



**Part no.: 50125674**  
**BPS 304i SM 100 D H**  
**Bar code positioning system**



Figure can vary

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## Technical data

<b>Basic data</b>	
Series	BPS 300i
Order guide	Bar code tape must be ordered separately Operation only possible in combination with MS 3xx or MK 3xx connection unit
<b>Special design</b>	
Special design	Heating
<b>Optical data</b>	
Depth of field	50 ... 170 mm
Light source	Laser , Red
Laser class	2 , IEC/EN 60825-1:2007
Light beam exit	Lateral
<b>Measurement data</b>	
Measurement range	0 ... 10,000,000 mm
Resolution	0.001 ... 10 mm
Reproducibility (1 sigma)	0.05 mm
Measurement value output	1 ms
Max. traverse rate	10 m/s
<b>Electrical data</b>	
Protective circuit	Polarity reversal protection Short circuit protected
<b>Performance data</b>	
Supply voltage $U_B$	18 ... 30 V , DC
Power consumption, max.	17.7 W
<b>Inputs/outputs selectable</b>	
Output current, max.	60 mA
Number of inputs/outputs selectable	2 Piece(s)
Input current, max.	8 mA
<b>Interface</b>	
Type	PROFIBUS DP
<b>PROFIBUS DP</b>	
Function	Process
Classification	V0
Transmission speed	0.0096 ... 12 Mbit/s
<b>Service interface</b>	
Type	USB
<b>USB</b>	
Function	Configuration via GSD modules Service
<b>Mechanical data</b>	
Dimension (W x H x L)	100 mm x 108.7 mm x 48.3 mm
Housing material	Metal , Diecast aluminum

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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 Monochromatic graphic display, 128 x 32 pixels
Type of configuration	Via web browser

### Environmental data

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

### Certifications

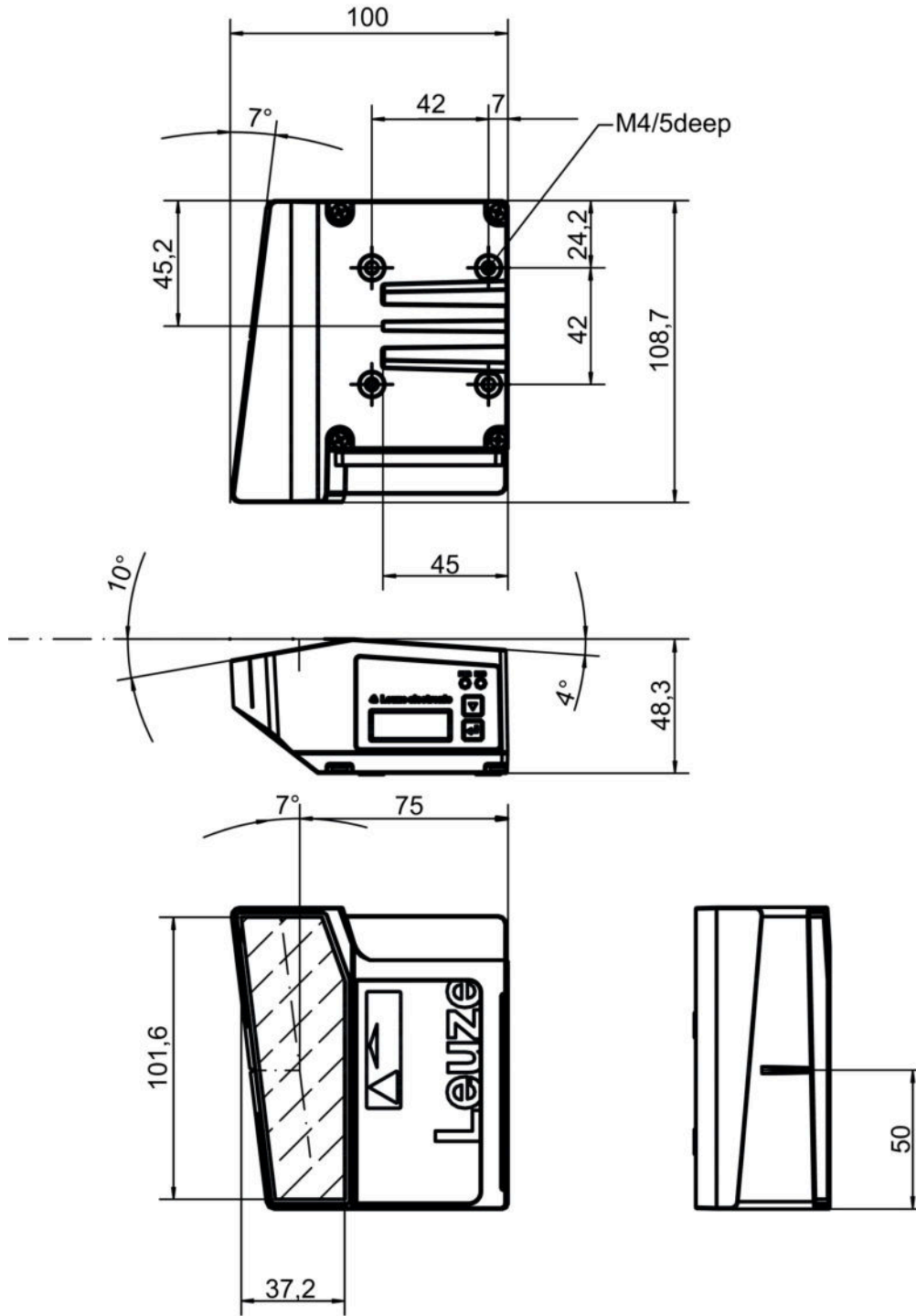
Degree of protection	IP 65 , EN 60529 with various connectors or screwed-on caps
Protection class	III
Certifications	c UL US

### Classification

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

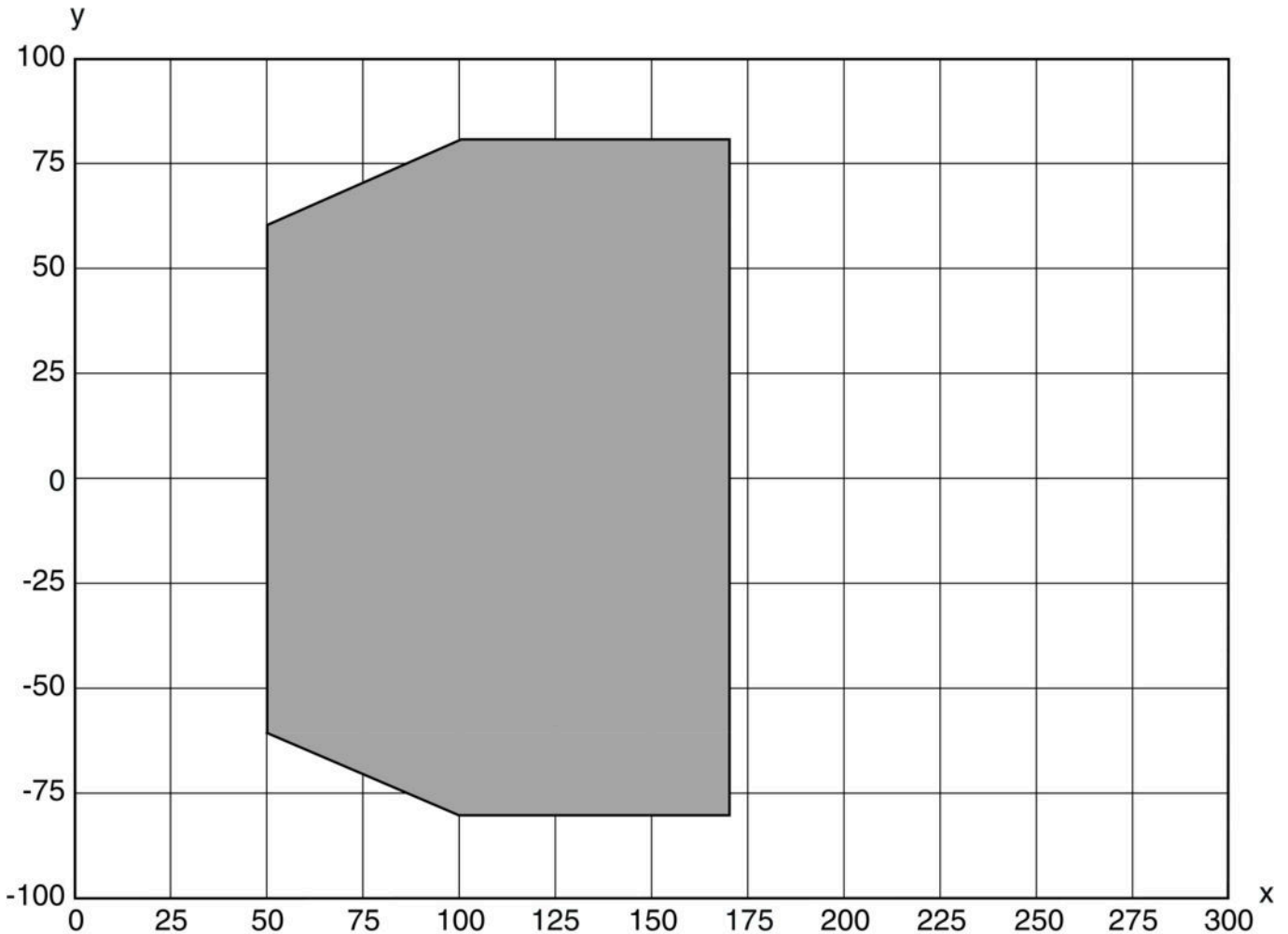
## Dimensioned drawings

All dimensions in millimeters



## 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**

BPS	<b>Operating principle:</b> BPS: bar code positioning system
3XXi	<b>Series/interface (integrated fieldbus technology):</b> 300i: RS 232 / RS 422 (stand-alone) 301i: RS 485 304i: PROFIBUS DP 307i: SSI 348i: PROFINET RT
SM	<b>Scanning principle / optics:</b> S: line scanner (single line) M: Medium Density (medium distance)
100	<b>Beam exit:</b> 100: lateral
Y Z	<b>Special equipment:</b> n/a: no special equipment D: with display H: with heating D H: optionally with display and heating

**Note**

A list with all available device types can be found on the Leuze electronic website at [www.leuze.com](http://www.leuze.com).

**Notes**

**WARNING! LASER RADIATION – CLASS 2 LASER PRODUCT**







**Do not stare into beam!**

The device satisfies the requirements of IEC 60825-1:2007 (EN 60825-1:2007) safety regulations for a product of **laser class 2** as well as the U.S. 21 CFR 1040.10 regulations with deviations corresponding to "Laser Notice No. 50" from June 24, 2007.

- Never look directly into the laser beam or in the direction of reflected laser beams! If you look into the beam path over a longer time period, there is a risk of injury to the retina.
- Do not point the laser beam of the device at persons!
- Interrupt the laser beam using a non-transparent, non-reflective object if the laser beam is accidentally directed towards a person.
- When mounting and aligning the device, avoid reflections of the laser beam off reflective surfaces!
- CAUTION! Use of controls or adjustments or performance of procedures other than specified herein may result in hazardous light exposure.
- 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.

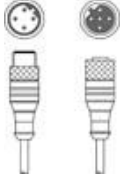
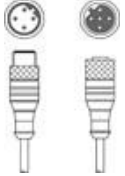
**Accessories**

**Connection technology - Connection cables**


	Part no.	Designation	Article	Description
 	50135243	KD PB-M12-4A-P3-050	Connection cable	Suitable for interface: PROFIBUS DP Connection 1: Connector, M12, Axial, Female, B-coded, 4 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR
 	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
 	50135248	KS PB-M12-4A-P3-050	Connection cable	Suitable for interface: PROFIBUS DP Connection 1: Connector, M12, Axial, Male, B-coded, 4 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR

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## Connection technology - Interconnection cables

	Part no.	Designation	Article	Description
	50135253	KDS PB-M12-4A-M12-4A-P3-020	Interconnection cable	Suitable for interface: PROFIBUS DP Connection 1: Connector, M12, Axial, Female, B-coded, 2 -pin Connection 2: Connector, M12, Axial, Male, B-coded, 4 -pin Shielded: Yes Cable length: 2,000 mm Sheathing material: PUR
	50135255	KDS PB-M12-4A-M12-4A-P3-100	Interconnection cable	Suitable for interface: PROFIBUS DP Connection 1: Connector, M12, Axial, Female, B-coded, 2 -pin Connection 2: Connector, M12, Axial, Male, B-coded, 4 -pin Shielded: Yes Cable length: 10,000 mm Sheathing material: PUR



## Connection technology - Connectors

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

## Connection technology - Terminating resistors

	Part no.	Designation	Article	Description
	50038539	TS 02-4-SA	Terminator plug	Suitable for: MultiNet Plus, PROFIBUS DP Connection 1: Connector, M12, Axial, Male, B-coded, 4 -pin Function: Bus termination


## Connection technology - Connection boxes

	Part no.	Designation	Article	Description
	50116465 *	MK 304	Connection unit	Suitable for: BCL 304i, BPS 304i Suitable for interface: PROFIBUS DP Number of connections: 4 Piece(s) Connection: Terminal
	50116470 *	MS 304	Connection unit	Suitable for: BCL 304i, BPS 304i Suitable for interface: PROFIBUS DP Number of connections: 4 Piece(s) Connection: Connector, M12


\* Necessary accessories, please order separately

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## Mounting technology - Rod mounts

	Part no.	Designation	Article	Description
	50027375	BT 56	Mounting device	<p>Functions: Static applications</p> <p>Design of mounting device: Mounting system</p> <p>Fastening, at system: For 16 mm rod, For 18 mm rod, For 20 mm rod</p> <p>Mounting bracket, at device: Clampable</p> <p>Material: Metal</p> <p>Tightening torque of the clamping jaws: 8 N·m</p>

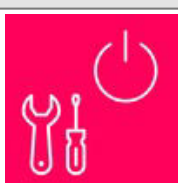

## Mounting technology - Other

	Part no.	Designation	Article	Description
	50124941	BTU 0300M-W	Mounting device	<p>Fastening, at system: Through-hole mounting</p> <p>Mounting bracket, at device: Clampable, Groove mounting, Suited for M4 screws</p> <p>Material: Metal</p>

## Bar code tape

	Part no.	Designation	Article	Description
	50040041	BCB 010	Bar code tape	<p>Dimensions: 47 mm x 10,000 mm</p> <p>Grid dimension: 40 mm</p>
	50037489	BCB 020	Bar code tape	<p>Dimensions: 47 mm x 20,000 mm</p> <p>Grid dimension: 40 mm</p>

## Services

	Part no.	Designation	Article	Description
	S981001	CS10-S-110	Start-up support	<p>Details: Performed at location of customer's choosing, duration: max. 10 hours.</p> <p>Conditions: Devices and connection cables are already mounted, price not including travel costs and, if applicable, accommodation expenses.</p> <p>Restrictions: No mechanical (mounting) and electrical (wiring) work performed, no changes (attachments, wiring, programming) to third-party components in the nearby environment.</p>
	S981005	CS10-T-110	Product training	<p>Details: Location and content to be agreed upon, duration: max. 10 hours.</p> <p>Conditions: Price not including travel costs and, if applicable, accommodation expenses.</p> <p>Restrictions: Travel costs and accommodation expenses charged separately and according to expenditure.</p>



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**Note**

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