



LS 78

Throughbeam photoelectric sensors



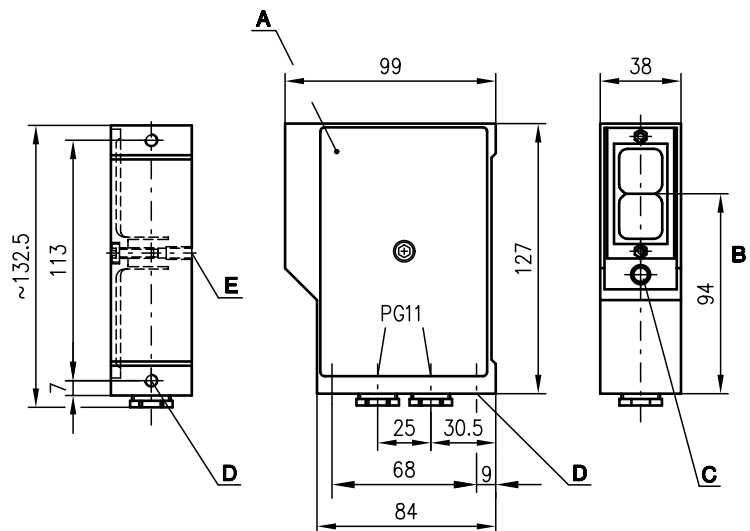
Dimensioned drawing



180m



- AC voltage 115/230V and 24/48V
- Light/dark switching
- Universal connection via terminals
- Additional plug-in time module



- A Removable lid • cheese head screw DIN 6912 M5x16 (machined)
- B Optical axis
- C Indicator diodes
- D Device fixture M6x9
- E Device fixture M6x12



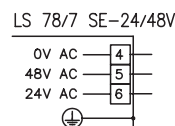
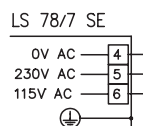
Electrical connection

Accessories:

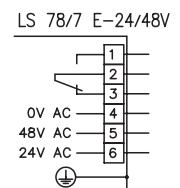
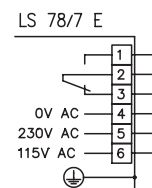
(available separately)

- Mounting systems (BT 16, UMS 78)
- Alignment aid ARH 2
- Test monitoring unit:
 - TNT 32 (Part No. 500 20476)
 - TNT 33 (Part No. 500 28158)
 - TNT 34 (Part No. 500 81023)

Transmitter



Receiver





Specifications

Optical data

Typ. operating range limit ¹⁾	180m
Operating range ²⁾	120m
Light source	LED (modulated light)
Wavelength	880 nm

Timing

Sensor switching frequency	20Hz (relay)
Sensor response time	approx. 25ms (relay)
Delay before start-up	≤ 200ms

Electrical data

Operating voltage U _B	115/230VAC, 24/48VAC
Power consumption	approx. 3.5VA (relay)
Bias current	max. 120mA (relay)
Switching output	relay: 1 change-over contact
Function characteristics	Light/dark switching through sliding switch
Switching voltage, relay	max. 240VAC with resistive load
Switching current, relay	max. 2.5AAC with resistive load

Indicators

LED red	light path interrupted
LED green	light path free

Mechanical data

Housing	diecast aluminium
Weight	transmitter 600g, receiver 600g
Optics	glass lens
Connection type	screw terminals

Environmental data

Ambient temp. (operation/storage) ³⁾	-20°C ... +60°C/-30°C ...+70°C
Protective circuit ⁴⁾	1, 2, 3
VDE safety class	I, all-insulated
Protection class	IP 65
LED class	1 (acc. to EN 60825-1)
Standards applied	IEC 60947-5-2

Options

De-humidifying system to prevent condensation on the optics due to temperature changes

- 1) Typ. operating range limit: max. attainable range without performance reserve
- 2) Operating range: recommended range with performance reserve
- 3) -30°C with operating voltage continuously applied
- 4) 1=transient protection, 2=polarity reversal protection, 3=short circuit protection

Order guide

Selection table		Order code →							
Equipment ↓		LS 7817 Part No. 500 00235 (Tr) Part No. 500 00240 (Re)	LS 7817 24/48 V Part No. 500 25233 (Tr) Part No. 500 25232 (Re)						
Housing	metal	●	●						
Typ. operating range limit	180m	●	●						
Connection	terminals	●	●						
Features									
Voltage supply	115/230VAC	●							
	24/48VAC		●						
Switching output	relay	●	●						
Time modules ZK 7810, ZK 7820 retrofittable		●	●						

Tables

Diagrams

Remarks

The standard devices (see table) are expandable through plug-in time modules:

- Time module ZK 7810 (transient pulses), slow operation and pulse length adjustable from 0.1 s ... 5 s.
- Time module ZK 7820 (slow operation and release), slow operation and release separately adjustable from 0.2 s ... 10 s.

See figure for adjustment:

