



Model Number

UC2000-30GM-IUR2-V15

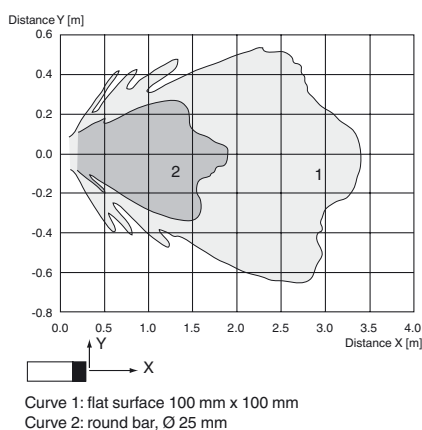
Single head system

Features

- **Parameterization interface for the application-specific adjustment of the sensor setting via the service program ULTRA 3000**
- **Analog current and voltage output**
- **Synchronization options**
- **Adjustable acoustic power and sensitivity**
- **Temperature compensation**

Diagrams

Characteristic response curve



Technical data

General specifications

Sensing range	80 ... 2000 mm
Adjustment range	120 ... 2000 mm
Dead band	0 ... 80 mm
Standard target plate	100 mm x 100 mm
Transducer frequency	approx. 180 kHz
Response delay	65 ms minimum 195 ms factory setting

Indicators/operating means

LED green	solid: Power-on flashing: Standby mode or program function object detected
LED yellow 1	solid: object in evaluation range flashing: program function
LED yellow 2	solid: object in detection range flashing: program function
LED red	solid: temperature/program plug not connected flashing: fault or program function object not detected
Temperature/TEACH-IN connector	Temperature compensation, Evaluation range programming, output function setting

Electrical specifications

Operating voltage U_B	10 ... 30 V DC, ripple 10 % _{SS}
Power consumption P_0	≤ 900 mW

Interface

Interface type	RS 232, 9600 Bit/s, no parity, 8 data bits, 1 stop bit
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Input/Output

Synchronization	bi-directional 0 level: $-U_B \dots +1$ V 1 level: $+4$ V $\dots +U_B$ input impedance: > 12 KOhm synchronization pulse: ≥ 100 μs, synchronization interpulse period: ≥ 2 ms
Synchronization frequency	
Common mode operation	≤ 30 Hz
Multiplex operation	≤ 30 Hz / n, n = number of sensors, n ≤ 5

Output

Output type	1 current output 4 ... 20 mA 1 voltage output 0 ... 10 V
Switch-on delay t_{on}	< 150 ms
Resolution	evaluation range [mm]/4000, but ≥ 0.35 mm
Deviation of the characteristic curve	≤ 0.2 % of full-scale value
Repeat accuracy	≤ 0.1 % of full-scale value
Load impedance	current output: ≤ 500 Ohm voltage output: ≥ 1000 Ohm
Temperature influence	≤ 2 % from full-scale value (with temperature compensation) ≤ 0.2 %/K (without temperature compensation)

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, 5-pin
Degree of protection	IP65
Material	
Housing	stainless steel (1.4305 / AISI 303) PBT plastic parts
Transducer	epoxy resin/hollow glass sphere mixture; polyurethane foam
Mass	170 g

Factory settings

Output	evaluation limit A1: 200 mm evaluation limit A2: 2000 mm rising ramp
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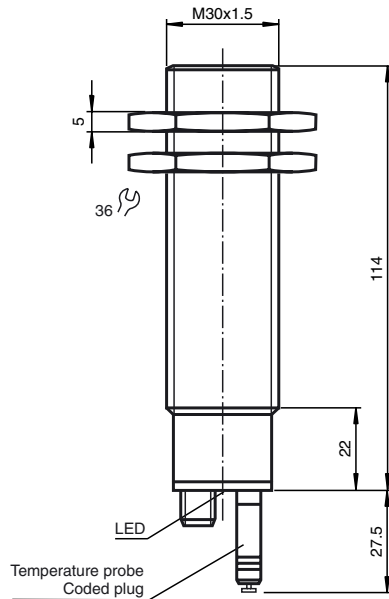
Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007+A1:2012 IEC 60947-5-2:2007 + A1:2012 EN 60947-5-7:2003 IEC 60947-5-7:2003

Approvals and certificates

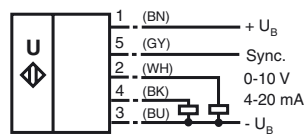
EAC conformity	TR CU 020/2011
UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated ≤ 36 V

Dimensions



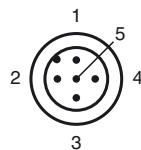
Electrical Connection

Standard symbol/Connection:
(version IU)



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

Pinout



Wire colors in accordance with EN 60947-5-2

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

Additional Information

Analogue output function

Analogue function

Near distance
of evaluation

Far distance
of evaluation

Rising slope

4 mA/0 V

20 mA/10 V

Falling slope

20 mA/10 V

4 mA/0 V

Zero line mode

4 mA/0 V

20 mA/10 V

A1= 0 mm

A2