

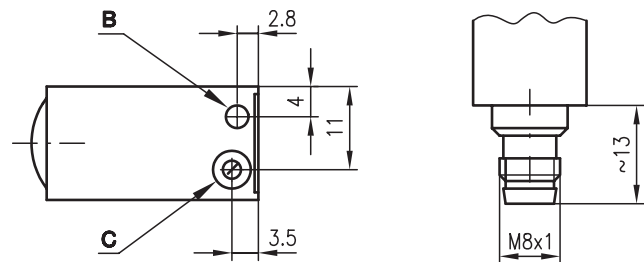
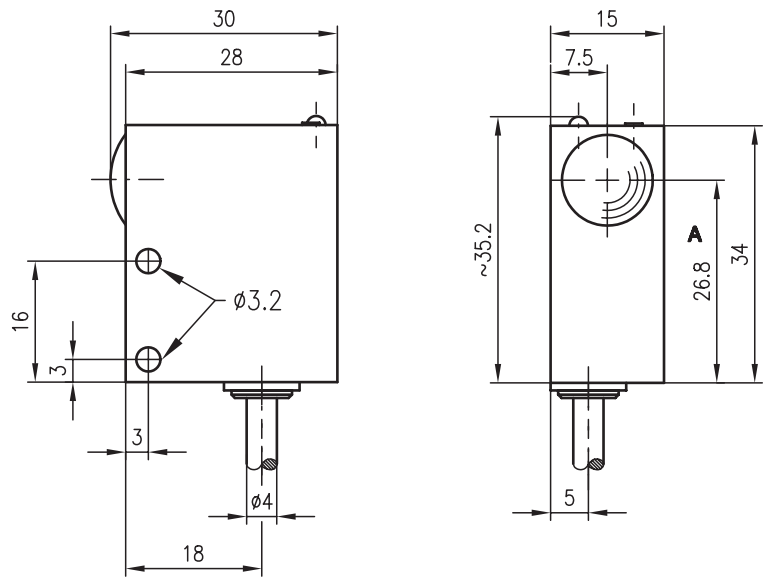


LSR 713

Throughbeam photoelectric sensors



Dimensioned drawing



- A Optical axis
- B Indicator diode
- C Sensitivity adjustment

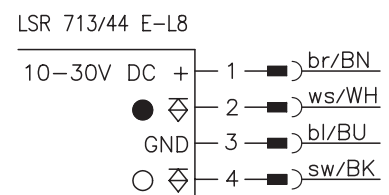
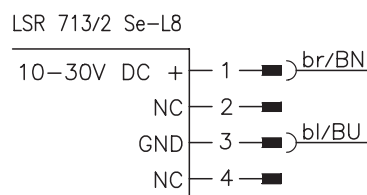
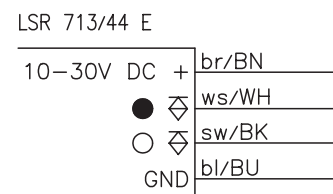
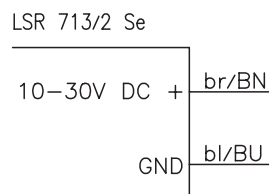


0 ... 9m



- Throughbeam photoelectric sensor with high performance reserve in red light
- High switching frequency of 5 kHz
- Slow operation

Electrical connection



Accessories:

(available separately)

- Mounting system (BT 713)
- Wobble plate (SET BT 713-66 + BT 66)
- Diaphragm BL 713
- M8 connectors (KD ...)
- Ready-made cables (KB ...)

We reserve the right to make changes • 713_a01e.fm

Specifications

Optical data

Typ. operating range limit ¹⁾	0 ... 9m
Operating range ²⁾	see tables
Light source	LED (modulated light)
Wavelength	660nm (visible red light)

Timing

Switching frequency	1kHz
Switching frequency limit ³⁾	5kHz
Response time	0.5ms
Response time limit ³⁾	0.1ms
Delay before start-up	≤ 100ms

Electrical data

Operating voltage U_B	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	≤ 30mA
Switching output	2 PNP transistor outputs, complementary
Function characteristics	light/dark switching
Signal voltage high/low	$\geq (U_B - 2V) \leq 2V$
Output current	max. 200mA
Sensitivity	adjustable with 270° potentiometer
Slow operation (see order guide)	pin 4: 100ms (light switching)

Indicators

LED yellow	light path free
------------	-----------------

Mechanical data

Housing	metal
Optics	glass
Weight	100g
Connection type	M8 connector (4-pin) or cable: 2000mm, 2x0.14mm ² for transmitter; 2000mm, 4x0.14mm ² for receiver

Environmental data

Ambient temp. (operation/storage)	-20°C ... +60°C/-40°C ... +70°C
Protective circuit ⁴⁾	1, 2, 3
VDE safety class	III
Protection class	IP 67
LED class	1 (acc. to EN 60825-1)
Standards applied	IEC 60947-5-2

- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) Maximum switching frequency/minimum response time with sensitivity adaptation
- 4) 1=transient protection, 2=polarity reversal protection, 3=short-circuit protection for all outputs

Order guide

Selection table		Order code →				
Equipment ↓		LSR 713/44 Part No. 500 25818 (Tr) Part No. 500 25819 (Re)	LSR 713/44 L8 Part No. 500 80315 (Tr) Part No. 500 80316 (Re)	LSR 713/44 L8.3 Part No. 500 80315 (Tr) Part No. 500 35150 (Re)		
Light spot	divergent	●	●	●		
LED	on top	●	●	●		
Connection	cable	●				
	M8 connector		●	●		
Features	collimator short range					
	collimator distant range					
	slow operation			●		

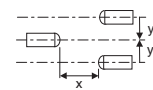
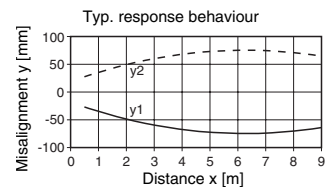
Tables

1	0	7	9
2	0	1.1	1.4

1	w/o diaphragm
2	With BL 713 at receiver

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

Diagrams



Remarks

- Pulse stretching for: LSR713/44 E-L8.3

Pin 4 (light switching)

