | LLE 18/30-2,3-1,0-WC20   | 250                                           | 9      |
|                                                                | LLE 18/30-2,3-1,0-WC3    | 300                                           | 3      |
|                                                                | LLE 18/30-1,6-0,5-Z1     | 200                                           | 1      |
|                                                                | LLE 18/30-1,1-2,0-G      | 100                                           | 10     |
|                                                                | LLE 18/30-2,3-1,5-G      | 250                                           | 10     |
| glass fibre optics, reflex<br>with metal-silicone<br>coating   | LLE 18/30-1,9-0,5-Z1     | 130                                           | 15     |
|                                                                | LLE 18/30-1,9-1,0-Z1     | 120                                           | 15     |
|                                                                | LLR 18/30-1,9-0,5-WC0    | 70                                            | 16     |
|                                                                | LLR 18/30-1,9-1,0-WC2    | 90                                            | 17     |
|                                                                | LLR 18/30-1,9-0,5-WC5    | 90                                            | 18     |
|                                                                | LLR 18/30-1,9-1,0-WR     | 90                                            | 19     |
|                                                                | LLR 18/30-1,9-1,5-G      | 100                                           | 20     |
|                                                                | LLR 18/30-1,6-1,0-QW 1x4 | 70                                            | 21     |
| glass fibre optics<br>reflex with metal<br>coating             | LMR 18/30-1,9-1,0-Z1     | 120                                           | 15     |
|                                                                | LMR 18/30-1,9-3,0-Z1     | 85                                            | 15     |
|                                                                | LMR 18/30-1,9-1,5-Z1     | 100                                           | 15     |

Other lengths and end pieces available on request

Fig. 1

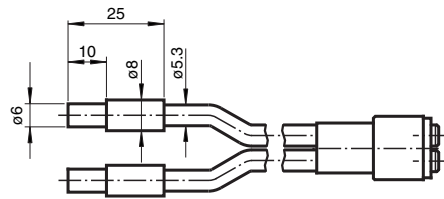


Fig. 2

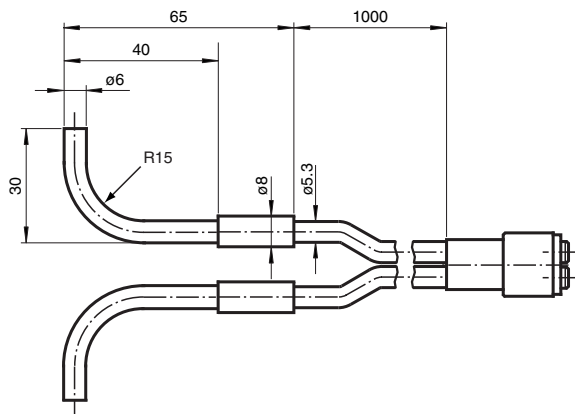


Fig. 3

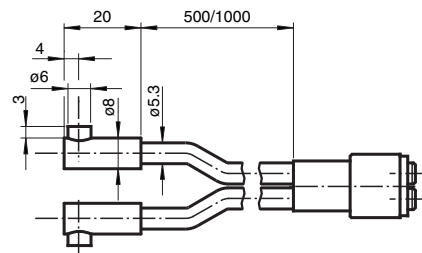


Fig. 4

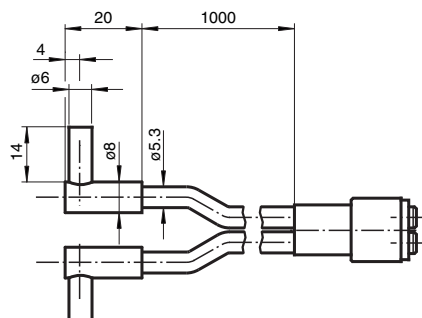


Fig. 5

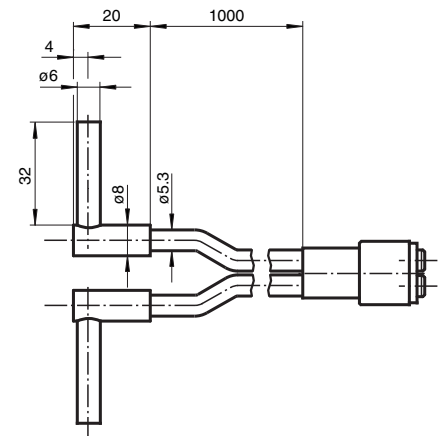


Fig. 6

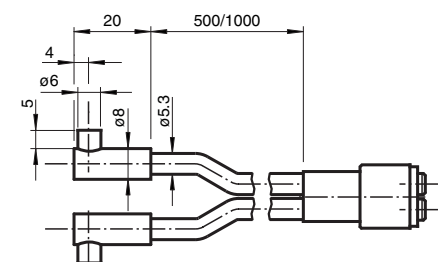


Fig. 7

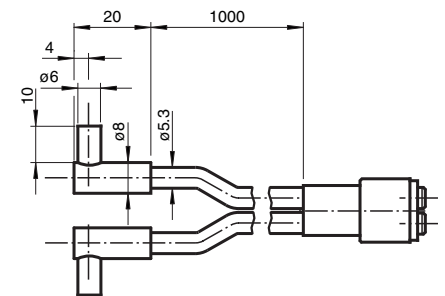


Fig. 8

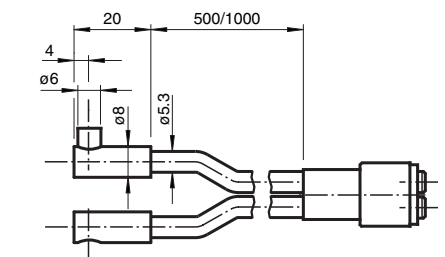


Fig. 13

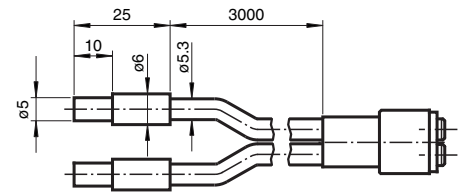


Fig. 14

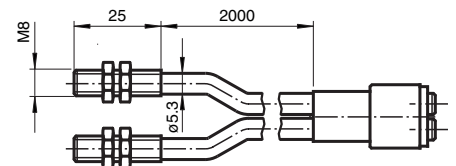


Fig. 15

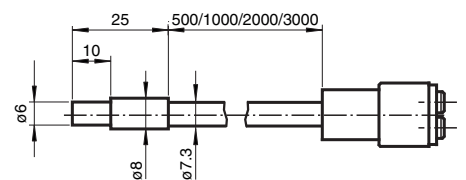


Fig. 16

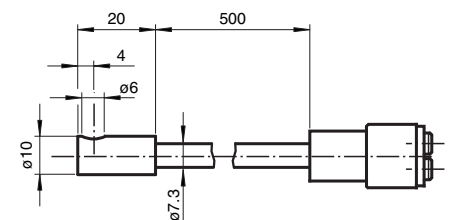


Fig. 17

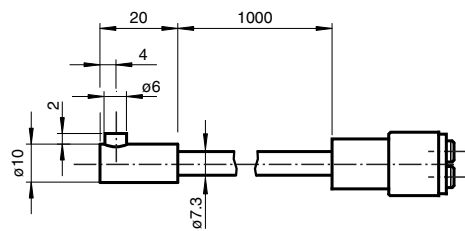


Fig. 20

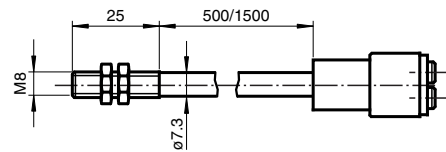


Fig. 18

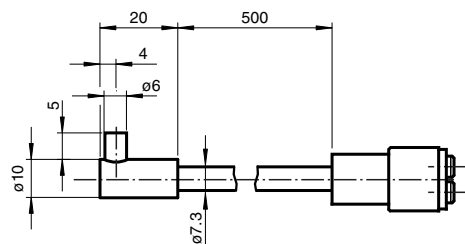


Fig. 21

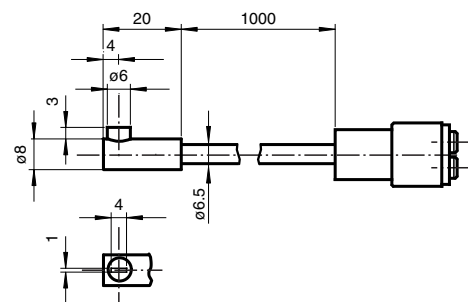
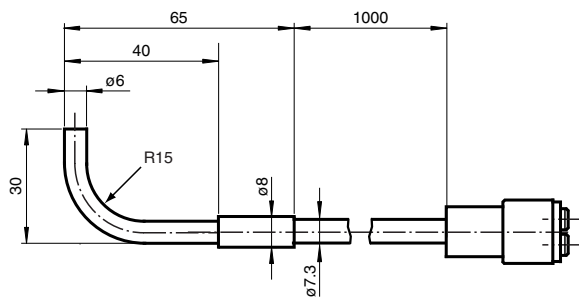


Fig. 19



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