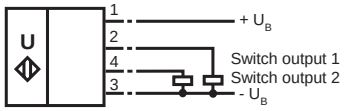
Single head system
UCC1000-30GM-E6-V1

Features

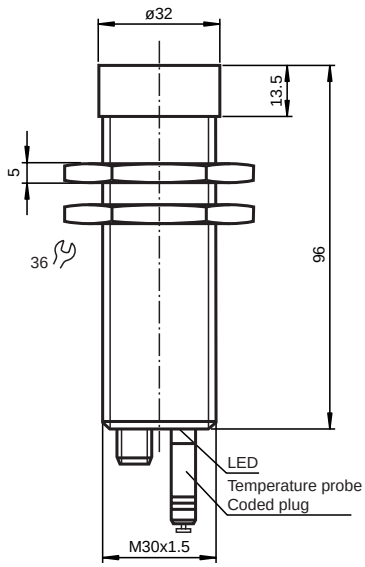
- 2 independent switch points
- High chemical resistance through te-flon-cated transducer surface
- Switch point can be taught-in
- Window function can be selected
- Temperature compensation
- Compact construction
- Plug connection

Electrical connection

Standard symbol/Connection:



Dimensions



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Technical data

General specifications		
Sensing range		200 ... 1000 mm
Standard target plate		100 mm x 100 mm
Unusable area		0 ... 200 mm
Transducer frequency		approx. 175 kHz
Response delay		≤ 100 ms
Standard conformity		EN 60947-5-2
Indicating/Operating means		
LED yellow		Switching state output 1, TEACH-IN function output 1 switching state output 2, TEACH-IN function output 2
LED red/green		permanent green: Power on green, flashing: TEACH-IN function, object detected permanently red: Connector removed red, flashing: Error, teach-in function object not detected
Temperature/TEACH-IN connector		Temperature compensation, TEACH-IN of the switch points, output function change over
Electrical specifications		
Rated operational voltage	U_e	10 ... 30 V DC, ripple 10 $\%_{SS}$
Power consumption	P_0	≤ 600 mW
Output		
Output type		2 switch outputs pnp, NO/NC
Rated operational current	I_e	200 mA, short circuit/overload protected
Voltage drop	U_d	≤ 3 V DC
Switching frequency	f	≥ 5 Hz
Range hysteresis	H	≤ 3.2 % of the set operating distance
Repeat accuracy		≤ 1 %
Temperature influence		< 2 % of full-scale value (≤ 0.2 % / K without temperature compensation)
Ambient conditions		
Ambient temperature		-25 ... +70 °C (248 ... 343 K)
Storage temperature		-40 ... +85 °C (233 ... 358 K)
Mechanical specifications		
Protection degree		IP65 according to EN 60529
Connection type		V1 connector (M12 x 1), 4 pin
Material		
Housing		high grade steel (stainless), PTB
Transducer		epoxy resin/hollow glass bead mixture; Polyurethane foam, PTFE coated
Mass		153 g

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Note

Notes:

This ultrasonic sensor features a four-pole temperature/TEACH-IN plug that can be connected in four different positions. These have the following significance.

Plug position	Meaning
A1	Teach switching point A1
A2	Teach switching point A2
E2/E3	Switching: 2 independent switching positions/window function
T	Temperature compensation

Description of the TEACH-IN procedure:
- Remove temperature plug
- Cut and restore supply voltage (e.g. by removing and replacing unit plug)

TEACH-IN of switching points 1 and 2:
- Set object to desired switching point
- Connect TEACH-IN plug in pos. A1 or A2
- Green LED flashes when object detected, red LED flashes when no object detected
- Pull the plug (the current object position is taught and stored when the plug is removed!)

TEACH-IN of switching function:
- Connect TEACH-IN plug in pos. E2/E3
- The yellow LED indicates the switching function
  E2: 2 independent switching points (NO)
  E3: window function: switch output 1 NO, switch output 2 NC
- Pull the plug when the desired function is activated, otherwise reconnect the TEACH-IN plug in pos. E2/E3
- Pull plug

Completing the TEACH-IN procedure:
- Connect TEACH-IN plug in pos. T. Temperature compensation is now activated.

Note:
If the temperature plug has not been plugged in within 5 minutes, the sensor will return to normal mode without temperature compensation.

Displays depending on position of temperature/ TEACH-IN plug position	Green dual LED	Red dual LED	Yellow LED A1/E2	Yellow LED A2/E3
Teach switching point output A1 Object detected No object detected	 Flashing Off	 Off Flashing	 Flashing Flashing	 Off Off
Teach switching point output A2 Object detected No object detected	 Flashing Off	 Off Flashing	 Off Off	 Flashing Flashing
TEACH-IN of switch output functions: E2: 2 independent switching positions E3: window function	 On On	 Off Off	 Flashing Off	 Off Flashing
Normal mode, temperature compensated	On	Off	Switching state A1	Switching state A2
Plug pulled or shorted	Off	On	Switching state A1	Switching state A2
Interference (e.g. compressed air)	Off	Flashing	Previous state	Previous state

Model number

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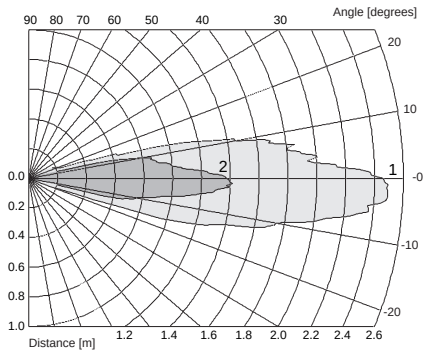
Characteristic curves/ Additional information

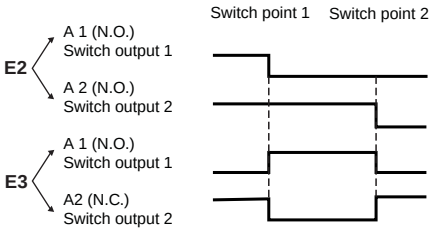
Characteristic response curves



Curve 1: flat plate 100 mm x 100 mm
Curve 2: round bar, Ø 25 mm

Programmed switching output function

Position of insert
Switch output functions



LED-Window