



Part no.: 50140152
LE412B/PX-M12
Throughbeam photoelectric sensor receiver



Figure can vary

Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- Operation and display
- Suitable transmitters
- Part number code
- Notes
- Accessories

Technical data

| Basic data | |
|-------------------------------------|---|
| Series | 412B |
| Operating principle | Throughbeam principle |
| Device type | Receiver |
| Optical data | |
| Operating range | Guaranteed operating range |
| Operating range | 0 ... 10 m |
| Electrical data | |
| Protective circuit | Polarity reversal protection Short circuit protected |
| Performance data | |
| Supply voltage U_B | 10 ... 36 V , DC , Incl. residual ripple |
| Residual ripple | 0 ... 20 % , From U_B |
| Open-circuit current | 0 ... 15 mA |
| Outputs | |
| Number of digital switching outputs | 1 Piece(s) |
| Switching outputs | |
| Voltage type | DC |
| Switching current, max. | 200 mA |
| Switching output 1 | |
| Assignment | Connection 1, pin 4 |
| Switching element | Transistor , PNP |
| Switching principle | Dark switching |
| Timing | |
| Switching frequency | 1,000 Hz |
| Response time | 0.5 ms |
| Readiness delay | 20 ms |
| Connection | |
| Connection 1 | |
| Type of connection | Connector |
| Function | Signal OUT Voltage supply |
| Thread size | M12 |
| Type | Male |
| Material | Metal |
| No. of pins | 4 -pin |
| Encoding | A-coded |
| Mechanical data | |
| Thread size | M12 x 1 mm |
| Dimension (Ø x L) | 12 mm x 60 mm |
| Housing material | Metal , Chromed brass |
| Lens cover material | Glass |
| Net weight | 32 g |

Part no.: 50140152 – LE412B/PX-M12 – Throughbeam photoelectric sensor

| | |
|---------------|--------|
| Housing color | Silver |
|---------------|--------|

Operation and display

| | |
|-----------------|------------|
| Type of display | LED |
| Number of LEDs | 2 Piece(s) |

Environmental data

| | |
|--------------------------------|---------------|
| Ambient temperature, operation | -25 ... 55 °C |
|--------------------------------|---------------|

Certifications

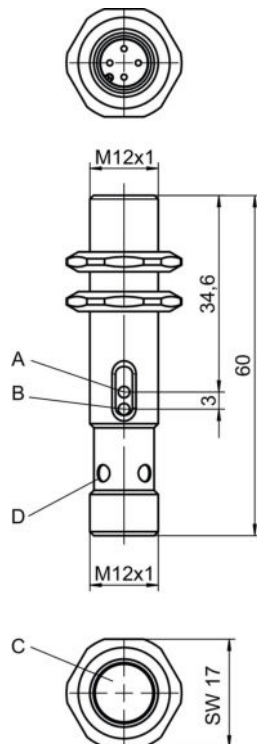
| | |
|----------------------|---------------|
| Degree of protection | IP 67 |
| Protection class | III |
| Certifications | c UL US |
| Standards applied | IEC 60947-5-2 |

Classification

| | |
|-----------------------|----------|
| Customs tariff number | 85365019 |
| eCl@ss 8.0 | 27270901 |
| eCl@ss 9.0 | 27270901 |
| ETIM 5.0 | EC002716 |

Dimensioned drawings

All dimensions in millimeters



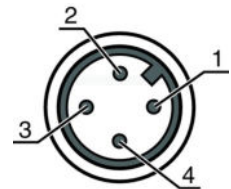
A Green LED
 B Yellow LED
 C Optical axis

D Yellow LED

Electrical connection

| Connection 1 | |
|--------------------|------------------------------|
| Type of connection | Connector |
| Function | Signal OUT Voltage supply |
| Thread size | M12 |
| Type | Male |
| Material | Metal |
| No. of pins | 4 -pin |
| Encoding | A-coded |

| Pin | Pin assignment |
|-----|----------------|
| 1 | V+ |
| 2 | n.c. |
| 3 | GND |
| 4 | OUT 1 |




Operation and display

LEDs

| LED | Display | Meaning |
|-----|--------------------------|---|
| 1 | Green, continuous light | Function reserve |
| 2 | Yellow, continuous light | Switching output/switching state active |

Suitable transmitters

| | Part no. | Designation | Article | Description |
|---|----------|---------------|--|--|
|  | 50140150 | LS412B/DX-M12 | Throughbeam photoelectric sensor transmitter | Special design: Deactivation input Light source: LED, Red Supply voltage: DC Deactivation inputs: 1 Piece(s) Connection: Connector, M12, Metal, 4 -pin |

Part number code

Part designation: AAA412BGG.H/ii-K

| | |
|---------|---|
| AAA412B | Operating principle / construction: LS412B: throughbeam photoelectric sensor transmitter LE412B: throughbeam photoelectric sensor receiver ET412B: energetic diffuse reflection sensor PRK412B: retro-reflective photoelectric sensor with polarization filter |
|---------|---|

Part no.: 50140152 – LE412B/PX-M12 – Throughbeam photoelectric sensor

| | |
|----|--|
| GG | Light source: n/a: LED L2: laser class 2 |
| H | Operating range adjustment: 1: 270° potentiometer |
| ii | Switching output / function / OUT1OUT2 (OUT1 = pin 4, OUT2 = pin 2): 2: NPN transistor output, light switching N: NPN transistor output, dark switching 4: PNP transistor output, light switching P: PNP transistor output, dark switching D: deactivation input (deactivation with low signal) X: pin not used |
| K | Electrical connection: n/a: cable, standard length 2000 mm, 3-wire M12: M12 connector, 4-pin (plug) |



Note

A list with all available device types can be found on the Leuze electronic website at www.leuze.com.


Notes
Observe 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 its intended use.

Accessories
Connection technology - Connection cables

| | Part no. | Designation | Article | Description |
|---|----------|--------------------|------------------|--|
|  | 50130652 | KD U-M12-4A-V1-050 | Connection cable | Connection 1: Connector, M12, Axial, Female, A-coded, 4 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC |
|  | 50130690 | KD U-M12-4W-V1-050 | Connection cable | Connection 1: Connector, M12, Angled, Female, A-coded, 4 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC |

Mounting technology - Mounting brackets

| | Part no. | Designation | Article | Description |
|---|----------|-------------|------------------|--|
|  | 50113549 | BT D12M.5 | Mounting bracket | Diameter, inner: 12 mm Design of mounting device: Angle, L-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Rigid Material: Stainless steel |

Part no.: 50140152 – LE412B/PX-M12 – Throughbeam photoelectric sensor

Note

A list with all available accessories can be found on the Leuze electronic website in the Download tab of the article detailed page.