



Part no.: 50103180
BPS 37 S M 100 HT
Bar code positioning system



Figure can vary

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Technical data

| Basic data | |
|-------------------------------------|--|
| Series | BPS 30 |
| Order guide | Bar code tape must be ordered separately |
| Functions | |
| Functions | Extended temperature range |
| Optical data | |
| Depth of field | 90 ... 170 mm |
| Light source | Laser, Red |
| Laser class | 2, IEC/EN 60825-1:2007 |
| Light beam exit | Lateral at angle less than 100° |
| Measurement data | |
| Measurement range | 0 ... 10,000,000 mm |
| Resolution | 0.01 ... 1,000 mm |
| Reproducibility (3 sigma) | 1 mm |
| Measurement value output | 2 ms |
| Max. traverse rate | 10 m/s |
| Electrical data | |
| Protective circuit | Polarity reversal protection |
| Performance data | |
| Supply voltage U_B | 10 ... 30 V, DC |
| Current consumption, max. | 500 mA |
| Inputs | |
| Number of digital switching inputs | 1 Piece(s) |
| Outputs | |
| Number of digital switching outputs | 1 Piece(s) |
| Interface | |
| Type | SSI |
| SSI | |
| Function | Process |
| Clock frequency | 80 ... 800 kHz |
| Data bit | Adjustable |
| Service interface | |
| Type | RS 232 |
| RS 232 | |
| Function | Configuration via software Service |
| Connection | |
| Number of connections | 1 Piece(s) |
| Connection 1 | |
| Type of connection | Sub-D |
| Function | Connection to device |

Mechanical data

| | |
|-----------------------|---|
| Dimension (W x H x L) | 90 mm x 120 mm x 43 mm |
| Housing material | Metal, Diecast aluminum |
| Lens cover material | Glass |
| Net weight | 400 g |
| Housing color | Black Red |
| Type of fastening | Dovetail grooves Mounting thread Via optional mounting device |

Environmental data

| | |
|------------------------------------|---------------|
| Ambient temperature, operation | 0 ... 50 °C |
| Ambient temperature, storage | -30 ... 60 °C |
| Relative humidity (non-condensing) | 0 ... 90 % |

Certifications

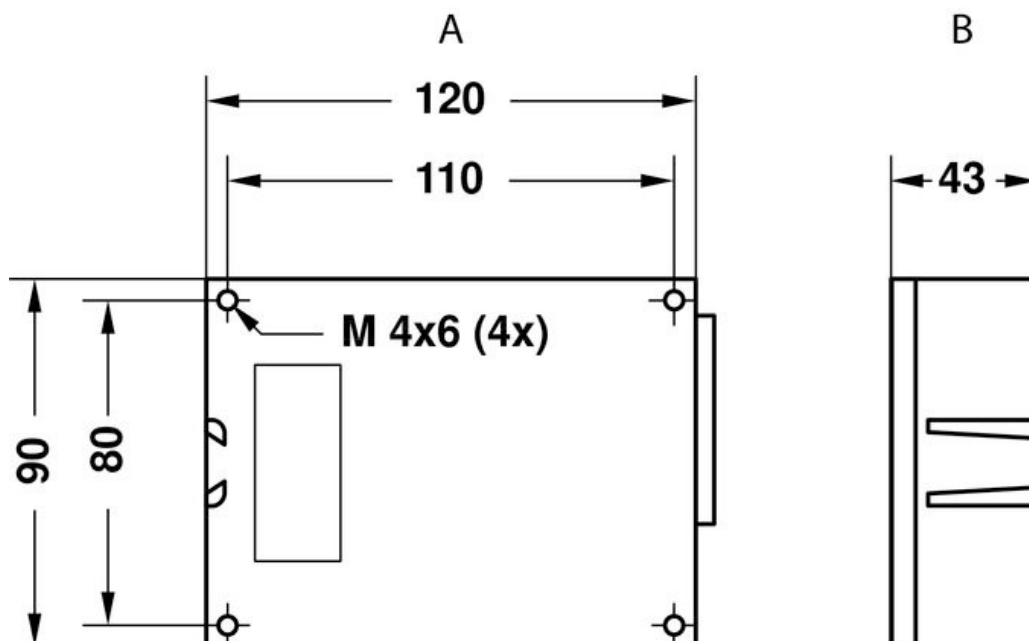
| | |
|----------------------|--|
| Degree of protection | IP 65, EN 60529 with various connectors or screwed-on caps |
| Protection class | III |
| Certifications | c UL US |

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

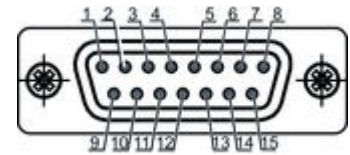


A Rear side
B Top view

Electrical connection

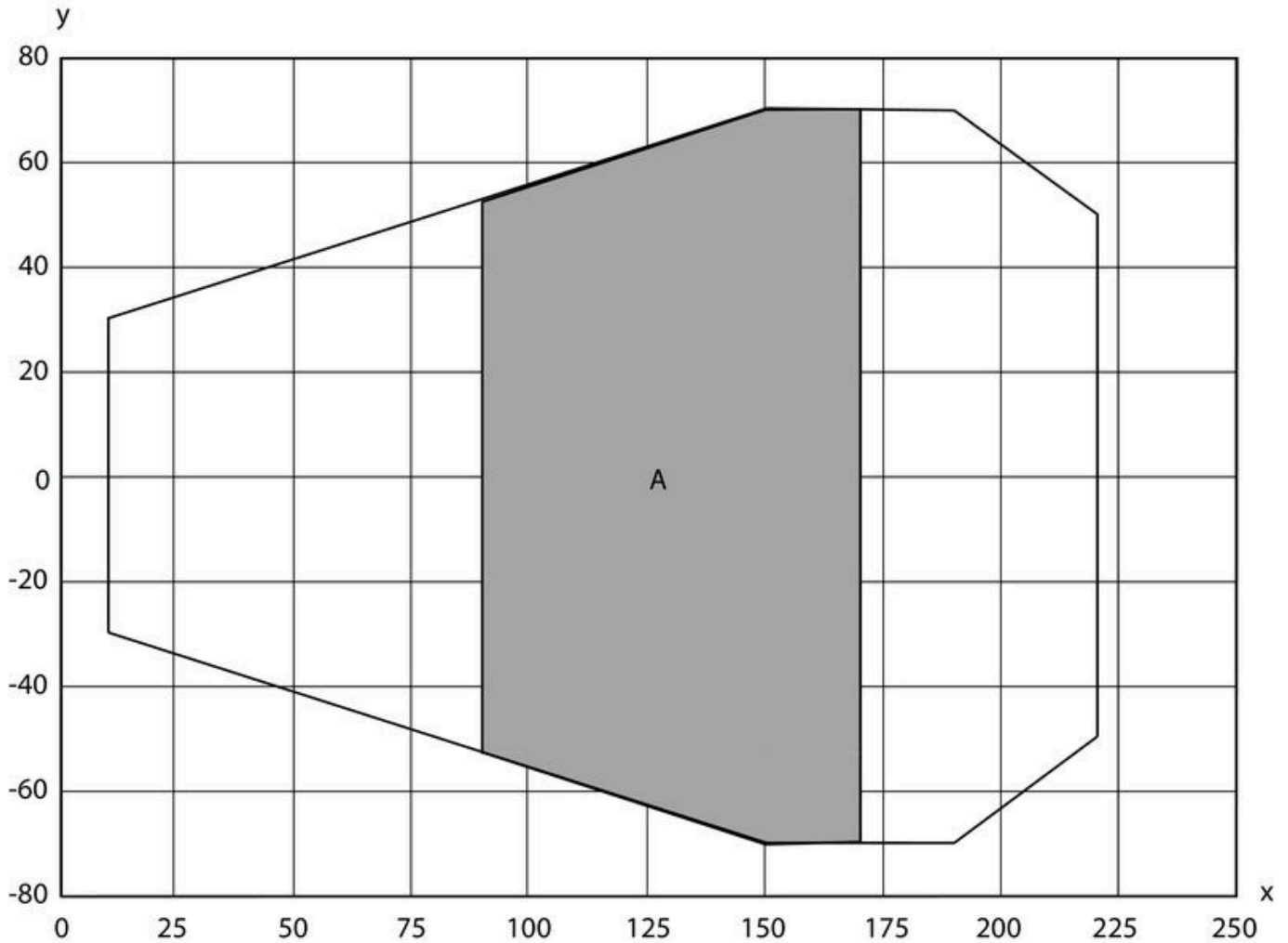
| Connection 1 | |
|--------------------|----------------------|
| Type of connection | Sub-D |
| Function | Connection to device |
| Type | Male |
| No. of pins | 15 -pin |

| Pin | Pin assignment |
|-----|----------------|
| 1 | GND |
| 2 | SWIN 1 |
| 3 | SSI DATA+ |
| 4 | SSI DATA- |
| 5 | Reserved |
| 6 | SSI CLK+ |
| 7 | /Serv |
| 8 | VIN |
| 9 | SSI CLK- |
| 10 | SWO 1 |
| 11 | RxD |
| 12 | TXD |
| 13 | SCL |
| 14 | SDA |
| 15 | GNDIN |



Diagrams

Reading field curve



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

Part number code

Part designation: **BPS 3X SM 100 YZ**


| | |
|-----|---|
| BPS | Operating principle: BPS: bar code positioning system |
| 3X | Series: 34: 34 series with PROFIBUS DB 37: 37 series with SSI interface |
| SM | Scanning principle / optics: S: line scanner (single line) M: Medium Density (medium distance) |
| 100 | Beam exit: 100: lateral |
| YZ | Special equipment: n/a: no special equipment H: with heating HT: extended temperature range |

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 |
|---|----------|-------------|-----------------|---|
| | 50037325 | MA 4 D.7 | Connection unit | Supply voltage: 10 ... 30 V Connections: 2 Piece(s) Degree of protection: IP 54 |
|  | 50037324 | MA 4.7 | Connection unit | Supply voltage: 10 ... 30 V Connections: 2 Piece(s) Degree of protection: IP 54 |

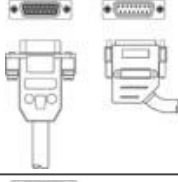

Connection technology - Connection cables

| | Part no. | Designation | Article | Description |
|---|----------|-------------------------|------------------|--|
|  | 50104170 | KB SSI/ IBS-10000-BA | Connection cable | Suitable for interface: SSI, Interbus-S Connection 1: Connector, M12, Axial, Female, B-coded, 5 -pin Connection 2: Open end Shielded: Yes Cable length: 10,000 mm Sheathing material: PUR |
|  | 50104169 | KB SSI/ IBS-15000-BA | Connection cable | Suitable for interface: SSI, Interbus-S Connection 1: Connector, M12, Axial, Female, B-coded, 5 -pin Connection 2: Open end Shielded: Yes Cable length: 15,000 mm Sheathing material: PUR |
|  | 50104172 | KB SSI/ IBS-2000-BA | Connection cable | Suitable for interface: SSI, Interbus-S Connection 1: Connector, M12, Axial, Female, B-coded, 5 -pin Connection 2: Open end Shielded: Yes Cable length: 2,000 mm Sheathing material: PUR |
|  | 50108446 | KB SSI/ IBS-30000-BA | Connection cable | Suitable for interface: SSI, Interbus-S Connection 1: Connector, M12, Female, B-coded, 5 -pin Connection 2: Open end Shielded: Yes Cable length: 30,000 mm Sheathing material: PUR |
|  | 50104171 | KB SSI/ IBS-5000-BA | Connection cable | Suitable for interface: SSI, Interbus-S Connection 1: Connector, M12, Axial, Female, B-coded, 5 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR |

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| | Part no. | Designation | Article | Description |
|---|----------|--------------------|------------------|--|
|  | 50132077 | KD U-M12-5A-V1-020 | Connection cable | Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Open end Shielded: No Cable length: 2,000 mm Sheathing material: PVC |
|  | 50132079 | KD U-M12-5A-V1-050 | Connection cable | Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC |
|  | 50132080 | KD U-M12-5A-V1-100 | Connection cable | Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Open end Shielded: No Cable length: 10,000 mm Sheathing material: PVC |

Connection technology - Interconnection cables


| | Part no. | Designation | Article | Description |
|---|----------|-----------------|-----------------------|---|
|  | 50103621 | KB 031-1000 | Interconnection cable | Suitable for interface: RS 232, RS 485 Connection 1: Sub-D, Axial, Female, 15 -pin Connection 2: JST ZHR, 16 -pin Shielded: Yes Cable length: 1,000 mm Sheathing material: PVC |
|  | 50104025 | KB 031-2000-01 | Interconnection cable | Connection 1: Sub-D, Axial, Female, 15 -pin Connection 2: Sub-D Shielded: Yes Cable length: 2,000 mm |
|  | 50035355 | KB 031-3000 | Interconnection cable | Suitable for interface: RS 232, RS 485 Connection 1: Sub-D, Axial, Female, 15 -pin Connection 2: JST ZHR Shielded: Yes Cable length: 3,000 mm |
|  | 50104754 | KB 031-3000-01 | Interconnection cable | Connection 1: Sub-D, Axial, Female, 15 -pin Connection 2: Open end Shielded: Yes Cable length: 3,000 mm |
|  | 50104026 | KB 031-7000-01 | Interconnection cable | Connection 1: Sub-D, Axial, Female, 15 -pin Connection 2: Sub-D Shielded: Yes Cable length: 7,000 mm |
|  | 50110155 | KB-Service-3000 | Service line | Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Sub-D, Axial, Female, 9 -pin Shielded: Yes Cable length: 3,000 mm Sheathing material: PVC |

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Connection technology - Connectors

| | Part no. | Designation | Article | Description |
|---|----------|-------------|-----------|---|
|  | 50040097 | KD 01-5-BA | Connector | Connection: Connector with screw terminals, M12, Axial, Female, A-coded, 5 -pin |
|  | 50040098 | KD 01-5-SA | Connector | Connection: Connector, M12, Axial, Male, A-coded, 5 -pin |
|  | 50101943 | KD 01-5-SR | Connector | Connection: Connector, M12, Angled, Male, A-coded, 5 -pin |

Connection technology - Connection boxes

| | Part no. | Designation | Article | Description |
|--|----------|-------------|-----------------|---|
|  | 50107684 | MS 37 103 | Connection unit | Suitable for: BPS 37 Suitable for interface: SSI Supply voltage: DC Number of connections: 3 Piece(s) Connection: Connector, M12 Type of fastening: Dovetail grooves |

Mounting technology - Rod mounts

| | Part no. | Designation | Article | Description |
|---|----------|-------------|-----------------|---|
|  | 50027375 | BT 56 | Mounting device | Functions: Static applications Design of mounting device: Mounting system Fastening, at system: For 16 mm rod, For 18 mm rod, For 20 mm rod Mounting bracket, at device: Clampable Material: Metal Tightening torque of the clamping jaws: 8 N·m |
|  | 50121435 | BT 56 - 1 | Mounting device | Functions: Static applications Design of mounting device: Mounting system Fastening, at system: For 12 mm rod, For 14 mm rod, For 16 mm rod Mounting bracket, at device: Clampable Material: Metal Tightening torque of the clamping jaws: 8 N·m |
|  | 50026204 | UMS 96 | Mounting system | Design of mounting device: Mounting system Fastening, at system: For 10 mm rod, For 12 mm rod, For 14 mm rod, For 16 mm rod Mounting bracket, at device: Clampable Type of mounting device: Turning, 360°, Adjustable Material: Metal |

Bar code tape

| | Part no. | Designation | Article | Description |
|---|----------|-------------|---------------|--|
|  | 50038895 | BCB 005 | Bar code tape | Dimensions: 47 mm x 5,000 mm Grid dimension: 40 mm |
|  | 50040041 | BCB 010 | Bar code tape | Dimensions: 47 mm x 10,000 mm Grid dimension: 40 mm |
|  | 50037489 | BCB 020 | Bar code tape | Dimensions: 47 mm x 20,000 mm Grid dimension: 40 mm |
|  | 50037491 | BCB 030 | Bar code tape | Dimensions: 47 mm x 30,000 mm Grid dimension: 40 mm |
|  | 50037492 | BCB 040 | Bar code tape | Dimensions: 47 mm x 40,000 mm Grid dimension: 40 mm |
|  | 50038894 | BCB 050 | Bar code tape | Dimensions: 47 mm x 50,000 mm Grid dimension: 40 mm |
|  | 50038893 | BCB 060 | Bar code tape | Dimensions: 47 mm x 60,000 mm Grid dimension: 40 mm |
|  | 50038892 | BCB 070 | Bar code tape | Dimensions: 47 mm x 70,000 mm Grid dimension: 40 mm |
|  | 50038891 | BCB 080 | Bar code tape | Dimensions: 47 mm x 80,000 mm Grid dimension: 40 mm |

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| | Part no. | Designation | Article | Description |
|---|----------|--------------------------------|---------------|---|
|  | 50038890 | BCB 090 | Bar code tape | Dimensions: 47 mm x 90,000 mm Grid dimension: 40 mm |
|  | 50037493 | BCB 100 | Bar code tape | Dimensions: 47 mm x 100,000 mm Grid dimension: 40 mm |
|  | 50040042 | BCB 110 | Bar code tape | Dimensions: 47 mm x 110,000 mm Grid dimension: 40 mm |
|  | 50040043 | BCB 120 | Bar code tape | Dimensions: 47 mm x 120,000 mm Grid dimension: 40 mm |
|  | 50040044 | BCB 130 | Bar code tape | Dimensions: 47 mm x 130,000 mm Grid dimension: 40 mm |
|  | 50040045 | BCB 140 | Bar code tape | Dimensions: 47 mm x 140,000 mm Grid dimension: 40 mm |
|  | 50040046 | BCB 150 | Bar code tape | Dimensions: 47 mm x 150,000 mm Grid dimension: 40 mm |
|  | 50037494 | BCB 200 | Bar code tape | Dimensions: 47 mm x 200,000 mm Grid dimension: 40 mm |
|  | 50102600 | BCB special length 25mm height | Bar code tape | Dimensions: 25 mm |
|  | 50037495 | BCB special length 47mm height | Bar code tape | Dimensions: 47 mm Grid dimension: 40 mm |