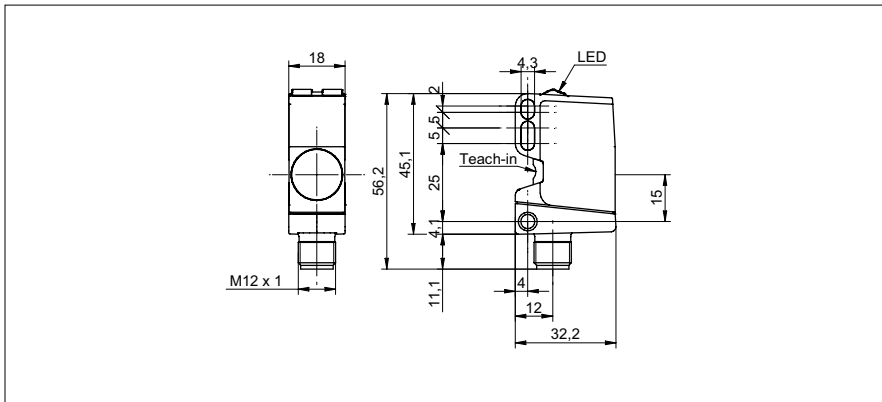


# Ultrasonic distance measuring sensors

**U500.DA0.2-11200625**

**dimension drawing**



**general data**

scanning range Sd	70 ... 1000 mm
scanning range close limit Sdc	70 ... 1000 mm
scanning range far limit Sde	70 ... 1000 mm
version	IO-Link dual channel
hysteresis typ.	4 % Sde
repeat accuracy	< 0,5 mm
resolution	< 0,3 mm
response time ton	< 40 ms
release time toff	< 40 ms
temperature drift	< 2 % of distance to target So
power-up drift	compensated after 15 min.
sonic frequency	200 kHz
adjustment	qTeach, line-Teach, IO-Link
light indicator	LED yellow
power on indication	LED green
alignment measuring axis	< 2°

**electrical data**

voltage supply range +Vs	12 ... 30 VDC
current consumption typ.	35 mA
output circuit	current output
output signal	4 ... 20 mA / 20 ... 4 mA
output current	< 100 mA
voltage drop Vd	< 3,5 VDC
residual ripple	< 10 % Vs
short circuit protection	yes
reverse polarity protection	yes, Vs to GND

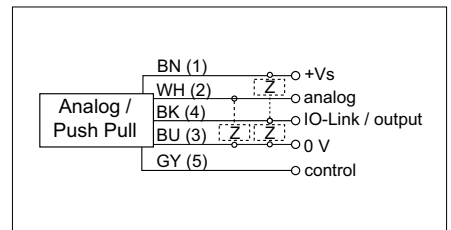
**mechanical data**

type	rectangular
housing material	plastic (ASA, PMMA)
coating active face	PEEK
width / diameter	18 mm
height / length	45 mm
depth	32 mm
connection types	connector M12 5 pin

**photo**



**connection diagram**



# Ultrasonic distance measuring sensors

**U500.DA0.2-11200625**

**ambient conditions**

operating temperature	-25 ... +65 °C
storage temperature	-40 ... +75 °C
protection class	IP 67

**communications interface**

interface	IO-Link V1.1
baud rate	38,4 kBaud (COM 2)
cycle time	≥ 12 ms
process data length	32 Bit
process data structure	Bit 0 = SSC1 (distance) Bit 1 = SSC2 (distance) Bit 2 = quality Bit 3 = alarm Bit 5 = SSC4 (counter) Bit 8-15 = scale factor Bit 16-47 = 32 Bit measurement

IO-Link port type Class A

additional data  
 distance  
 excess gain  
 operating cycles  
 operating hours  
 boot cycles  
 operating voltage  
 device temperature  
 histograms

adjustable parameters  
 switching point  
 switching hysteresis  
 measured value filtering  
 time filters  
 LED status indicators  
 output logic  
 output circuit  
 counter  
 beam forming  
 analog output characteristic  
 function of pin 5  
 deactivate the sensor element  
 Find Me function

**typical sonic cone profile**

