



Figure can vary

Part no.: 50111327
LES 36/PB
Line profile sensor



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- Operation and display
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Part no.: 50111327 – LES 36/PB – Line profile sensor

Technical data

Basic data	
Series	36
Contains	LxSsoft configuration software
Application	Object measurement 3D object detection
Special design	
Special design	Synchronization input
Optical data	
Light source	Laser, Red
Laser class	2M
Measurement data	
X-axis measurement range	150 ... 600 mm
Measurement range z-axis	200 ... 800 mm
Resolution of x-axis	1 ... 1.7 mm
Resolution of z-axis	1 ... 3 mm
Repeatability of Z-axis, relative to measurement distance, note	Reflectivity 90 %, identical object, identical environment conditions, measurement object $\leq 50 \times 50 \text{ mm}^2$
Measurement time	10ms
Linearity of Z-axis, relative to measurement distance	$\pm 1,0\%$ %
Minimum object size, x-axis	2 ... 3 mm
Minimum object size, z-axis	2 ... 6 mm
Black/white behavior	1 %
Electrical data	
Performance data	
Supply voltage U_B	18 ... 30 V, DC
Inputs	
Number of activation inputs	1 Piece(s)
Outputs	
Number of digital switching outputs	2 Piece(s)
Switching outputs	
Switching output 1	
Switching element	Transistor,
Switching output 2	
Switching element	Transistor,
Interface	
Type	PROFIBUS DP, Ethernet
Connection	
Number of connections	3 Piece(s)

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Connection 1

Type of connection	Connector
Function	Voltage supply Signal OUT Signal IN
Thread size	M12
Type	Male
Material	Metal
No. of pins	8 -pin
Encoding	A-coded

Connection 2

Type of connection	Connector
Function	Data interface Configuration interface
Thread size	M12
Type	Female
Material	Metal
No. of pins	4 -pin
Encoding	D-coded

Connection 4

Type of connection	Connector
Function	PROFIBUS IN PROFIBUS OUT
Thread size	M12
Type	Female
Material	Metal
No. of pins	5 -pin
Encoding	B-coded

Mechanical data

Dimension (W x H x L)	56 mm x 160 mm x 74 mm
Housing material	Plastic Metal, Aluminum
Lens cover material	Glass
Net weight	620 g

Environmental data

Ambient temperature, operation	-30 ... 50 °C
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Certifications

Degree of protection	IP 67
Protection class	III
Certifications	c UL US
Standards applied	IEC/EN 60947-5-2
US patents	US 8,928,894 B

Classification

Customs tariff number	90318020
eCl@ss 8.0	27280190
eCl@ss 9.0	27280190
ETIM 5.0	EC001825

Electrical connection

Connection 1	PWR
Type of connection	Connector
Function	Voltage supply Signal OUT Signal IN
Thread size	M12
Type	Male
Material	Metal
No. of pins	8 -pin
Encoding	A-coded

Pin	Pin assignment
1	V+
2	IN ACTIVATE
3	GND
4	OUT 1 / Operational readiness
5	Trigger IN
6	OUT 2
7	n.c.
8	n.c.

Connection 2	ETH
Type of connection	Connector
Function	Data interface Configuration interface
Thread size	M12
Type	Female
Material	Metal
No. of pins	4 -pin
Encoding	D-coded

Pin	Pin assignment
1	Tx+
2	Rx+
3	Tx-
4	Rx-

Connection 4	
Type of connection	Connector
Function	PROFIBUS IN PROFIBUS OUT
Thread size	M12
Type	Female

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Connection 4	
Material	Metal
No. of pins	5 -pin
Encoding	B-coded

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

Operation and display

LEDs

LED	Display	Meaning
1	Green, continuous light	Operational readiness
	Off	No supply voltage
2	Yellow, continuous light	Ethernet connection is established
	Yellow, flashing	Data transmission active
	Off	No data transmission

Notes

Observe intended use!







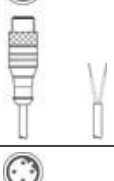
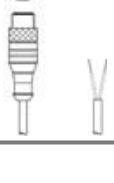
- This product is not a safety sensor and is not intended as personnel protection.
- The product may only be put into operation by competent persons.
- Only use the product in accordance with its intended use.

NOTE

- For UL applications, use is only permitted in Class 2 circuits in accordance with the NEC (National Electric Code).


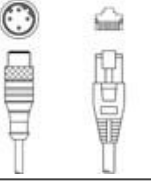
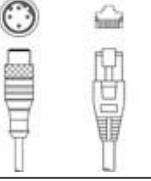
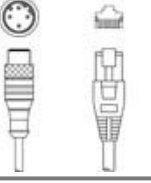
Accessories

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
	50135127	KD S-M12-8A-P1-020	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connection 2: Open end Shielded: Yes Cable length: 2,000 mm Sheathing material: PUR
	50135128	KD S-M12-8A-P1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR
	50135129	KD S-M12-8A-P1-100	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connection 2: Open end Shielded: Yes Cable length: 10,000 mm Sheathing material: PUR
	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

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Connection technology - Interconnection cables

	Part no.	Designation	Article	Description
	50125541	K-DS M12A-8P-0,75m- LxS36-CP	Configuration cable	Parameter memory: Yes Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 8 -pin Shielded: Yes Cable length: 750 mm Sheathing material: PUR
	50135080	KSS ET-M12-4A- RJ45-A-P7-020	Interconnection cable	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
	50135081	KSS ET-M12-4A- RJ45-A-P7-050	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: RJ45 Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR
	50135082	KSS ET-M12-4A- RJ45-A-P7-100	Interconnection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: RJ45 Shielded: Yes Cable length: 10,000 mm Sheathing material: PUR


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 - Adapters

	Part no.	Designation	Article	Description
	50109834	KDS BUS OUT M12-T-5P	Adapter	Suitable for: MultiNet Plus, PROFIBUS DP Number of connections: 3 Piece(s) Connection 1: Connector, M12, Axial, Male, B-coded, 5 -pin Connection 2: Connector, M12, Axial, Female, B-coded, 5 -pin Connection 3: Connector, M12, Axial, Male, B-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



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	Part no.	Designation	Article	Description
	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 Mounting bracket, at device: Clampable Material: Metal Tightening torque of the clamping jaws: 8 N·m
	50126007	BT 56 - V	Mounting device	Functions: Dynamic applications Design of mounting device: Mounting system Fastening, at system: For 16 mm rod, For 14 mm rod, For 12 mm rod Mounting bracket, at device: Clampable Material: Metal Tightening torque of the clamping jaws: 12 N·m

Mounting technology - Other

	Part no.	Designation	Article	Description
	50111224	BT 59	Mounting bracket	Fastening, at system: Groove mounting Mounting bracket, at device: Clampable Material: Metal
	50124941	BTU 0300M-W	Mounting device	Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable, Groove mounting Material: Metal

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.