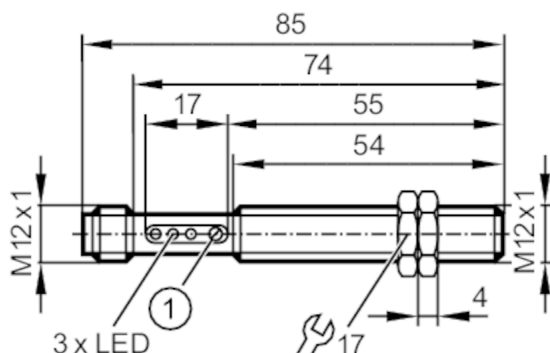




## Diffuse reflection sensor

OFT-FPKG/US-100



1 potentiometer



### Application

|                    |                           |
|--------------------|---------------------------|
| Function principle | Diffuse reflection sensor |
|--------------------|---------------------------|

### Electrical data

|                             |      |                |
|-----------------------------|------|----------------|
| Operating voltage           | [V]  | 10...36 DC     |
| Current consumption         | [mA] | < 35           |
| Protection class            |      | II             |
| Reverse polarity protection |      | yes            |
| Type of light               |      | infrared light |
| Wave length                 | [nm] | 880            |

### Outputs

|                                                 |      |                                       |
|-------------------------------------------------|------|---------------------------------------|
| Electrical design                               |      | PNP                                   |
| Output function                                 |      | light-on/dark-on mode; (programmable) |
| Max. voltage drop switching output DC           | [V]  | 2.5                                   |
| Function check output                           |      | yes                                   |
| Max. voltage drop of function check output      | [V]  | 3.5                                   |
| Max. current load for function check output     | [mA] | 10                                    |
| Permanent current rating of switching output DC | [mA] | 200                                   |
| Switching frequency DC                          | [Hz] | 320                                   |
| Short-circuit protection                        |      | yes                                   |
| Type of short-circuit protection                |      | pulsed                                |
| Overload protection                             |      | yes                                   |

### Detection zone

|                                |      |                                     |
|--------------------------------|------|-------------------------------------|
| Range                          | [mm] | 1...200; (white paper 200 x 200 mm) |
| Range adjustable               |      | yes                                 |
| Max. light spot diameter       | [mm] | 92                                  |
| Light spot dimensions refer to |      | at maximum range                    |

# OF5012



## Diffuse reflection sensor

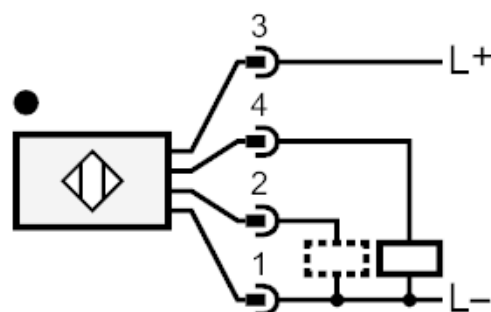
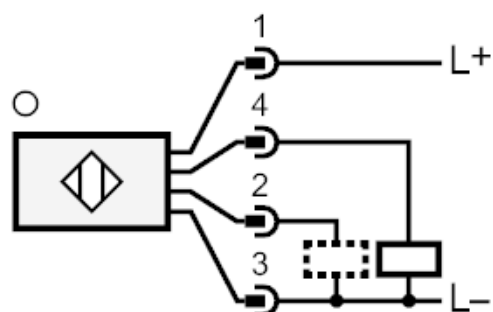
OFT-FPKG/US-100

| Operating conditions                                                                |                  |                     |
|-------------------------------------------------------------------------------------|------------------|---------------------|
| Ambient temperature                                                                 | [°C]             | -25...60            |
| Protection                                                                          |                  | IP 65               |
| Tests / approvals                                                                   |                  |                     |
| EMC                                                                                 | EN 60947-5-2     |                     |
|                                                                                     | EN 55011         | class B             |
| MTTF                                                                                | [years]          | 607                 |
| Mechanical data                                                                     |                  |                     |
| Weight                                                                              | [g]              | 46.8                |
| Housing                                                                             |                  | threaded type       |
| Dimensions                                                                          | [mm]             | M12 x 1 / L = 74    |
| Thread designation                                                                  |                  | M12 x 1             |
| Materials                                                                           |                  | brass nickel-plated |
| Lens material                                                                       |                  | PMMA                |
| Displays / operating elements                                                       |                  |                     |
| Display                                                                             | switching status | 1 x LED, yellow     |
|                                                                                     | operation        | 1 x LED, green      |
|                                                                                     | function         | 1 x LED, red        |
| Accessories                                                                         |                  |                     |
| Accessories (supplied)                                                              |                  | lock nuts: 2 x      |
|                                                                                     |                  | screwdrivers        |
| Remarks                                                                             |                  |                     |
| Pack quantity                                                                       |                  | 1 pcs.              |
| Electrical connection                                                               |                  |                     |
| Connector: 1 x M12                                                                  |                  |                     |
|  |                  |                     |

## Diffuse reflection sensor

OFT-FPKG/US-100

### Connection



2 Function check output

### Diagrams and graphs

excess gain graph

