

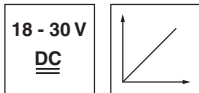
ODS 96B



en 04-2012/11 50107945



100 ... 600mm



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

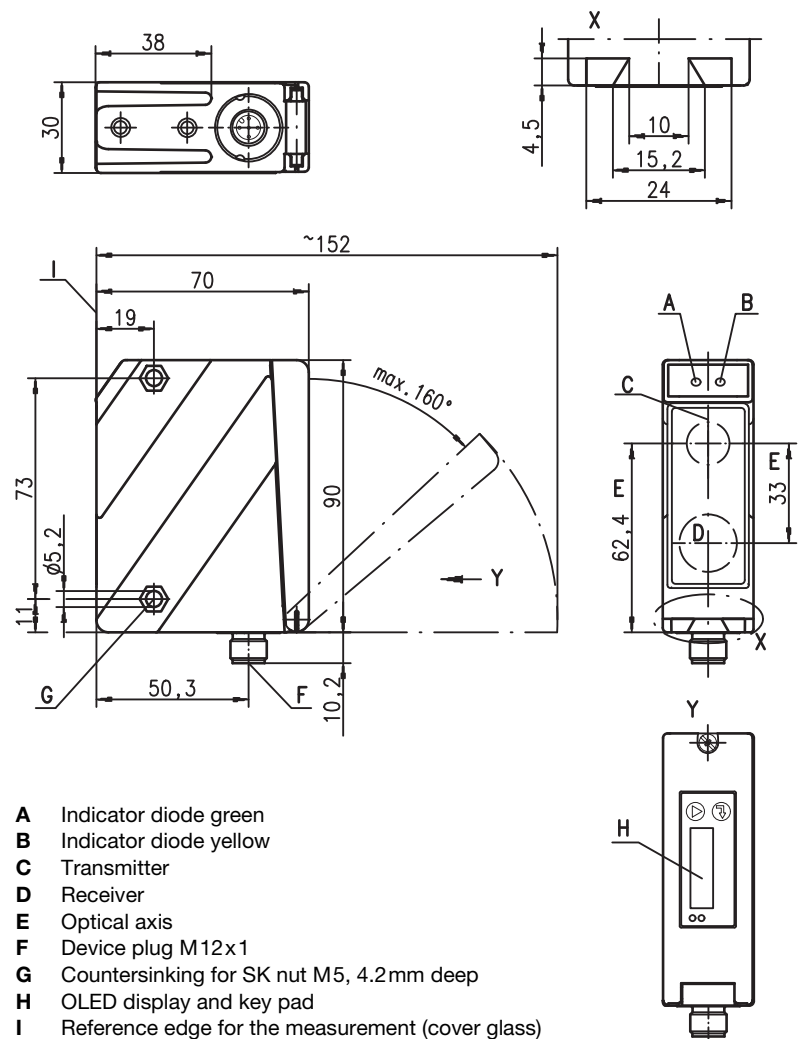


Accessories:

(available separately)

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

Dimensioned drawing



Electrical connection

ODS 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

ODS 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

Specifications

Optical data

Measurement range ¹⁾	100 ... 600mm
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 %
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	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
Analogue 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
no voltage
object inside teach-in measurement distance
object outside teach-in measurement distance

teach-in on + U_B

teaching procedure

teaching procedure

Mechanical data

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

Metal housing

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 $\geq 50 \times 50 \text{ mm}^2$

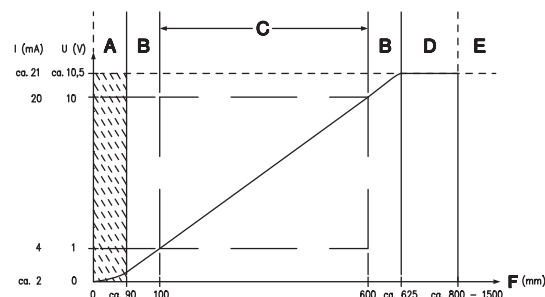
4) Typ. ± 0.02 %/K

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

	Designation	Part No.
With M12 connector		
Current output	ODS 96B M/C6-600-S12	501 06720
Voltage output	ODS 96B M/V6-600-S12	501 06721

Tables

Diagrams

Remarks

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