

## Technical data sheet

### Line profile sensor

Part no.: 50111327

LES 36/PB

#### Contents

- Technical data
- Electrical connection
- Operation and display
- Notes
- Accessories



Figure can vary



## Technical data

### Basic data

Series	36
Contains	LxSsoft configuration software
Application	3D object detection Object measurement

### Special version

Special version	Synchronization input
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### 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

<b>Performance data</b>	
Supply voltage $U_B$	18 ... 30 V, DC

<b>Inputs</b>	
Number of activation inputs	1 Piece(s)

<b>Outputs</b>	
Number of digital switching outputs	2 Piece(s)

### Switching outputs

<b>Switching output 1</b>	
Switching element	Transistor

<b>Switching output 2</b>	
Switching element	Transistor

### Interface

Type	PROFIBUS DP, Ethernet
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### Connection

Number of connections	3 Piece(s)
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### Connection 1

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

### Connection 2

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

### Connection 4

Function	PROFIBUS IN PROFIBUS OUT
Type of connection	Connector
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	Metal Plastic
Metal housing	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 5.1.4	27280190
eCl@ss 8.0	27280190
eCl@ss 9.0	27280190
eCl@ss 10.0	27280190
eCl@ss 11.0	27280190
ETIM 5.0	EC001825
ETIM 6.0	EC001825
ETIM 7.0	EC001825

## Electrical connection

### Connection 1

### PWR

Function	Signal IN Signal OUT Voltage supply
Type of connection	Connector
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

Function	Configuration interface Data interface
Type of connection	Connector
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

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

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




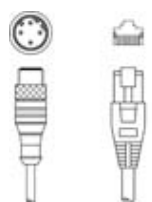
- ⚠ For UL applications, use is only permitted in Class 2 circuits in accordance with the NEC (National Electric Code).

## Accessories

### Connection technology - Connection cables


	Part no.	Designation	Article	Description
	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

### 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
	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

## Accessories

### 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
	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

### 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.

#### Note



A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.