

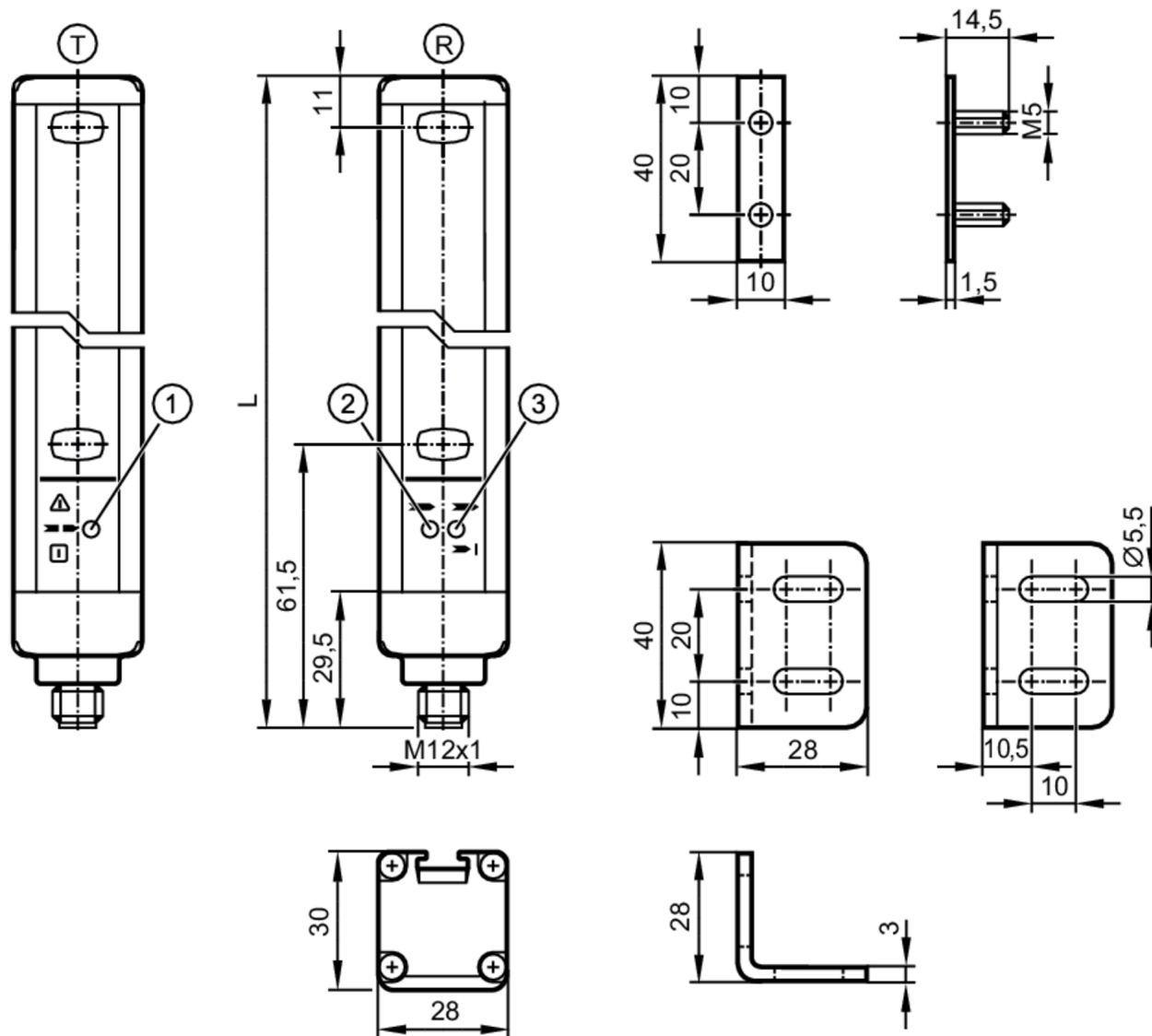
# OY454S



## Safety light curtain

OYA1810-30-4-12-P-1

For 8-wire cordsets the core colors are not standardized.  
Please note the wiring of the sensor and the cordsets (see data sheet).



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



### Product characteristics

|                   |                |
|-------------------|----------------|
| Type of light     | Infrared light |
| Electrical design | PNP            |
| Protection        | IP 65; IP 67   |

### Application

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



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| 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   |
| Transmitter                                  |      |  |
| Current consumption                          | [mA] | 42   |
| 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] | 1810   |
| Resolution (detection capacity d)            | [mm] | 30   |
| Protection area width (low light intensity)  | [m]  | 0...4  |
| Protection area width (high light intensity) | [m]  | 3...12   |
| Reaction times                               |      |  |
| Response time                                | [ms] | 22   |
| Operating conditions                         |      |  |
| Applications                                 |      | Class C to EN 60654-1 weatherproof application |
| Ambient temperature                          | [°C] | -10...55                                       |
| Storage temperature                          | [°C] | -20...70                                       |
| Max. relative air humidity                   | [%]  | 95   |
| Protection                                   |      | IP 65; IP 67                                   |
| Tests / approvals                            |      |  |
| EMC  |      | IEC 61496-1                                    |
| Shock resistance                             |      | IEC 61496-1                                    |
| Vibration resistance                         |      | IEC 61496-1                                    |
| UL approval                                  |      | Ta   |
|  |      | -20...55 °C                                    |
|  |      | File number UL                                 |
|  |      | E329729  |

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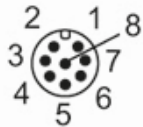


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| Safety classification            |             |                                    |
|----------------------------------|-------------|------------------------------------|
| ESPE type (IEC 61496-1)          |             | 4                                  |
| Complies with the requirements   |             | ISO 13849-1: 2015 Category 4, PL e |
|                                  |             | IEC 61508 SIL 3                    |
|                                  |             | IEC 62061 SIL 3                    |
| Mission time TM                  | [h]         | 175200                             |
| PFH                              | [1/h]       | 2,02E-08                           |
| Mechanical data                  |             |                                    |
| Weight                           | [g]         | 5810                               |
| Dimensions                       | [mm]        | 1863 x 28 x 30                     |
| Material                         |             | housing: aluminum; front lens: PC  |
| Length L                         | [mm]        | 1863                               |
| Displays / operating elements    |             |                                    |
| Display                          | transmitter | 1 x LED                            |
|                                  | receiver    | 2 x LED                            |
| Accessories                      |             |                                    |
| Items supplied                   |             | Assembly angle: 6                  |
|                                  |             | Slot nuts: 6                       |
|                                  |             | Nuts                               |
| Remarks                          |             |                                    |
| Pack quantity                    |             | 1 pcs.                             |
| Electrical connection - receiver |             |                                    |

Connector: 1 x M12; coding: A; Maximum cable length: 100 m; for wire cross-section 0.34 mm<sup>2</sup>



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### Connection



### Electrical connection - transmitter

Connector: 1 x M12; coding: A



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### Connection

