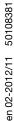
ODS 96B

Optical distance sensors







120 ... 1400 mm





- 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











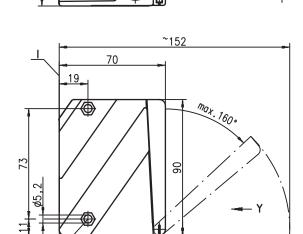


Accessories:

(available separately)

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

Dimensioned drawing



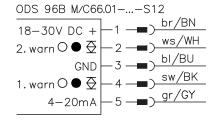
A B E F 7.29 X Y

D 3

Н

- A Indicator diode green
- B Indicator diode yellow
- **C** Transmitter
- **D** Receiver
- E Optical axis
- F Device plug M12x1
- G Countersinking for SK nut M5, 4.2mm deep
- H OLED display and key pad
- I Reference edge for the measurement (cover glass)

Electrical connection



ODS 96B

Specifications

Optical data

Measurement range 1) 120 ... 1400mm 0.1 ... 0.5mm LED Resolution 2) Light source 880nm (infrared light) Wavelength approx. 15 x 15 mm² at Light spot

Error limits (relative to measurement distance)

 \pm 1.5% up to 800mm, \pm 2% up to 1400mm \pm 0.5% up to 800mm, \pm 1% up to 1400mm \leq 1% up to 800mm, \leq 2% up to 1400mm Absolute measurement accuracy 1) Repeatability 3) b/w detect. thresholds (6 ... 90% rem.)
Temperature compensation

600 mm

Timing

1 ... 5¹⁾ms ≤ 15ms Measurement time Response time 1) Delay before start-up ≤ 300ms

Electrical data

18 ... 30VDC (incl. residual ripple) \leq 15% of $U_B \leq$ 150mA Operating voltage U_B Residual ripple Open-circuit current Switching output push-pull warning outputs 5),

PNP light switching, NPN dark switching, respectively \geq (U_B-2 V)/ \leq 2V current 4 ... 20mA, R_L \leq 500 Ω

Signal voltage high/low

Analogue output

Indicators

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

flashing

Mechanical data

Housing Optics cover Weight Connection type

Environmental data

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

LED class IEC 60947-5-2 Standards applied

1) Luminosity coefficient 6 % ... 90 %, complete measurement range, at 20 °C, medium range of U_B, measurement object $\geq 50 \times 50 \text{ m/m}^2$

Metal housing

M12 connector

diecast zinc glass 380g

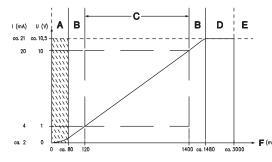
- Minimum and maximum value depend on measurement distance
- Same object, identical environmental conditions, measurement object $\geq 50 \times 50 \, \text{mm}^2$

Typ. ± 0.02 %/K

- The push-pull switching outputs must not be connected in parallel
- 1=transient protection, 2=polarity reversal protection, 3=short circuit protection for all outputs

Rating voltage 250VAC, with cover closed

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.



- Area not defined Α
- В Linearity not defined
- С Measurement range
- D Object present
- Ε No object detected
- Measurement distance

Order guide

Designation Part No.

With M12 connector

Current output ODS 96B M/C66.01-1400-S12 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 measure- ment range (short range)
1	0	Object beyond the mea- surement 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.