

Specifications

Optical data

Typ. operating range limit ¹⁾	20m
Operating range ²⁾	12m
Light source	LED (modulated light)
Wavelength	660nm (visible red light)

Timing

Switching frequency	1500Hz
Response time	0.33ms
Delay before start-up	≤ 100ms

Electrical data

Operating voltage U_B ³⁾	10 ... 30VDC
Residual ripple	≤ 15% of U_B
Bias current	≤ 35mA
Switching output/function	.../66 2 push-pull switching outputs ⁴⁾ pin 2: PNP dark switching, NPN light switching pin 4: PNP light switching, NPN dark switching .../44 2 PNP switching outputs pin 2: dark switching pin 4: light switching ≥ $(U_B - 2V) / 2V$ max. 100mA not adjustable
Signal voltage high/low	light path free
Output current	light path free, no performance reserve
Sensitivity	

Indicators

LED yellow, receiver	
LED yellow flashing, receiver	

Mechanical data

Housing	metal
Optics cover	glass
Weight (plug/cable)	70g/140g
Connection type	M12 connector, 5-pin (turning), or cable: 2000mm, 5x0.25mm ²

Environmental data

Ambient temp. (operation/storage)	-40°C ... +60°C/-40°C ... +70°C
Protective circuit ⁵⁾	2, 3
VDE safety class ⁶⁾	II, all-insulated
Protection class ⁷⁾	IP 67, IP 69K ⁸⁾
Light source	exempt group (in acc. with EN 62471)
Standards applied	IEC 60947-5-2
Certifications	UL 508, C22.2 No.14-13 3) ⁹⁾

- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) For UL applications: for use in class 2 circuits according to NEC only
- 4) The push-pull switching outputs must not be connected in parallel
- 5) 2-polarity reversal protection, 3-short-circuit protection for all outputs
- 6) Rating voltage 250VAC
- 7) In stop position of the turning connector (turning connector locked)
- 8) IP 69K test acc. to DIN 40050 part 9 simulated, high pressure cleaning conditions without the use of additives, acids and bases are not part of the test
- 9) These proximity switches shall be used with UL Listed Cable assemblies rated 30V, 0.5A min, in the field installation, or equivalent (categories: CYJV/CYJV7 or PVVA/PVVA7)

Order guide

	Designation	Part No.
With M12 connector		
Transmitter and receiver	LSR 8/44-S12	
Transmitter	LSSR 8-S12	50036354
Receiver	LSER 8/44-S12	50036356
With 2m cable		
Transmitter and receiver	LSR 8/44	
Transmitter	LSSR 8	50036355
Receiver	LSER 8/44	50036357
With M12 connector		
Transmitter and receiver	LSR 8/66-S12	
Transmitter	LSSR 8-S12	50036354
Receiver	LSER 8/66-S12	50036569
With 2m cable		
Transmitter and receiver	LSR 8/66	
Transmitter	LSSR 8	50036355
Receiver	LSER 8/66	50036570

Tables

without diaphragm:

0	12	20
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with pin diaphragm in front of receiver¹⁾:

0	1.8	2
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with pin diaphragm in front of transmitter and receiver¹⁾:

0	0.5	0.6
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with slit diaphragm in front of receiver¹⁾:

0	4.5	5
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with slit diaphragm in front of transmitter and receiver¹⁾:

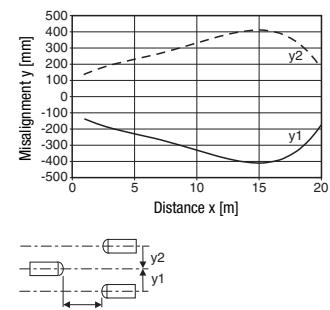
0	2.5	3
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 Operating range [m]
 Typ. operating range limit [m]

1) see remarks

Diagrams

Typ. response behaviour



Remarks

Operate in accordance with intended use!

- ↳ This product is not a safety sensor and is not intended as personnel protection.
- ↳ The product may only be put into operation by competent persons.
- ↳ Only use the product in accordance with the intended use.

- Smallest object for the complete operating range with
 - pin diaphragm: $\varnothing=0.7\text{ mm}$,
 - slit diaphragm: $\varnothing=1.5\text{ mm}$