

Ultrasonic Sensor Head, Diffuse, 8 m Type UC 80 CND 80 FS M1, for separate Amplifier

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- 80 x 80 x 43 mm polyester housing with thread DIN 2999R2"/11
- Sensing distance: 800-8000 mm
- Outputs: Distance to target (1. echo) and temperature
- Power supply: 19 to 30 VDC
- 30° beam angle
- Protection: Short-circuit, reverse polarity, transients
- Protection degree IP 67
- M12 plug, 5 pin
- Max. distance to Evaluation Unit: 50 m

Product Description

A two-part diffuse ultrasonic sensor with a sensing range of 800-8000 mm. The sensor head requires a connection to a separate evaluation unit from which all settings can be programmed. The sensor has an extremely wide beam angle of 30° and has a high precision and repeatability as well. Both the housing and the

sensor are designed for tough environments. A high carrier frequency secures a precise measuring and high noise immunity.

Due to use of microprocessor control the digital filtering makes the sensor immune to most electromagnetic interferences.

Ordering Key **UC 80 CND 80 FS M1**

Ultrasonic sensor	_____
Housing style	_____
Housing size	_____
Housing material	_____
Housing length	_____
Detection principle	_____
Sensing distance	_____
Output type	_____
Output configuration	_____
Connection	_____

Type Selection

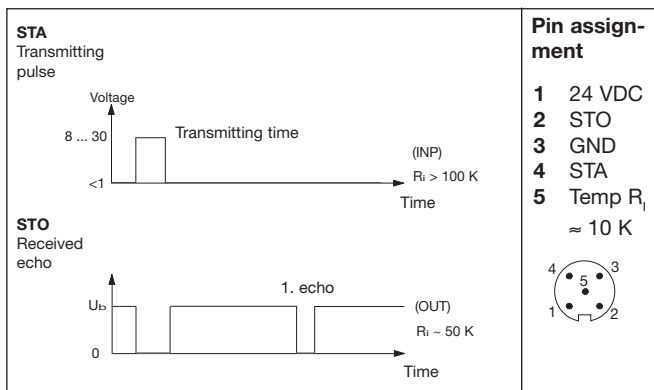
Housing dimensions	Connection	Rated operating dist. (S _n)	Outputs	Ordering no.
80 x 80 x 43 mm	Plug M12, 5 pin	800-8000 mm	Distance, temperature	UC 80 CND 80 FS M1

Specifications

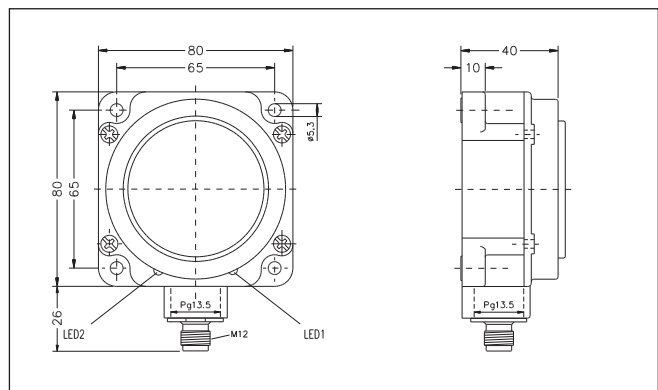
Rated operational volt. (U_e)	19 to 30 VDC (ripple included)	Power-on delay	< 10 ms
Ripple	≤ 10%	Temperature compensation	Yes
No-load supply current (I_e)	≤ 50 mA	Beam angle	30°
Protection	Short-circuit, transients and reverse polarity	Ambient temperature	
Rated insulation voltage	> 1 kV	Operating	0° to +70°C (32° to +158°F)
Input		Storage	-20° to +80°C (-4° to +176°F)
Pin 4	Transmitting pulse 8-30 VDC Ri > 100 kohm	Degree of protection	IP 67
Output		Housing material	Polyester PBTP
Pin 2 Distance to target	To apply UCEU80-1	Housing dimensions	80 x 80 x 43 mm
Pin 5 Temperature	2.93 VDC @ 20°C 10 mV/°C	Connection	
Carrier frequency	65 kHz	Plug	M12, 5-pin
Resolution	min. 20 mm	Weight	390 g
Repeatability	0.5%	CE-marking	Yes
Linearity	0.5%		
Temperature deviation	1%		
Rated operating distance	800-8000 mm		



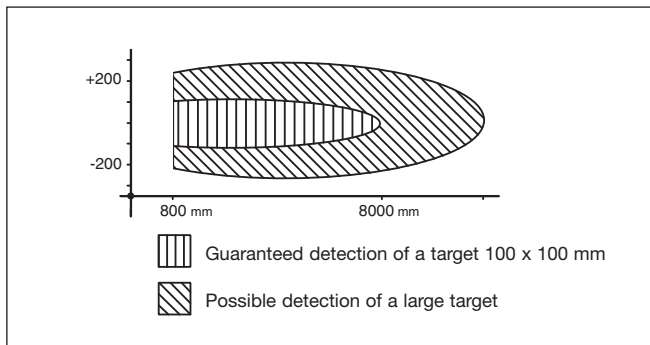
Wiring Diagram



Dimensions



Detection Range



Amplifier/Evaluation Unit

Evaluation Unit: UCEU 80-1

Installation Hints

<p><i>To avoid interference from inductive voltage/current peaks, separate the prox. switch power cables from any other power cables, e.g. motor, contactor or solenoid cables</i></p>	<p><i>Relief of cable strain</i></p> <p>Incorrect</p> <p>Correct</p> <p>The cable should not be pulled</p>	<p><i>Protection of the sensing face</i></p> <p>A proximity switch should not serve as mechanical stop</p>	<p><i>Switch mounted on mobile carrier</i></p> <p>Any repetitive flexing of the cable should be avoided</p>
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