



**Part no.: 50103179**  
**BPS 34 S M 100 HT**  
**Bar code positioning system**



Figure can vary

## Contents

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

## Technical data

<b>Basic data</b>	
Series	BPS 30
Order guide	Bar code tape must be ordered separately
<b>Functions</b>	
Functions	Extended temperature range
<b>Optical data</b>	
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°
<b>Measurement data</b>	
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
<b>Electrical data</b>	
Protective circuit	Polarity reversal protection
<b>Performance data</b>	
Supply voltage $U_B$	10 ... 30 V, DC
Current consumption, max.	500 mA
<b>Inputs</b>	
Number of digital switching inputs	1 Piece(s)
<b>Outputs</b>	
Number of digital switching outputs	1 Piece(s)
<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	RS 232
<b>RS 232</b>	
Function	Configuration via software Service
<b>Connection</b>	
Number of connections	1 Piece(s)
<b>Connection 1</b>	
Type of connection	Sub-D
Function	Connection to device

<b>Mechanical data</b>	
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

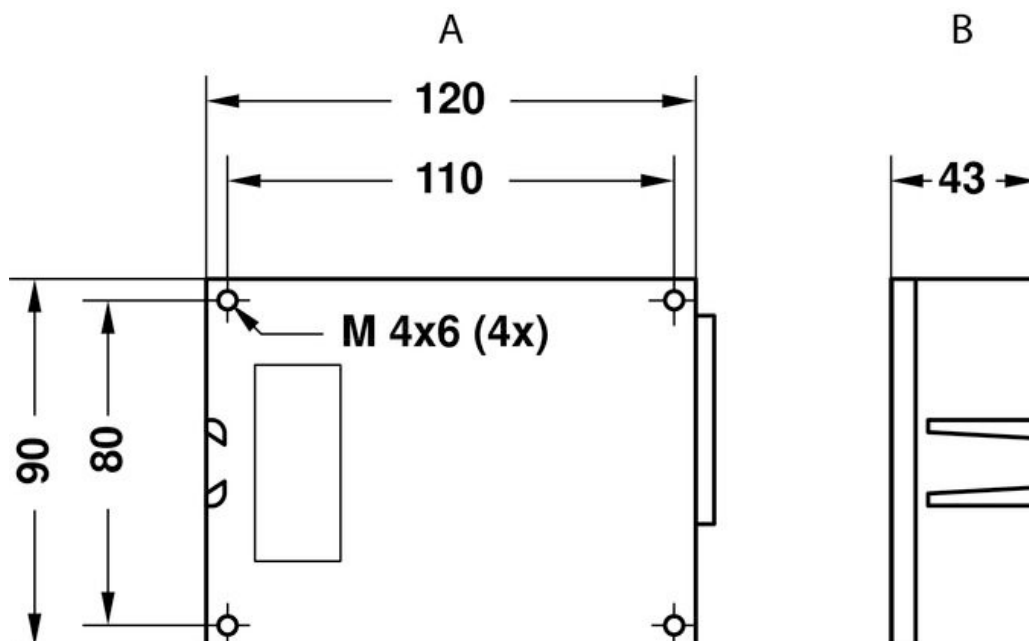
<b>Environmental data</b>	
Ambient temperature, operation	0 ... 50 °C
Ambient temperature, storage	-30 ... 60 °C
Relative humidity (non-condensing)	0 ... 90 %

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

<b>Classification</b>	
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

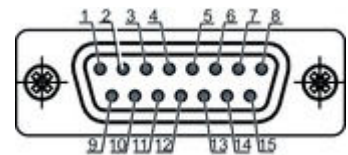


A Rear side  
B Top view

## Electrical connection

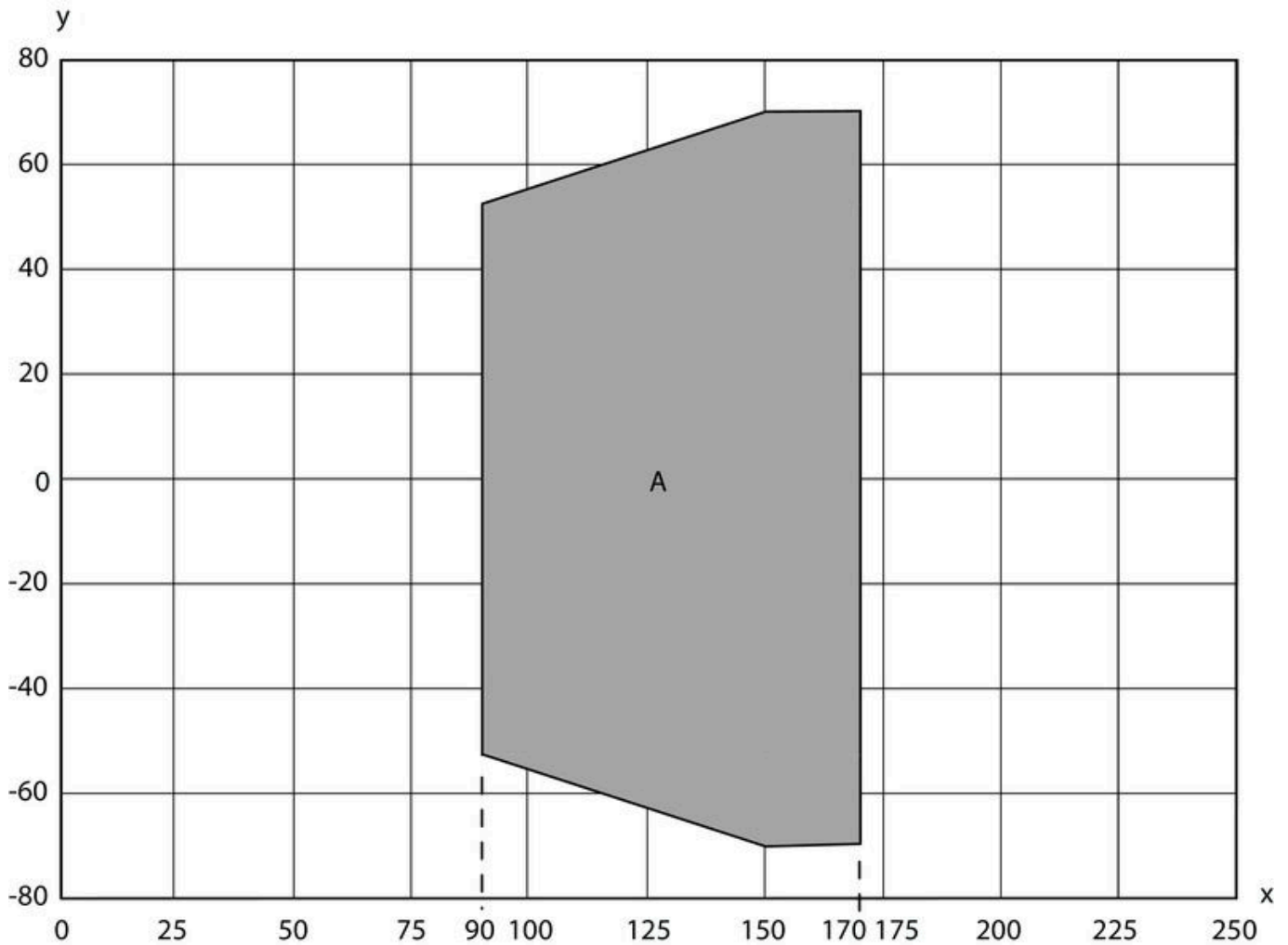
Connection 1	
Type of connection	Sub-D
Function	Connection to device
Type	Male
No. of pins	15 -pin

Pin	Pin assignment
1	GND
2	SWIN 1
3	RS 485 A
4	RS 485 B
5	/INT_MA
6	VP
7	/Serv
8	VIN
9	RTS485
10	SWO 1
11	RxD
12	TXD
13	SCL_MA
14	SDA_MA
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	<b>Operating principle:</b> BPS: bar code positioning system
3X	<b>Series:</b> 34: 34 series with PROFIBUS DB 37: 37 series with SSI interface
SM	<b>Scanning principle / optics:</b> S: line scanner (single line) M: Medium Density (medium distance)
100	<b>Beam exit:</b> 100: lateral
YZ	<b>Special equipment:</b> n/a: no special equipment H: with heating HT: extended temperature range

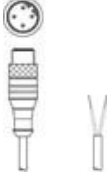
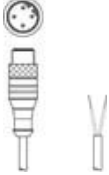
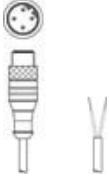
**Note**

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

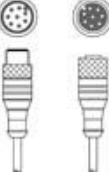
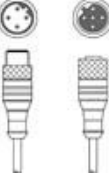
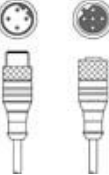
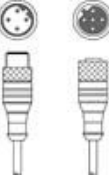
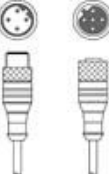
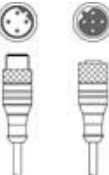
**Accessories**
**Connection technology - Connection cables**

	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
	50135244	KD PB-M12-4A-P3-100	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: 10,000 mm Sheathing material: PUR
	50135245	KD PB-M12-4A-P3-150	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: 15,000 mm Sheathing material: PUR
	50135246	KD PB-M12-4A-P3-300	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: 30,000 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
	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
	50135247	KS PB-M12-4A-P3-020	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: 2,000 mm Sheathing material: PUR
	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

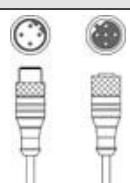
Part no.: 50103179 – BPS 34 S M 100 HT – Bar code positioning system

	Part no.	Designation	Article	Description
	50135249	KS PB-M12-4A-P3-100	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: 10,000 mm Sheathing material: PUR
	50135250	KS PB-M12-4A-P3-150	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: 15,000 mm Sheathing material: PUR
	50135251	KS PB-M12-4A-P3-300	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: 30,000 mm Sheathing material: PUR




Connection technology - Interconnection cables

	Part no.	Designation	Article	Description
	429278	CB-M12-2000E-8TP	Interconnection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 8 -pin Shielded: Yes Cable length: 2,000 mm Sheathing material: PUR
	50135252	KDS PB-M12-4A-M12-4A-P3-010	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: 1,000 mm Sheathing material: PUR
	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
	50135254	KDS PB-M12-4A-M12-4A-P3-050	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: 5,000 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
	50135256	KDS PB-M12-4A-M12-4A-P3-150	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: 15,000 mm Sheathing material: PUR


Part no.: 50103179 – BPS 34 S M 100 HT – Bar code positioning system

	Part no.	Designation	Article	Description
	50135257	KDS PB-M12-4A-M12-4A-P3-300	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: 30,000 mm Sheathing material: PUR



### 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 - 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
	50037230	MS 34 103	Connection unit	Suitable for: BCL 34, BPS 34 Suitable for interface: PROFIBUS DP Number of connections: 3 Piece(s) Connection: Connector, M12
	50037231	MS 34 105	Connection unit	Suitable for: BCL 34, BPS 34 Suitable for interface: PROFIBUS DP Number of connections: 5 Piece(s) Connection: Connector, M12



Part no.: 50103179 – BPS 34 S M 100 HT – Bar code positioning system

## 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, 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

Part no.: 50103179 – BPS 34 S M 100 HT – Bar code positioning system

	Part no.	Designation	Article	Description
	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
	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

Part no.: 50103179 – BPS 34 S M 100 HT – Bar code positioning system

	Part no.	Designation	Article	Description
	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