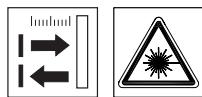


ODSL 96B

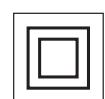
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150 ... 2000mm



- Reflection-independent distance information
- Highly insensitive to extraneous light
- 2 teachable switching outputs
- PC/OLED display and key pad for configuration
- Measurement value is indicated in mm on OLED display
- Measurement mode configurable

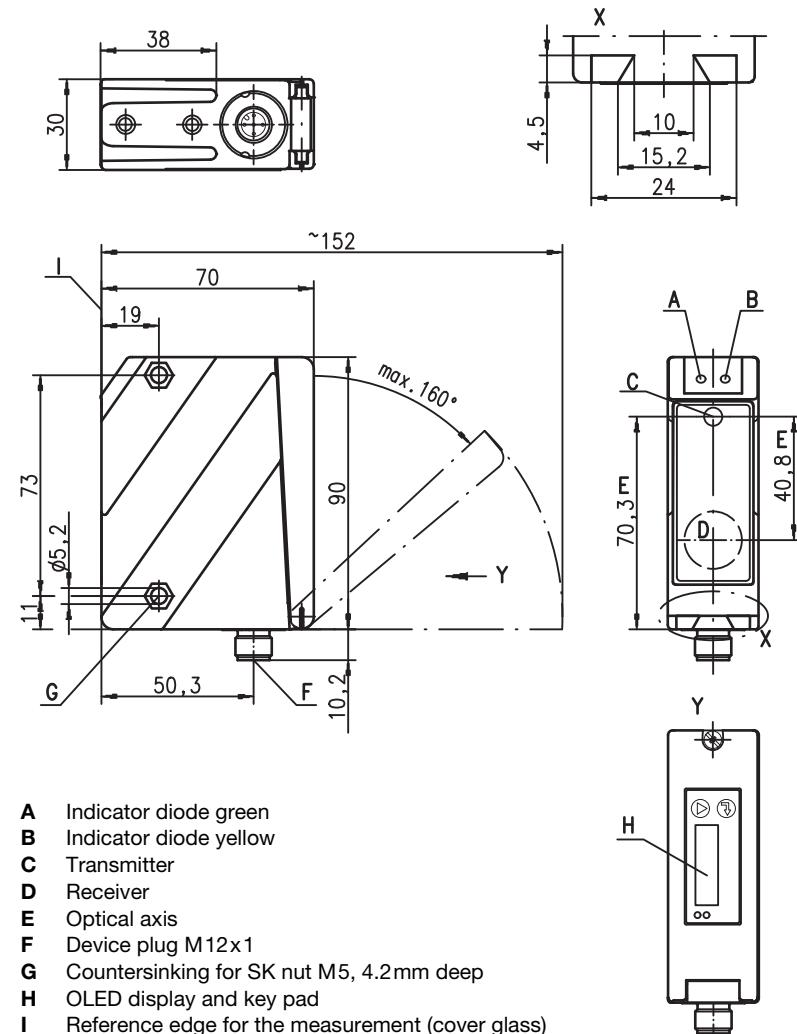


Accessories:

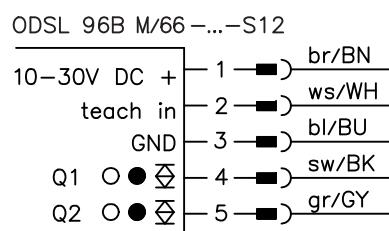
(available separately)

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

Dimensioned drawing



Electrical connection



Specifications

Optical data

Measurement range ¹⁾	150 ... 2000mm
Resolution ²⁾	1 ... 3mm
Hysteresis	configurable, factory setting: 10mm
Light source	laser
Wavelength	655nm (visible red light)
Light spot	divergent, 2x6mm ² at 2m
Laser warning notice	see remarks

Error limits (relative to measurement distance)

Absolute measurement accuracy ¹⁾	± 1.5%
Repeatability ³⁾	± 0.5%
b/w detect. thresholds (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	10 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U_B
Open-circuit current	≤ 150mA
Switching output	2 push-pull switching outputs ⁵⁾ , PNP light switching, NPN dark switching, respectively ≥ $(U_B - 2\text{ V})/2\text{ V}$
Signal voltage high/low	

Indicators

Green LED	continuous light	teach-in on GND	teach-in on $+U_B$
	flashing	ready	teaching procedure
	off	fault	
Yellow LED	continuous light	no voltage	object inside teach-in measurement distance
	flashing	object outside teach-in measurement distance	teaching procedure
	off		

Mechanical data

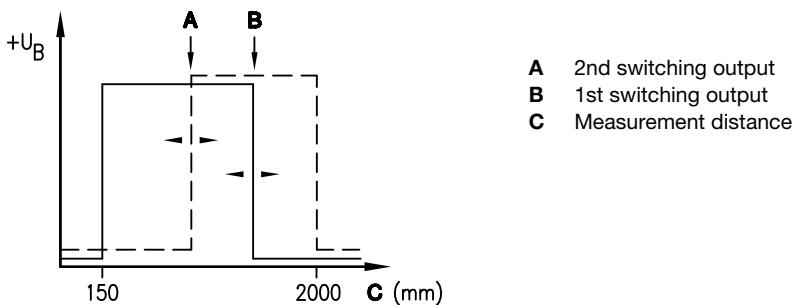
Housing	diecast zinc
Optics cover	glass
Weight	380g
Connection type	M12 connector

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. $\pm 0.02\text{ %/K}$
- 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 acc. to DIN 40050 part 9 simulated, high pressure cleaning conditions without the use of additives. Acids and bases are not part of the test.

Switching output (example)



Order guide

With M12 connector

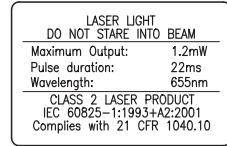
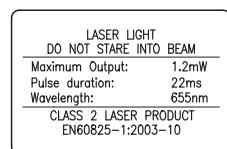
2 switching outputs	ODSL 96B M/66-2000-S12	501 06599
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Tables

Diagrams

Remarks

- Measurement time depends on the reflectivity of the measurement object and on the measurement mode.



Approved purpose:

The ODSL 96B distance sensors are optical electronic sensors for the optical, contactless measurement of distance to objects.