



LSR 3

Throughbeam photoelectric sensors



8.5m

10 - 30 V
DC

- Throughbeam photoelectric sensor with high performance reserve in red light
- Small construction with robust plastic housing, protection class IP 67/IP 69K for industrial application
- High switching frequency for detection of fast events
- Warning output autoControl for increased availability



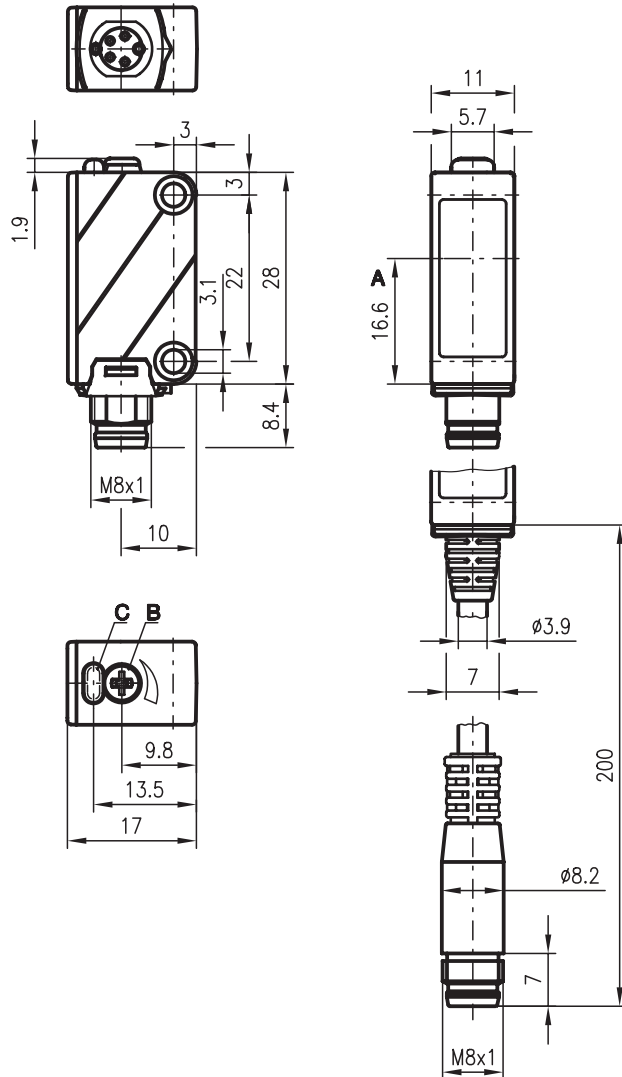
We reserve the right to make changes*3_a02e.fm

Accessories:

(available separately • see page 46)

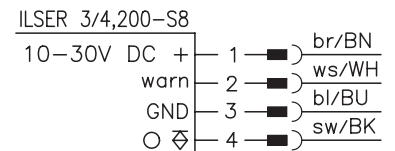
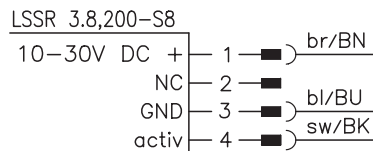
- Mounting systems (BT 3...)
- M8 connectors (D M8A...)
- Ready-made cables (K-D ...)

Dimensioned drawing



- A Optical axis
- B Adjustment screw only receiver
- C Indicator diode only receiver

Electrical connection



Specifications

Optical data

Typ. operating range limit ¹⁾	0 ... 8.5m
Operating range ²⁾	0 ... 6m
Light source	LED (modulated light)
Wavelength	660nm (visible red light)

Timing

Switching frequency	1000Hz
Response time	0.5ms
Delay before start-up	≤ 100ms

Electrical data

Operating voltage U_B	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	≤ 25mA
Switching output	1 PNP transistor output
Function characteristics	light switching
Signal voltage high/low	≥ ($U_B - 2V$) / ≤ 2V
Output current	max. 100mA
Sensitivity	adjustable with multiturn potentiometer

Indicators

LED yellow	light path free
LED yellow flashing	light path free, no performance reserve

Mechanical data

Housing	plastic
Optics cover	plastic (PMMA)
Weight	20g
Connection type	M8 connector (4-pin) with 200mm cable tail

Environmental data

Ambient temp. (operation/storage)	-25 °C ... +55 °C / -40 °C ... +70 °C
Protective circuit ³⁾	2, 3
VDE safety class ⁴⁾	II, all-insulated
Protection class	IP 67, IP 69K ⁵⁾
LED class	1 (acc. to EN 60825-1)
Standards applied	IEC 60947-5-2

Options

Activation input activ	
Transmitter active/not active	≥ 8V / ≤ 2V or not connected
Activation/disable delay	≤ 1ms
Input resistance	4.7kΩ ± 10%
Warning output autoControl warn	
Signal voltage high/low	PNP transistor, counting principle
Output current	≥ ($U_B - 2V$) / ≤ 2V max. 100mA

- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) 2=polarity reversal protection, 3=short-circuit protection for all outputs
- 4) Rating voltage 250VAC
- 5) 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

Order guide

	Designation	Part No.
Transmitter and receiver	ILSR 3/4.8, 200-S8	
Transmitter with 200mm cable and M8 connector	LSSR 3.8,200-S8	500 41888
Receiver with 200mm cable and M8 connector	ILSER 3/4,200-S8	500 41887

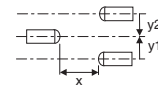
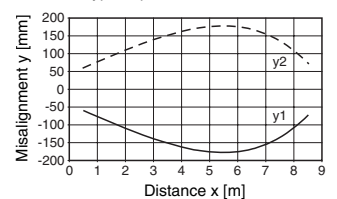
Tables

0	6.0	8.5
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<input type="checkbox"/>	Operating range [m]
<input type="checkbox"/>	Typ. operating range limit [m]

Diagrams

Typ. response behaviour



Remarks