



Figure can vary

Part no.: 50104786
BPS 8 SM 100-02
Bar code positioning system



Contents

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- Dimensioned drawings
- Electrical connection
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Technical data

| Basic data | |
|-------------------------------------|--|
| Series | BPS 8 |
| Data telegram | Binary protocol 2 |
| Order guide | Bar code tape must be ordered separately |
| Optical data | |
| Depth of field | 60 ... 120 mm |
| Light source | Laser , Red |
| Laser class | 2 , IEC/EN 60825-1:2007 |
| Light beam exit | Lateral with deflecting mirror |
| Measurement data | |
| Measurement range | 0 ... 10,000,000 mm |
| Resolution | 0.001 ... 100 mm |
| Measurement value output | 3.3 ms |
| Max. traverse rate | 4 m/s |
| Electrical data | |
| Protective circuit | Short circuit protected |
| Performance data | |
| Supply voltage U_B | 4.75 ... 5.5 V , DC |
| Current consumption, max. | 250 mA |
| Inputs/outputs selectable | |
| Output current, max. | 100 mA |
| Number of inputs/outputs selectable | 1 Piece(s) |
| Interface | |
| Type | RS 232 |
| RS 232 | |
| Function | Process |
| Transmission speed | 1,200 ... 187,500 Bd |
| Data format | Fixed |
| Start bit | 1 |
| Data bit | 8 data bits |
| Stop bit | 1 |
| Parity | Adjustable |
| Data encoding | Binary |
| Service interface | |
| Type | RS 232 |
| RS 232 | |
| Function | Service |
| Connection | |
| Number of connections | 1 Piece(s) |

Connection 1

| | |
|--------------------|----------------------|
| Type of connection | Connector |
| Function | Connection to device |
| Thread size | M12 |
| No. of pins | 5 -pin |

Mechanical data

| | |
|-----------------------|--|
| Dimension (W x H x L) | 51 mm x 61 mm x 17.4 mm |
| Housing material | Metal , Diecast zinc |
| Lens cover material | Glass |
| Net weight | 120 g |
| Housing color | Red Silver |
| Type of fastening | Dovetail grooves Mounting thread Through-hole mounting Via optional mounting device |

Operation and display

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

Environmental data

| | |
|------------------------------------|---------------|
| Ambient temperature, operation | 0 ... 40 °C |
| Ambient temperature, storage | -20 ... 60 °C |
| Relative humidity (non-condensing) | 0 ... 90 % |

Certifications

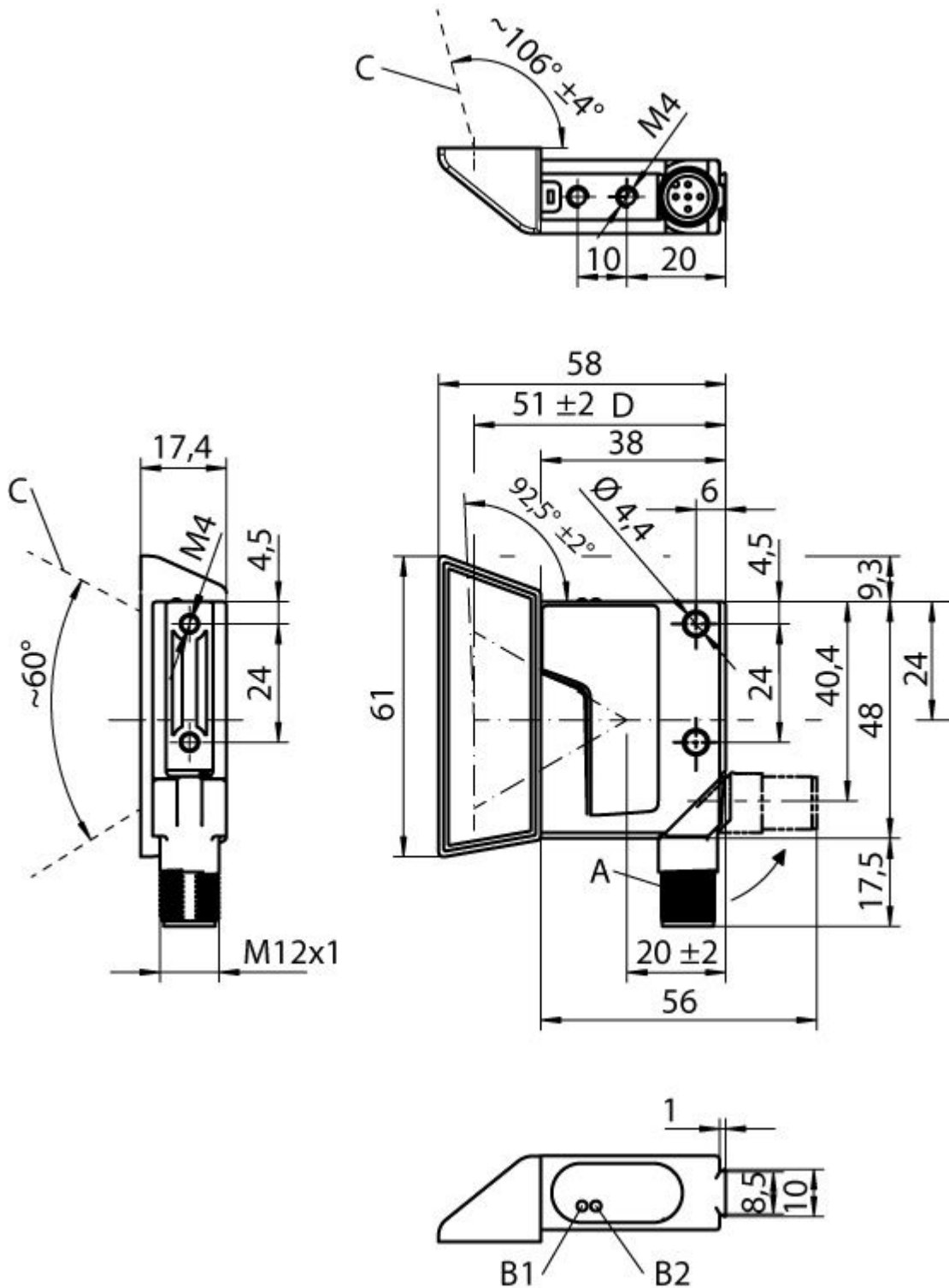
| | |
|----------------------|---|
| Degree of protection | IP 67 , EN 60529 with various connectors or screwed-on caps |
| Protection class | III |
| Certifications | c UL US |
| US patents | US 6,822,774 B |

Classification

| | |
|-----------------------|----------|
| Customs tariff number | 84719000 |
| eCl@ss 8.0 | 27280190 |
| eCl@ss 9.0 | 27280190 |
| ETIM 5.0 | EC001825 |
| ETIM 6.0 | EC001825 |

Dimensioned drawings

All dimensions in millimeters

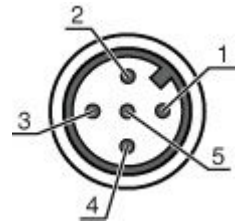


- A Turning connector, turnable by 90°
- B Indicator diodes (B1: status LED, B2: decode LED)
- C Scanning beam, divergence max. 5 mm at 150 mm reading distance
- D Optical axis

Electrical connection

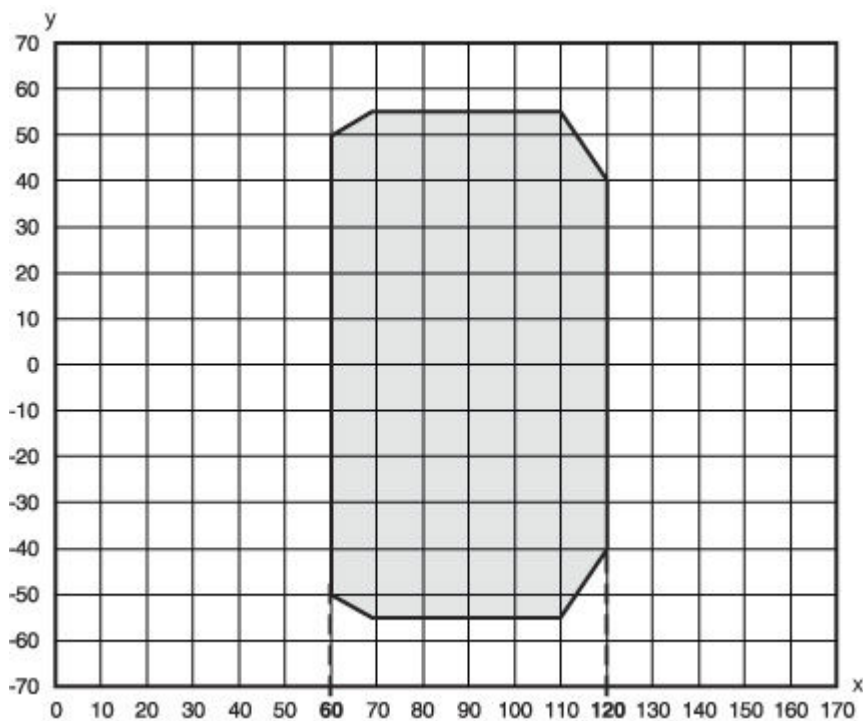
| Connection 1 | |
|--------------------|----------------------|
| Type of connection | Connector |
| Function | Connection to device |
| Thread size | M12 |
| Type | Male |
| Material | Metal |
| No. of pins | 5 -pin |
| Encoding | A-coded |

| Pin | Pin assignment |
|-----|----------------|
| 1 | V+ |
| 2 | RS 232 TxD |
| 3 | GND |
| 4 | RS 232 RxD |
| 5 | SW IN/OUT |



Diagrams

Reading field curve



x Reading distance [mm]
y Reading field width [mm]
Gray Working range

Operation and display

LEDs

| LED | Display | Meaning |
|-----|--------------------------|--|
| 1 | Off | No supply voltage |
| | Green, flashing | Device ok, initialization phase |
| | Green, continuous light | Operational readiness |
| | Red, flashing | Device OK, warning set |
| | Red, continuous light | Device error |
| | Orange, flashing | Service operation active |
| 2 | Off | Positioning deactivated |
| | Green, continuous light | Positioning running (position value valid) |
| | Red, continuous light | Positioning running (position value invalid) |
| | Orange, continuous light | Positioning running (marker label detected) |

Part number code

Part designation: **BPS 8 XX YYY - ZZ**



| | |
|-----|--|
| XX | Scanning principle / optics: S: line scanner (single line) M: Medium Density (medium distance) |
| YYY | Beam exit: 100: lateral 102: front |
| ZZ | Presetting: 01 / 05: Binary protocol 1 02: Binary protocol 2 03: Binary protocol 3 04: Binary protocol 4 10: Binary protocol 6 |

Note

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


Accessories

Connection technology - Connection unit


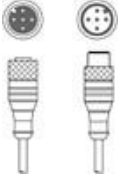
| | Part no. | Designation | Article | Description |
|---|----------|--------------------------|-------------------------|---|
|  | 50112891 | MA 248i Profinet Gateway | Modular connection unit | Supply voltage: 18 ... 30 V Current consumption, max.: 300 mA Interface: PROFINET, RS 232 Connections: 6 Piece(s) Degree of protection: IP 65 |
|  | 50104790 | MA 8-01 | Modular connection unit | Supply voltage: 10 ... 30 V Current consumption, max.: 50 mA Interface: RS 485 Connections: 3 Piece(s) Degree of protection: IP 67 |

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Connection technology - Connection cables

| | Part no. | Designation | Article | Description |
|---|----------|---------------|------------------|--|
|  | 50040757 | KB 008-3000 A | Connection cable | Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Open end Shielded: Yes Cable length: 3,000 mm Sheathing material: PUR |


Connection technology - Interconnection cables

| | Part no. | Designation | Article | Description |
|--|----------|----------------------------|-----------------------|--|
|  | 50113467 | KB JST-M12A-5P-3000 | Connection cable | Suitable for interface: RS 232 Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: JST ZHR, 12 -pin Shielded: Yes Cable length: 3,000 mm Sheathing material: PUR |
|  | 50133890 | KDS S-M12-5A-M12-5A-P1-020 | Interconnection cable | Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 5 -pin Shielded: Yes Cable length: 2,000 mm Sheathing material: PUR |

Mounting technology - Rod mounts


| | Part no. | Designation | Article | Description |
|---|----------|--------------|-----------------|--|
|  | 50127177 | BTU 008M-D10 | Mounting system | Design of mounting device: Mounting system Fastening, at system: Sheet-metal mounting, For 10 mm rod Mounting bracket, at device: Screw type Type of mounting device: Turning, 360°, Adjustable, Clampable Material: Metal |

Mounting technology - Other

| | Part no. | Designation | Article | Description |
|---|----------|-------------|-----------------|---|
|  | 50104791 | BT 8-01 | Mounting device | Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Material: Metal |

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Bar code tape

| | Part no. | Designation | Article | Description |
|---|----------|-------------|---------------|--|
|  | 50104792 | BCB 8 010 | Bar code tape | Dimensions: 47 mm x 10,000 mm Grid dimension: 30 mm |