



Model Number

LD61/LV61-Z/115/136

Thru-beam sensor
with fixed cable

Features

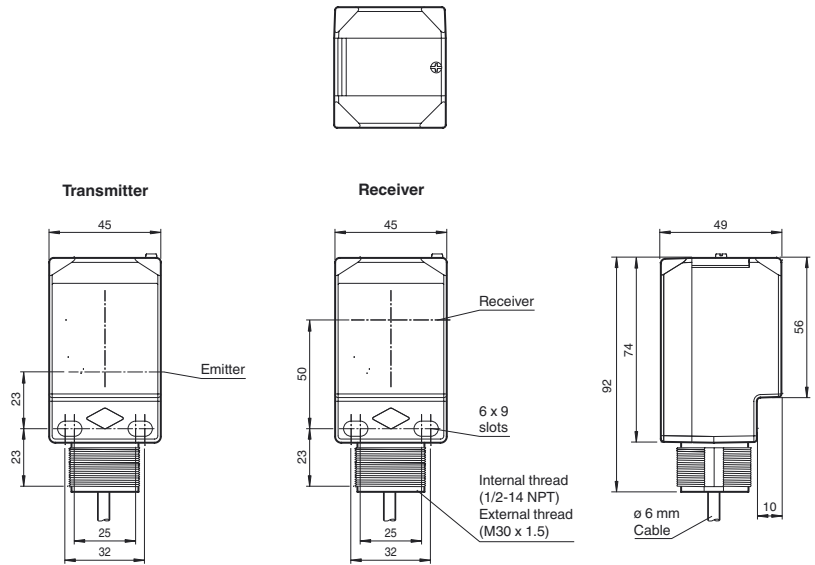
- Cost-optimized series for standard tasks in a special design
- Compact design
- Wide range of mounting options thanks to cubic housing design with M30 thread
- 360° high visibility LEDs
- Programmable ON-delay, OFF-delay, and One-shot timers
- 4-in-1 output (push-pull)

Product information

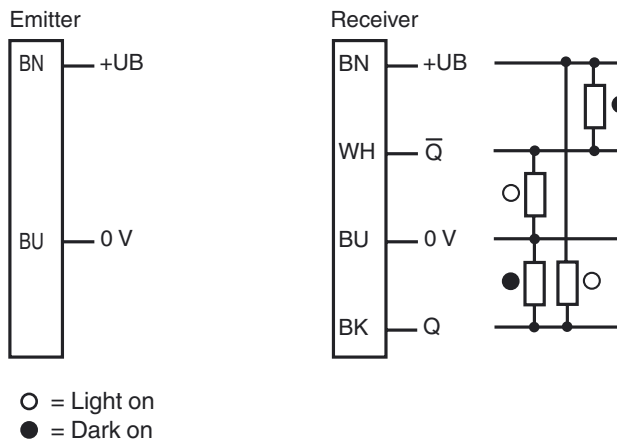
The Series 61 sensor family is a comprehensive product line, offering five sensing modes. Each sensor is equipped with four LEDs that are highly visible from all directions, indicating Power-On, target presence and marginal excess gain. The widely recognized, polycarbonate housing provides a IP67 protection degree rating. Color-coded labels are clearly printed on the housing to easily identify the sensing mode. DC models offer a 4-in-1 output while AC/DC models have a SPDT relay output rated to 3 A. All versions come standard with an integral multifunction timer, sensitivity adjustment and Light-ON/Dark-ON switch. Series 61 sensors are cross-talk protected and have a high degree of resistance to ambient lighting. Each sensor can be mounted via front and rear slots, rear dovetail guide or M30 x 1.5 mounting base. Additionally, cabled sensor models provide 1/2" - 14 NPT internal threads for use with flexible conduit.

Release date: 2014-11-10 11:56 Date of issue: 2014-11-10 913911_eng.xml

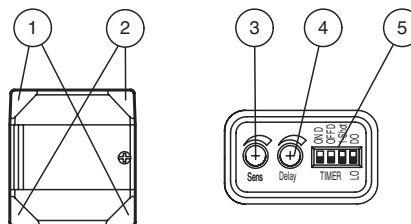
Dimensions



Electrical connection



Indicators/operating means



| | | |
|---|------------------------|--------|
| 1 | Operating display | green |
| 2 | Signal display | yellow |
| 3 | Sensing range adjuster | |
| 4 | Time adjuster | |
| 5 | DIP-switches | |

Technical data**System components**

| | |
|----------|----------------|
| Emitter | LD61/115 |
| Receiver | LV61-Z/115/136 |

General specifications

| | |
|----------------------------|---------------------------------------|
| Effective detection range | 0 ... 60 m |
| Threshold detection range | 85 m |
| Light source | IREL |
| Light type | modulated infrared light , 850 nm |
| Diameter of the light spot | approx. 1600 mm at a distance of 60 m |
| Angle of divergence | Emitter: 1.5 ° , Receiver: 1.5 ° |
| Ambient light limit | 5000 Lux ; according EN 60947-5-2 |

Indicators/operating means

| | |
|---------------------|--|
| Operation indicator | 2 LEDs green |
| Function indicator | 2 LEDs yellow Receiver: receiver LED yellow, lights up when light beam is free, flashes when falling short of the stability control ; OFF when light beam is interrupted |
| Control elements | Light/Dark switch |
| Control elements | Detection range adjuster |
| Control elements | Time adjuster (0 ... 50 ms) |

Electrical specifications

| | | |
|------------------------|-------|--|
| Operating voltage | U_B | 10 ... 30 V DC |
| Ripple | | 10 % |
| No-load supply current | I_0 | ≤ 35 mA |
| Protection class | | II , rated voltage ≤ 250 V AC with pollution degree 1-2 according to IEC 60664-1 Output circuit basis insulation of input circuit according to EN 50178, rated insulation voltage 240 V AC |

Output

| | | |
|---------------------|---|---|
| Switching type | light/dark on, switchable | |
| Signal output | 2 push-pull (4 in 1) outputs, short-circuit protected, reverse polarity protected | |
| Switching voltage | max. 30 V DC | |
| Switching current | max. 100 mA | |
| Voltage drop | U_d | ≤ 2.5 V |
| Switching frequency | f | 500 Hz |
| Response time | | ≤ 1 ms |
| Timer function | | DIP-switch for selection of operating modes |

Ambient conditions

| | |
|---------------------|--------------------------------|
| Ambient temperature | -40 ... 55 °C (-40 ... 131 °F) |
| Storage temperature | -40 ... 70 °C (-40 ... 158 °F) |

Mechanical specifications

| | |
|-------------------------------------|--------------------------------------|
| Degree of protection | IP67 |
| Connection | fixed cable |
| Material | |
| Housing | PC (glass-fiber-reinforced Makrolon) |
| Optical face | PMMA |
| Mass | Emitter: 150 g Receiver: 150 g |
| Tightening torque, fastening screws | < 2 Nm |

Compliance with standards and directives

| | |
|---------------------|---|
| Standard conformity | |
| Product standard | EN 60947-5-2:2007 IEC 60947-5-2:2007 |

Approvals and certificates

| | |
|--------------|--|
| UL approval | cULus |
| CCC approval | CCC approval / marking not required for products rated ≤36 V |

Accessories**MPZB01**

Mounting bracket with vertical slots

MPZB02

Mounting bracket with circular slots

MPZB06

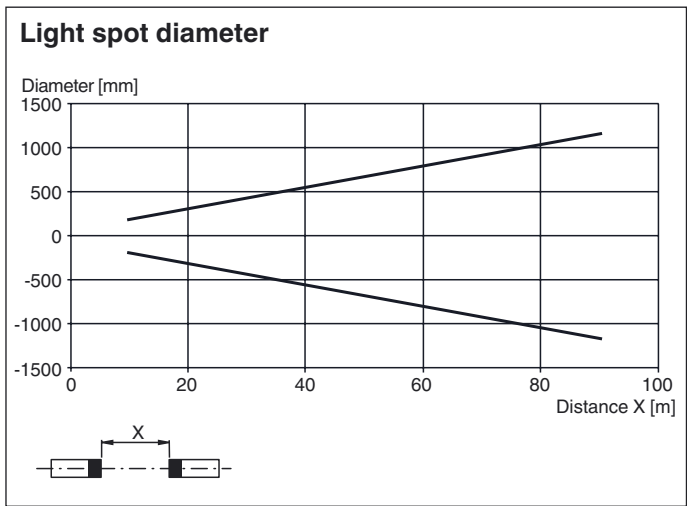
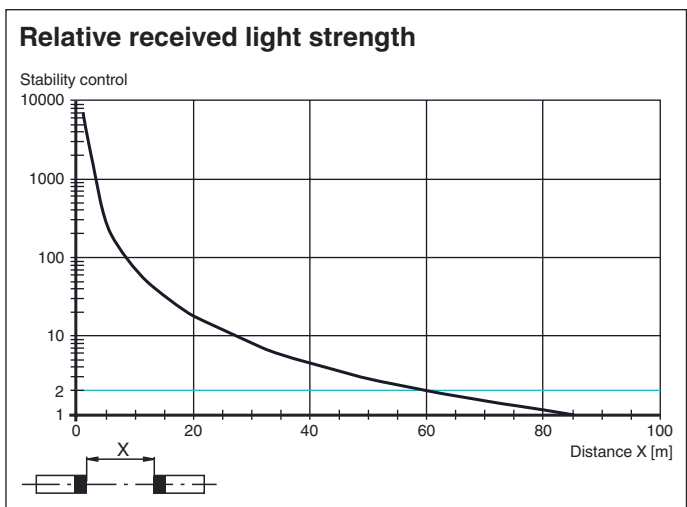
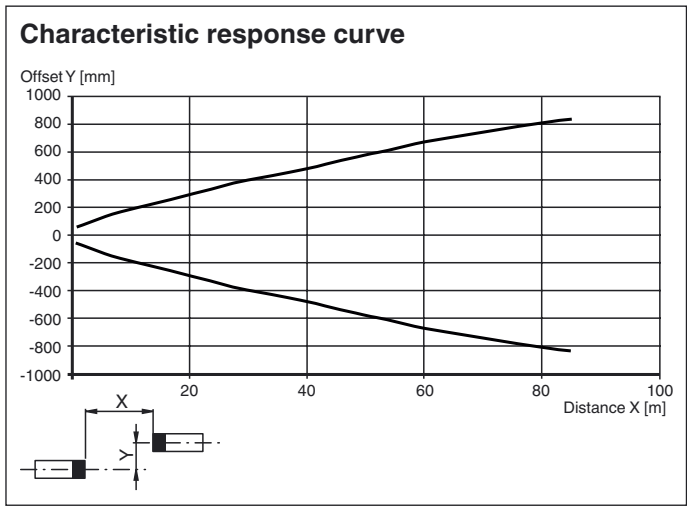
Ball and Swivel Mounting Bracket

MPZB07

Ball and Swivel Vertical Mounting Plate

Other suitable accessories can be found at www.pepperl-fuchs.com

Curves/Diagrams



Release date: 2014-11-10 11:56 Date of issue: 2014-11-10 913911_eng.xml

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 4411
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

Timer Functions

| Switching Type | Detection Status | Operation Mode | Light Received | No Light Received |
|----------------|------------------|------------------------|----------------|-------------------|
| L.ON | | No Delay (Timer OFF) | ON | OFF |
| | | ON Delay | ON | OFF |
| | | OFF Delay | ON | OFF |
| | | One-Shot Delay | ON | OFF |
| | | ON Delay and OFF Delay | ON | OFF |
| D.ON | | No Delay (Timer OFF) | ON | OFF |
| | | ON Delay | ON | OFF |
| | | OFF Delay | ON | OFF |
| | | One-Shot Delay | ON | OFF |
| | | ON Delay and OFF Delay | ON | OFF |

DIP-Switch position

Release date: 2014-11-10 11:56 Date of issue: 2014-11-10 913911_eng.xml