



## Safety light curtain

OYA0160-40-2-12-P-1

For 8-pole sockets the core colours are not standardised.  
Please note the wiring of the sensor and the sockets (see data sheet).



- T transmitter
- R receiver
- 1 LED three-colour red / green / orange
- 2 LED yellow
- 3 LED 2-colour 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                                                   |
| Detection zone                               |             |                                                       |
| Protected area height                        | [mm]        | 160                                                   |
| Resolution (detection capacity d)            | [mm]        | 40                                                    |
| Protection area width (low light intensity)  | [m]         | 0...4                                                 |
| Protection area width (high light intensity) | [m]         | 3...12                                                |
| Response times                               |             |                                                       |
| Response time                                | [ms]        | 4                                                     |
| 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 |                                                       |
| 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]       | 1,8E-08                                               |

# OY051S



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| Mechanical data |      |                                    |
|-----------------|------|------------------------------------|
| Weight          | [g]  | 1295                               |
| Dimensions      | [mm] | 213 x 28 x 30                      |
| Materials       |      | housing: aluminium; front pane: PC |
| Length L        | [mm] | 213                                |

| Displays / operating elements |             |         |
|-------------------------------|-------------|---------|
| Display                       | transmitter | 1 x LED |
|                               | receiver    | 2 x LED |

| Accessories    |  |                     |
|----------------|--|---------------------|
| Items supplied |  | mounting bracket: 4 |
|                |  | slot nuts: 4        |
|                |  | Nuts                |

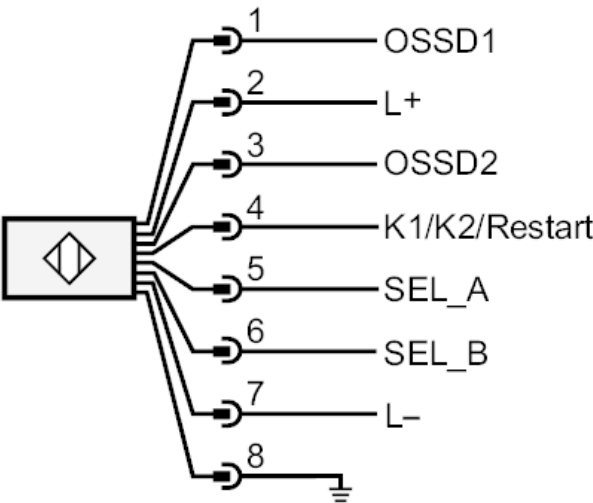
| Remarks       |        |
|---------------|--------|
| Pack quantity | 1 pcs. |

### Electrical connection - receiver

Connector: 1 x M12; coding: A; Maximum cable length: 100 m; for wire cross-section 0.34 mm²



### Connection



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### Electrical connection - transmitter

Connector: 1 x M12; coding: A



### Connection

