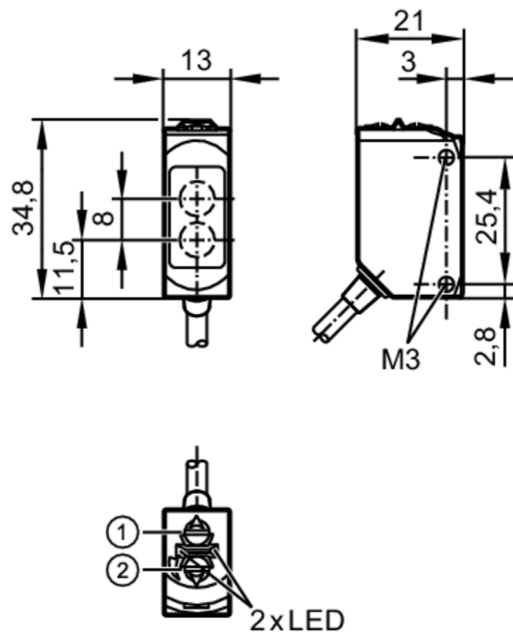


# O6T305



## Diffuse reflection sensor

O6T-FNKG/0,30m/US



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



| Product characteristics                         |      |                                     |
|-------------------------------------------------|------|-------------------------------------|
| Type of light                                   |      | red light                           |
| Housing                                         |      | rectangular                         |
| Application                                     |      |                                     |
| Function principle                              |      | Diffuse reflection sensor           |
| Electrical data                                 |      |                                     |
| Operating voltage                               | [V]  | 10...30 DC                          |
| Current consumption                             | [mA] | 16; ((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                              |



## Diffuse reflection sensor

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| Detection zone                 |      |                                                   |
|--------------------------------|------|---------------------------------------------------|
| Range                          | [mm] | 5...500; (white paper 200 x 200 mm 90% remission) |
| Setting range                  | [mm] | 100...500                                         |
| Range adjustable               |      | yes                                               |
| Max. light spot diameter       | [mm] | 15                                                |
| Light spot dimensions refer to |      | at maximum range                                  |

| Operating conditions |      |                             |
|----------------------|------|-----------------------------|
| Ambient temperature  | [°C] | -25...80                    |
| Protection           |      | IP 65; IP 67; IP 68; IP 69K |

| Tests / approvals |         |                      |
|-------------------|---------|----------------------|
| EMC               |         | EN 60947-5-2         |
| MTTF              | [years] | 910                  |
| UL approval       |         | UL Approval no. E006 |

| Mechanical data   |      |                                                                       |
|-------------------|------|-----------------------------------------------------------------------|
| Weight            | [g]  | 51.2                                                                  |
| Housing           |      | rectangular                                                           |
| Materials         |      | housing: stainless steel (316L/1.4404); plastics: PPSU; Sealing: EPDM |
| Lens material     |      | PMMA                                                                  |
| Lens alignment    |      | side lens                                                             |
| Tightening torque | [Nm] | 1; (screws)                                                           |

| 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, PVC; 3 x 0.25 mm<sup>2</sup>

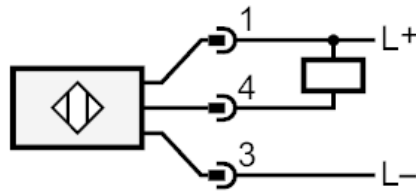
Connector: 1 x M12; coding: A



## Diffuse reflection sensor

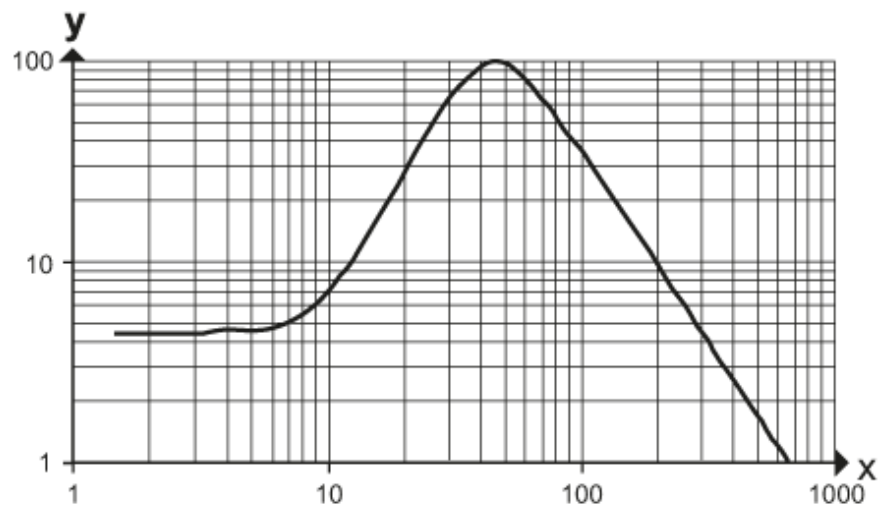
O6T-FNKG/0,30m/US

### Connection



### Diagrams and graphs

excess gain graph



x: distance [mm]

y: excess gain factor