



**Model Number**

**UC6000-30GM-E6-V1**

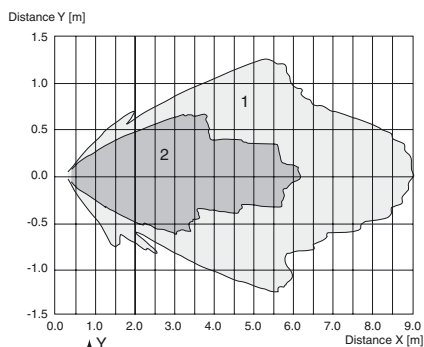
Single head system

**Features**

- 2 independent switch outputs
- Adjustable switch points
- Window function can be selected
- Temperature compensation
- Compact design
- Plug connection

**Diagrams**

**Characteristic response curve**



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

**Technical data**

**General specifications**

Sensing range	800 ... 6000 mm
Unusable area	0 ... 800 mm
Standard target plate	100 mm x 100 mm
Transducer frequency	approx. 65 kHz
Response delay	≤ 500 ms

**Indicators/operating means**

LED yellow	switching state output 1, program function output 1 switching state output 2, program function output 2
LED red/green	solid green: Power on green, flashing: program function, object detected solid red: Connector removed red, flashing: error, program function object not detected
Temperature/TEACH-IN connector	Temperature compensation, Switch points programming, output function setting

**Electrical specifications**

Operating voltage $U_B$	10 ... 30 V DC, ripple 10 % <sub>SS</sub>
Power consumption $P_0$	≤ 600 mW

**Output**

Output type	2 switch outputs PNP, NO/NC
Rated operating current $I_e$	200 mA, short-circuit/overload protected
Voltage drop $U_d$	≤ 3 V DC
Repeat accuracy	≤ 1 %
Switching frequency $f$	≥ 1 Hz
Range hysteresis $H$	≤ 3.2 % of the set operating distance
Temperature influence	< 2 % of full-scale value (≤ 0.2 % / K without temperature compensation)

**Standard conformity**

Standards	EN 60947-5-2
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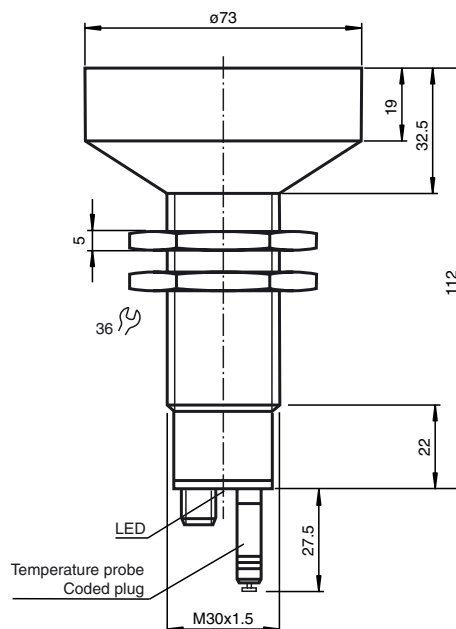
**Ambient conditions**

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)

**Mechanical specifications**

Connection type	Connector M12 x 1, 4-pin
Protection degree	IP65
Material	
Housing	High grade stainless steel
Transducer	epoxy resin/hollow glass sphere mixture; foam polyurethane, cover and head PBT
Mass	265 g

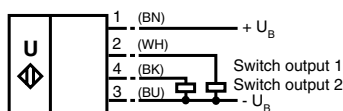
**Dimensions**



Release date: 2013-02-26 15:42 Date of issue: 2013-02-26 027679\_eng.xml

**Electrical Connection**

Standard symbol/Connection:  
(version E6, pnp)



Core colours in accordance with EN 60947-5-2.

**Pinout**

**Connector V1**



**Description of the sensor functions**

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-IN switching point A1
A2	TEACH-IN 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 or 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.

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

**Default setting**

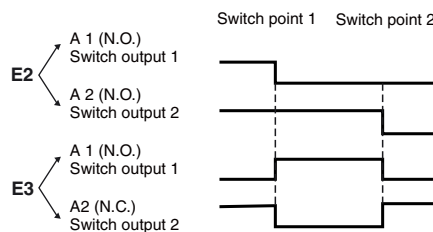
- A1: unusable area
- A2: nominal sensing range

**LED Displays**

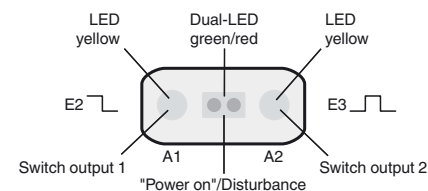
**Additional Information**

**Programmed switching output function**

Position of insert  
Switch output functions



**LED-Window**



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-IN switching point output A1 Object detected No object detected	flashes off	off flashes	flashes flashes	off off
TEACH-IN switching point output A2 Object detected No object detected	flashes off	off flashes	off off	flashes flashes
TEACH-IN of switch output functions: E2: 2 independent switching positions E3: window function	on on	off off	flashes off	off flashes
Normal mode temperature compensated plug pulled/shorted	on off	off on	switching state A1	switching state A2
Interference (e.g. compressed air)	off	flashes	previous state	previous state

**LED-Window**

