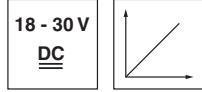


ODS 96B

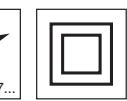
en 02-2012/11 5 0108381



120 ... 1400mm



- Reflection-independent distance information
- Highly insensitive to extraneous light
- Analogue current output
- PC/OLED display and key pad for configuration
- Measurement value is indicated in mm on OLED display
- Measurement range and mode adjustable
- Teachable analogue output
- 2 warning outputs

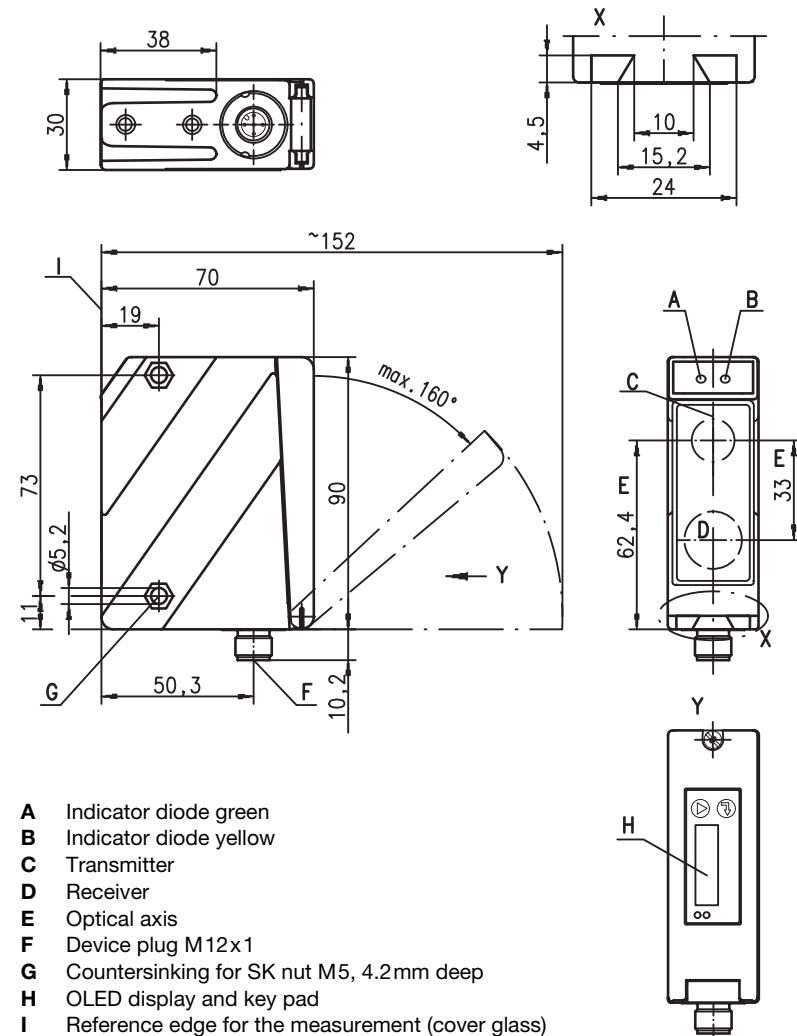


Accessories:

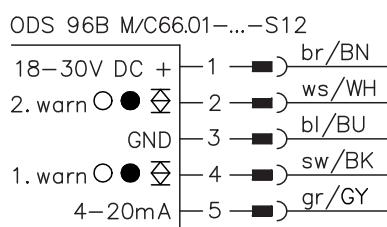
(available separately)

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

Dimensioned drawing



Electrical connection



Specifications

Optical data

Measurement range 1)	120 ... 1400mm
Resolution 2)	0.1 ... 0.5mm
Light source	LED
Wavelength	880nm (infrared light)
Light spot	approx. 15 x 15mm ² at 600mm

Error limits (relative to measurement distance)

Absolute measurement accuracy 1)	± 1.5% up to 800mm, ± 2% up to 1400mm
Repeatability 3)	± 0.5% up to 800mm, ± 1% up to 1400mm
b/w detect. thresholds (6 ... 90% rem.)	≤ 1% up to 800mm, ≤ 2% up to 1400mm
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	2 push-pull warning outputs 5), PNP light switching, NPN dark switching, respectively
Signal voltage high/low	≥ $(U_B - 2\text{ V})/2\text{ V}$
Analogue output	current 4 ... 20mA, $R_L \leq 500\Omega$

Indicators

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

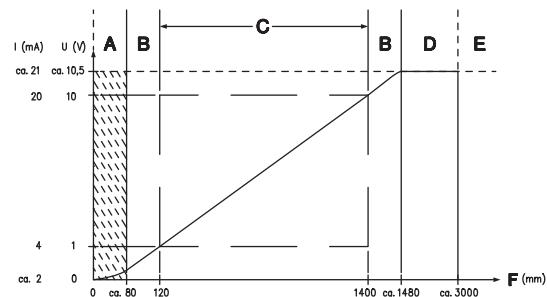
Mechanical data

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)
LED class	1 (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. $\pm 0.02\%$ /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.



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

Current output	ODS 96B M/C66.01-1400-S12	Part No.
		501 06727

Tables

Diagrams

Remarks

- Measurement time depends on the reflectivity of the measurement object and on the measurement mode.
- **Coding of the warning outputs:**

Warning output		Meaning
1	2	
0	0	Distance measurement is impossible
0	1	Object below measurement range (short range)
1	0	Object beyond the measurement range (distant range)
1	1	Optimum function

- **Approved purpose:**

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