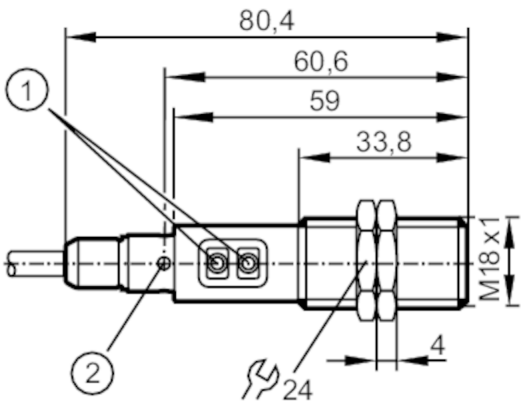




Diffuse reflection sensors with background suppression

OGH-FPKG/6M



- 1 Programming buttons
- 2 LED 4 x 90°



| 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                                           |
| 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                                                |
| Short-circuit protection                        |      | yes                                                 |
| Type of short-circuit protection                |      | yes (non-latching)                                  |
| Overload protection                             |      | yes                                                 |
| 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                                            |



## Diffuse reflection sensors with background suppression

OGH-FPKG/6M

|                                            |                  |
|--------------------------------------------|------------------|
| Range on black object (6 % remission) [mm] | 15...190         |
| Factory setting                            | light-on mode    |
| 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 65; IP 67; IP 68; IP 69K |

### Tests / approvals

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

### Mechanical data

|                    |                                                                |
|--------------------|----------------------------------------------------------------|
| Weight [g]         | 262                                                            |
| Housing            | Threaded type                                                  |
| Dimensions [mm]    | M18 x 1 / L = 80.4                                             |
| 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 |
|----------------|--------------|

### Remarks

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



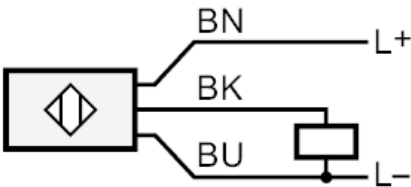
Diffuse reflection sensors with background suppression

OGH-FPKG/6M

Electrical connection

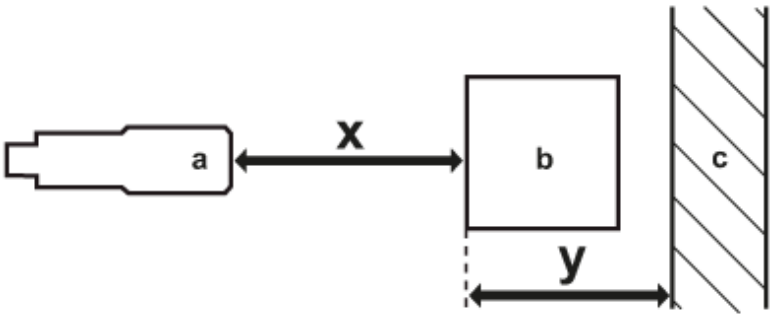
Cable: 6 m, PVC; 3 x 0.34 mm<sup>2</sup>

Connection



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

Diagrams and graphs



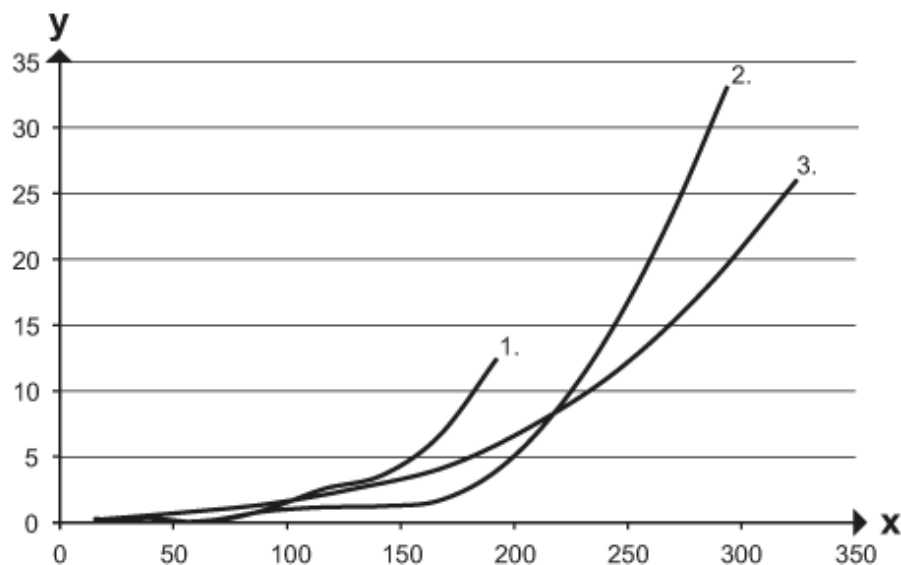
a: sensor  
b: object  
c: background  
x: distance sensor/object [mm]  
y: min. distance object/background [mm]



## Diffuse reflection sensors with background suppression

OGH-FPKG/6M

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)