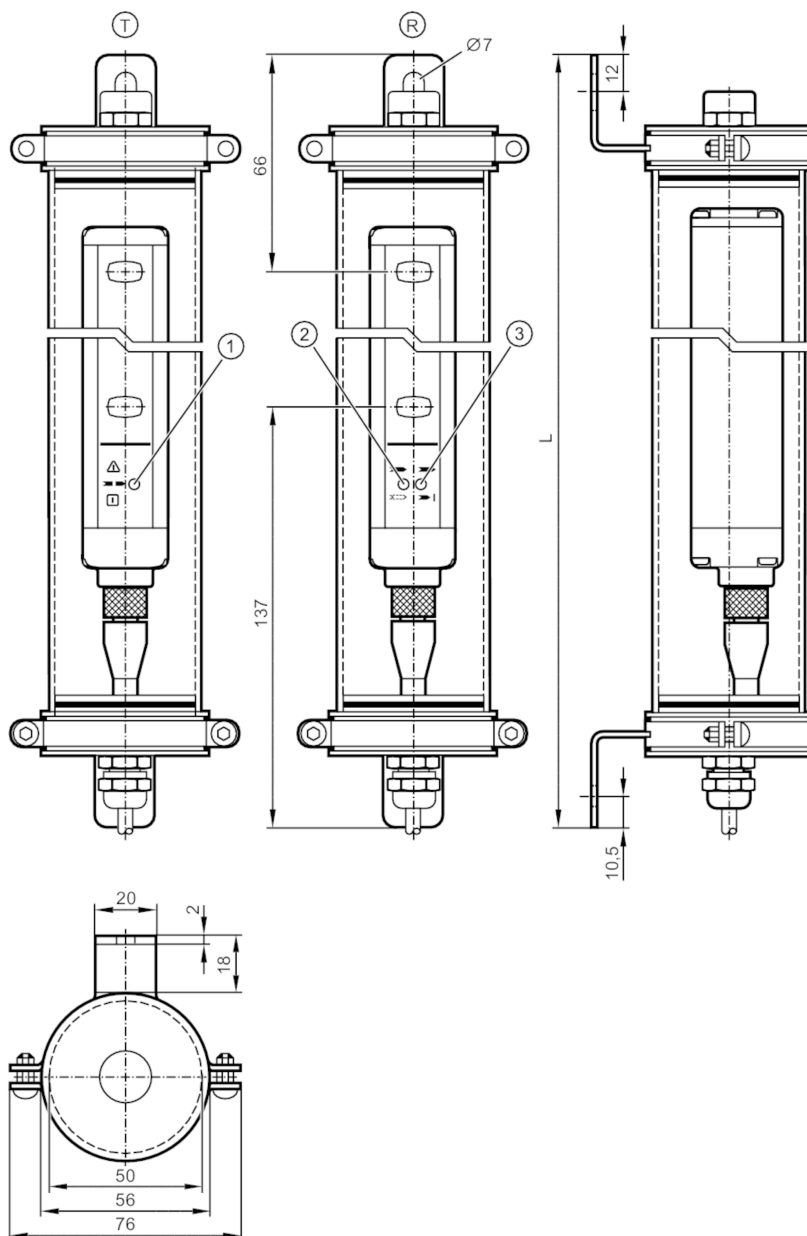


# OY451S



## Safety light curtain

OYA1660-40-4-15-P-1-A



- T transmitter
- R receiver
- 1 LED three-color red / green / orange
- 2 LED 2-color yellow/blue
- 3 LED 2-color red/green



### Product characteristics

|                 |                 |
|-----------------|-----------------|
| Type of light   | Infrared light  |
| Dimensions [mm] | Ø 56 / L = 1833 |

### Application

|                     |                                   |
|---------------------|-----------------------------------|
| Protective function | Access prevention hand protection |
|---------------------|-----------------------------------|



## Safety light curtain

OYA1660-40-4-15-P-1-A

| Electrical data                              |             |                                                      |
|----------------------------------------------|-------------|------------------------------------------------------|
| Operating voltage tolerance                  | [%]         | 20                                                   |
| Operating voltage                            | [V]         | 24 DC                                                |
| Protection class                             |             | III                                                  |
| Reverse polarity protection                  |             | yes                                                  |
| Power-on delay time                          | [s]         | < 2                                                  |
| Type of light                                |             | Infrared light                                       |
| Wave length                                  | [nm]        | 950                                                  |
| Receiver                                     |             |                                                      |
| Current consumption                          | [mA]        | 83                                                   |
| Current consumption heating                  | [mA]        | 417                                                  |
| Transmitter                                  |             |                                                      |
| Current consumption                          | [mA]        | 42                                                   |
| Current consumption heating                  | [mA]        | 417                                                  |
| Outputs                                      |             |                                                      |
| Electrical design                            |             | PNP                                                  |
| Number of OSSD outputs                       |             | 2                                                    |
| Max. current load per OSSD output            | [mA]        | 400; (24 V)                                          |
| Short-circuit protection                     |             | yes                                                  |
| Monitoring range                             |             |                                                      |
| Protected area height                        | [mm]        | 1660                                                 |
| Resolution (detection capacity d)            | [mm]        | 40                                                   |
| Protection area width (low light intensity)  | [m]         | 0...7                                                |
| Protection area width (high light intensity) | [m]         | 3...15                                               |
| Reaction times                               |             |                                                      |
| Response time                                | [ms]        | 14                                                   |
| Operating conditions                         |             |                                                      |
| Ambient temperature                          | [°C]        | -20...55                                             |
| Max. relative air humidity                   | [%]         | 95                                                   |
| Protection                                   |             | IP 65; IP 67; IP 69K; (with protective tube: IP 69K) |
| Tests / approvals                            |             |                                                      |
| EMC                                          | IEC 61496-1 |                                                      |
| Shock resistance                             | IEC 61496-1 |                                                      |
| Vibration resistance                         | IEC 61496-1 |                                                      |

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## Safety light curtain

OYA1660-40-4-15-P-1-A

| Safety classification           |                                                                                                                      |                 |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------------|
| ESPE type (IEC 61496-1)         | 4                                                                                                                    |                 |
| ISO 13849-1                     | Category 4, PL e                                                                                                     |                 |
| IEC 61508                       | SIL 3                                                                                                                |                 |
| IEC 62061                       | SIL cl 3                                                                                                             |                 |
| Mission time TM                 | [h]                                                                                                                  | 175200          |
| Safety-related reliability PFHD | [1/h]                                                                                                                | 1.5E-08         |
| Mechanical data                 |                                                                                                                      |                 |
| Weight                          | [g]                                                                                                                  | 4500            |
| Dimensions                      | [mm]                                                                                                                 | Ø 56 / L = 1833 |
| Material                        | protective tube: PMMA transparent; Protective cap: POM;<br>clamp: stainless steel (1.4404 / 316L); sealing: silicone |                 |
| Length L                        | [mm]                                                                                                                 | 1833            |
| Displays / operating elements   |                                                                                                                      |                 |
| Display                         | transmitter                                                                                                          | 1 x LED         |
|                                 | receiver                                                                                                             | 2 x LED         |
| Remarks                         |                                                                                                                      |                 |
| Pack quantity                   | 1 pcs.                                                                                                               |                 |



## Safety light curtain

OYA1660-40-4-15-P-1-A

### Electrical connection - receiver

Cable: 15 m, PVC; Maximum cable length: 100 m; 10 x 0.34 mm<sup>2</sup>

### Connection



|      |               |
|------|---------------|
| 1:   | Heating       |
|      | Core colors : |
| BK = | black         |
| BN = | brown         |
| BU = | blue          |
| GN = | green         |
| GY = | grey          |
| PK = | pink          |
| RD = | red           |
| VT = | lilac         |
| WH = | white         |
| YE = | yellow        |

# OY451S



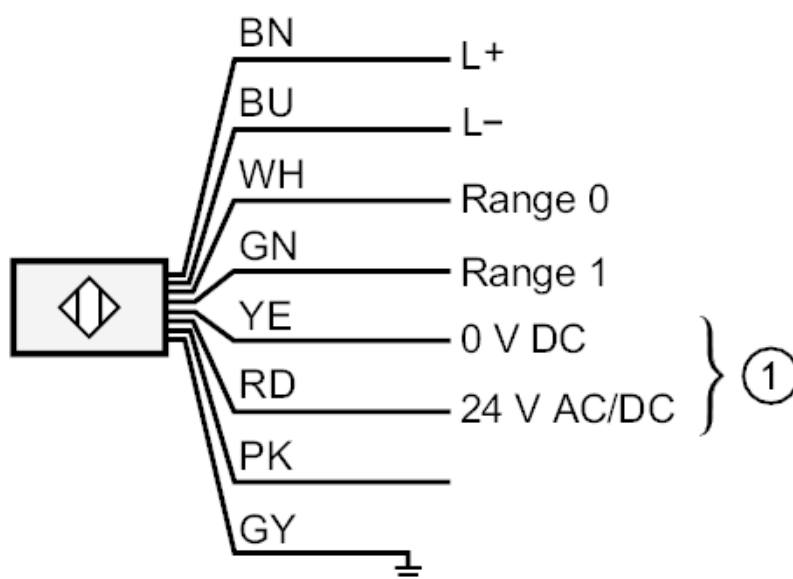
## Safety light curtain

OYA1660-40-4-15-P-1-A

### Electrical connection - transmitter

Cable: 15 m, PVC; 8 x 0.34 mm<sup>2</sup>

### Connection



1: Heating

PK: not used

Core colors :

BN = brown

BU = blue

GN = green

GY = grey

PK = pink

RD = red

WH = white

YE = yellow