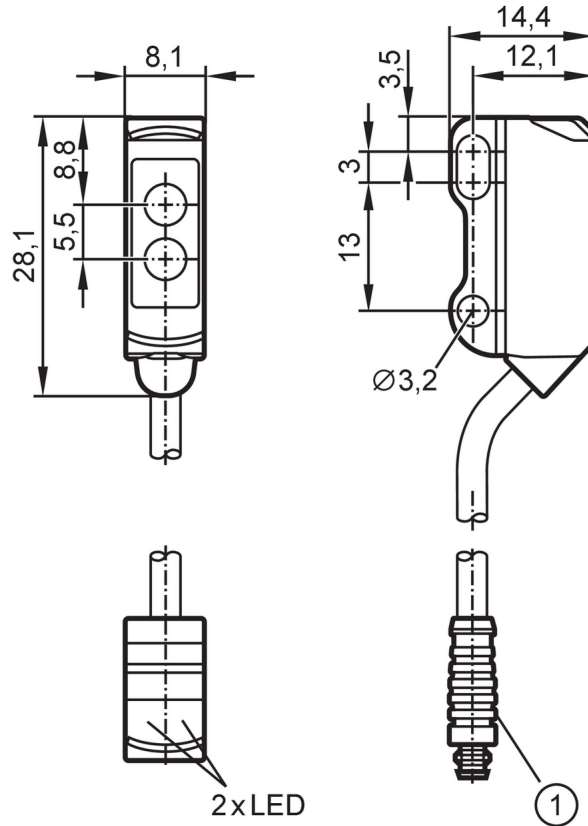


O8H205



Diffuse reflection sensors with background suppression

O8H-HNKG/0,30M/AS/4P



- 1: illustration (example)
Receiver in upper lens
transmitter in lower lens



Product characteristics

Type of light	red light
Housing	rectangular

Application

Special feature	Background suppression
Function principle	Diffuse reflection sensor
Application	Industrial applications

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

Outputs

Electrical design	NPN
Output function	light-on mode
Max. voltage drop switching output DC [V]	2.5



Diffuse reflection sensors with background suppression

O8H-HNKG/0,30M/AS/4P

Permanent current rating of switching output DC [mA]	100
Switching frequency DC [Hz]	1000
Short-circuit protection	yes
Type of short-circuit protection	yes (non-latching)

Monitoring range

Range [mm]	3...15; (white paper 200 x 200 mm)
Range on white object (90 % remission) [mm]	3...15
Range on grey object (18 % remission) [mm]	5...15
Range on black object (6 % remission) [mm]	5...15
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
UL approval	Ta	-25...60 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	UL approval number	E015
	File number UL	E174191

Mechanical data

Weight [g]	22.8
Housing	rectangular
Dimensions [mm]	28.1 x 8.1 x 14.4
Material	housing: ABS; rear of the housing: stainless steel (1.4404 / 316L)
Lens material	front lens:PMMA
Lens alignment	Side sensing

Displays / operating elements

Display	Switching status	1 x LED, yellow
	Power	1 x LED, green

Remarks

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



Diffuse reflection sensors with background suppression

O8H-HNKG/0,30M/AS/4P

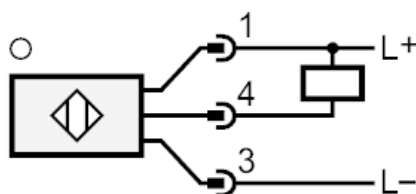
Electrical connection

Cable: 0.3 m, PVC; 3 x 0.08 mm²

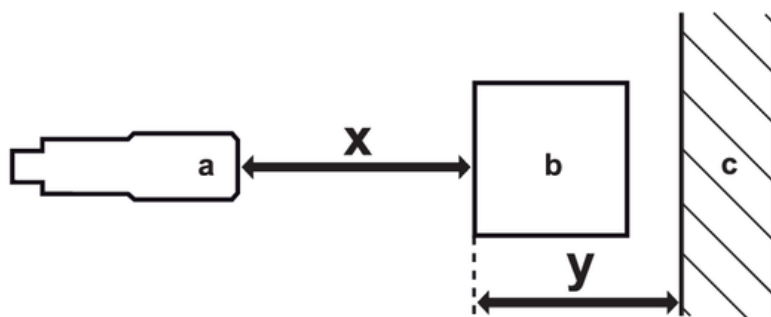
Connector: 1 x M8; coding: A; Contacts: 4



Connection



Diagrams and graphs



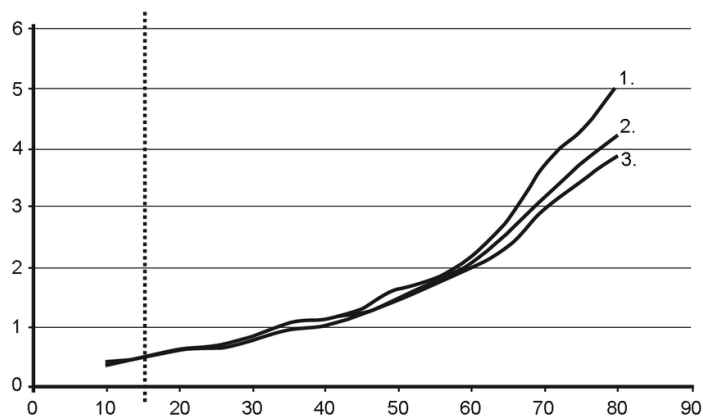
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



Diffuse reflection sensors with background suppression

O8H-HNKG/0,30M/AS/4P

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)