

Technical data sheet

Optical distance sensor

Part no.: 50106732

ODSLR 96B M/C6-2000-S12

Contents

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For illustration purposes only



CDRH



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
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	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
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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

Type	Digital switching input
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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

Type	Digital switching output
Switching voltage	high: $\geq(U_B-2V)$

Switching output 1

Switching element	Transistor, Push-pull
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Time behavior

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	Metal
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

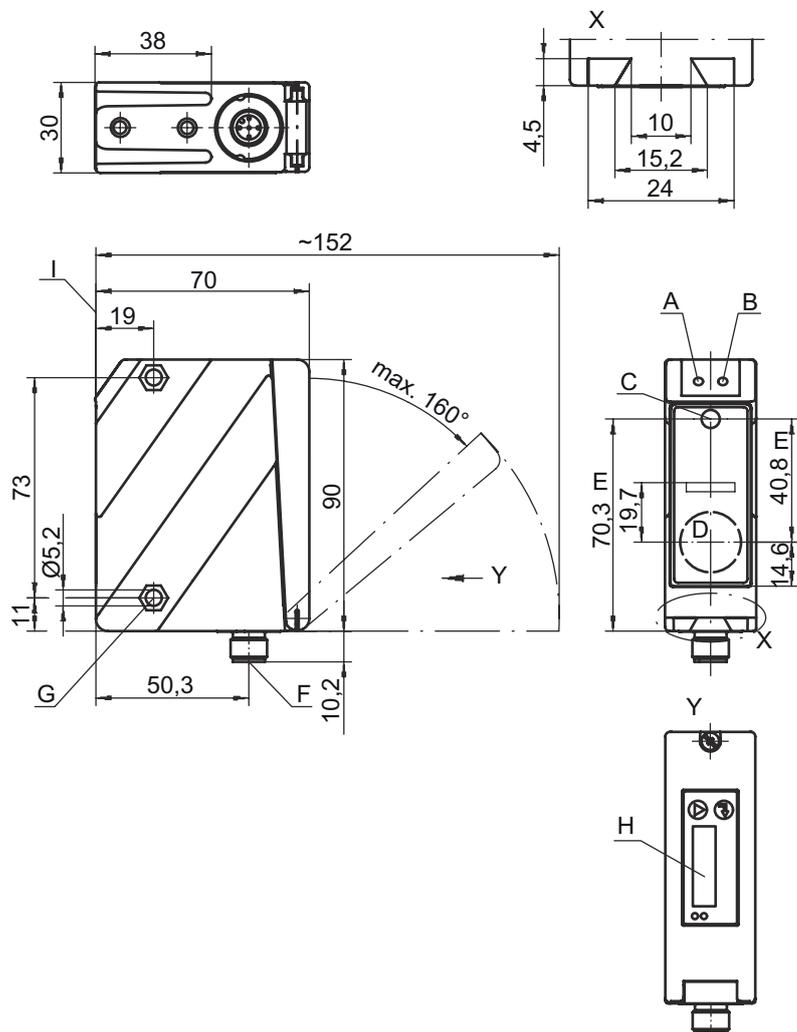
Degree of protection	IP 67 IP 69K
Protection class	II
Approvals	c UL US
Standards applied	IEC 60947-5-2

Technical data

Customs tariff number	90318020
ECLASS 5.1.4	27270801
ECLASS 8.0	27270801
ECLASS 9.0	27270801
ECLASS 10.0	27270801
ECLASS 11.0	27270801
ECLASS 12.0	27270916
ECLASS 13.0	27270916
ECLASS 14.0	27270916
ECLASS 15.0	27270916
ECLASS 16.0	27270916
ETIM 5.0	EC001825
ETIM 6.0	EC001825
ETIM 7.0	EC001825
ETIM 8.0	EC001825
ETIM 9.0	EC001825
ETIM 10.0	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	Application: Chemical resistant Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connector, LED: No Connection 2: Open end Shielded: Yes Cable length: 2,000 mm Sheathing material: PVC
	50133856	KD S-M12-5A-V1-050	Connection cable	Application: Chemical resistant Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connector, LED: No Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PVC
	50132077	KD U-M12-5A-V1-020	Connection cable	Application: Chemical resistant Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 2,000 mm Sheathing material: PVC
	50133842	KD U-M12-5W-V1-020	Connection cable	Application: Chemical resistant Connection 1: Connector, M12, Angled, Female, A-coded, 5 -pin Connector, LED: No 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.