L46CI

Infrared throughbeam photoelectric sensor with alignment indicator







150 m



- Throughbeam photoelectric sensor with large operating range and extremely high function reserve in infrared version for use under rough environmental conditions
- Sensitivity adjustment and delay before start-up for optimal adaptation to the application
- Time-saving, exact alignment and function check through additional, highly visible display on front side
- Warning output for sustained availability (prefailure message)
- Activation input for sensor test
- Various switching output functions for universal connection to existing control
- Robust plastic housing in degrees of protection IP67 and IP69K











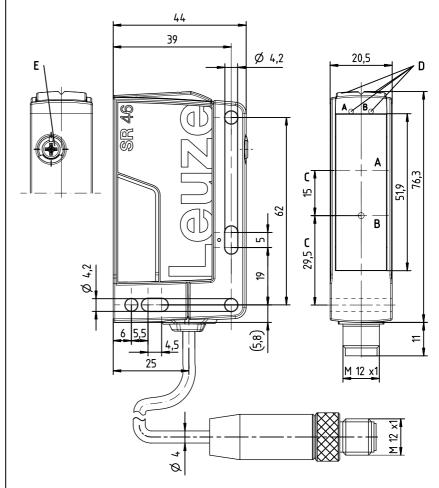


Accessories:

(available separately)

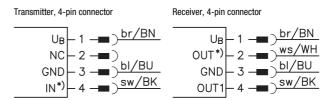
- Mounting systems (BT 46, BTÚ 300M, BT 300, BTU 346)
- M12 connectors (KD ...)
- Ready-made cables (K-D ...)
- Alignment aid (SAT 5)
- Laser alignment aid (ARH 46C)

Dimensioned drawing



- Α Transmitter (LS) / Receiver (LE)
- В Yellow indicator diode Transmitter: active/not active Receiver: signal/no signal
- С Optical axis
- D_A Green indicator diode
- D_{B} Yellow indicator diode
- Sensitivity adjustment (only on receiver)

Electrical connection



Selection pin 2/4

Receiver, cable				
or/BN	U _B - 1 br/BN			
ws/WH	OUT*) - 2 ws/WH			
ol/BU	GND - 3 bl/BU			
sw/BK	OUT1 - 4 sw/BK			

*)	OUT	IN
	OUT 2	Active
	Warn	NC
	NC	

Transmitter, cable

NC

GND

IN*)

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Specifications

Optical data

Typ. operating range limit 1) 0 ... 150m Operating range 2

0.5 ... 120m 225° potentiometer (LE46Cl.1... only) Operating range adjustment Light source 3)

LED (modulated light) Wavelength 860nm (infrared light)

Timing

Switching frequency 500Hz Response time 1ms ≤ 300ms Delay before start-up

Electrical data

With transistor switching outputs

10 ... 30VDC (incl. residual ripple) \leq 15% of U_B \leq 20 mA Operating voltage U_B 4) Residual ripple Open-circuit current Switching outputs/functions 5) /4P 2 PNP switching outputs, antivalent

/4X /PX 1 PNP switching output, light switching 1 PNP switching output, dark switching 2 NPN switching outputs, antivalent

Signal voltage high/low Output current ≥ (U_B-2V)/≤ 2V max. 100mA

Indicators

Green LED ready light path free Yellow I FD

Yellow LED, flashing Yellow LED (behind lens cover) light path free, no function reserve transmitter: active/not active receiver: signal/no signal

Yellow LED (behind lens cover), flashing

Mechanical data

Housing Optics cover plastic plastic

Weight with M12 connector: approx. 60g with 200mm cable and M12 connector: approx. 65 g with 2000mm cable: approx. 100g

receiver

Connection type

M12 connector, 4-pin cable 200 mm with M12 connector, 4-pin

signal, performance reserve limited

cable 2000mm, 4 x 0.21mm²

Environmental data

-40°C ... +60°C/-40°C ... +70°C 1, 2, 3 Ambient temp. (operation/storage) Protective circuit ⁶⁾ VDE safety class ⁷⁾ Degree of protection II, all-insulated IP 67, IP 69K 8) Light source exempt group (in acc. with EN 62471) IEC 60947-5-2 UL 508, CSA C22.2 No.14-13 ^{4) 9)} Standards applied Certifications

Options

Warning output PNP transistor, counting principle Signal voltage high/low

≥ (U_B-2V)/≤ 2V max. 100 mA Output current Activation input Transmitter active/not active ≥ 8V/≤ 2V Activation/disable delay ≤1ms $10K\Omega \pm 10\%$ Input resistance

Typ. operating range limit: max. attainable range without function reserve

Operating range: recommended range with function reserve

Average life expectancy 100,000 h at an ambient temperature of 25°C

For UL applications: for use in class 2 circuits only

See part number code

1=transient protection, 2=polarity reversal protection, 3=short circuit protection for all outputs

Rating voltage 250VAC

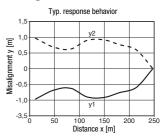
IP 69K test acc. to DIN 40050 part 9 simulated, high pressure cleaning conditions without the use of additives, acids and bases are not part of the test

These proximity switches shall be used with UL Listed Cable assemblies rated 30V, 0.5A min, in the field installation, or equivalent (categories: CYJV/CYJV7 or PVVA/PVVA7)

Tables



Diagrams





Remarks

Operate in accordance with intended use!

- his 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.
- A light axis consists of a transmitter and a receiver with the following designations:

L46C... = complete light axis LS46C... = transmitter LE46C... = receiver

Alignment indicator:

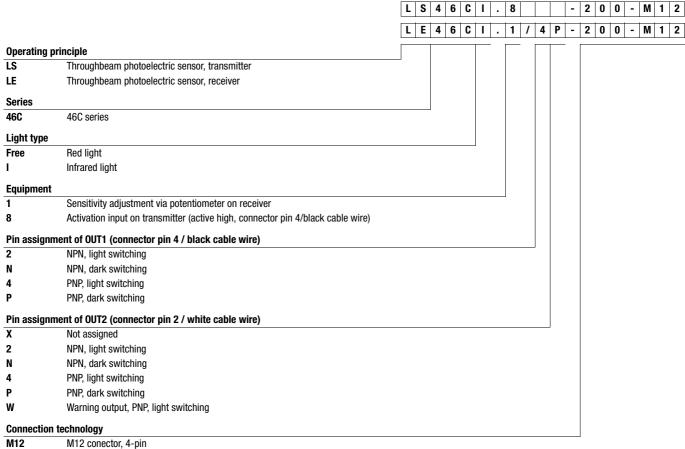
('B' see dimensioned drawing)

Yellow LED = light path free - with reserve

Yellow LED, flashing = light path free - no function reserve

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Part number code



200-M12 Cable 200 mm with M12 connector, 4-pin

Free Cable 2000 mm

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Order guide

The sensors listed here are preferred types; current information at www.leuze.com.

Red-light throughbeam photoelectric sensor with alignment display		Designation	Part no.
	With M12 connector, 4-pin		
£	Standard	LS46CI-M12	50127046
TRANSMITTER	Cable 0.2m with M12 connector, 4-pin		
TRA	Cable 2m		
	With M12 connector, 4-pin		
~	OUT1: PNP light switching; OUT2: PNP dark switching; sensitivity adjustment	LE46CI.1/4P-M12	50127040
RECEIVER	Cable 0.2m with M12 connector, 4-pin		
SECE			
	Cable 2m		

For a complete light axis, arbitrary combinations of the transmitters and receivers listed above are possible.

L46Cl... - 01 2015/06