



the sensor people





Part no.: 50113683 AMS 304i 200 H Optical distance sensor







**CDRH** 







Figure can vary

# **Contents**

- Technical data
- · Dimensioned drawings
- Electrical connection
- · Operation and display
- · Part number code
- Notes
- Accessories



### **Technical data**

Papia data	
Basic data	AMC 200;
Series Application	AMS 300i  Positioning of skillet systems and side-tracking skates Collision protection of cranes / gantry cranes Positioning of electroplating plants Positioning of high-bay storage devices
Functions	
Functions	Heating
Characteristic parameters	
MTTF	31 years
Optical data	
Light source	Laser, Red
Laser class	2, IEC/EN 60825-1:2007
Management data	
Measurement data  Measurement range	200 200,000 mm
Accuracy	3 mm
Reproducibility (3 sigma)	2.1 mm
Max. traverse rate	10 m/s
Wax. traverse rate	10 11//3
Electrical data	
Performance data	
Supply voltage U <sub>B</sub>	18 30 V, DC
Interface	
Туре	PROFIBUS DP, SSI
PROFIBUS DP	
Transmission speed	0.0096 12 Mbit/s
SSI	
Clock frequency	50 800 kHz
Connection	
Number of connections	5 Piece(s)
Connection 1	
Type of connection	Connector
Designation on device	BUS IN
Function	PROFIBUS IN BUS IN Data interface
Thread size	M12
Туре	Male
No. of pins	5 -pin
Encoding	B-coded



Type of connection	Connection 2	
Designation on device		Connector
Punction		
Type		Data interface PROFIBUS OUT
No. of pins	Thread size	M12
No. of pins	Туре	Female
Type of connection Connector Connector Designation on device PWR Function PWR / SW INNOUT Voltage supply Thread size M12 Type Male No. of pins 5-pin Encoding Connector Designation on device SERVICE Function Service interface Thread size M12 Type Connector Designation on device SERVICE Function Service interface Thread size M12 Type Female No. of pins 5-pin Encoding A-coded Connector Type of connection Connector Service interface Type of connection Connector Service interface Type of connection Connector Service interface Type of connection Connector Designation on device SSI Function Designation on device SSI Thread size M12 Type Male No. of pins S-pin Encoding B-coded Connector Data interface SSI Thread size M12 Type Male No. of pins S-pin Encoding B-coded Connector Designation on device SSI Thread size M12 Type Male No. of pins S-pin Encoding B-coded Connector Designation on device Data interface SSI Thread size M12 Type Male No. of pins S-pin Encoding B-coded Connector Designation on device Des	No. of pins	5 -pin
Type of connection	Encoding	B-coded
Designation on device	Connection 3	
Function	Type of connection	Connector
Voltage supply	Designation on device	PWR
Type	Function	
No. of pins 5-pin Encoding A-coded  Connection 4 Type of connection Designation on device SERVICE Function Service interface Thread size M12 Type Female No. of pins 5-pin Encoding A-coded  Connection 5 Type of connection Designation on device SSI Type of connection Designation on device SSI Type of connection Connector Designation on device SSI Type of connection Balanterface SSI Thread size M12 Type Male No. of pins 5-pin Encoding B-coded  Connection SSI Thread size M12 Type Male No. of pins 5-pin Encoding B-coded  Connection SSI Thread size M12 Type Male No. of pins 5-pin Encoding B-coded  Cobic SSI Thread size M12 Type Male No. of pins 5-pin S-coded  Cobic SSI Thread size M12 Type Male No. of pins 5-pin S-coded  Cobic SSI Thread size SSI Thread size M12 Type Male No. of pins 5-pin S-coded  Cobic SSI Thread data Cobic SSI Thread size SSI Thread size M12 Type of display Cubic SSI Thread size SSI Thread size M12 Type of fastening Through-hole mounting  Coperation and display Type of display	Thread size	M12
Encoding A-coded  Connection 4  Type of connection Connector  Designation on device SERVICE  Function Service interface  Thread size M12  Type Female No. of pins 5-pin  Encoding A-coded  Connection S  Type of connection Connector  Designation on device SSI  Type of connection Connector  Designation on device SSI  Thread size M12  Type Male No. of pins 5-pin  Encoding Male No. of pins 5-pin  Encoding Male No. of pins 5-pin  Encoding B-coded  Connection S  Type Type Male No. of pins 5-pin  Encoding B-coded  Cubic  Techanical data  Type Cubic  Type Service interface  Type Service interface  Type Male No. of pins 5-pin  Encoding B-coded  Cubic  Type Type Norded  Type Type Type Norded  Type T	Туре	Male
Connection 4 Type of connection  Connector  Designation on device Function  Service Function  Service interface  Thread size  M12 Type Female No. of pins  5 - pin  Encoding A-coded  Connector 5 Type of connection  Designation on device SSI  Function  Designation on device SSI  Thread size  M12 Type  Male No. of pins  5 - pin  Bata interface SSI  Thread size  M12 Type  Male No. of pins  5 - pin  Encoding  B-coded  Connector  Deta interface SSI  Thread size  M12 Type  Male No. of pins  5 - pin  Encoding  B-coded  Cubic  Cubic  Cubic  Mechanical data  Veregin Cubic  Metal  Let weight  2,450 g  Through-hole mounting  Connector  Designation and display  Cubic Cub	No. of pins	5 -pin
Type of connection  Designation on device  SERVICE Function  Service interface  Thread size  M12  Type Female  No. of pins 5 - pin  Encoding A-coded  Connection 5  Type of connection  Designation on device  SSI  Thread size  M12  Type  Data interface SSI  Thread size  M12  Type  Male  No. of pins 5 - pin  Encoding  Connector  Designation on device SSI  Thread size  M12  Type  Male  No. of pins 5 - pin  Encoding  B-coded  Cubic  Rechanical data  Resign  Cubic  Service interface Service interface Service interface Service interface Service interface SSI  Thread size  M12  Type  Male  No. of pins 5 - pin  Encoding  B-coded  Cubic  Service interface Service interface Service interface SSI  Thread size  Male  No. of pins 5 - pin  Encoding  Through-hole mounting  Departation and display  Through-hole mounting  Departation and display  Operation and display  Operation and display  Operation and controls  Membrane keyboard	Encoding	A-coded
Designation on device SERVICE Function Service interface Thread size M12 Type Female No. of pins 5-pin Encoding A-coded Connection 5 Type of connection Designation on device SSI Function Data interface SSI Thread size M12 Type Male No. of pins 5-pin Encoding B-coded  Connector Data interface SSI Thread size M12 Type Male No. of pins 5-pin Encoding B-coded  Cubic Mechanical data Design Cubic Methanical data Design Thread size Type Amm x 166.5 mm x 159 mm Dousing material Metal Design Through-hole mounting  Coperation and display Departation and display Departational controls Membrane keyboard	Connection 4	
Function Service interface Thread size M12 Type Female No. of pins 5-pin Encoding A-coded  Connection 5 Type of connection Designation on device SSI Function Data interface SSI Thread size M12 Type Male No. of pins 5-pin Encoding Male No. of pins 5-pin Encoding B-coded  Connector Data interface SSI Thread size M12 Type Male No. of pins 5-pin Encoding B-coded  Cubic Miterial data  Resign Cubic Metal Let weight 2,450 g Let D	Type of connection	Connector
Thread size	Designation on device	SERVICE
Type Female  No. of pins 5 - pin  Encoding A-coded  Connection 5  Type of connection  Designation on device SSI  Function Data interface SSI  Thread size M12  Type Male  No. of pins 5 - pin  Encoding B-coded  Connector  Data interface SSI  Thread size M12  Type Male  No. of pins 5 - pin  Encoding B-coded  Cubic  Cub	Function	Service interface
No. of pins Encoding A-coded  Connection 5  Type of connection Designation on device Function Data interface SSI  Thread size M12  Type Male No. of pins Encoding B-coded  Cubic  Designation on device Type Male No. of pins S-pin Encoding B-coded  Cubic  Designation on device SSI  Thread size M12  Type Male No. of pins S-pin Encoding B-coded  Cubic  Cubic  Designation on device SSI  Thread size M42  Type Male No. of pins S-pin Encoding B-coded	Thread size	M12
Encoding A-coded  Connection 5  Type of connection Connector  Designation on device SSI  Function Data interface SSI  Thread size M12  Type Male  No. of pins 5 - pin  Encoding B-coded  Cubic  Designation on device SSI  Thread size M12  Type Male  No. of pins 5 - pin  Encoding B-coded  Cubic  Design Cubic  Design Cubic  Design Cubic  Design Metal  Design Metal  Design Metal  Design Metal  Design Through-hole mounting  Deparation and display  Deparation and display  Deparational controls  Membrane keyboard	Туре	Female
Type of connection Connector  Designation on device SSI Function Data interface SSI Thread size M12 Type Male No. of pins 5 - pin Encoding B-coded  Mechanical data  Design Cubic Dimension (W x H x L) 84 mm x 166.5 mm x 159 mm Diousing material Metal Design Metal Design Through-hole mounting  Departion and display Type of display Departional controls  Membrane keyboard	No. of pins	5 -pin
Type of connection  Designation on device  SSI  Function  Data interface SSI  Thread size  M12  Type  Male  No. of pins  Encoding  B-coded  Cubic  Simension (W x H x L)  Set yeign  Solution (W x H x L)  Solution (W x H x	Encoding	A-coded
Designation on device  Function  Data interface SSI  Thread size  M12  Type  Male  No. of pins  Encoding  B-coded  Mechanical data  Design  Cubic  Dimension (W x H x L)  Metal  Let weight  Let weight  Let weight  Deparation and display  Operation and display  Operational controls  Membrane keyboard  Data interface SSI  Data interface SSI  Data interface SSI  Data interface SSI  M42  M2  Male  Male  Male  Cubic  Sal  B-coded  Cubic  Methan x 166.5 mm x 159 mm  Metal  Let weight  2,450 g  Through-hole mounting	Connection 5	
Function  Data interface SSI  Thread size  M12  Type  Male  No. of pins  5 - pin  Encoding  B-coded  Mechanical data  Design  Cubic  Dimension (W x H x L)  Metal  Let weight  2,450 g  Through-hole mounting  Deparation and display  Operation and display  Operational controls  Membrane keyboard		Connector
Thread size M12  Type Male  No. of pins 5 - pin  Encoding B-coded  Mechanical data  Design Cubic  Dimension (W x H x L) 84 mm x 166.5 mm x 159 mm  Dousing material Metal  Let weight 2,450 g  Through-hole mounting  Deparation and display  Deparation and display  Deparation and controls  Membrane keyboard	Designation on device	SSI
Type Male  No. of pins 5 -pin  Encoding B-coded  Mechanical data  Design Cubic  Dimension (W x H x L) 84 mm x 166.5 mm x 159 mm  Dousing material Metal  Let weight 2,450 g  Type of fastening Through-hole mounting  Department of display  Department of the pinch of t		SSI
No. of pins 5 -pin Encoding B-coded  Mechanical data  Design Cubic Dimension (W x H x L) 84 mm x 166.5 mm x 159 mm  Dousing material Metal Det weight 2,450 g Deperation and display Deperation and display Deperational controls  Membrane keyboard		
Encoding  B-coded  Mechanical data  Design  Cubic  Simension (W x H x L)  84 mm x 166.5 mm x 159 mm  Dousing material  Metal  Let weight  2,450 g  Through-hole mounting  Departion and display  Type of display  Departional controls  Membrane keyboard		
Design Cubic Dimension (W x H x L) Set mm x 166.5 mm x 159 mm Dividence of the second		
Cubic Dimension (W x H x L)  84 mm x 166.5 mm x 159 mm  Housing material  Metal  Let weight  2,450 g  Through-hole mounting  Departion and display  Type of display  Departion and display  Departion and controls  Membrane keyboard	Encoding	B-coded
Dimension (W x H x L)  84 mm x 166.5 mm x 159 mm  Metal  Let weight  2,450 g  Through-hole mounting  Deeration and display  Experimental controls  Membrane keyboard	lechanical data	
lousing material Metal  let weight 2,450 g  Through-hole mounting  Operation and display  Type of display  LED LC Display  Operational controls  Membrane keyboard	esign	Cubic
let weight 2,450 g  Through-hole mounting  Departion and display  Type of display  LED LC Display  Departional controls  Membrane keyboard	imension (W x H x L)	84 mm x 166.5 mm x 159 mm
Through-hole mounting	ousing material	Metal
Operation and display  Type of display  LED  LC Display  Operational controls  Membrane keyboard  Environmental data	et weight	2,450 g
LED LC Display  Operational controls  Membrane keyboard  Environmental data	ype of fastening	Through-hole mounting
LED LC Display  Operational controls  Membrane keyboard  Environmental data	peration and display	
Environmental data		LED LC Display
	perational controls	Membrane keyboard
mbient temperature, operation -30 50 °C	nvironmental data	
	mbient temperature, operation	-30 50 °C



Ambient temperature, storage	-30 70 °C
Relative humidity (non-condensing)	90 %

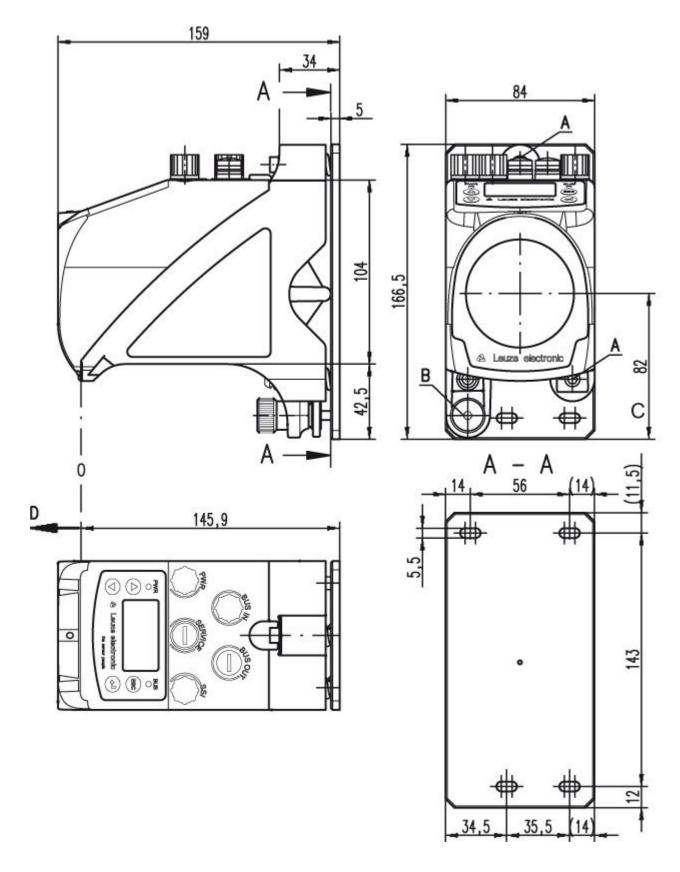
Certifications		
Degree of protection	IP 65	
Protection class	III	
Certifications	c UL US	

Classification	
eCl@ss 8.0	27270801
eCl@ss 9.0	27270801
ETIM 5.0	EC001825
ETIM 6.0	EC001825

### **Dimensioned drawings**

All dimensions in millimeters





A M 5 screw for alignment

B Knurled nut with WAF 4 hexagon socket and M 5 nut for securing

C Optical axis

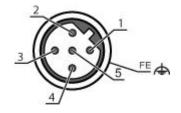
D Zero point of the distance to be measured



### **Electrical connection**

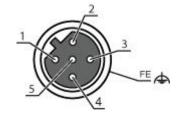
Connection 1	BUS IN
Type of connection	Connector
Function	PROFIBUS IN BUS IN Data interface
Thread size	M12
Туре	Male
Material	Metal
No. of pins	5 -pin
Encoding	B-coded

Pin	Pin assignment
1	NC
2	A (N)
3	GND P
4	B (P)
5	Shield



Connection 2	BUS OUT
Type of connection	Connector
Function	Data interface PROFIBUS OUT BUS OUT
Thread size	M12
Туре	Female
Material	Metal
No. of pins	5 -pin
Encoding	B-coded

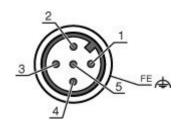
Pin	Pin assignment
1	VP
2	A (N)
3	GND P
4	B (P)
5	Shield



Connection 3	PWR	
Type of connection	Connector	
Function	PWR / SW IN/OUT Voltage supply	
Thread size	M12	
Туре	Male	
Material	Metal	
No. of pins	5 -pin	
Encoding	A-coded	

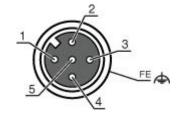


Pin	Pin assignment
1	VIN
2	I/O 1
3	GND
4	I/O 2
5	FE



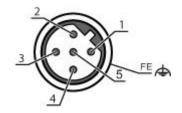
Connection 4	SERVICE
Type of connection	Connector
Function	Service interface
Thread size	M12
Туре	Female
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

Pin	Pin assignment		
1	n.c.		
2	RS 232-TX		
3	GND		
4	RS 232-RX		
5	n.c.		



Connection 5	SSI
Type of connection	Connector
Function	Data interface SSI
Thread size	M12
Туре	Male
Material	Metal
No. of pins	5 -pin
Encoding	B-coded

Pin	Pin assignment			
1	DATA+			
2	DATA-			
3	CLK+			
4	CLK-			
5	FE			



# Operation and display

### **LEDs**

LED		Display	Meaning
1 PWR		Off	No supply voltage



LED	)	Display	Meaning	
	Green, flashing V		Voltage connected / no measurement value output / initialization running	
		Green, continuous light	Device OK, measurement value output	
		Red, flashing	Device OK, warning set	
		Red, continuous light	No measurement value output	
		Orange, continuous light	No data transmission	
2	BUS	Off	No supply voltage	
		Green, continuous light	Bus operation ok	
		Green, flashing	Device not on the bus	
		Red, flashing	No data transmission	
	Red, continuous light		Bus error	

### Part number code

Part designation: AMS 3XXi YYY Z AAA

AMS	Operating principle: AMS: absolute measurement system			
3XXi	Series/interface (integrated fieldbus technology): 300i: RS 422/RS 232 301i: RS 485 304i: PROFIBUS DP / SSI 308i: TCP/IP 335i: CANopen 338i: EtherCAT 348i: PROFINET RT 355i: DeviceNet 358i: EtherNet/IP 384i: Interbus			
YYY	Operating range: 40: max. operating range in m 120: max. operating range in m 200: max. operating range in m 300: max. operating range in m			
Z	Special equipment: H: with heating			
AAA	Interface: SSI: with SSI interface			

### **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.



#### **WARNING! LASER RADIATION - LASER CLASS 2**

#### Never look directly into the 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.

#### NOTE

#### Affix laser information and warning signs!

Laser information and warning signs are affixed to the device. In addition, self-adhesive laser information and warning signs (stick-on labels) are supplied in several languages.

- Affix the laser information sheet to the device in the language appropriate for the place of use. When using the device in the US, use the stick-on label with the "Complies with 21 CFR 1040.10" note.
- Affix the laser information and warning signs near the device if no signs are attached to the device (e.g. because the device is too small) or if the attached laser information and warning signs are concealed due to the installation position.
- Affix the laser information and warning signs so that they are legible without exposing the reader to the laser radiation of the device or other optical radiation.
- For UL applications, use is only permitted in Class 2 circuits in accordance with the NEC (National Electric Code).
- Use as safety-related component within the safety function is possible, if the component combination is designed correspondingly by the
  machine manufacturer.

### **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: Rundstecker, 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: Rundstecker, M12, Axial, Female, B-coded, 5-pin Connection 2: Open end Shielded: Yes Cable length: 15,000 mm Sheathing material: PUR

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Part no.	Designation	Article	Description
50104172	KB SSI/ IBS-2000-BA	Connection cable	Suitable for interface: SSI, Interbus-S Connection 1: Rundstecker, 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: Rundstecker, M12, Axial, Female, B-coded, 5-pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR
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
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.	Designation	Article	Description
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
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
	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



Part no.	Designation	Article	Description
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
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
1	50040097	KD 01-5-BA	Connector	Connection: Connector, M12, Axial, Female, A-coded, 5 -pin
1	50038538	KD 02-5-BA	Connector	Suitable for interface: PROFIBUS DP, MultiNet Plus Connection: Connector, M12, Axial, Female, B-coded, 5 -pin
	50038537	KD 02-5-SA	Connector	Suitable for interface: PROFIBUS DP, MultiNet Plus Connection: Connector, M12, Axial, Male, B-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

### Mounting technology - Other

Part no.	Designation	Article	Description
50107255	MW OMS/AMS 01	Mounting bracket	Design of mounting device: Angle, L-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Material: Metal

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### Reflective tapes for distance sensors

	Part no.	Designation	Article	Description
0	50115020	Reflexfolie 200x200mm-H	Reflector	Special design: Heating Supply voltage: 230 V, AC Design: Rectangular Reflective surface: 200 mm x 200 mm Base material: Aluminum composite Fastening: Mounting plate, Through-hole mounting
	50104364	Reflexfolie 200x200mm-M	Reflector	Design: Rectangular Reflective surface: 200 mm x 200 mm Base material: Aluminum composite Fastening: Through-hole mounting, Mounting plate
	50104361	Reflexfolie 200x200mm-S	Reflective tape	Design: Rectangular Reflective surface: 200 mm x 200 mm Chemical designation of the material: PMMA Fastening: Adhesive
0	50115021	Reflexfolie 500x500mm-H	Reflector	Supply voltage: 230 V, AC Design: Rectangular Reflective surface: 500 mm x 500 mm Base material: Aluminum Fastening: Mounting plate, Through-hole mounting Special design: Heating
	50104365	Reflexfolie 500x500mm-M	Reflector	Design: Rectangular Reflective surface: 500 mm x 500 mm Base material: Aluminum composite Fastening: Through-hole mounting, Mounting plate
	50104362	Reflexfolie 500x500mm-S	Reflective tape	Design: Rectangular Reflective surface: 500 mm x 500 mm Chemical designation of the material: PMMA Fastening: Adhesive
	50104363	Reflexfolie 749x914mm-S	Reflective tape	Design: Rectangular Reflective surface: 749 mm x 914 mm Chemical designation of the material: PMMA Fastening: Adhesive
0	50115022	Reflexfolie 914x914mm-H	Reflector	Special design: Heating Supply voltage: 230 V, AC Design: Rectangular Reflective surface: 914 mm x 914 mm Base material: Aluminum composite Fastening: Mounting plate, Through-hole mounting
	50104366	Reflexfolie 914x914mm-M	Reflector	Design: Rectangular Reflective surface: 914 mm x 914 mm Base material: Aluminum Fastening: Through-hole mounting, Mounting plate
	50108988	Reflexfolie 914x914mm-S	Reflective tape	Design: Rectangular Reflective surface: 914 mm x 914 mm Chemical designation of the material: PMMA Fastening: Adhesive



### **Deflecting mirror**

	Part no.	Designation	Article	Description
11	50035630	US 1 OMS	Deflecting mirror	Type of fastening: Screw type
	50104479	US AMS 01	Deflecting mirror	Type of fastening: Through-hole mounting

### 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.  Restrictions: No mechanical (mounting) and electrical (wiring) work performed, no changes (attachments, wiring, programming) to third-party components in the nearby environment.
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. Restrictions: Travel costs and accommodation expenses charged separately and according to expenditure.