



**Part no.: 50125668**  
**BPS 300i SM 100 D H**  
**Bar code positioning system**



**RS422**



**RS232**

Figure can vary

## Contents

- Technical data
- Dimensioned drawings
- Diagrams
- Part number code
- Accessories

## 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, MK 3xx or KB 30x connection unit
<b>Functions</b>	
Functions	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	0.01 ... 10 mm
Reproducibility (1 sigma)	0.05 mm
Measurement value output	1 ... 30 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	RS 232, RS 422
<b>RS 232</b>	
Function	Process
Transmission speed	4,800 ... 115,200 Bd
Data format	Adjustable
Start bit	1
Data bit	7,8
Stop bit	1, 2 stop bits
Parity	Adjustable
Data encoding	Binary

Part no.: 50125668 – BPS 300i SM 100 D H – Bar code positioning system

**RS 422**

Function	Process
Transmission speed	4,800 ... 115,200 Bd
Data format	Adjustable
Start bit	1
Data bit	8 data bits
Stop bit	1, 2 stop bits
Parity	Adjustable
Data encoding	Binary

**Service interface**

Type	USB
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**USB**

Function	Configuration/parameterization via integrated web server Service
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**Mechanical data**

Dimension (W x H x L)	100 mm x 108.7 mm x 48.3 mm
Housing material	Metal, 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 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**

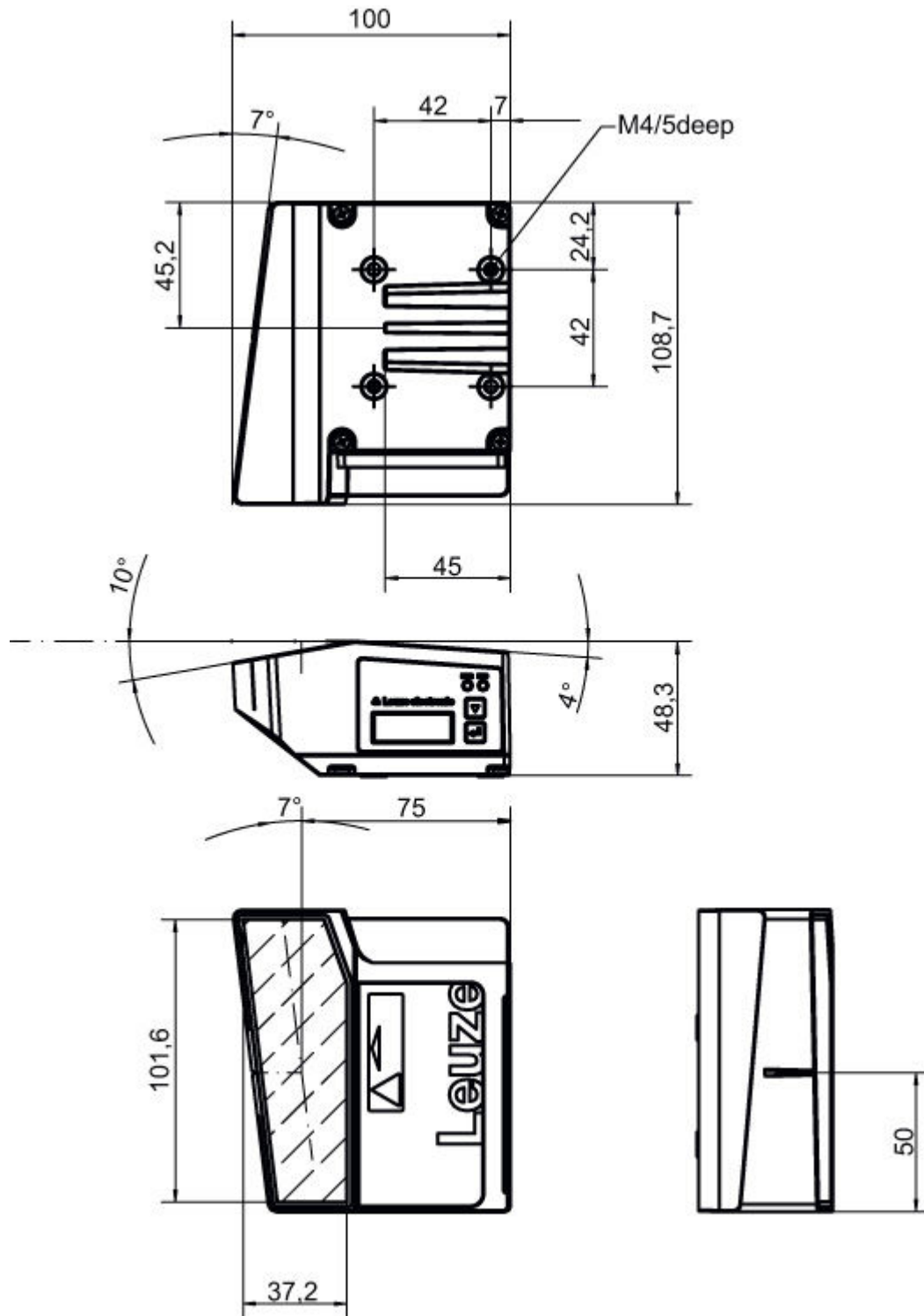
Degree of protection	IP 65, EN 60529 with various connectors or screwed-on caps
Protection class	III
Certifications	c UL US

**Classification**

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

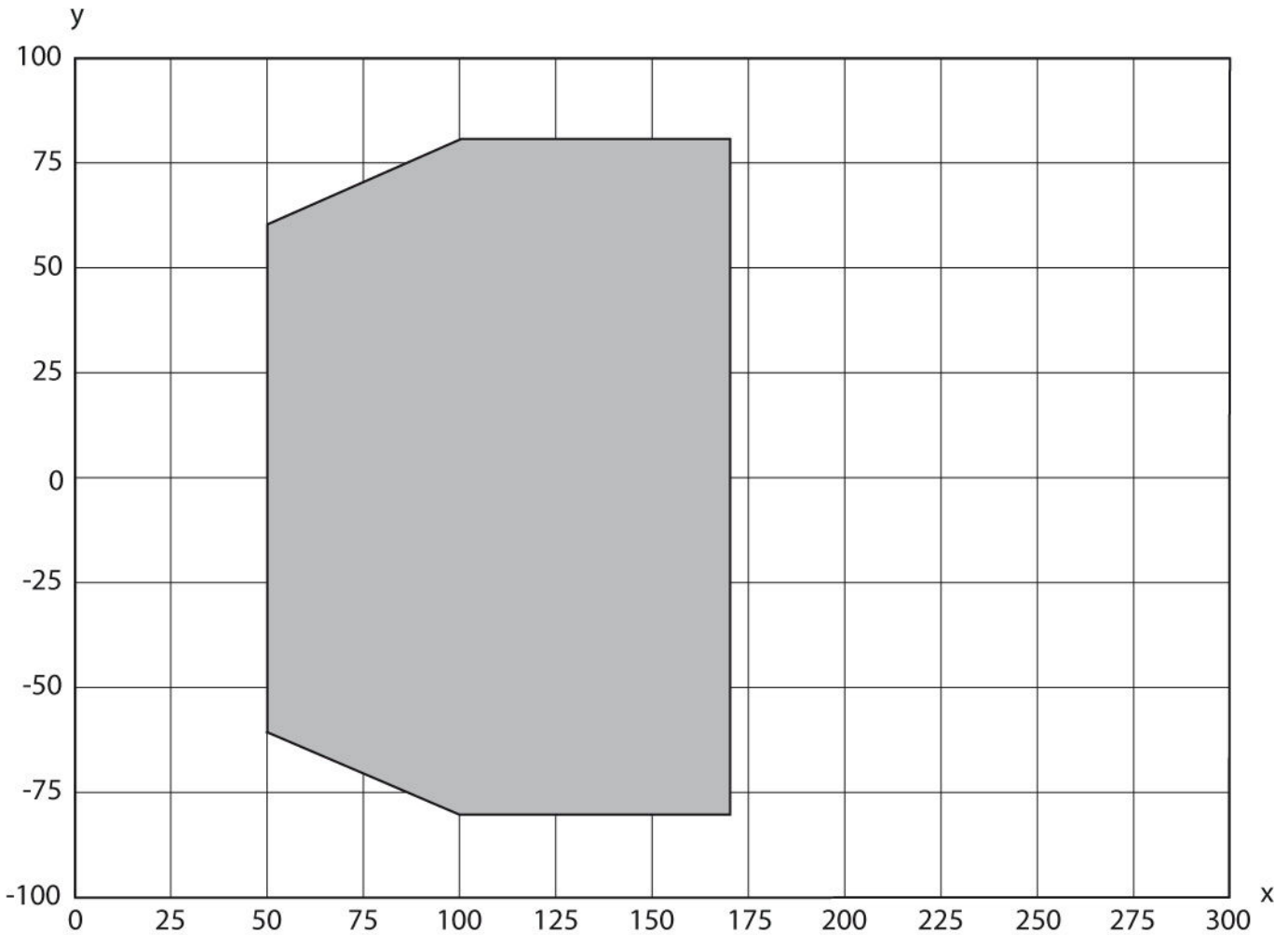
**Dimensioned drawings**

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).




## Accessories

### 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
	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


Part no.: 50125668 – BPS 300i SM 100 D H – Bar code positioning system

## Connection technology - Interconnection cables



	Part no.	Designation	Article	Description
	50114571 *	KB 301-3000	Interconnection cable	Suitable for interface: RS 232 Connection 1: Socket connector Connection 2: JST ZHR, 10 -pin, 6 -pin Shielded: Yes Cable length: 3,000 mm Sheathing material: PVC
	50120463	KB 301-3000-MA200	Interconnection cable	Suitable for interface: RS 232 Connection 1: Socket connector Connection 2: JST ZHR, 10 -pin, 6 -pin Shielded: Yes Cable length: 3,000 mm Sheathing material: PVC
	50117011	KB USB A - USB miniB	Service line	Suitable for interface: USB Connection 1: USB Connection 2: USB Shielded: Yes Cable length: 1,500 mm Sheathing material: PVC

\* Necessary accessories, please order separately

## Connection technology - Connectors

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


## Connection technology - Connection boxes

	Part no.	Designation	Article	Description
	50116463 *	MK 300	Connection unit	Suitable for: BCL 300i, BPS 300i Suitable for interface: RS 232 Number of connections: 3 Piece(s) Connection: Terminal
	50116468 *	MS 300	Connection unit	Suitable for: BCL 300i, BPS 300i Suitable for interface: RS 232 Number of connections: 3 Piece(s) Connection: Connector, M12



\* Necessary accessories, please order separately

Part no.: 50125668 – BPS 300i SM 100 D H – Bar code positioning system


## Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
	50121433	BT 300 W	Mounting device	Contains: 4x M4 x 10 screw, 4x position washers, 4x lock washers Design of mounting device: Angle, L-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Adjustable Material: Metal



## Mounting technology - Rod mounts

	Part no.	Designation	Article	Description
	50121434	BT 300 - 1	Mounting device	Contains: 4x M4 x 10 screw, 4x position washers, 4x lock washers 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: Screw type Type of mounting device: Turning, 360°, Adjustable Material: Metal
	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 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





**Part no.: 50125668 – BPS 300i SM 100 D H – Bar code positioning system**

	Part no.	Designation	Article	Description
	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
	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

**Part no.: 50125668 – BPS 300i SM 100 D H – Bar code positioning system**

	Part no.	Designation	Article	Description
	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
	50126134	MV0 Label 40mm 10er Pack	Label set	Dimensions: 47 mm x 40 mm Grid dimension: 40 mm
	50106478	MVS label 40mm 10 pieces	Label set	Dimensions: 47 mm x 40 mm Grid dimension: 40 mm

## 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>