

Technical data sheet Bar code positioning system

Part no.: 50139943

BPS 338i SM 100

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For illustration purposes only



Technical data

Basic data

| | |
|-------------|--|
| Series | BPS 300i |
| Order guide | Bar code tape must be ordered separately Operation only possible in combination with MS 3xx, MK 3xx or ME 338 103 connection unit |

Characteristic parameters

| | |
|------|----------|
| MTTF | 83 years |
|------|----------|

Optical data

| | |
|--------------------------|--|
| Depth of field | 50 ... 170 mm |
| Light source | Laser, Red |
| Wavelength | 655 nm |
| Laser class | 1, in accordance with IEC 60825-1:2014 (EN 60825-1:2014) |
| Transmitted-signal shape | Continuous |
| Light beam exit | Lateral |

Measurement data

| | |
|---------------------------|---------------------|
| Measurement range | 0 ... 10,000,000 mm |
| Resolution | 0.01 ... 10 mm |
| Reproducibility (1 sigma) | 0.05 mm |
| Measurement value output | 1 ms |
| Max. traverse rate | 10 m/s |

Electrical data

| | |
|--------------------|---|
| Protective circuit | Polarity reversal protection Short circuit protected |
|--------------------|---|

Performance data

| | |
|-------------------------|-----------------|
| Supply voltage U_B | 18 ... 30 V, DC |
| Power consumption, max. | 3.7 W |

Inputs/outputs selectable

| | |
|-------------------------------------|-----------------|
| Output current, max. | 60 mA |
| Number of inputs/outputs selectable | 2 Piece(s) |
| Input current, max. | 8 mA |
| Switching element | Transistor, PNP |

Interface

| | |
|------|----------|
| Type | EtherCAT |
|------|----------|

Service interface

| | |
|------|-----|
| Type | USB |
|------|-----|

USB

| | |
|----------|--|
| Function | Configuration/parameterization via integrated web server |
|----------|--|

Mechanical data

| | |
|-----------------------|---|
| Design | Cubic |
| Dimension (W x H x L) | 100 mm x 108.7 mm x 48.3 mm |
| Housing material | Metal |
| Metal housing | Diecast aluminum |
| Lens cover material | Glass |
| Net weight | 580 g |
| Housing color | Red Silver |
| Type of fastening | Dovetail grooves Fastening on back Via optional mounting device |

Operation and display

| | |
|-----------------------|---|
| Type of display | LED |
| Type of configuration | via TwinCAT ESI file or service USB/ webConfig via web browser |

Environmental data

| | |
|------------------------------------|---------------|
| Ambient temperature, operation | -5 ... 50 °C |
| Ambient temperature, storage | -35 ... 70 °C |
| Relative humidity (non-condensing) | 90 % |

Certifications

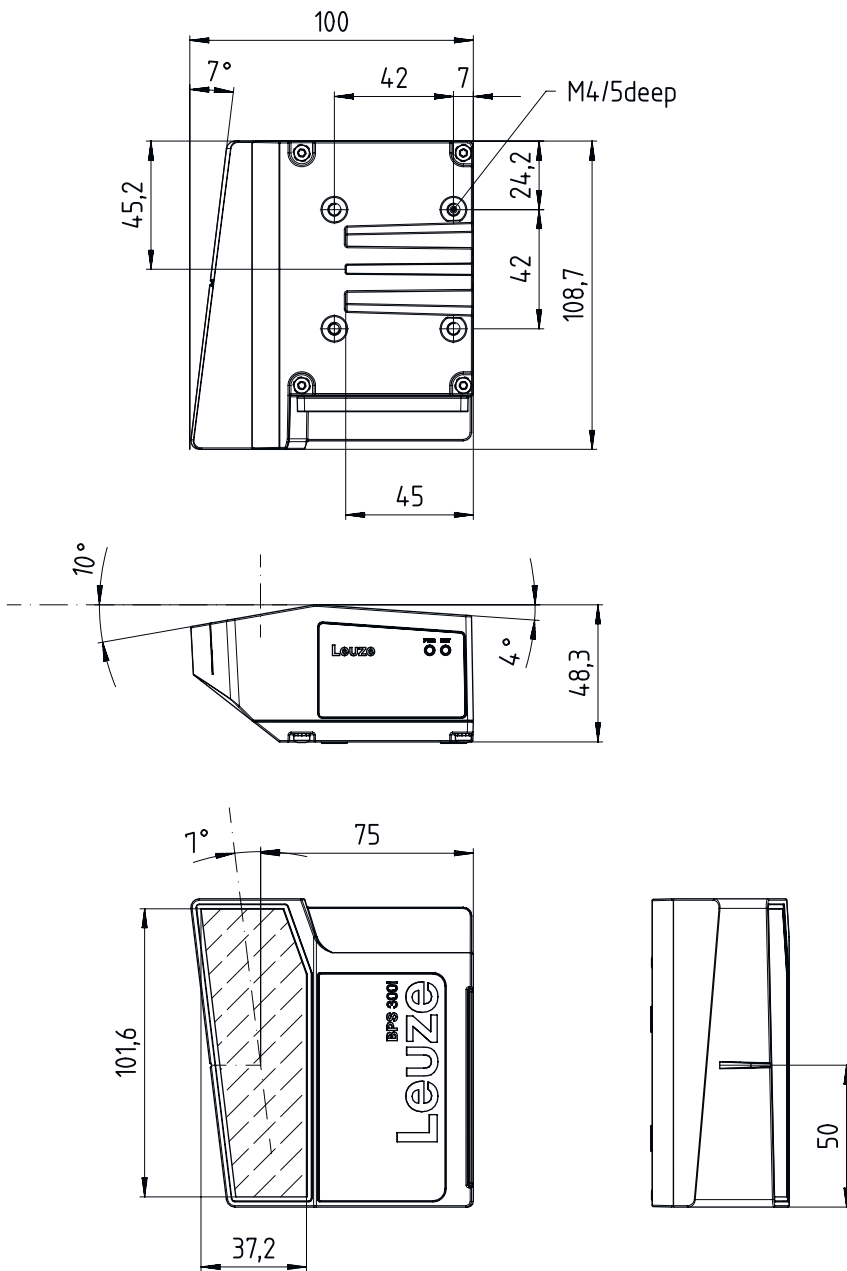
| | |
|---|--|
| Degree of protection | IP 65, EN 60529 with various connectors or screwed-on caps |
| Protection class | III |
| Approvals | c UL US |
| Test procedure for EMC in accordance with standard | EN 61000-6-2 EN 61000-6-3 |
| Test procedure for shock in accordance with standard | IEC 60068-2-27, test Ea |
| Test procedure for continuous shock in accordance with standard | IEC 60068-2-29, test Eb |
| Test procedure for vibration in accordance with standard | IEC 60068-2-6, test Fc |

Classification

| | |
|-----------------------|----------|
| Customs tariff number | 84719000 |
| ECLASS 5.1.4 | 27280190 |
| ECLASS 8.0 | 27280190 |
| ECLASS 9.0 | 27280190 |
| ECLASS 10.0 | 27280190 |
| ECLASS 11.0 | 27280190 |
| ECLASS 12.0 | 27280106 |
| ECLASS 13.0 | 27280106 |
| ECLASS 14.0 | 27280106 |
| ECLASS 15.0 | 27280106 |
| ECLASS 16.0 | 27280106 |
| ETIM 5.0 | EC001825 |
| ETIM 6.0 | EC001825 |
| ETIM 7.0 | EC001825 |
| ETIM 8.0 | EC001825 |
| ETIM 9.0 | EC001825 |
| ETIM 10.0 | EC001825 |
| UNSPSC 26.08 | 39121528 |

Dimensioned drawings

All dimensions in millimeters



Diagrams

Reading field curve



x Reading field distance [mm]

y Reading field width [mm]

Part number code

Part designation: **BPS 3XXi SM 100 Y Z AA**

| | |
|-------------|--|
| BPS | Operating principle BPS: bar code positioning system |
| 3XXi | Series/interface (integrated fieldbus technology) 300i: RS 232 / RS 422 (stand-alone) 301i: RS 485 304i: PROFIBUS DP 307i: SSI 348i: PROFINET RT 3007i: SSI (reduced function range) 3048i: PROFINET RT (reduced function range) |
| SM | Scanning principle / optics S: line scanner (single line) |
| 100 | Beam exit 100: lateral |

Part number code

| | |
|-------------|---|
| YZ | Special equipment n/a: no special equipment D: With display H: with heating D H: optionally with display and heating |
| AA | Switching element n/a: Transistor, PNP 02: Transistor, NPN |
| Note | |
| | ↪ A list with all available device types can be found on the Leuze 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. |
|--|---|

ATTENTION! LASER RADIATION – CLASS 1 LASER PRODUCT

| | |
|--|---|
| | The device satisfies the requirements of IEC/EN 60825-1:2014 safety regulations for a product of laser class 1 and complies with 21 CFR 1040.10 except for conformance with IEC 60825-1 Ed. 3., as described in Laser Notice No. 56, dated May 8, 2019. ↪ Observe the applicable statutory and local laser protection regulations. ↪ The device must not be tampered with and must not be changed in any way. There are no user-serviceable parts inside the device. Repairs must only be performed by Leuze electronic GmbH + Co. KG. |
|--|---|

Accessories

Connection technology - Connection cables

| | Part no. | Designation | Article | Description |
|--|----------|---------------------|------------------|--|
| | 50132079 | KD U-M12-5A-V1-050 | Connection cable | Application: Chemical resistant Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC |
| | 50135074 | KS ET-M12-4A-P7-050 | Connection cable | Application: Oil and lubricant resistant Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connector, LED: No Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR |

Accessories

Connection technology - Interconnection cables

| | Part no. | Designation | Article | Description |
|--|----------|-----------------------------|-----------------------|--|
| | 50137077 | KSS ET-M12-4A-M12-4A-P7-020 | Interconnection cable | Application: Oil and lubricant resistant Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: Connector, M12, Axial, Male, D-coded, 4 -pin Shielded: Yes Cable length: 2,000 mm Sheathing material: PUR |
| | 50135080 | KSS ET-M12-4A-RJ45-A-P7-020 | Interconnection cable | Application: Oil and lubricant resistant Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: RJ45 Shielded: Yes Cable length: 2,000 mm Sheathing material: PUR |

Connection technology - Connectors

| | Part no. | Designation | Article | Description |
|--|----------|-------------|-----------|--|
| | 50020501 | KD 095-5A | Connector | Connection: Connector, M12, Axial, Female, A-coded, 5 -pin |

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 |



Mounting technology - Other

| | Part no. | Designation | Article | Description |
|--|----------|-------------|-----------------|---|
| | 50124941 | BTU 0300M-W | Mounting device | Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable, Groove mounting, Suited for M4 screws Material: Metal Shock absorber: No |

Bar code tape

| | Part no. | Designation | Article | Description |
|--|----------|------------------|---------------|--|
| | 50144190 | BCB G40 H25 L010 | Bar code tape | Dimensions: 25 mm x 10,000 mm Grid dimension: 40 mm Material: Polyester Manufacturing process for bar code tape: Digital printing |

Accessories

| | Part no. | Designation | Article | Description |
|--|----------|------------------|---------------|--|
|  | 50040041 | BCB G40 H47 L010 | Bar code tape | Dimensions: 47 mm x 10,000 mm Grid dimension: 40 mm Material: Polyester Manufacturing process for bar code tape: Digital printing |
|  | 50037489 | BCB G40 H47 L020 | Bar code tape | Dimensions: 47 mm x 20,000 mm Grid dimension: 40 mm Manufacturing process for bar code tape: Digital printing |

Services

| | Part no. | Designation | Article | Description |
|---|----------|-------------|------------------|--|
|  | S981001 | CS10-S-110 | Start-up support | Details: Performed at location of customer's choosing, duration: max. 10 hours. Conditions: Devices and connection cables are already mounted, price not including travel costs and, if applicable, accommodation expenses. |
|  | S981005 | CS10-T-110 | Product training | Details: Location and content to be agreed upon, duration: max. 10 hours. Conditions: Price not including travel costs and, if applicable, accommodation expenses. |

Note



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