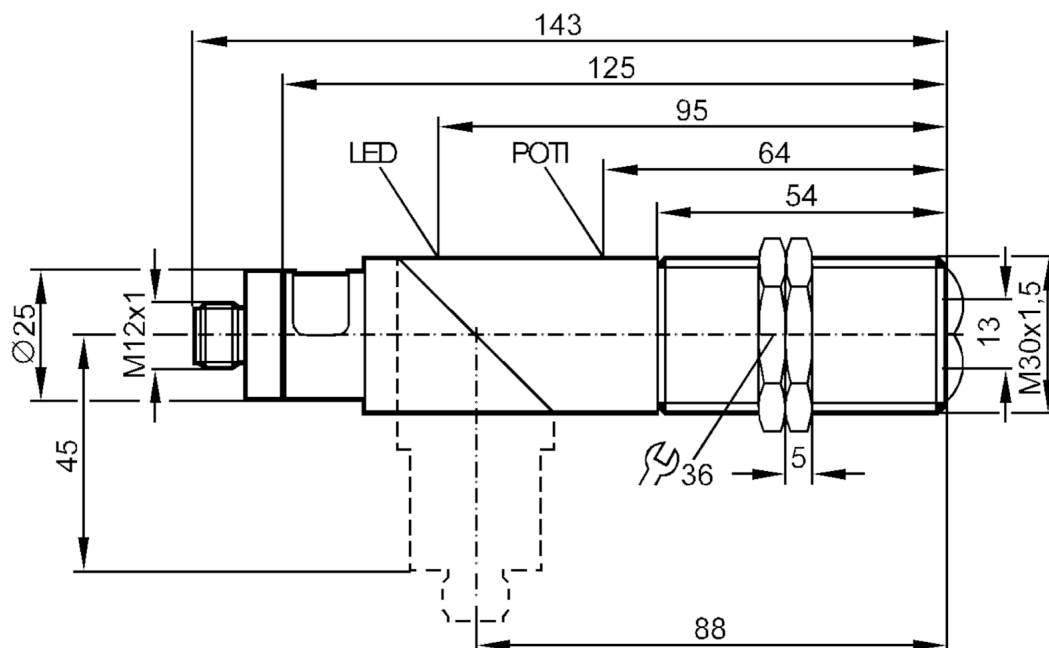




## Diffuse reflection sensor

OIT-FPKG/US-100-DPS



### Application

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

### Electrical data

|                             |      |                |
|-----------------------------|------|----------------|
| Operating voltage           | [V]  | 10...55 DC     |
| Current consumption         | [mA] | 10; ((24 V))   |
| 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                                   |
| Permanent current rating of switching output DC | [mA] | 250                                   |
| Switching frequency DC                          | [Hz] | 100                                   |
| Short-circuit protection                        |      | yes                                   |
| Type of short-circuit protection                |      | pulsed                                |
| Overload protection                             |      | yes                                   |



## Diffuse reflection sensor

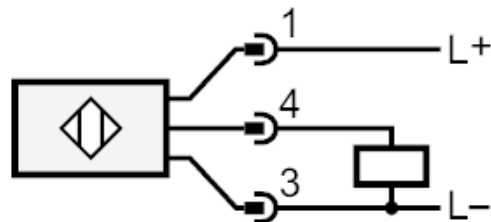
OIT-FPKG/US-100-DPS

| Detection zone                                                                      |         |                                     |
|-------------------------------------------------------------------------------------|---------|-------------------------------------|
| Range                                                                               | [mm]    | 3...700; (white paper 200 x 200 mm) |
| Range adjustable                                                                    |         | yes                                 |
| Max. light spot diameter                                                            | [mm]    | 122                                 |
| Light spot dimensions refer to                                                      |         | at maximum range                    |
| Operating conditions                                                                |         |                                     |
| Ambient temperature                                                                 | [°C]    | -25...80                            |
| Protection                                                                          |         | IP 65                               |
| Tests / approvals                                                                   |         |                                     |
| EMC                                                                                 |         | EN 60947-5-2                        |
| MTTF                                                                                | [years] | 659                                 |
| Mechanical data                                                                     |         |                                     |
| Weight                                                                              | [g]     | 127.9                               |
| Housing                                                                             |         | threaded type                       |
| Dimensions                                                                          | [mm]    | M30 x 1.5                           |
| Thread designation                                                                  |         | M30 x 1.5                           |
| Materials                                                                           |         | PPO modified                        |
| Lens material                                                                       |         | glass                               |
| Displays / operating elements                                                       |         |                                     |
| Display                                                                             |         | switching status<br>1 x LED, yellow |
| Accessories                                                                         |         |                                     |
| Accessories (supplied)                                                              |         | lock nuts: 2 x<br>screwdrivers      |
| Remarks                                                                             |         |                                     |
| Pack quantity                                                                       |         | 1 pcs.                              |
| Electrical connection                                                               |         |                                     |
| Connector: 1 x M12                                                                  |         |                                     |
|  |         |                                     |

## Diffuse reflection sensor

OIT-FPKG/US-100-DPS

### Connection



### Diagrams and graphs

excess gain graph

