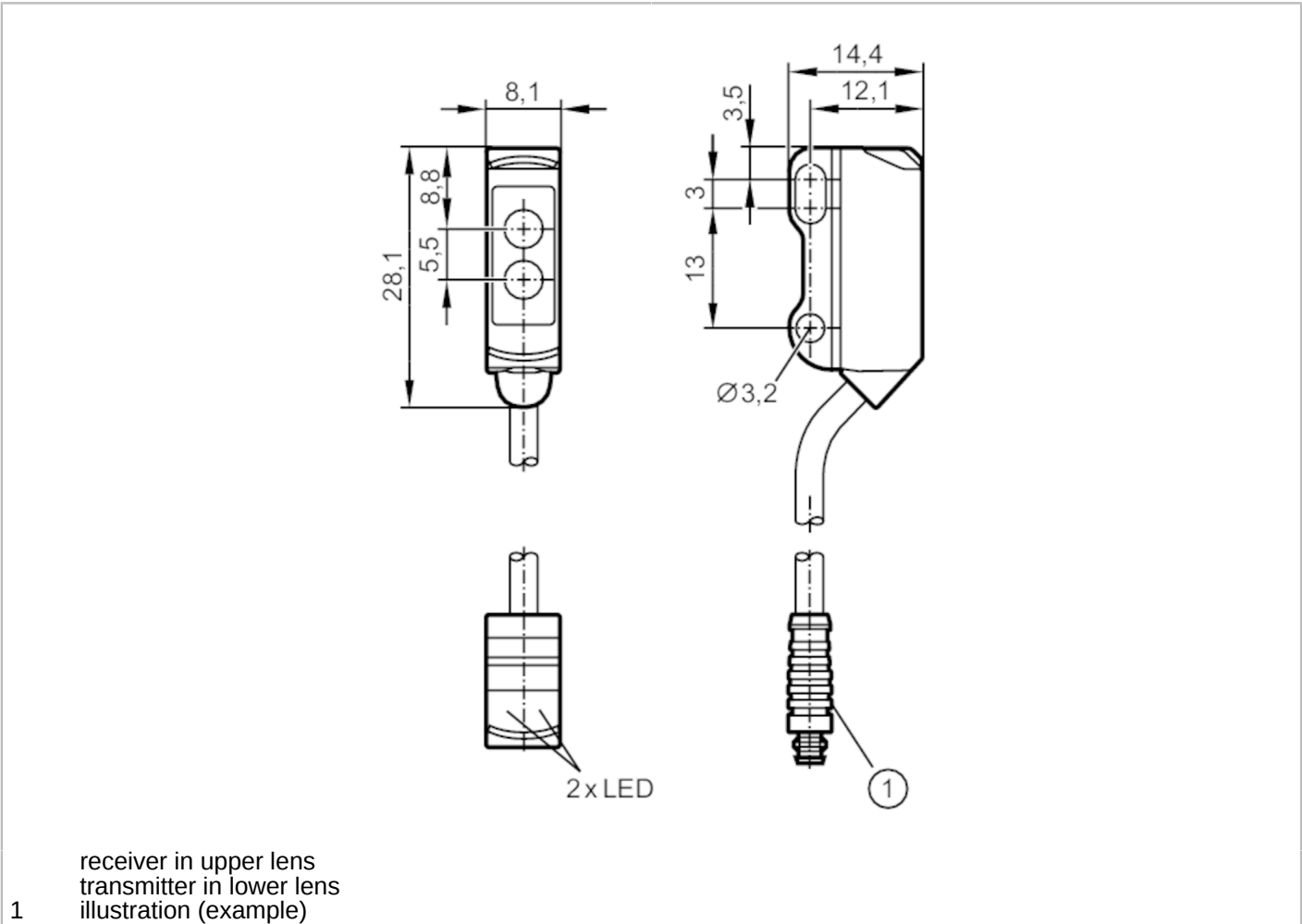


O8H221



Diffuse reflection sensor with background suppression

O8H-HNKG/0,30M/AS/3P



Application

Function principle	Diffuse reflection sensor
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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



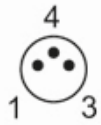
Diffuse reflection sensor with background suppression

O8H-HNKG/0,30M/AS/3P

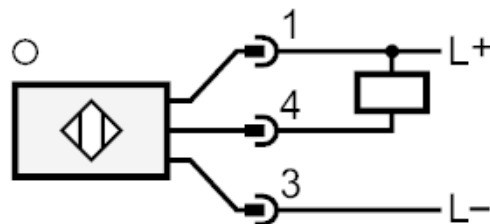
Outputs		
Electrical design	NPN	
Output function	light-on mode	
Max. voltage drop switching output DC [V]	2.5	
Permanent current rating of switching output DC [mA]	100	
Switching frequency DC [Hz]	1000	
Short-circuit protection	yes	
Type of short-circuit protection	pulsed	
Detection zone		
Range [mm]	1...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	
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]	23	
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.	
Electrical connection		
Cable: 0.3 m, PVC; 3 x 0.08 mm²		
Connector: 1 x M8		

Diffuse reflection sensor with background suppression

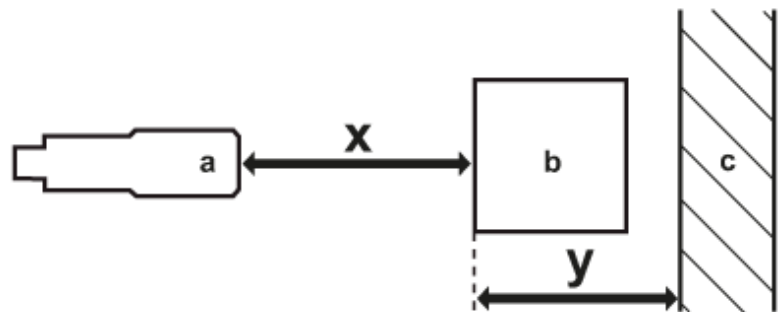
O8H-HNKG/0,30M/AS/3P



Connection



Diagrams and graphs



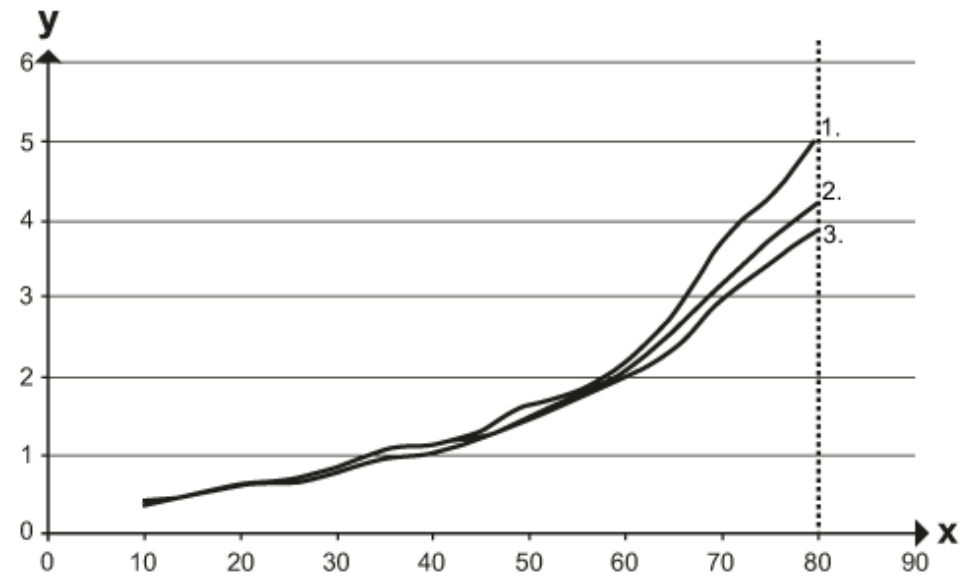
- a: sensor
- b: object
- c: background
- x: distance sensor/object [mm]
- y: min. distance object/background [mm]



Diffuse reflection sensor with background suppression

O8H-HNKG/0,30M/AS/3P

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)