

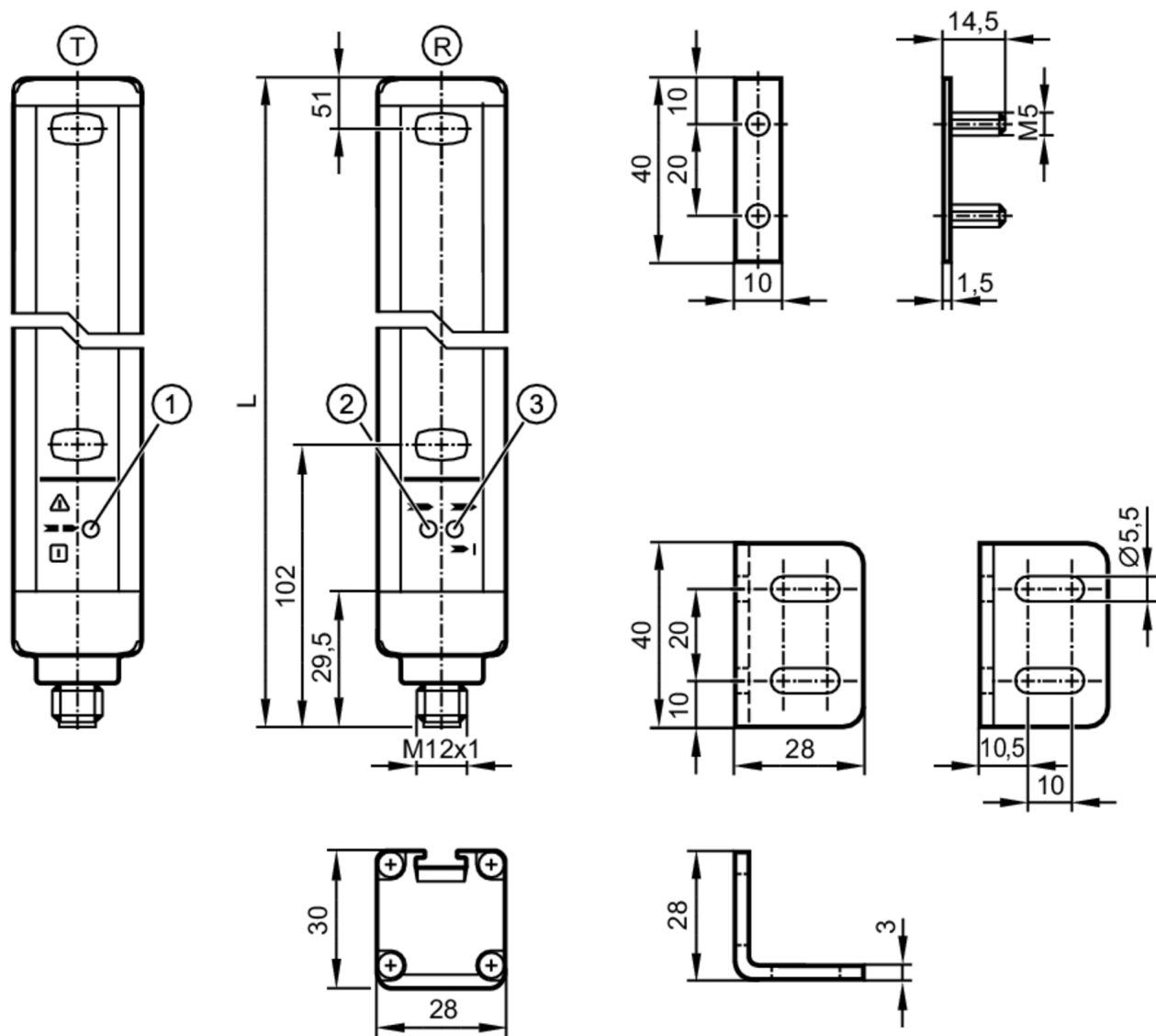
# OY121S



## Safety light grid

OYA0810-03-4-20-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 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   |

### Application

|                     |                                   |
|---------------------|-----------------------------------|
| Protective function | access prevention body protection |
|---------------------|-----------------------------------|



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OYA0810-03-4-20-P-1

| 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]        | 810                                            |
| Number of beams                              |             | 3                                              |
| Protection area width (low light intensity)  | [m]         | 0...10                                         |
| Protection area width (high light intensity) | [m]         | 3...20                                         |
| Response times                               |             |                                                |
| Response time                                | [ms]        | 2.5                                            |
| Operating conditions                         |             |                                                |
| Applications                                 |             | class C to EN 60654-1 weatherproof application |
| Ambient temperature                          | [°C]        | -10...55                                       |
| 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)                      |             | 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]       | 1,0E-08                                        |

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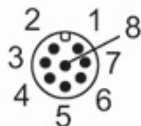
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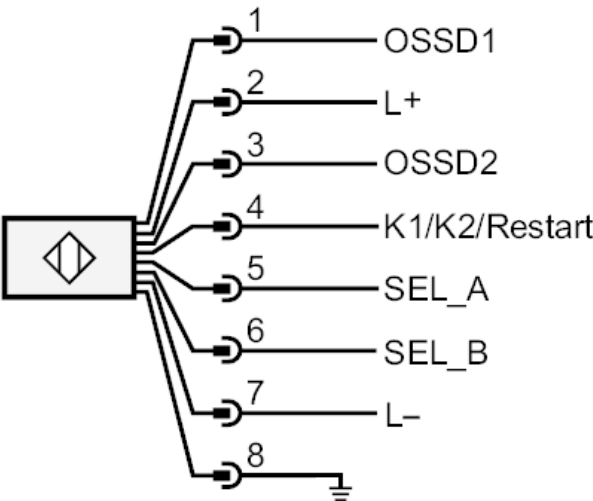
| Mechanical data               |      |                                    |
|-------------------------------|------|------------------------------------|
| Weight                        | [g]  | 3205                               |
| Dimensions                    | [mm] | 953 x 28 x 30                      |
| Materials                     |      | housing: aluminium; front pane: PC |
| Length L                      | [mm] | 953                                |
| Displays / operating elements |      |                                    |
| Display                       |      | LED, yellow                        |
|                               |      | LED, green                         |
|                               |      | LED, red                           |
|                               |      | LED, blue                          |
|                               |      | LED, orange                        |
| 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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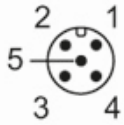


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OYA0810-03-4-20-P-1

### Electrical connection - transmitter

Connector: 1 x M12; coding: A



### Connection

