



LS 303

Throughbeam photoelectric sensor



7m



- A²LS - active suppression of extraneous light
- Activation input for functional testing
- Complementary outputs for light/dark switching
- Infrared light
- Frame optics

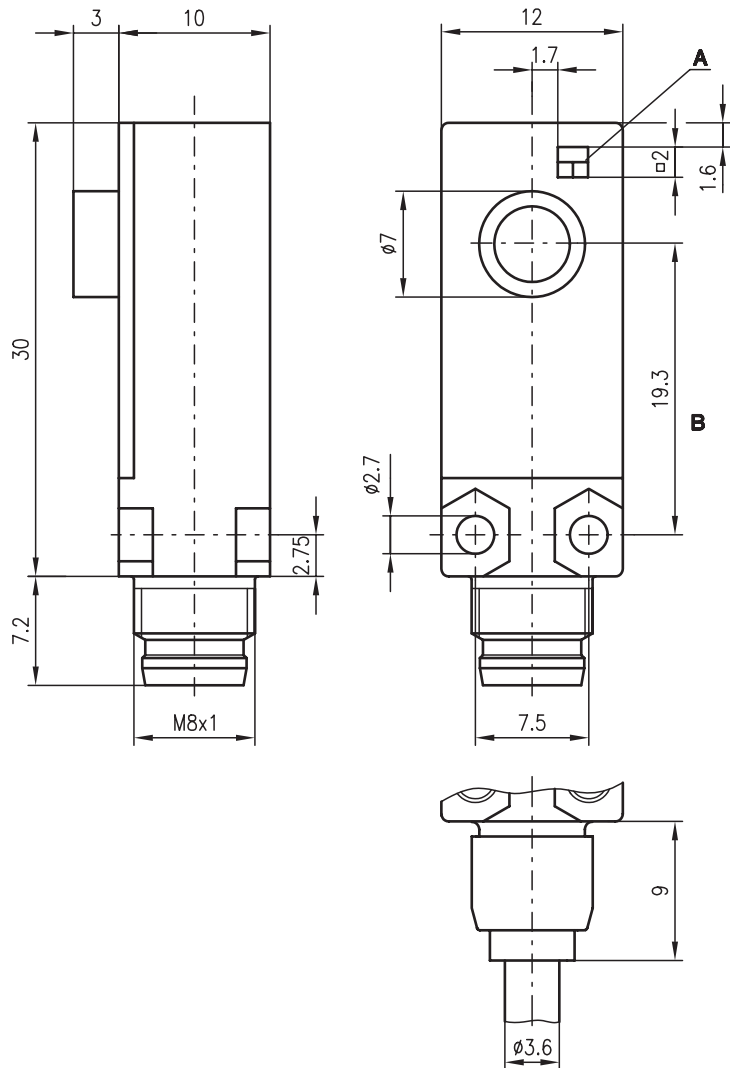


Accessories:

(available separately)

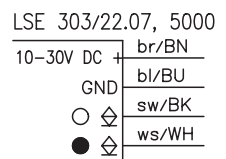
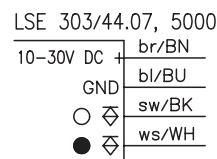
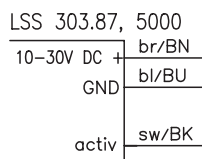
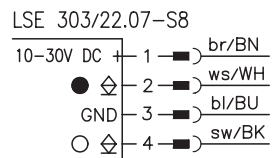
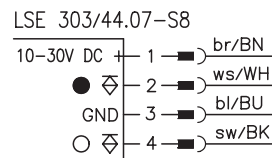
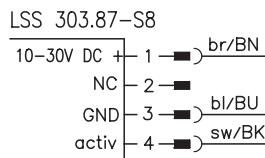
- M8 connectors (KD ...)
- Ready-made cables (KB ...)

Dimensioned drawing



- A Indicator diode
- B Optical axis

Electrical connection



We reserve the right to make changes • 303_a02e.fm

Specifications

Optical Data

Typ. operating range limit ¹⁾	7m
Operating range ²⁾	6m
Light source	LED (modulated light)
Wavelength	870nm (infrared)

Timing

Switching frequency	1000Hz
Response time	5ms
Delay before start-up	≤ 100ms

Electrical data

Operating voltage U_B	10 ... 30VDC
Residual ripple	≤ 10% of U_B
Bias current	≤ 25mA
Switching output	2 PNP or 2 NPN complementary switching outputs
Function characteristics	light/dark switching
Signal voltage high/low	≥ ($U_B - 2V$) / ≤ 2V
Output current	max. 100mA
Sensitivity	not adjustable

Indicators

LED green, transmitter	ready for operation
LED yellow, receiver	light path free
LED yellow flashing, receiver	light path free, no performance reserve

Mechanical data

Housing	polyamide 12
Optical cover	polyamide 12
Weight (plug/cable)	4g/100g
Connection type	M8 connector, 4-pin cable: 5000mm, 4x0.14 mm ²

Environmental data

Ambient temp. (operation/storage)	-25°C ... +60°C / -40°C ... +75°C
Protective circuit ³⁾	2, 3
VDE safety class ⁴⁾	II, all-insulated
Protection class	IP 67
Standards applied	IEC 60947-5-2

Options

Activation input	
active/not active	≥ 8V / ≤ 2V or not connected

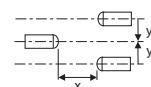
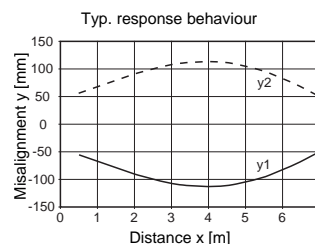
- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) 2=polarity reversal protection, 3=short-circuit protection for all outputs
- 4) Rating voltage 250 V AC

Tables

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

Diagrams



Order guide

Selection table		Order code →						
Equipment ↓		LS 303/44.87-S8 Part No. 500 82202 (Tr) Part No. 500 82203 (Re)	LS 303/22.87-S8 Part No. 500 82202 (Tr) Part No. 500 82206 (Re)	LS 303/44.87, 5000 Part No. 500 82204 (Tr) Part No. 500 82205 (Re)	LS 303/22.87, 5000 Part No. 500 82204 (Tr) Part No. 500 82207 (Re)			
Switching output	PNP transistor (Re)	●		●				
	NPN transistor (Re)		●		●			
Inputs	activation input (Tr)	●	●	●	●			
Connection	S8 plug connector	●	●					
	cable 5000mm			●	●			
	cable 2000mm							
Features	frame optics	●	●	●	●			

Remarks

LS = Pair consisting of
LSS = Transmitter
LSE = Receiver

LS 303/44.87-S8

LSS 303.87-S8
LSE 303/44.07-S8

LS 303/22.87-S8

LSS 303.87-S8
LSE 303/22.07-S8

LS 303/44.87, 5000

LSS 303.87, 5000
LSE 303/44.07, 5000

LS 303/22.87, 5000

LSS 303.87, 5000
LSE 303/22.07, 5000