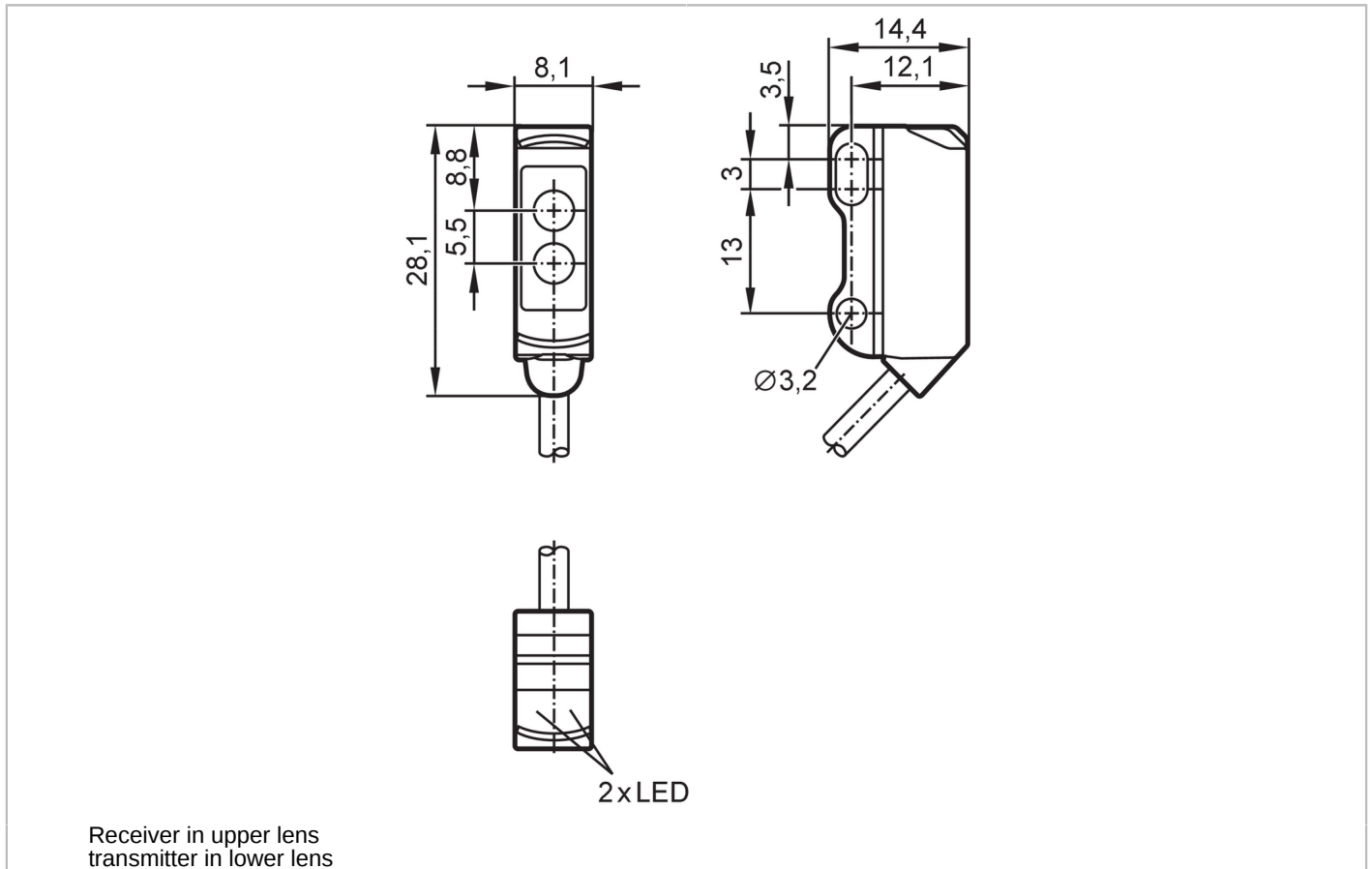


# O8H218



## Diffuse reflection sensors with background suppression

O8H-FPKG/IO-Link/2,0M



Product characteristics	
Type of light	red light
Housing	rectangular
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
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]	100

# O8H218



## Diffuse reflection sensors with background suppression

O8H-FPKG/IO-Link/2,0M

Switching frequency DC	[Hz]	1000
Short-circuit protection		yes
Type of short-circuit protection		yes (non-latching)
<b>Monitoring range</b>		
Range	[mm]	1...80; (white paper 200 x 200 mm)
Range on white object (90 % remission)	[mm]	1...80
Range on grey object (18 % remission)	[mm]	3...76
Range on black object (6 % remission)	[mm]	5...74
Setting range	[mm]	10...80
Range adjustable		yes
Max. light spot diameter	[mm]	4
Light spot dimensions refer to		at maximum range
Background suppression available		yes
<b>Interfaces</b>		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9
Profiles	Smart Sensor - SSP 0	Generic Profiled Sensor
	Function	Device identification
	Function	Multiple switching signal
	Function	Device diagnosis
	Function	Teach channel
SIO mode		yes
Required master port class		A
Min. process cycle time	[ms]	3
IO-Link process data (cyclical)	<b>Function</b>	<b>bit length</b>
	process value	8
	device status	4
	binary switching information	1
IO-Link functions (acyclical)		application specific tag; operating hours counter; switching cycles counter
Supported DeviceIDs	<b>Type of operation</b>	<b>DeviceID</b>
	default	535
<b>Operating conditions</b>		
Ambient temperature	[°C]	-25...60
Protection		IP 65; IP 67
<b>Tests / approvals</b>		
EMC		EN 60947-5-2
MTTF	[years]	757

# O8H218



## Diffuse reflection sensors with background suppression

O8H-FPKG/IO-Link/2,0M

UL approval	Ta	-25...60 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	UL approval number	E016
	File number UL	E174191

### Mechanical data

Weight	[g]	38
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

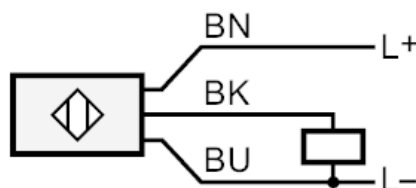
### Remarks

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

### Electrical connection

Cable: 2 m, PVC; 3 x 0.08 mm<sup>2</sup>

### Connection



	Core colors :
BN	brown
BK	black
BU	blue



## Diffuse reflection sensors with background suppression

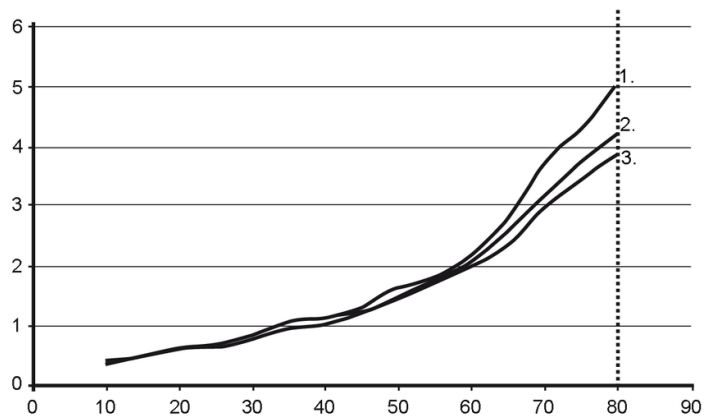
O8H-FPKG/IO-Link/2,0M

### Diagrams and graphs



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

### 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)