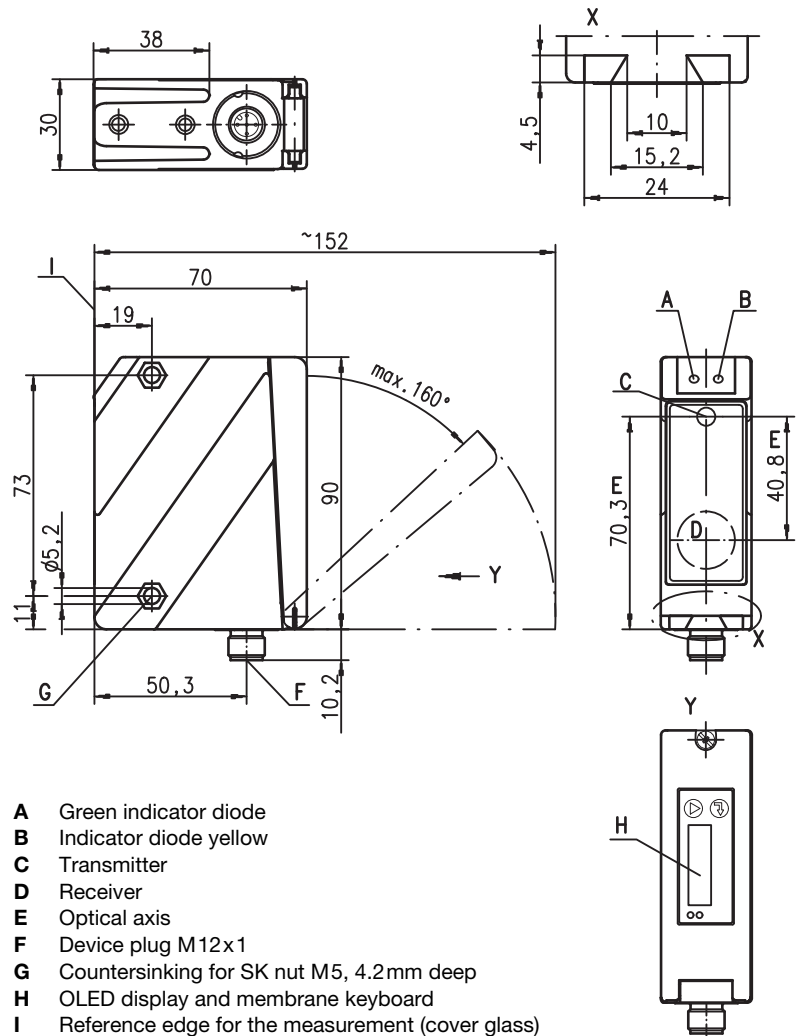


ODSLR 96B

Optical laser distance sensors



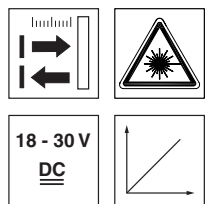
Dimensioned drawing



Electrical connection

ODSLR 96B M/V6-...-S12	
18-30V DC +	1 — br / BN
teach in	2 — ws / WH
GND	3 — bl / BU
○ ● ⊗	4 — sw / BK
1-10V	5 — gr / GY

ODSLR 96B M/C6-...-S12	
18-30V DC +	1 — br / BN
teach in	2 — ws / WH
GND	3 — bl / BU
○ ● ⊗	4 — sw / BK
4-20mA	5 — gr / GY



60 ... 2000mm

- Reflection-independent distance information
- Highly insensitive to extraneous light
- Analog current or voltage output
- PC/OLED display and membrane keyboard for configuration
- Measurement value is indicated in mm on OLED display
- Measurement range and mode adjustable
- Teachable switching output and analog output



Accessories:

(available separately)

- Mounting systems
- Cable with M12 connector (K-D ...)
- Configuration software

Specifications

Optical data

Measurement range ¹⁾	60 ... 2000mm
Resolution ²⁾	1 ... 5mm
Light source	red light laser/LED
Wavelength	laser 655 nm/LED 635nm (visible red light)
Light spot	divergent, 2x6mm ² at 2m LED approx. 15x15mm ² at 200mm
Laser warning notice	see Remarks

Error limits (relative to measurement distance)

Absolute measurement accuracy ¹⁾	± 2 % 60 ... 200mm / ± 1.5 % 200 ... 2000mm
Repeatability ³⁾	± 0.5 %
B/W detection thresh. (6 ... 90% rem.)	≤ 1 %
Temperature compensation	yes ⁴⁾

Timing

Measurement time	1 ... 5 ¹⁾ ms
Response time ¹⁾	≤ 15ms
Delay before start-up	≤ 300ms

Electrical data

Operating voltage U_B	18 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Open-circuit current	≤ 150mA
Switching output	push-pull switching output ⁵⁾ , PNP light switching, NPN dark switching
Signal voltage high/low	≥ ($U_B - 2$ V) / ≤ 2V
Analog output	voltage 1 ... 10V, $R_L \geq 2k\Omega$ current 4 ... 20mA, $R_L \leq 500\Omega$

Indicators

Green LED	continuous light
	flashing
	off
Yellow LED	continuous light
	flashing
	off

Teach-in on GND

ready	
fault	teach event
no voltage	
object inside teach-in measurement distance	teach event
object outside teach-in measurement distance	

Teach-in on + U_B

teach event

Mechanical data

Housing	diecast zinc
Optics cover	glass
Weight	380g
Connection type	M12 connector

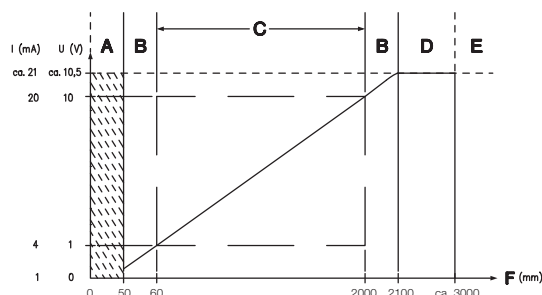
Metal housing

diecast zinc
glass
380g
M12 connector

Environmental data

Ambient temp. (operation/storage)	-20°C ... +50°C / -30°C ... +70°C
Protective circuit ⁶⁾	1, 2, 3
VDE safety class ⁷⁾	II, all-insulated
Protection class	IP 67, IP 69K ⁸⁾
Laser class	2 (acc. to EN 60825-1)
Standards applied	IEC 60947-5-2

- 1) Luminosity coefficient 6% ... 90%, complete measurement range, at 20°C, medium range of U_B , measurement object $\geq 50 \times 50 \text{mm}^2$
- 2) Minimum and maximum value depend on measurement distance
- 3) Same object, identical environmental conditions, measurement object $\geq 50 \times 50 \text{mm}^2$
- 4) Typ. ± 0.02 %/K
- 5) The push-pull switching outputs must not be connected in parallel
- 6) 1=transient protection, 2=polarity reversal protection, 3=short circuit protection for all outputs
- 7) Rating voltage 250VAC, with cover closed
- 8) IP 69K test in accordance with DIN 40050 part 9 simulated, high pressure cleaning conditions without the use of additives. Acids and bases are not part of the test



- A Area not defined
- B Linearity not defined
- C Measurement range
- D Object present
- E No object detected
- F Measurement distance

Order guide

With M12 connector

Designation	Part no.
Current output	ODSLR 96B M/C6-2000-S12 501 06732
Voltage output	ODSLR 96B M/V6-2000-S12 501 06733

ODSLR 96B M/C6-2000-S12 - 05
ODSLR 96B M/V6-2000-S12 - 05

Tables

Diagrams

Remarks

- Measurement time depends on the reflectivity of the measurement object and on the measurement mode.
- **Approved purpose:**
The ODSLRL 96B distance sensors are optoelectronic sensors for the optical, contactless measurement of distance to objects.

LASERSTRAHLUNG NICHT IN DEN STRAHL BLICKEN	
Max. Leistung:	1,2mW
Impulsdauer:	22ms
Wellenlänge:	655nm
LASER KLASSE 2 DIN EN60825-1:2003-10	

LASER LIGHT DO NOT STARE INTO BEAM	
Maximum Output:	1.2mW
Pulse duration:	22ms
Wavelength:	655nm
CLASS 2 LASER PRODUCT IEC 60825-1:1993+A2:2001 Complies with 21 CFR 1040.10	