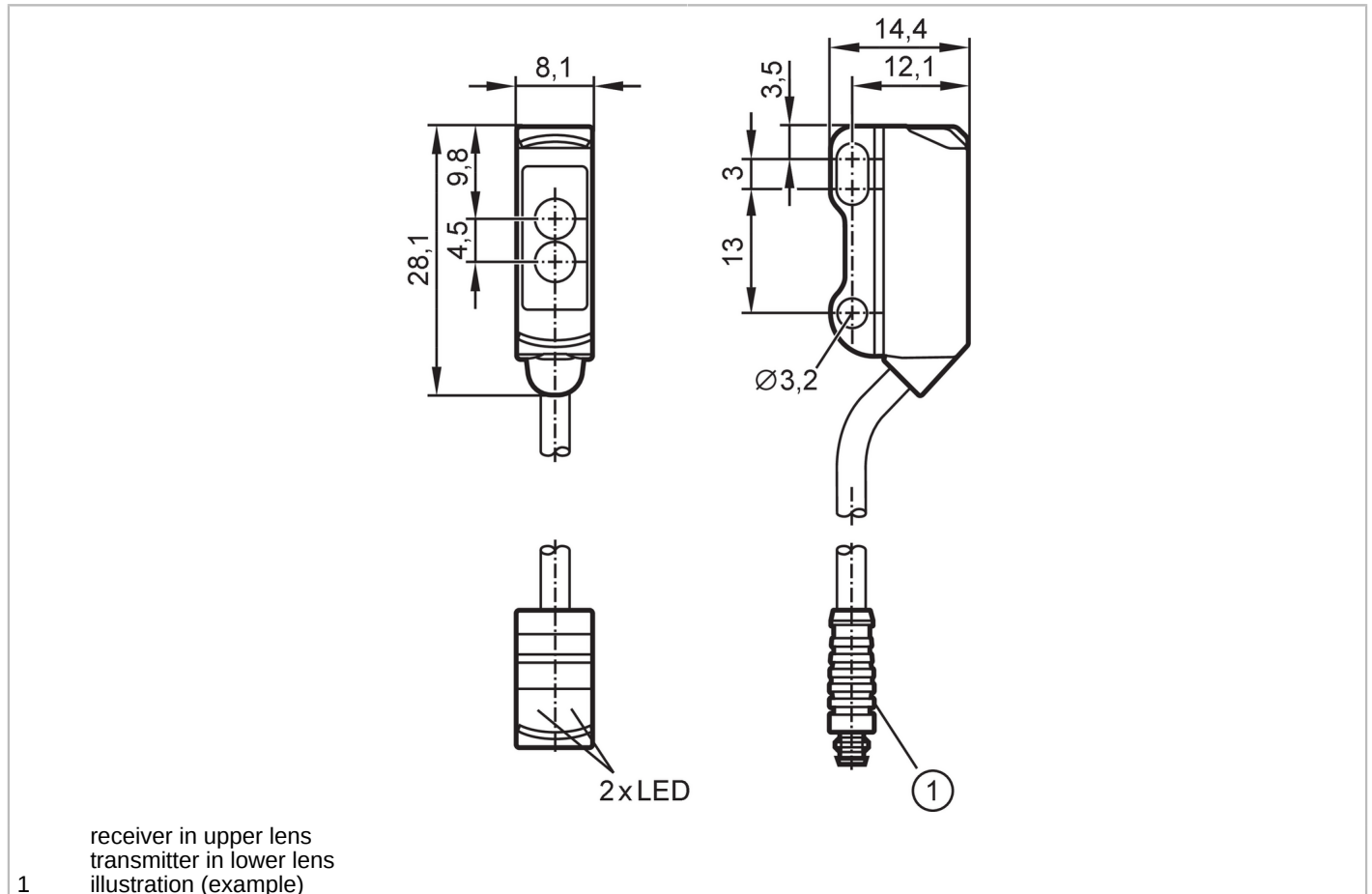


# O8T203



## Diffuse reflection sensor

O8T-HNKG/0,30M/AS/3P



| Product characteristics               |      |  |
|---------------------------------------|------|--|
| Type of light                         |      | red light  |
| Housing                               |      | rectangular  |
| Application                           |      |  |
| Function principle                    |      | Diffuse reflection sensor                                      |
| Application                           |      | For applications in robotics, assembly and handling technology |
| Electrical data                       |      |  |
| Operating voltage                     | [V]  | 10...30 DC   |
| Current consumption                   | [mA] | 20; ((24 V))   |
| Protection class                      |      | III  |
| Reverse polarity protection           |      | yes  |
| Type of light                         |      | red light  |
| Wave length                           | [nm] | 633  |
| Outputs                               |      |  |
| Electrical design                     |      | NPN  |
| Output function                       |      | light-on mode  |
| Max. voltage drop switching output DC | [V]  | 2.5  |

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|  |        |
|--|--------|
| Permanent current rating of switching output DC [mA] | 100    |
| Switching frequency DC [Hz]                          | 1000   |
| Short-circuit protection                             | yes    |
| Type of short-circuit protection                     | pulsed |

|                                |                                     |
|--------------------------------|-------------------------------------|
| <b>Detection zone</b>          |                                     |
| Range [mm]                     | 0...180; (white paper 200 x 200 mm) |
| Max. light spot diameter [mm]  | 18                                  |
| Light spot dimensions refer to | at maximum range                    |

|                             |              |
|-----------------------------|--------------|
| <b>Operating conditions</b> |              |
| Ambient temperature [°C]    | -25...60     |
| Protection                  | IP 65; IP 67 |

|                          |                 |                         |
|--------------------------|-----------------|-------------------------|
| <b>Tests / approvals</b> |                 |                         |
| EMC                      | EN 60947-5-2    |                         |
| MTTF [years]             |                 | 1067                    |
| UL approval              | Ta              | -25...60 °C             |
|                          | Enclosure type  | Type 1                  |
|                          | voltage supply  | Limited Voltage/Current |
|                          | UL approval no. | E015                    |
|                          | File number UL  | E174191                 |

|                        |  |
|------------------------|--|
| <b>Mechanical data</b> |  |
| Weight [g]             | 21.3   |
| Housing                | rectangular  |
| Dimensions [mm]        | 28.1 x 8.1 x 14.4  |
| Materials              | housing: ABS; rear of the housing: stainless steel (316L/1.4404) |
| Lens material          | front pane:PMMA  |
| Lens alignment         | side lens  |

|                                      |                  |                 |
|--------------------------------------|------------------|-----------------|
| <b>Displays / operating elements</b> |                  |                 |
| Display                              | switching status | 1 x LED, yellow |
|                                      | operation        | 1 x LED, green  |

|                |        |
|----------------|--------|
| <b>Remarks</b> |        |
| Pack quantity  | 1 pcs. |

### Electrical connection

Cable: 0.3 m, PVC, black, Ø 2.9 mm; 3 x 0.08 mm<sup>2</sup>

Connector: 1 x M8; coding: A; Contacts: 3

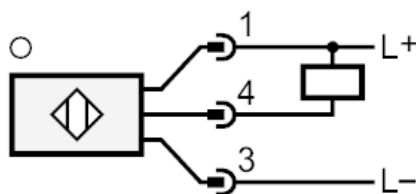




## Diffuse reflection sensor

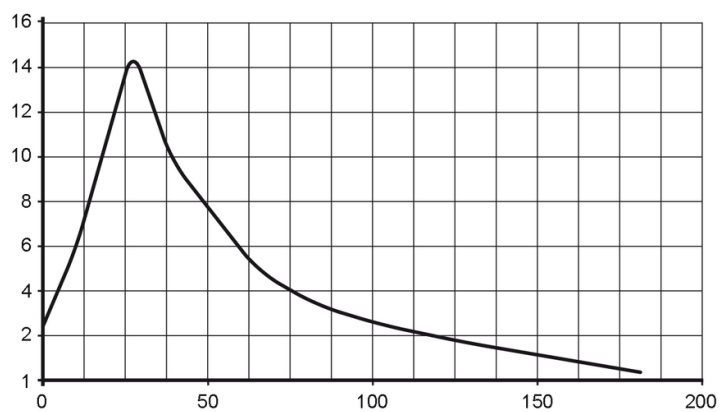
O8T-HNKG/0,30M/AS/3P

### Connection



### Diagrams and graphs

excess gain graph



x: distance [mm]

y: excess gain factor