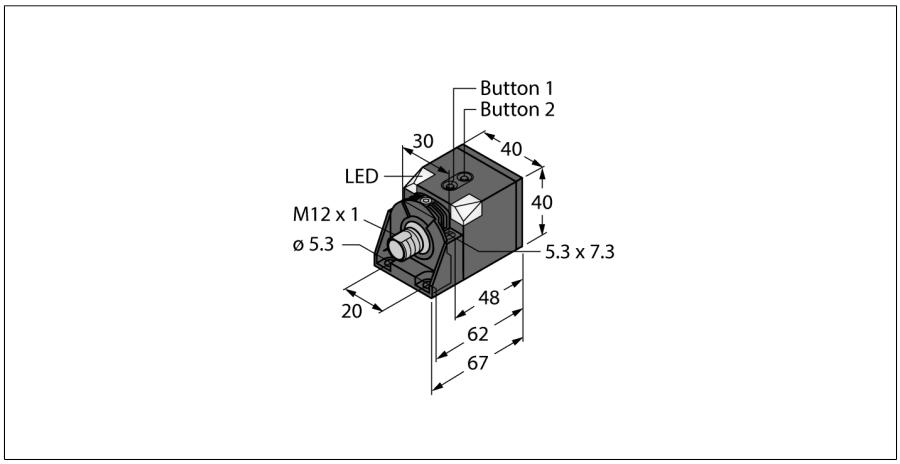
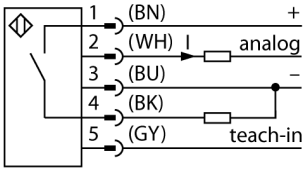
Ultrasonic sensor
diffuse mode sensor
RU200-CK40-LIU2P8X2T-H1151



- **Separate transducers for transmitter and receiver**
- **Rectangular housing 40 x 40 mm**
- **Connection via M12 x 1 male**
- **Teach range adjustable via button**
- **Blind zone: 5 cm**
- **Range: 200 cm**
- **Resolution: 1 mm**
- **Sonic cone angle: 60°**
- **1 x switching output, PNP**
- **NO/NC programmable**
- **1 x analog output, 4..20mA/ 0..10 V**

Type designation	RU200-CK40-LIU2P8X2T-H1151
Ident-No.	1610053
Repeat accuracy	≤ 0.25 % of full scale
Ambient temperature	0…+70 °C
Operating voltage	15…30 VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 150 mA
No-load current I_0	≤ 50 mA
Residual current	≤ 0.1 mA
Output function	5-wire, NO/NC contact, PNP
Short-circuit protection	yes/ Cyclic
Voltage drop at I_e	≤ 2.5 V
Wire breakage/Reverse polarity protection	yes/ yes
Design	Rectangular, CK40
Dimensions	67 x 40 x 40 mm
Housing material	Plastic, PBT-GF30-V0
Electrical connection	Connector, M12 × 1
Protection class	IP40
Switching state	LED yellow

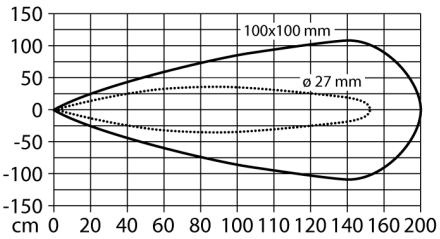
Wiring Diagram



Functional principle

Ultrasonic sensors capture a multitude of objects contactless and wear-free with ultrasonic waves. It does not matter whether the object is transparent or opaque, metallic or non-metallic, firm, liquid or powdery. Even environmental conditions such as spray, dust or rain hardly affect their function.

Sonic Cone



Edition • 2017-01-06T17:55:02+01:00

Ultrasonic sensor
diffuse mode sensor
RU200-CK40-LIU2P8X2T-H1151

Setting the limits

The ultrasonic sensor has an analog and a switching output with teachable measuring and switching range. Teaching is possible via Easy-Teach adapter or with the buttons at the sensor. The green and yellow LED indicate whether the sensor has detected an object.

Various functions such as single switchpoint, window mode or reflection mode to a fixed target can be taught. Further information is described in the operating instructions. How to set the window mode is described below. The limits of the window may be selected freely within the detection range.

Easy-Teach

- Connect teach adapter TX1-Q20L60 between sensor and connection cable
- For the first limit value, place object accordingly
- Press and hold the select button for output 1 or 2 for 2 or 8 s against Gnd
- Press and hold the select button for 8 s against Gnd to teach the first limit value.
- For the second limit value, place object accordingly
- Press and hold button for at least 2 s against Gnd

Teach-Button

- For the first limit value, place object accordingly
- Press and hold button 1 to select output 1 or 2 for 2 or 8 s against Gnd
- Press and hold button 1 for at least 8 s
- For the second limit value, place object accordingly
- Press and hold button 1 for at least 2 s

LED response

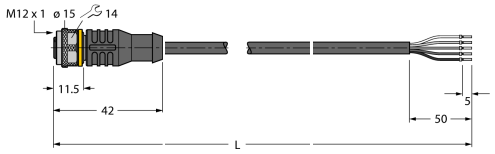
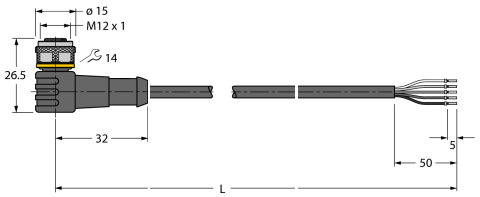
Successful teaching is indicated by a fast flashing green LED. Thereafter, the sensor automatically runs in normal operating mode. Unsuccessful teaching is indicated by the LED flashing alternately green and yellow. In normal operating mode both LEDs signal the switching state of output 1.

- green: object is in the detection range but not in the switching range
- yellow: object is in the switching range
- off: object is outside the detection range or signal loss

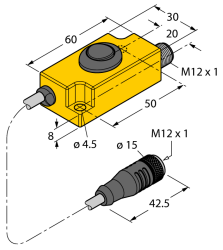
Edition • 2017-01-06T17:55:02+01:00

Ultrasonic sensor
diffuse mode sensor
RU200-CK40-LIU2P8X2T-H1151

Wiring accessories

Type code	Ident-No.	Description	
RKC4.5T-2/TEL	6625016	Connection cable, female M12, straight, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com	
WKC4.5T-2/TEL	6625028	Connection cable, female M12, angled, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com	

Function accessories

Type code	Ident-No.	Description	
TX1-Q20L60	6967114	Teach adapter for inductive encoders, linear position, angle, ultrasonic and capacitive sensors	

Edition • 2017-01-06T17:55:02+01:00