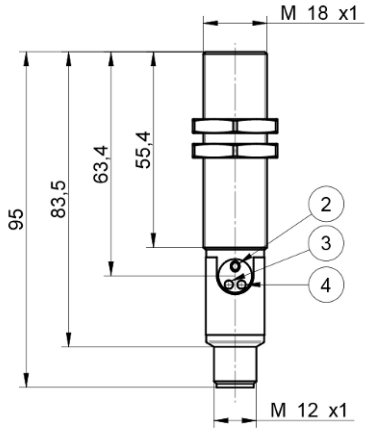
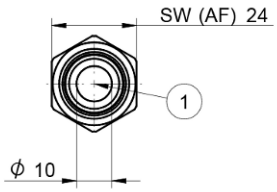
wenglor
the innovative family

Technical Data
U18T010
Distance Sensor







Symbol	Key
1	Active surface
2	Teach-in button
3	Indicator analog output AO
4	Run/error indicator

EN

Dimensions in mm
Subject to change without notice
Version 0
www.wenglor.com

Technical data

Ultrasonic Data	
Working range, reflex sensor	100...1200 mm
Working range, through-beam sensor	100...2400 mm
Setting Range	100...1200 mm
Reproducibility maximum	2 mm
Linearity Deviation	3 mm
Resolution	1 mm
Ultrasonic Frequency	240 kHz
Service Life (T = +25 °C)	100000 h
Switching Hysteresis	2 % *

Electrical Data	
Supply Voltage	18...30 V DC
Current Consumption (Ub = 24 V)	< 40 mA
Switching frequency, reflex sensor	7 Hz
Switching frequency, through-beam sensor	7 Hz
Response time, reflex sensor	71 ms
Response time, through-beam sensor	71 ms
Temperature Drift	< 1 %
Temperature Range	-30...60 °C
Number of Switching Outputs	1
Switching Output Voltage Drop	< 2.5 V
Switching Output/Switching Current	100 mA
Analog Output	4...20 mA
Synchronous Mode	Up to 32 sensors
Multiplex Mode	up to 16 sensors
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Lockable	yes
Interface	IO-Link V1.1
Data Storage	yes
Protection Class	III

Mechanical Data	
Setting Method	IO-Link Teach input (for analog output) Teach-in (for analog output)
Housing Material	Stainless steel, V2A (1.4305/303)
Sensing face	Epoxy resin/glass bubble mixture Plastic, PBT Silicone
Degree of Protection	IP67
Connection Type	Plug variant
Connection	M12 × 1; 5-pin

Safety-relevant Data	
MTTFd (EN ISO 13849-1)	1122.83 a

General Data	
Scope of delivery	1 × initial start-up instructions 1 × MUTTER-M18-E003 hex nut 1 × sensor

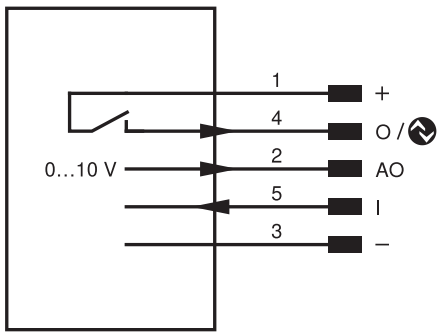
Adjustable parameters	
Circuit	NC NC/NO NO
Other parameters	Synchronous mode

All other parameters can be found in the product documentation.

* Referring to the switching distance, at least 2 mm.

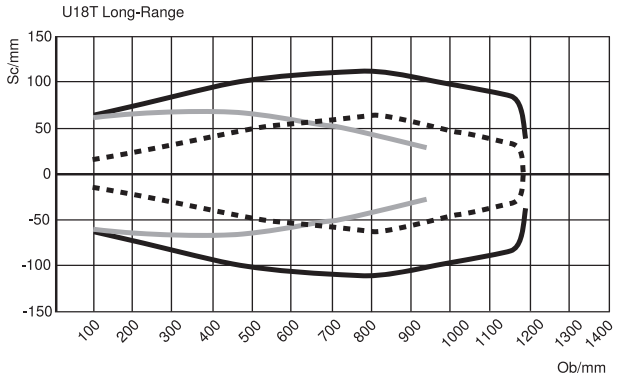
BMECat data	
eCl@ss 5.1.4	27-27-08-04 Ultrasonic distance sensor
eCl@ss 6.x	27-27-08-04 Ultrasonic distance sensor
eCl@ss 7.0	27-27-08-04 Ultrasonic distance sensor
eCl@ss 7.1	27-27-08-04 Ultrasonic distance sensor
eCl@ss 8.x	27-27-08-04 Ultrasonic distance sensor
eCl@ss 10.0.1	27-27-08-04 Ultrasonic distance sensor

Technical illustrations



Pin	Pin function	Polarity	Circuit	Signal type
1	Supply Voltage +			
2	Analog output			4...20 mA
3	Supply voltage 0 V			
4	Switching output IO-Link	PNP	NO	
5		High active		

Illustration 1: Characteristic response curve



Characteristic curves show the position of the center of the measured object (100 × 100 mm plate) at the time of switching.

Ob = Object

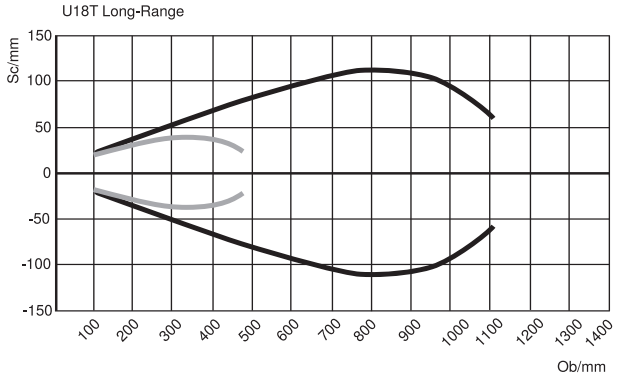
Sc = Sonic cone width

— Standard sonic cone (center of the measured object)

— Extra-narrow sonic cone (center of the measured object)

- - - Standard sonic cone (front edge of the measured object)

Illustration 2: Characteristic response curve



Characteristic curves show the position of the center of the measured object (Ø 25 mm rod) at the time of switching.

Ob = Object

Sc = Sonic cone width

— Standard sonic cone (center of the measured object)

— Extra-narrow sonic cone (center of the measured object)

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