

Technical data sheet

Optical distance sensor

Part no.: 50106732

ODSLR 96B M/C6-2000-S12

Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- Accessories



Figure can vary



Technical data

Basic data

Series	96
Type of scanning system	Against object

Optical data

Light source 1	Laser, Red
Laser class	2, IEC / EN 60825-1:2014
Light source 2	LED, Red
LED light wavelength	624 nm
Light spot size [at sensor distance]	2 mm x 6 mm
Type of light spot geometry	Rectangular

Measurement data

Measurement range	60 ... 2,000 mm
Resolution	1.0 ... 5.0 mm
Accuracy, short range	2 %
Accuracy, distant range	1.5 %
Accuracy, short range	60 ... 200 mm
Reference value, accuracy	Measurement distance
Repeatability	0.5 %
Reference value repeatability	Measurement distance
Measurement time	1 ... 5 ms
Temperature drift, relative	0.02 %/K
Referencing	No
Black/white behavior	1 %
Optical distance measurement principle	Triangulation

Electrical data

Protective circuit	Polarity reversal protection
	Short circuit protected
	Transient protection

Performance data

Supply voltage U_B	18 ... 30 V, DC
Residual ripple	0 ... 15 %, From U_B
Open-circuit current	0 ... 150 mA

Inputs

Number of digital switching inputs	1 Piece(s)
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Switching inputs

Digital switching input 1

Function	Programmable
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Teach inputs

Voltage type	DC
Switching voltage	high: $\geq(U_B-2V)$

Outputs

Number of analog outputs	1 Piece(s)
Number of digital switching outputs	1 Piece(s)

Analog outputs

Analog output 1

Type	Current
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Switching outputs

Switching voltage	high: $\geq(U_B-2V)$
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Switching output 1

Switching element	Transistor, Push-pull
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Timing

Connection

Number of connections	1 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	5 -pin
Encoding	A-coded

Mechanical data

Design	Cubic
Dimension (W x H x L)	30 mm x 90 mm x 70 mm
Housing material	Metal
Metal housing	Diecast zinc
Lens cover material	Glass
Net weight	380 g
Housing color	Red
Type of fastening	Through-hole mounting
	Via optional mounting device

Operation and display

Type of display	LED
	OLED display
Type of configuration	Software
Operational controls	Membrane keyboard
	PC software

Environmental data

Ambient temperature, operation	-20 ... 50 °C
Ambient temperature, storage	-30 ... 70 °C

Certifications

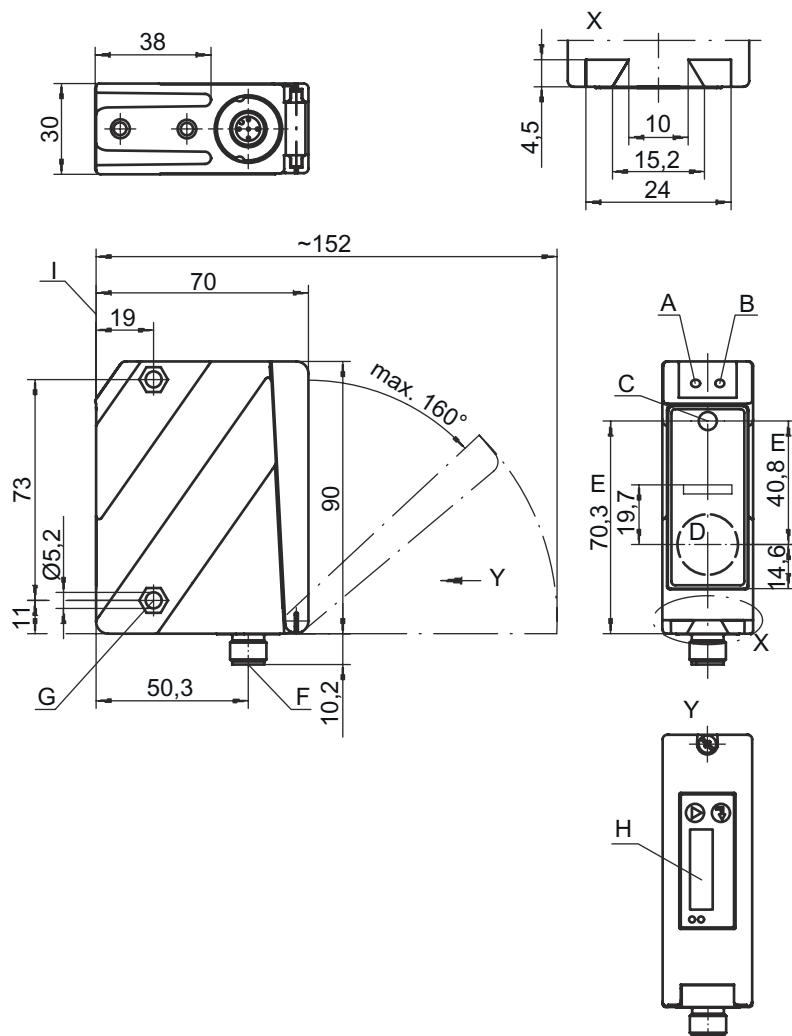
Degree of protection	IP 67
	IP 69K
Protection class	II
Certifications	c UL US
Standards applied	IEC 60947-5-2

Classification

Customs tariff number	90318020
eCl@ss 5.1.4	27270801
eCl@ss 8.0	27270801
eCl@ss 9.0	27270801
eCl@ss 10.0	27270801
eCl@ss 11.0	27270801
ETIM 5.0	EC001825
ETIM 6.0	EC001825
ETIM 7.0	EC001825

Dimensioned drawings

All dimensions in millimeters



- A Green indicator diode
- B Yellow indicator diode
- C Transmitter
- D Receiver
- E Optical axis
- F Device plug M12
- G Countersinking for SK nut M5, 4.2 mm deep
- H OLED display and membrane keyboard
- I Reference edge for the measurement




Electrical connection

Connection 1


Function	Signal IN
	Signal OUT
	Voltage supply
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

Accessories


Connection technology - Connection cables

	Part no.	Designation	Article	Description
	50133855	KD S-M12-5A-V1-020	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Open end Shielded: Yes Cable length: 2,000 mm Sheathing material: PVC
	50133856	KD S-M12-5A-V1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PVC
	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
	50133842	KD U-M12-5W-V1-020	Connection cable	Connection 1: Connector, M12, Angled, Female, A-coded, 5 -pin Connection 2: Open end Shielded: No Cable length: 2,000 mm Sheathing material: PVC

Mounting technology - Mounting brackets


	Part no.	Designation	Article	Description
	50025570	BT 96	Mounting device	Design of mounting device: Angle, L-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Rigid Material: Metal

Mounting technology - Rod mounts

	Part no.	Designation	Article	Description
	50082084	BT 450.1-96	Mounting device	Design of mounting device: Mounting system Fastening, at system: For 10 mm rod Mounting bracket, at device: Screw type Type of mounting device: Turning, 360°, Adjustable Material: Metal

Accessories

Configuration devices

	Part no.	Designation	Article	Description
	50107223	UPG 10	Configuration adapter	Functions: Configuration and test device

Note



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