

# OGP282



## Retro-reflective sensor

OGP-DNKG/US/CUBE



### Product characteristics

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

### Application

|                    |                         |
|--------------------|-------------------------|
| System             | polarization filter     |
| Function principle | Retro-reflective sensor |

### Electrical data

|                             |      |            |
|-----------------------------|------|------------|
| Operating voltage           | [V]  | 10...30 DC |
| Rated insulation voltage    | [V]  | 32         |
| Current consumption         | [mA] | 21         |
| Protection class            |      | III        |
| Reverse polarity protection |      | yes        |
| Max. power-on delay time    | [ms] | 300        |
| 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                |      | yes (non-latching) |

### Monitoring range

|                                       |     |                                            |
|---------------------------------------|-----|--------------------------------------------|
| Range referred to prismatic reflector | [m] | 0.1...4; (Prismatic reflector Ø 80 E20005) |
|---------------------------------------|-----|--------------------------------------------|



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|                                 |                                                                                         |                 |
|---------------------------------|-----------------------------------------------------------------------------------------|-----------------|
| Range adjustable                | no                                                                                      |                 |
| Max. light spot diameter [mm]   | 160                                                                                     |                 |
| Light spot dimensions refer to  | at maximum range                                                                        |                 |
| Polarization filter available   | yes                                                                                     |                 |
| 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 class      | A                                                                                       |                 |
| Min. process cycle time [ms]    | 2.5                                                                                     |                 |
| IO-Link process data (cyclical) | Function                                                                                | bit length      |
|                                 | device status                                                                           | 4               |
|                                 | binary switching information                                                            | 1               |
| IO-Link functions (acyclical)   | application specific tag; operating hours counter                                       |                 |
| Supported DeviceIDs             | Type of operation                                                                       | DeviceID        |
|                                 | default                                                                                 | 1140            |
| Note                            | For further information please see the IODD PDF file at "Downloads"                     |                 |
| Operating conditions            |                                                                                         |                 |
| Ambient temperature [°C]        | -25...60                                                                                |                 |
| Storage temperature [°C]        | -40...80                                                                                |                 |
| Protection                      | IP 65; IP 67                                                                            |                 |
| Tests / approvals               |                                                                                         |                 |
| EMC                             | EN 60947-5-2                                                                            |                 |
| MTTF [years]                    | 905                                                                                     |                 |
| UL approval                     | Ta                                                                                      | -25...60 °C     |
|                                 | Enclosure type                                                                          | Type 1          |
|                                 | voltage 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                                                                                 |                 |
| Material                        | diecast zinc; PEI                                                                       |                 |
| Lens material                   | PMMA                                                                                    |                 |
| Lens alignment                  | Side sensing                                                                            |                 |
| Displays / operating elements   |                                                                                         |                 |
| Display                         | Switching status                                                                        | 1 x LED, yellow |
|                                 | Power                                                                                   | 1 x LED, green  |
| Accessories                     |                                                                                         |                 |
| Items supplied                  | lock nut: 1                                                                             |                 |

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### Remarks

Pack quantity

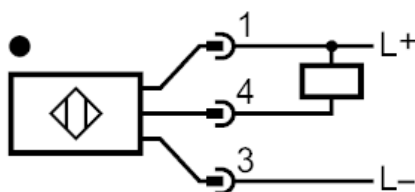
1 pcs.

### Electrical connection

Connector: 1 x M12; coding: A



### Connection





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### Diagrams and graphs

excess gain graph

