Technical data sheet

Line profile sensor

Part no.: 50111331

LES 36HI/PB

Figure can vary

Contents

Technical data

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Basic data

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

Special version

Special version	Synchronization input

Optical data

Light source	Laser, Red
Laser class	2M

Measurement data

X-axis measurement range	50 ... 140 mm
Measurement range z-axis	200 ... 600 mm
Resolution of x-axis	0.2 ... 0.6 mm
Resolution of z-axis	0.1 ... 0.9 mm
Repeatability of Z-axis, relative to measurement distance	≤ 0.25 %
Repeatability of Z-axis, relative to measurement distance, note	Reflectivity 90 %, identical object, identical environment conditions, measurement object ≤ 50x50 mm²
Measurement time	10ms
Linearity of Z-axis, relative to measurement distance	± 0,5% %
Minimum object size, x-axis	0.6 ... 2 mm
Minimum object size, z-axis	0.4 ... 3 mm
Black/white behavior	0.5 %

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)

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

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

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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

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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.
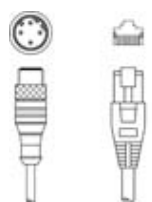
ℹ️ **NOTE**

↳ 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

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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.