

Technical data sheet

Optical distance sensor

Part no.: 50117334

ODSL 9/C6-200-S12

Contents

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



Figure can vary



Technical data

Basic data

Series	9
Type of scanning system	Against object
Order guide	Attention! Article in the discontinuation phase. If spare parts are required, please note the necessary connection cable.

Characteristic parameters

Optical data

Beam path	Divergent
Light source	Laser, Red
Laser light wavelength	655 nm
Laser class	2, IEC/EN 60825-1:2007
Transmitted-signal shape	Pulsed
Light spot size [at sensor distance]	1 mm
Type of light spot geometry	Round

Measurement data

Measurement range	50 ... 200 mm
Resolution	0.1 mm
Accuracy	1 %
Reference value, accuracy	Measurement distance
Repeatability	0.5 %
Reference value repeatability	Measurement distance
Measurement time	2 ms
Temperature drift, relative	0.02 %/K
Referencing	No
Black/white behavior	0.5 %
Standard measurement object	50 x 50 mm ²
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 ... 180 mA

Inputs

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

Switching inputs

Voltage type	DC
--------------	----

Digital switching input 1

Assignment	Connection 1, pin 2
Function	Programmable

Outputs

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

Analog output 1

Type	Current
Assignment	Connection 1, pin 5

Switching outputs

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

Switching output 1

Assignment	Connection 1, pin 4
Switching element	Transistor, Push-pull
Switching principle	Light switching (PNP)/dark switching (NPN)

Timing

Readiness delay	300 ms
-----------------	--------

Connection

Number of connections	1 Piece(s)
-----------------------	------------

Connection 1

Function	Signal IN Signal OUT Voltage supply
Type of connection	Connector, Turning, 90°
Thread size	M12
Type	Male
Material	Plastic
No. of pins	5 -pin
Encoding	A-coded

Mechanical data

Design	Cubic
Dimension (W x H x L)	21 mm x 50 mm x 50 mm
Housing material	Plastic, PC
Lens cover material	Glass
Net weight	50 g
Housing color	Red
Type of fastening	Through-hole mounting Via optional mounting device

Operation and display

Type of display	LC Display LED
Number of LEDs	2 Piece(s)
Type of configuration	Software
Operational controls	Control buttons LC Display PC software

Environmental data

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

Certifications

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

Technical data

Customs tariff number	90318020
eCl@ss 8.0	27270801
eCl@ss 9.0	27270801
ETIM 5.0	EC001825
ETIM 6.0	EC001825

Electrical connection

Connection 1

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

Pin Pin assignment

1	V+
2	IN 1
3	GND
4	OUT 1
5	OUT mA

Operation and display

LED	Display	Meaning
1	Green, continuous light	Operational readiness
	Green, flashing	Fault
	Off	No supply voltage

Accessories

Connection technology - Connection cables

	Part no.	Designation	Article	Description
	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
	50132079	KD U-M12-5A-V1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC

Accessories

	Part no.	Designation	Article	Description
	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
	50133802	KD U-M12-5W-V1-050	Connection cable	Connection 1: Connector, M12, Angled, Female, A-coded, 5 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC
	50140174	KDS U-M12-5A-M12-5A-P1-003-25X	Interconnection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 5 -pin Shielded: No Cable, crossed: Connection 1, pin 2 <-> connection 2, pin 5 Cable length: 300 mm Sheathing material: PUR

Connection technology - Interconnection cables

	Part no.	Designation	Article	Description
	50140174 *	KDS U-M12-5A-M12-5A-P1-003-25X	Interconnection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 5 -pin Shielded: No Cable, crossed: Connection 1, pin 2 <-> connection 2, pin 5 Cable length: 300 mm Sheathing material: PUR

* Necessary accessories, please order separately

Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
	50036195	BT 8	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
	50117252	BTU 300M-D12	Mounting system	Design of mounting device: Mounting system Fastening, at system: For 12 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type, Suited for M4 screws Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal

Accessories

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