



Retro-reflective sensor

O6P-FNKG/0,30m/US



- 1: output function switch  
2: potentiometer sensitivity receiver in upper lens  
transmitter in lower lens



| Product characteristics                         |      |                                     |
|-------------------------------------------------|------|-------------------------------------|
| Type of light                                   |      | red light                           |
| Housing                                         |      | rectangular                         |
| Application                                     |      |                                     |
| Special feature                                 |      | polarisation filter                 |
| Function principle                              |      | Retro-reflective sensor             |
| Electrical data                                 |      |                                     |
| Operating voltage                               | [V]  | 10...30 DC                          |
| Current consumption                             | [mA] | 12; ((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/dark-on mode; (selectable) |
| Max. voltage drop switching output DC           | [V]  | 2.5                                 |
| Permanent current rating of switching output DC | [mA] | 100                                 |
| Switching frequency DC                          | [Hz] | 1000                                |
| Short-circuit protection                        |      | yes                                 |
| Type of short-circuit protection                |      | pulsed                              |



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| Detection zone                                                                      |                  |                                                       |
|-------------------------------------------------------------------------------------|------------------|-------------------------------------------------------|
| Range referred to prismatic reflector                                               | [m]              | 0.05...5; (Prismatic reflector Ø 80 E20005)           |
| Range adjustable                                                                    |                  | yes                                                   |
| Max. light spot diameter                                                            | [mm]             | 150                                                   |
| Light spot dimensions refer to                                                      |                  | at maximum range                                      |
| Polarisation filter available                                                       |                  | yes                                                   |
| Operating conditions                                                                |                  |                                                       |
| Ambient temperature                                                                 | [°C]             | -25...60                                              |
| Storage temperature                                                                 | [°C]             | -40...70                                              |
| Max. relative air humidity                                                          | [%]              | 50; (70° C)                                           |
| Protection                                                                          |                  | IP 65; IP 67                                          |
| Tests / approvals                                                                   |                  |                                                       |
| EMC                                                                                 |                  | EN 60947-5-2                                          |
| MTTF                                                                                | [years]          | 895                                                   |
| UL approval                                                                         |                  | UL Approval no. E012                                  |
| Mechanical data                                                                     |                  |                                                       |
| Weight                                                                              | [g]              | 33.2                                                  |
| Housing                                                                             |                  | rectangular                                           |
| Dimensions                                                                          | [mm]             | 35.4 x 13 x 21                                        |
| Materials                                                                           |                  | housing: ABS; PPSU; Sealing: EPDM                     |
| Lens material                                                                       |                  | PMMA                                                  |
| Lens alignment                                                                      |                  | side lens                                             |
| Tightening torque                                                                   | [Nm]             | 0.5                                                   |
| Displays / operating elements                                                       |                  |                                                       |
| Display                                                                             | switching status | 1 x LED, yellow                                       |
|                                                                                     | operation        | 1 x LED, green                                        |
| Remarks                                                                             |                  |                                                       |
| Remarks                                                                             |                  | operating voltage "supply class 2" according to cULus |
| Pack quantity                                                                       |                  | 1 pcs.                                                |
| Electrical connection                                                               |                  |                                                       |
| Cable: 0.3 m, PUR; 3 x 0.25 mm <sup>2</sup>                                         |                  |                                                       |
| Connector: 1 x M12; coding: A                                                       |                  |                                                       |
|  |                  |                                                       |

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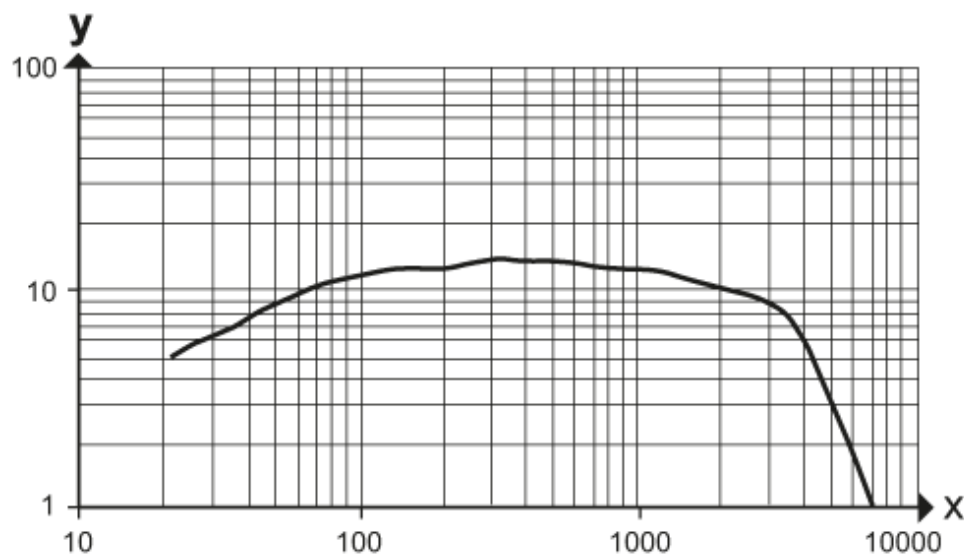
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### Connection



### Diagrams and graphs

excess gain graph



x: distance [mm]

y: excess gain factor