



**Model Number**

**UC500-L2M-E7-T-2M**

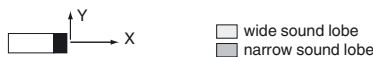
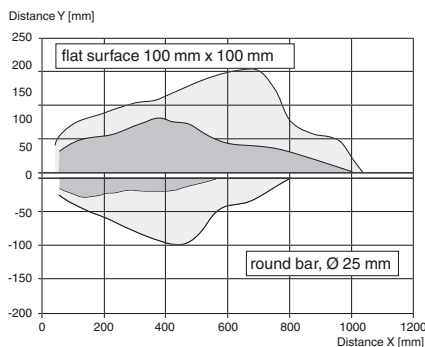
Single head system

**Features**

- **Extended temperature range**
- **Cable connection**
- **Rugged metal base**
- **Sensor head bidirectional and rotatable**
- **Function indicators visible from all directions**
- **Selectable sound lobe width**
- **Programmable**

**Diagrams**

**Characteristic response curve**



Release date: 2019-10-25 07:53 Date of issue: 2019-10-25 299133\_eng.xml

**Technical data**

**General specifications**

Sensing range	35 ... 500 mm
Adjustment range	50 ... 500 mm
Dead band	0 ... 35 mm
Standard target plate	100 mm x 100 mm
Transducer frequency	approx. 380 kHz
Response delay	minimum : 20 ms factory setting: 55 ms

**Indicators/operating means**

LED green	Operating display
LED yellow 1	switching state switch output 1
LED yellow 2	switching state switch output 2
LED red	error

**Electrical specifications**

Operating voltage $U_B$	10 ... 30 V DC , ripple 10 % <sub>SS</sub>
No-load supply current $I_0$	≤ 50 mA

**Interface**

Interface type	Serial interface (programming adapter required) 9600 BPS, no parity, 8 data bits, 1 stop bit
----------------	---

**Input/Output**

Input/output type	1 synchronization connection, bidirectional
0 Level	0 ... 1 V
1 Level	4 V ... $U_B$
Input impedance	> 12 k $\Omega$
Output rated operating current	< 12 mA
Pulse length	0.5 ... 300 ms (level 1)
Pulse interval	≥ 14 ms (level 0)
Synchronization frequency	≤ 70 Hz
Common mode operation	≤ 90 Hz / n , n = number of sensors , n ≤ 10
Multiplex operation	(factory setting: n = 5 )

**Output**

Output type	2 switch outputs NPN, NO/NC, programmable
Rated operating current $I_e$	200 mA , short-circuit/overload protected
Voltage drop $U_d$	≤ 2 V
Repeat accuracy	≤ 0.1 % of full-scale value
Switching frequency f	≤ 14 Hz
Range hysteresis H	programmable , preset to 1 mm
Temperature influence	< 1.5 % of full-scale value

**Ambient conditions**

Ambient temperature	-40 ... 70 °C (-40 ... 158 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)

**Mechanical specifications**

Connection type	cable , 5-pin
Degree of protection	IP67
Material	
Housing	PA-GF35
Cable	PUR
Transducer	epoxy resin/hollow glass sphere mixture; polyurethane foam
Cable	
Sheath diameter	7.25 mm
Bending radius	> 37.3 mm , fixed > 74.7 mm , moving
Core cross-section	5 x 0.82 mm <sup>2</sup>
Length L	2 m
Mass	345 g

**Factory settings**

Output 1	near switch point: 50 mm far switch point: 500 mm Output mode: Window mode output behavior: NO contact
Output 2	near switch point: 100 mm far switch point: 250 mm Output mode: Window mode output behavior: NO contact

Beam width	wide
Evaluation procedure	averaging (MxN) M = 5 N = 2

**General information**

Supplementary information	Switch settings of the external programming adapter: "output load": pull-up "output logic": inv
---------------------------	---

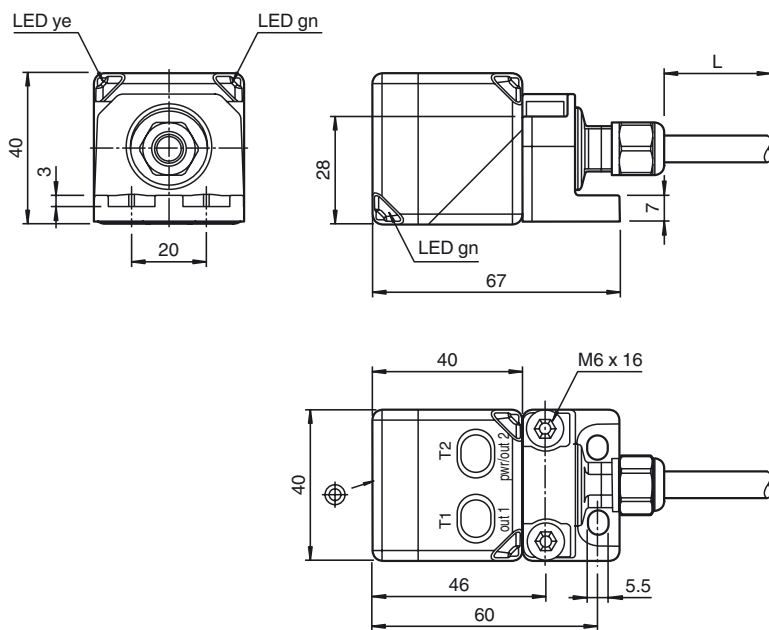
**Compliance with standards and directives**

Standard conformity	
Standards	EN 60947-5-2:2007+A1:2012 IEC 60947-5-2:2007 + A1:2012

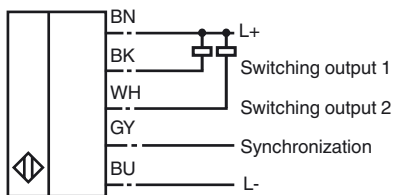
**Approvals and certificates**

EAC conformity	TR CU 020/2011
UL approval	cULus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated ≤36 V

**Dimensions**



**Electrical Connection**



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)
5	GY	(gray)

**Accessories**

**UC-PROG1-USB**  
Programming adapter

**V15S-G-0,3M-PUR-WAGO**  
Male cordset, M12, 5-pin, PUR cable with WAGO terminals

**Description of Sensor Functions**

**Adjustment possibilities**

The sensor is equipped with 2 switching outputs with 2 programmable switch points each. The programming of the switch points, the output mode, the output logic and the beam width can be done in two different ways:

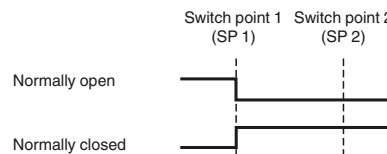
- Using the sensor's programming buttons
- Using the sensor's serial interface. This method requires an external programming adapter and the corresponding software. You will find the download link for the software at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com) on the product page of the sensor.

**Synchronization**

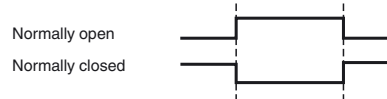
**Additional Information**

**Switching output modes**

1. Switch point mode



2. Window mode



3. Hysteresis mode



The sensor features a synchronization input for suppressing ultrasonic mutual interference ("crosstalk"). The following synchronization modes are available:

1. Automatic multiplex mode
2. Automatic master slave common mode
3. Externally controlled synchronization

### Further Documentation

For information on programming via programming buttons and synchronisation you may refer to the commissioning instruction.