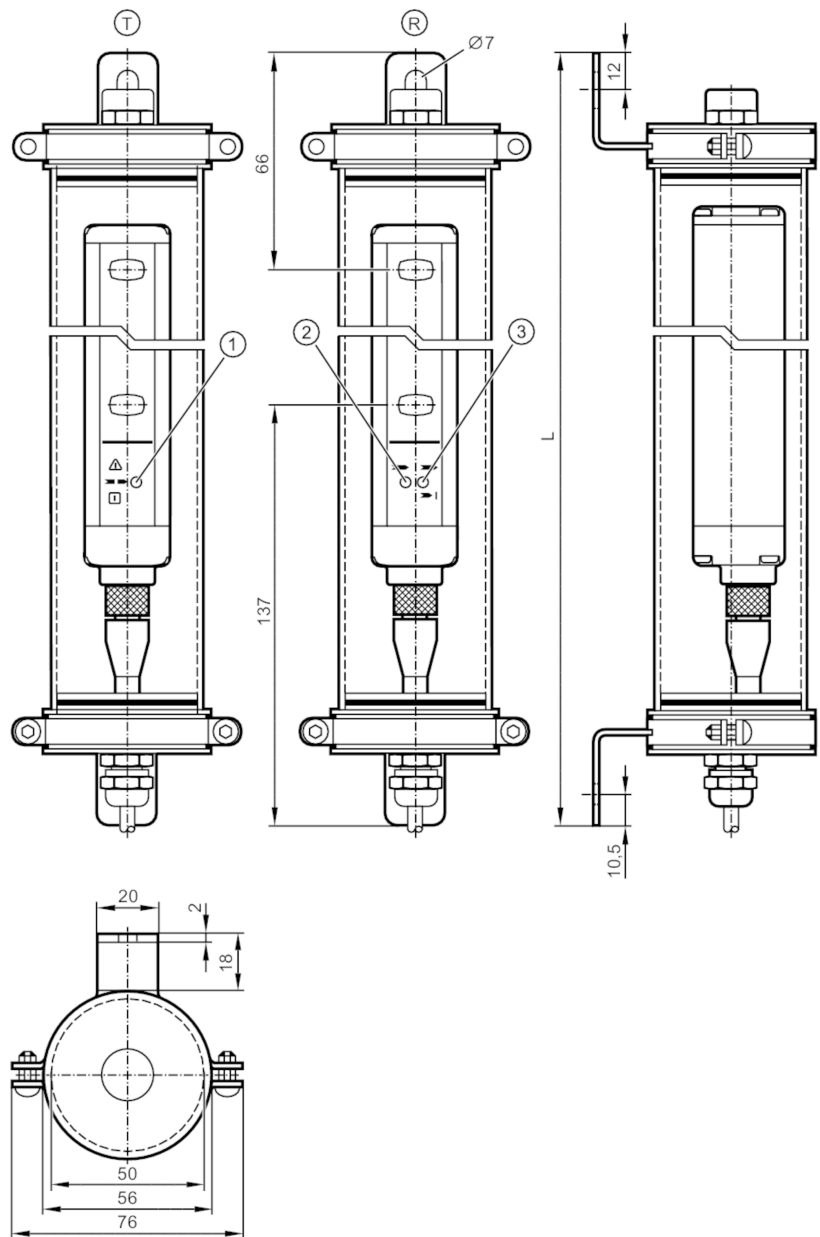


# OY431S



## Safety light curtain

OYA0160-30-2-09-P-1-A



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



### Product characteristics

|                   |                                                      |
|-------------------|------------------------------------------------------|
| Type of light     | infrared light                                       |
| Electrical design | PNP                                                  |
| Protection        | IP 65; IP 67; IP 69K; (with protective tube: IP 69K) |

### Application

|                     |                                   |
|---------------------|-----------------------------------|
| Protective function | access prevention hand protection |
|---------------------|-----------------------------------|



## Safety light curtain

OYA0160-30-2-09-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]        | 83                                                    |
| Transmitter                                  |             |                                                       |
| Current consumption                          | [mA]        | 42                                                    |
| Current consumption heating                  | [mA]        | 83                                                    |
| Outputs                                      |             |                                                       |
| Electrical design                            |             | PNP                                                   |
| Number of OSSD outputs                       |             | 2                                                     |
| Max. current load per OSSD output            | [mA]        | 400; (24 V)                                           |
| Short-circuit protection                     |             | yes                                                   |
| Detection zone                               |             |                                                       |
| Protected area height                        | [mm]        | 160                                                   |
| Resolution (detection capacity d)            | [mm]        | 30                                                    |
| Protection area width (low light intensity)  | [m]         | 0...3                                                 |
| Protection area width (high light intensity) | [m]         | 2...10                                                |
| Response times                               |             |                                                       |
| Response time                                | [ms]        | 4.5                                                   |
| 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 |                                                       |
| Safety classification                        |             |                                                       |
| ESPE type (IEC 61496-1)                      |             | 2                                                     |
| Complies with the requirements               |             | ISO 13849-1: 2015 category 2, PL c<br>IEC 62061 SIL 1 |
| Mission time TM                              | [h]         | 175200                                                |
| PFH                                          | [1/h]       | 2,0E-08                                               |



## Safety light curtain

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| Mechanical data                                              |                                                                                                                 |               |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------|
| Weight                                                       | [g]                                                                                                             | 2940          |
| Dimensions                                                   | [mm]                                                                                                            | 337 x 76 x 74 |
| Materials                                                    | thermowell: PMMA transparent; Protective cap: POM;<br>clamp: stainless steel (1.4404 / 316L); Sealing: silicone |               |
| Length L                                                     | [mm]                                                                                                            | 337           |
| Displays / operating elements                                |                                                                                                                 |               |
| Display                                                      | transmitter                                                                                                     | 1 x LED       |
|                                                              | receiver                                                                                                        | 2 x LED       |
| Remarks                                                      |                                                                                                                 |               |
| Pack quantity                                                | 1 pcs.                                                                                                          |               |
| Electrical connection - receiver                             |                                                                                                                 |               |
| Cable: 15 m, PVC; Maximum cable length: 100 m; 10 x 0.34 mm² |                                                                                                                 |               |
| Connection                                                   |                                                                                                                 |               |



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

## Safety light curtain

OYA0160-30-2-09-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 colours :  
 BN = brown  
 BU = blue  
 GN = green  
 GY = grey  
 PK = pink  
 RD = red  
 WH = white  
 YE = yellow