

## Through-beam sensor receiver

OGE-DNKG/US/CUBE



### Product characteristics

|               |                             |
|---------------|-----------------------------|
| Type of light | red light                   |
| Housing       | rectangular with M18 thread |

### Application

|                    |                     |
|--------------------|---------------------|
| Function principle | Through-beam sensor |
|--------------------|---------------------|

### Electrical data

|                             |      |            |
|-----------------------------|------|------------|
| Operating voltage           | [V]  | 10...30 DC |
| Current consumption         | [mA] | 16         |
| Protection class            |      | III        |
| Reverse polarity protection |      | yes        |
| Type of light               |      | red light  |
| Wave length                 | [nm] | 662        |

### Outputs

|                                                 |      |              |
|-------------------------------------------------|------|--------------|
| Electrical design                               |      | NPN          |
| Output function                                 |      | dark-on mode |
| Max. voltage drop switching output DC           | [V]  | 2.5          |
| Permanent current rating of switching output DC | [mA] | 200          |
| Switching frequency DC                          | [Hz] | 1000         |
| Short-circuit protection                        |      | yes          |
| Type of short-circuit protection                |      | pulsed       |
| Overload protection                             |      | yes          |

### Detection zone

|                        |     |          |
|------------------------|-----|----------|
| Transmitter / receiver |     | receiver |
| Range                  | [m] | < 20     |
| Range adjustable       |     | no       |



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| Interfaces                      |                                                                                         |                   |
|---------------------------------|-----------------------------------------------------------------------------------------|-------------------|
| Communication interface         | IO-Link                                                                                 |                   |
| Transmission type               | COM2 (38,4 kBaud)                                                                       |                   |
| IO-Link revision                | 1.1                                                                                     |                   |
| SDCI standard                   | IEC 61131-9                                                                             |                   |
| Profiles                        | Smart Sensor: Device Identification; Device Diagnosis; Teach Channel; Switching Channel |                   |
| SIO mode                        | yes                                                                                     |                   |
| Required master port type       | A                                                                                       |                   |
| Min. process cycle time [ms]    | 2.5                                                                                     |                   |
| IO-Link process data (cyclical) | <b>function</b>                                                                         | <b>bit length</b> |
|                                 | device status                                                                           | 4                 |
|                                 | binary switching information                                                            | 1                 |
| IO-Link functions (acyclical)   | application specific tag; operating hours counter; switching cycles counter             |                   |
| Supported DeviceIDs             | <b>Type of operation</b>                                                                | <b>DeviceID</b>   |
|                                 | default                                                                                 | 1137              |
| Note                            | For further information please see the IODD PDF file under "Downloads"                  |                   |
| Operating conditions            |                                                                                         |                   |
| Ambient temperature [°C]        | -25...60                                                                                |                   |
| Storage temperature [°C]        | -40...60                                                                                |                   |
| Protection                      | IP 65; IP 67                                                                            |                   |
| Tests / approvals               |                                                                                         |                   |
| EMC                             | EN 60947-5-2                                                                            |                   |
| MTTF [years]                    | 961                                                                                     |                   |
| UL approval                     | Ta                                                                                      | -25...60 °C       |
|                                 | Enclosure type                                                                          | Type 1            |
|                                 | power supply                                                                            | Class 2           |
|                                 | File number UL                                                                          | E174191           |
| Mechanical data                 |                                                                                         |                   |
| Weight [g]                      | 59.5                                                                                    |                   |
| Housing                         | rectangular with M18 thread                                                             |                   |
| Dimensions [mm]                 | 52.6 x 19 x 36                                                                          |                   |
| Thread designation              | M18 x 1                                                                                 |                   |
| Materials                       | diecast zinc; PEI                                                                       |                   |
| Lens material                   | PMMA                                                                                    |                   |
| Lens alignment                  | side lens                                                                               |                   |
| Displays / operating elements   |                                                                                         |                   |
| Display                         | switching status                                                                        | 1 x LED, yellow   |
|                                 | operation                                                                               | 1 x LED, green    |
| Accessories                     |                                                                                         |                   |
| Items supplied                  | lock nut: 1                                                                             |                   |
| Remarks                         |                                                                                         |                   |
| Remarks                         |                                                                                         |                   |
| Pack quantity                   | 1 pcs.                                                                                  |                   |

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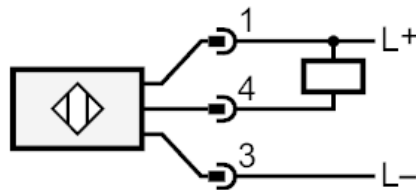
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### Electrical connection

Connector: 1 x M12; coding: A



### Connection



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OUT / IO-Link



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### Diagrams and graphs

excess gain graph

