

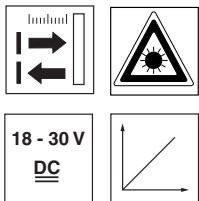


ODSL 30

Optical laser distance sensors

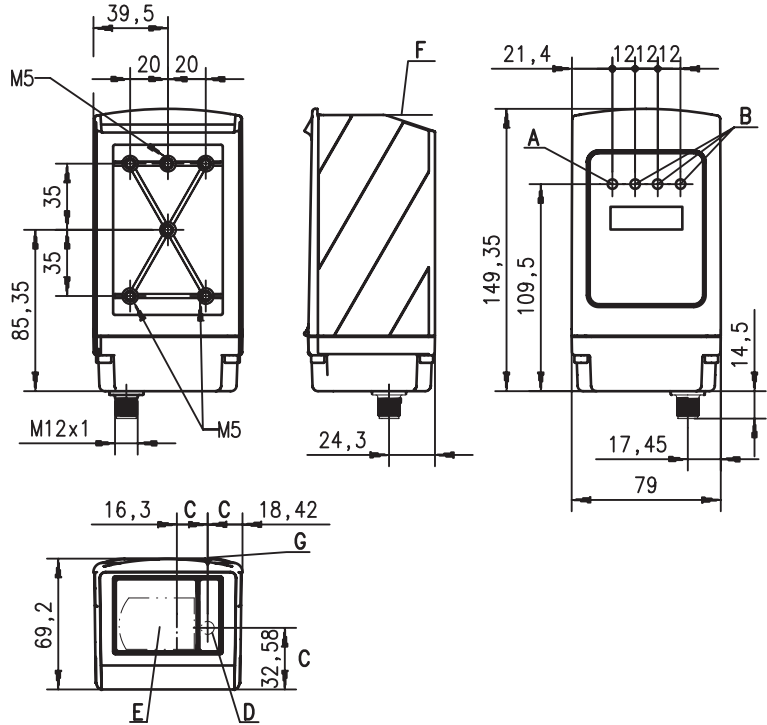


Dimensioned drawing



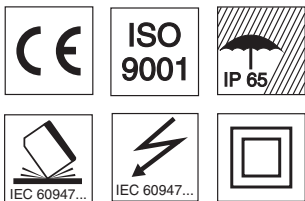
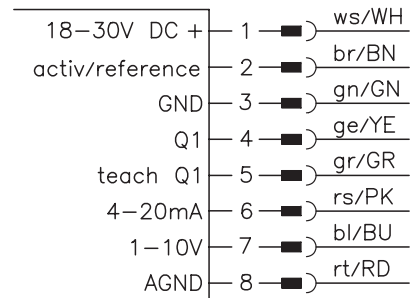
0.2 ... 30m

- Reflection-independent distance information
- Analogue current and voltage output
- 1 teachable switching output
- LC display and key pad for parameterisation
- M 12 pin connector
- Mounting device included



- A 1 Indicator diode green/ready
- B 3 Indicator diodes yellow/switching output Q1, Q2, Q3
- C Optical axes
- D Transmitter
- E Receiver
- F Reference edge for the measurement (distance zero point)
- G Sight for coarse alignment

Electrical connection



Accessories:

(available separately)

- Ready-made cable KB 448-2000-8A

We reserve the right to make changes * ods_13e.fm

Specifications

Optical data

Measurement range ¹⁾	0.2 ... 30m (adjustable)
Resolution	1mm
Light source	laser (modulated light)
Wavelength	650nm (visible red light)
Light spot diameter	divergent, Ø 6mm at 10m
Laser warning notice	see remarks

Error limits (for current output)

Absolute measurement accuracy ¹⁾	measurement range from range "0.2>x" to 2.5m without referencing ± 2%/with referencing ± 1 % measurement range: 2.5m ... 5m without referencing ± 1.5%/with referencing ± 1 % measurement range: 5m ... 30m without referencing ± 1%/with referencing ± 1 % 0.5% of measurement value
Repeatability ²⁾	

Timing

Measurement time	100ms (luminosity coefficient 90%)
Delay before start-up	≤ 1s

Electrical data

Operating voltage U _B	18 ... 30VDC (incl. residual ripple)
Residual ripple	≤ 15% of U _B
Power consumption	≤ 4 W
Switching output	PNP transistor, HIGH active (default), NPN transistor or push-pull through parameterisation
Signal voltage high/low	≥ (U _B -2V)/≤ 2V
Analogue output	R _L ≥ 2kΩ (voltage) R _L ≤ 500Ω (current)

Indicators

LED green	continuous light	ready
	off	no voltage
LED yellow	continuous light	object inside teach-in measurement distance
	off	object outside teach-in measurement distance

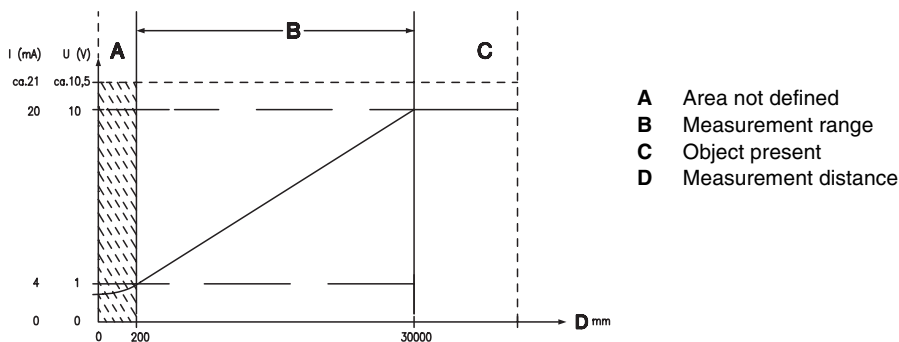
Mechanical data

Housing	metal
Optics cover	glass
Weight	650g
Connection type	M12 connector, 8-pin

Environmental data

Ambient temp. (operation/storage)	0°C ... +45 °C/-40°C ... +70°C
Protective circuit ³⁾	2, 3
VDE safety class ⁴⁾	II, all-insulated
Protection class	IP 65
Standards applied	IEC 60947-5-2

- 1) Luminosity coefficient 6% ... 90%, over mentioned temperature range, measured object ≥ 50x50mm²
- 2) Same object, measured object ≥ 50x50mm²
- 3) 2=polarity reversal protection, 3=short-circuit protection for all outputs
- 4) Rating voltage 250VAC



Order guide

	Designation	Part No.
M12 connector	ODSL 30/V-30M-S12	500 39447

Note

- Switching frequency depends on the reflectivity of the measured object and on the measurement mode.
- **Teaching procedure:**
Position measurement object at the desired measurement distance. Apply +U_B to the teach input. Take teach input back to GND, switching output has now been taught.
Edge on line **teach Q1** teaches output Q1.
It is also possible to teach by entering the distance value via the keyboard.
During the teaching of Q1, LED Q1 will flash.
- **Activation/referencing input:**
Referencing is carried out e.g. by applying the voltage (for a duration of about 300ms).
If this process is activated before the measurement, the highest possible accuracy is achieved.
- The enclosed laser warning signs must be attached to the sensor or in its immediate vicinity such that they are well visible.

LASER LIGHT DO NOT STARE INTO BEAM	
Maximum Output:	3.96mW
Max. pulse duration:	267ns
Wavelength:	650nm
CLASS II LASER PRODUCT EN60825-1:1994+A11:1996+A2:2004	