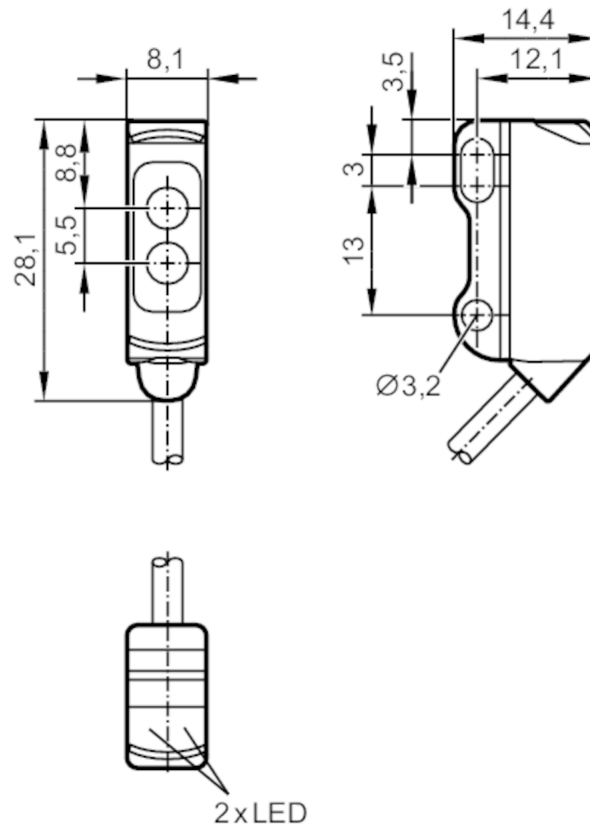


O8H213



Diffuse reflection sensor with background suppression

O8H-HNKG/2,0M



receiver in upper lens
transmitter in lower lens



Product characteristics

| | |
|-----------------|-------------------|
| Type of light | red light |
| Housing | rectangular |
| Dimensions [mm] | 28.1 x 8.1 x 14.4 |

Application

| | |
|--------------------|---------------------------|
| Special feature | Background suppression |
| Function principle | Diffuse reflection sensor |

Electrical data

| | |
|-----------------------------|--------------|
| Operating voltage [V] | 10...30 DC |
| Current consumption [mA] | 20; ((24 V)) |
| Protection class | III |
| Reverse polarity protection | yes |
| Type of light | red light |
| Wave length [nm] | 633 |

O8H213



Diffuse reflection sensor with background suppression

O8H-HNKG/2,0M

| Outputs | | |
|---|------------------|---|
| Electrical design | | NPN |
| Output function | | light-on mode |
| Max. voltage drop switching output DC | [V] | 2.5 |
| Permanent current rating of switching output DC | [mA] | 100 |
| Switching frequency DC | [Hz] | 1000 |
| Short-circuit protection | | yes |
| Type of short-circuit protection | | pulsed |
| Detection zone | | |
| Range | [mm] | 1...50; (white paper 200 x 200 mm) |
| Range on white object (90 % remission) | [mm] | 1...50 |
| Range on grey object (18 % remission) | [mm] | 3...50 |
| Range on black object (6 % remission) | [mm] | 5...50 |
| Range adjustable | | no |
| Max. light spot diameter | [mm] | 4 |
| Light spot dimensions refer to | | at maximum range |
| Background suppression available | | yes |
| Operating conditions | | |
| Ambient temperature | [°C] | -25...60 |
| Protection | | IP 65; IP 67 |
| Tests / approvals | | |
| EMC | | EN 60947-5-2 |
| MTTF | [years] | 757 |
| Mechanical data | | |
| Weight | [g] | 38.3 |
| Housing | | rectangular |
| Dimensions | [mm] | 28.1 x 8.1 x 14.4 |
| Materials | | housing: ABS; stainless steel (1.4404 / 316L) |
| Lens material | | PMMA |
| Lens alignment | | side lens |
| Displays / operating elements | | |
| Display | switching status | 1 x LED, yellow |
| | operation | 1 x LED, green |
| Remarks | | |
| Pack quantity | | 1 pcs. |



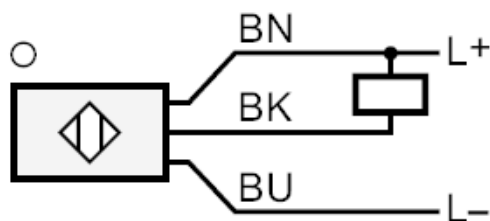
Diffuse reflection sensor with background suppression

O8H-HNKG/2,0M

Electrical connection

Cable: 2 m, PVC; 3 x 0.08 mm²

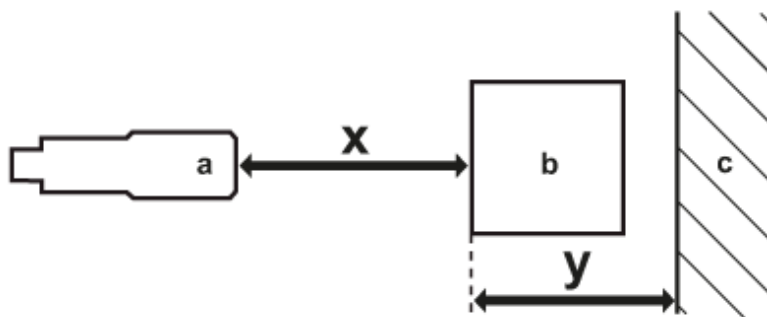
Connection



Core colours :

BN = brown
 BK = black
 BU = blue

Diagrams and graphs



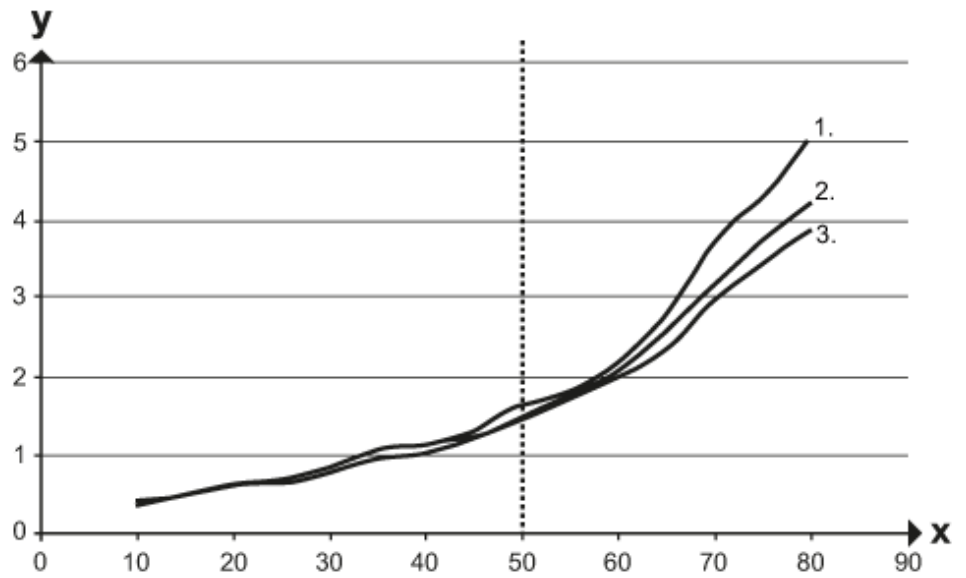
a: sensor
 b: object
 c: background
 x: distance sensor/object [mm]
 y: min. distance object/background [mm]



Diffuse reflection sensor with background suppression

O8H-HNKG/2,0M

accuracy graph



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)