

LS 64

Dynamic throughbeam photoelectric sensors

en 02-2014/06 50111288-01



0 ... 30m

10 - 30 V
DC

- Dynamic throughbeam photoelectric sensor for detection of the smallest parts (partial darkening) of the light beam
- Automatic contamination compensation
- 200ms pulse stretching for problem-free connection to control devices
- Sensitivity adjustment with high resolution
- Connection via M12 connector

We reserve the right to make changes • DS_LS644L51_en_50111288_01.fm



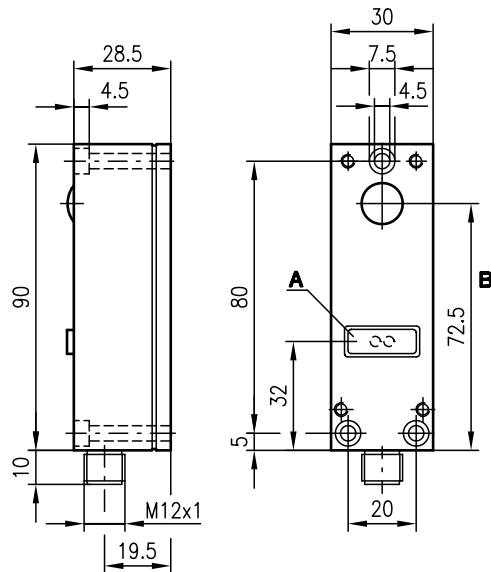
Accessories:

(available separately)

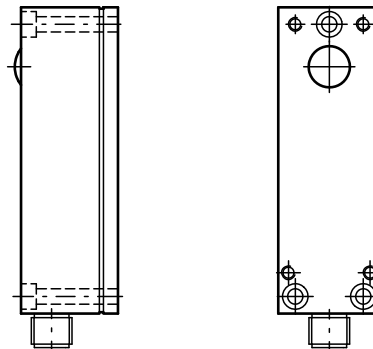
- Mounting system (BT 64)
- M12 connectors (KD ...)

Dimensioned drawing

Receiver



Transmitter



- A Indicator diodes
- B Optical axis

Electrical connection



Specifications

Optical data

Typ. operating range limit ¹⁾	0 ... 30m
Operating range ²⁾	0 ... 25m
Light beam propagation	divergent
Light source	LED (modulated light)
Wavelength	880nm

Timing

Output pulse	approx. 200ms
Delay before start-up	≤ 100ms

Electrical data

Operating voltage U_B	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Bias current	
Transmitter	≤ 35mA
Receiver	≤ 40mA
Switching output	PNP transistor
Function characteristics	dark switching
Signal voltage high/low	≥ ($U_B - 2V$) / ≤ 2V
Output current	max. 100mA

Indicators

Receiver	
LED red	alignment aid
Function characteristics	off: no voltage
	on: alignment o.k.
	flashing: alignment incorrect
LED yellow	switching output

Mechanical data

Housing	diecast zinc
Optics	glass
Weight	430g
Connection type	M12 connector, stainless steel, 5-pin

Environmental data

Ambient temp. (operation/storage)	-20°C ... +60°C / -30°C ... +70°C
Protective circuit ³⁾	1, 2, 3
Protection class	IP 65
Light source	exempt group (in acc. with EN 62471)
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) 1=transient protection, 2=polarity reversal protection, 3=short-circuit protection for all outputs

Order guide

	Designation	Part No.
Transmitter and receiver	LS 64/4 L.51	
Transmitter	LS 64/2 Se-L.2	50029072
Receiver	LS 64/4 E-L.51	50110456

Tables

Diagrams

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.

- Flashing red LED displays permanent interruption of the light path.
- The sensitivity is to be adapted to the distance between transmitter and receiver.
- Wobble plate for easy alignment.
- Response behaviour depends on object size and dwelling time.

Potentiometer position

- right: small objects in fast movement.
 left: big objects in slow movement.