



## Diffuse reflection sensor

OFT-FNKG



## Product characteristics

|               |                |
|---------------|----------------|
| Type of light | infrared light |
| Housing       | threaded type  |

## Application

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

## Electrical data

|                             |      |                |
|-----------------------------|------|----------------|
| Operating voltage           | [V]  | 10...36 DC     |
| Current consumption         | [mA] | < 30           |
| Protection class            |      | II             |
| Reverse polarity protection |      | yes            |
| Type of light               |      | infrared light |
| Wave length                 | [nm] | 880            |

## Outputs

|                                                 |      |                                       |
|-------------------------------------------------|------|---------------------------------------|
| Electrical design                               |      | NPN                                   |
| 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] | 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               |      | no                                  |
| Max. light spot diameter       | [mm] | 92                                  |
| Light spot dimensions refer to |      | at maximum range                    |

## Operating conditions

|                     |      |          |
|---------------------|------|----------|
| Ambient temperature | [°C] | -25...60 |
| Protection          |      | IP 67    |

## Tests / approvals

|     |              |  |
|-----|--------------|--|
| EMC | EN 60947-5-2 |  |
|-----|--------------|--|



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|      |         |     |
|------|---------|-----|
| MTTF | [years] | 903 |
|------|---------|-----|

Mechanical data

|                    |      |                     |
|--------------------|------|---------------------|
| Weight             | [g]  | 73.1                |
| Housing            |      | threaded type       |
| Dimensions         | [mm] | M12 x 1 / L = 60    |
| 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  |

Accessories

|                |              |
|----------------|--------------|
| Items supplied | lock nuts: 2 |
|----------------|--------------|

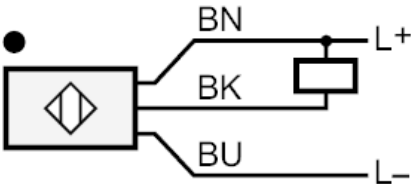
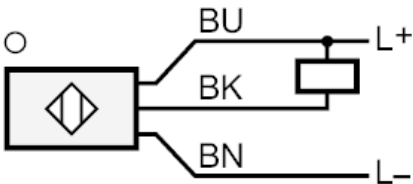
Remarks

|               |        |
|---------------|--------|
| Pack quantity | 1 pcs. |
|---------------|--------|

Electrical connection

Cable: 2 m, PUR; 3 x 0.34 mm²

Connection



BN = Core colours :  
BU = brown  
BK = blue  
BK = black



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### Diagrams and graphs

excess gain graph

