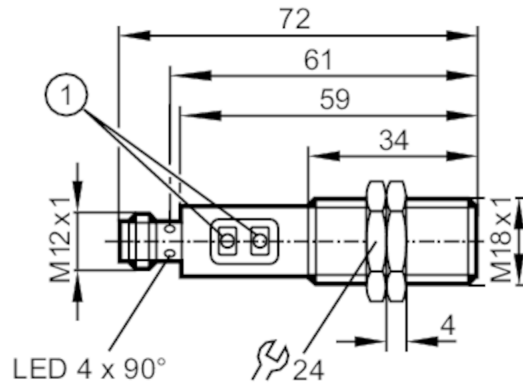


# OGH500



## Diffuse reflection sensors with background suppression

OGH-FPKG/US100



1 Programming buttons



### Product characteristics

|               |               |
|---------------|---------------|
| Type of light | red light     |
| Housing       | Threaded type |

### Application

|                    |                           |
|--------------------|---------------------------|
| System             | Background suppression    |
| Function principle | Diffuse reflection sensor |

### Electrical data

|                             |      |            |
|-----------------------------|------|------------|
| Operating voltage           | [V]  | 10...36 DC |
| Current consumption         | [mA] | 25         |
| Protection class            |      | II         |
| Reverse polarity protection |      | yes        |
| Type of light               |      | red light  |
| Wave length                 | [nm] | 624        |

### 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] | 150; (200 (...60 °C))                 |
| Switching frequency DC                          | [Hz] | 1000                                  |
| Factory setting                                 |      | light-on mode                         |
| Short-circuit protection                        |      | yes                                   |
| Type of short-circuit protection                |      | yes (non-latching)                    |
| Overload protection                             |      | yes                                   |

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| Monitoring range                       |      |   |
|--|------|---|
| Range                                  | [mm] | 15...300; (white paper 200 x 200 mm 90 % remission) |
| Range on white object (90 % remission) | [mm] | 15...300  |
| Range on grey object (18 % remission)  | [mm] | 15...290  |
| Range on black object (6 % remission)  | [mm] | 15...190  |
| Range adjustable                       |      | yes   |
| Max. light spot diameter               | [mm] | 25  |
| Light spot dimensions refer to         |      | at maximum range                                    |
| Background suppression available       |      | yes   |

| Operating conditions |      |          |
|----------------------|------|----------|
| Ambient temperature  | [°C] | -25...80 |
| Protection           |      | IP 67    |

| Tests / approvals |         |              |
|-------------------|---------|--------------|
| EMC               |         | EN 60947-5-2 |
| MTTF              | [years] | 362          |

| Mechanical data    |      |  |
|--------------------|------|--|
| Weight             | [g]  | 61.1   |
| Housing            |      | Threaded type  |
| Dimensions         | [mm] | M18 x 1 / L = 72   |
| Thread designation |      | M18 x 1  |
| Material           |      | stainless steel (1.4404 / 316L); PA; LCP; EPDM; TPU (urethane) |
| Lens material      |      | PMMA   |

| Displays / operating elements |                  |                 |
|-------------------------------|------------------|-----------------|
| Display                       | Switching status | 1 x LED, yellow |

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

| Remarks       |  |                                 |
|---------------|--|---------------------------------|
| Remarks       |  | cULus - Class 2 source required |
| Pack quantity |  | 1 pcs.                          |

### Electrical connection

Connector: 1 x M12; coding: A

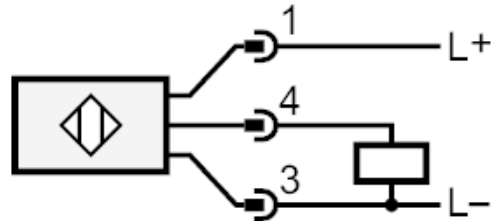




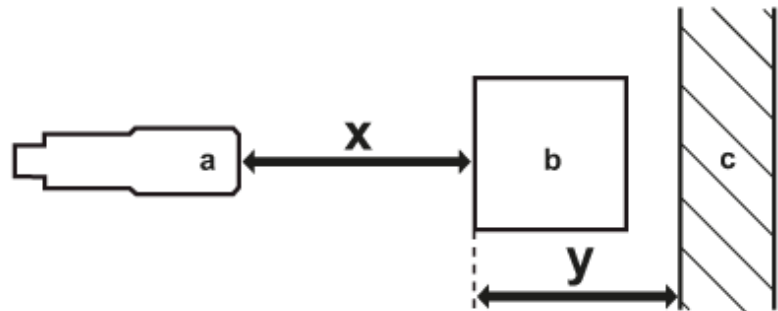
## Diffuse reflection sensors with background suppression

OGH-FPKG/US100

### Connection



### Diagrams and graphs



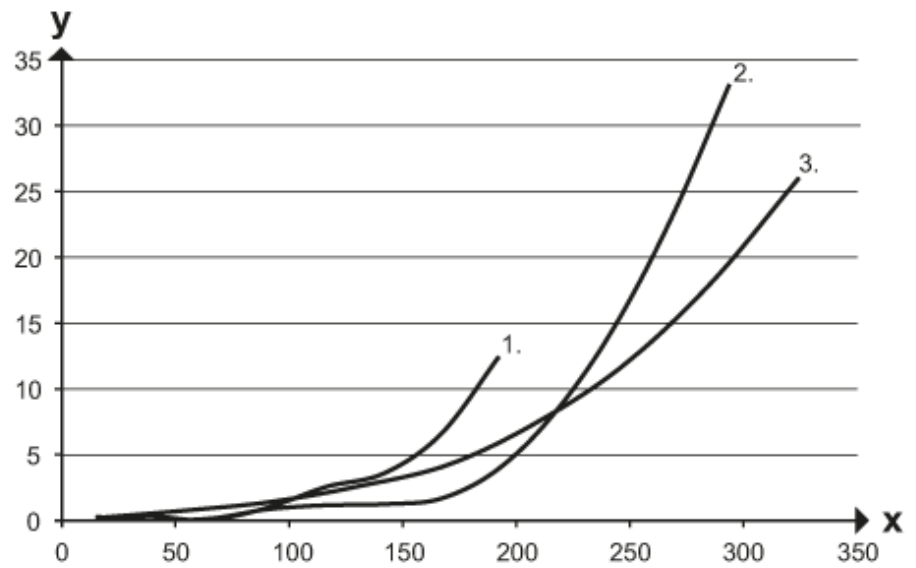
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



## Diffuse reflection sensors with background suppression

OGH-FPKG/US100

Background suppression chart



x: distance sensor/object [mm]

y: min. distance object/background [mm]

1 = object black (6 % remission) , background (white 90 % remission)

2 = object grey (18 % remission) , background (white 90 % remission)

3 = object white (90 % remission) , background (white 90 % remission)