

## ATEX/IECEX Approved Ultrasonic Sensors for Hazardous Applications

Expanding its sensors for use in hazardous locations, Turck released a new line of ATEX/IECEX-approved ultrasonic sensors that carry ATEX/IECEX, II 3 G approvals. The sensors are also approved to operate in gases and vapors IIC group, zone 2 and IIIC group, zone 22 for dust. The sensors feature steel housings in 18mm and 30mm barrels, with sensing ranges from 40cm to 6 meters.

Please see the following pages for the data sheets for the product included in this extension.

Part Number	ID Number	Standard	High End	Teach By Wire	Teach by Button	Teach via IO-Link	Sensing Range	Housing	Output
RU40U-EM18E-LI-U2PN8X2T-H1151/3GD	M1610071		X	X	X	X	40cm	18mm Barrel	PNP/NPN, Analog, IO-Link
RU130U-EM18E-LI-U2PN8X2T-H1151/3GD	M1610072		X	X	X	X	130cm	18mm Barrel	PNP/NPN, Analog, IO-Link
RU130U-EM30E-LI-U2PN8X2T-H1151/3GD	M1610073		X	X	X	X	130cm	30mm Barrel	PNP/NPN, Analog, IO-Link
RU300U-EM30E-LI-U2PN8X2T-H1151/3GD	M1610074		X	X	X	X	300cm	30mm Barrel	PNP/NPN, Analog, IO-Link
RU600U-EM30E-LI-U2PN8XT-H1151/3GD	M1610075		X	X	X	X	600cm	30mm Barrel	PNP/NPN, Analog, IO-Link

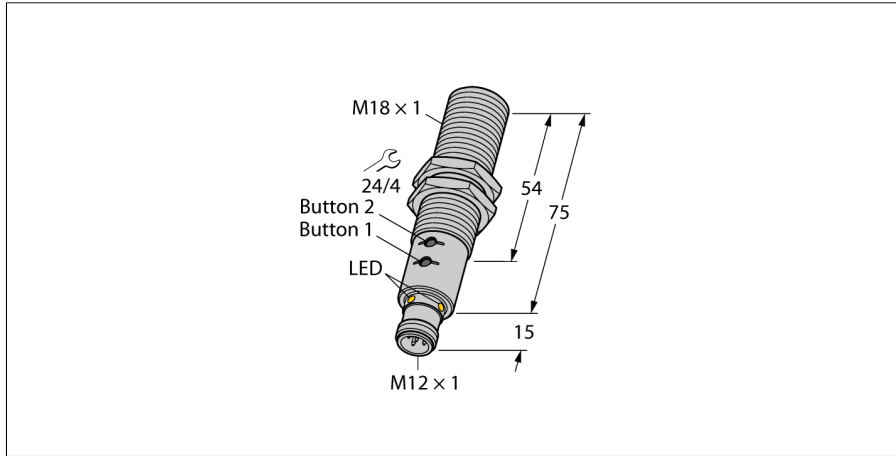
### PRESS CONTACT

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### CONTACT

Turck Inc.  
 3000 Campus Drive  
 Minneapolis, MN 55441  
 Mail: info@turck.com  
 Web: www.turck.us

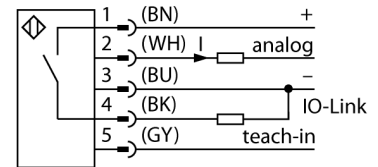
**Ultrasonic sensor**  
**diffuse mode sensor**  
**RU40U-EM18E-LIU2PN8X2T-H1151/3GD**



- ATEX II 3 G approval
- Gases and vapors IIC group, zone 2
- IIC group, zone 22, dusts
- When used in hazardous areas, the special conditions of the approval must be observed
- Smooth sonic transducer face
- Cylindrical housing M18, potted
- Connection via M12 x 1 male
- Teach range adjustable via pushbutton or adapter
- Temperature compensation
- Blind zone: 2.5 cm
- Range: 40 cm
- Resolution: 0.5 mm
- Sonic cone angle: 9°
- 1 x switching output, PNP/NPN
- 1 x analog output, 4...20 mA / 0...10V / additional switching output, PNP/NPN
- NO/NC programmable
- Transmission of process value and parametrization via IO-link

<b>Type code</b>	RU40U-EM18E-LIU2PN8X2T-H1151/3GD
<b>Ident-No.</b>	1610071
<b>Pass speed</b>	≤ 1.5 m/s
<b>Repeatability</b>	≤ 0.15 % of full scale
<b>Edge lengths of the nominal actuator</b>	20 mm
<b>Hysteresis</b>	≤ 5 mm
<b>Ambient temperature</b>	-25...+70 °C
<b>Storage temperature</b>	-40...+80°C
<b>Operating voltage</b>	15... 30VDC
<b>Residual ripple</b>	≤ 10 % U <sub>in</sub>
<b>DC rated operational current</b>	≤ 150 mA
<b>No-load current I<sub>0</sub></b>	≤ 50 mA
<b>Short-circuit protection</b>	yes/ cyclic
<b>Voltage drop at I<sub>0</sub></b>	≤ 2.5 V
<b>Wire breakage / Reverse polarity protection</b>	yes/ yes
<b>Output function</b>	5-wire, NO/NC , PNP/NPN, Analog output, IO-Link
<b>Output 1</b>	Switching output or IO-Link mode
<b>Voltage output</b>	0...10VDC
<b>Current output</b>	4...20mA
<b>Readiness delay</b>	≤ 300 ms
<b>IO-Link</b>	
<b>IO-Link Specification</b>	V 1.1
<b>IO-Link port type</b>	class A
<b>Communication Mode</b>	COM 2 (38.4 kBaud)
<b>Process data width</b>	16 bit
<b>Measured value information</b>	15 bit
<b>Switchpoint information</b>	1 bit
<b>Status bit information</b>	0 bit
<b>Frame type</b>	2.2
<b>Minimum cycle time</b>	2 ms
<b>Function Pin 4</b>	IO-Link
<b>Function Pin 2</b>	DI
<b>Maximum cable length</b>	20 m
<b>Profilunterstützung</b>	Smart Sensor Profil
<b>Construction</b>	Threaded barrel, M18
<b>Dimensions</b>	90 mm
<b>Housing material</b>	Stainless steel 1.4404 (AISI 316L)
<b>Electrical connection</b>	Flange connector, M12 x 1
<b>Protection class</b>	IP67
<b>MTTF</b>	202 years acc. to SN 29500 (Ed. 99) 40 °C
<b>Switching state</b>	LED yellow

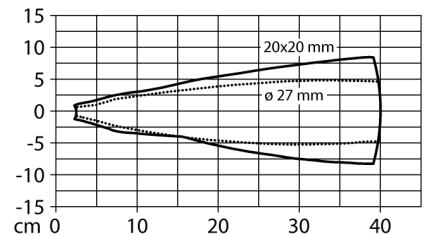
**Wiring Diagram**



**Functional principle**

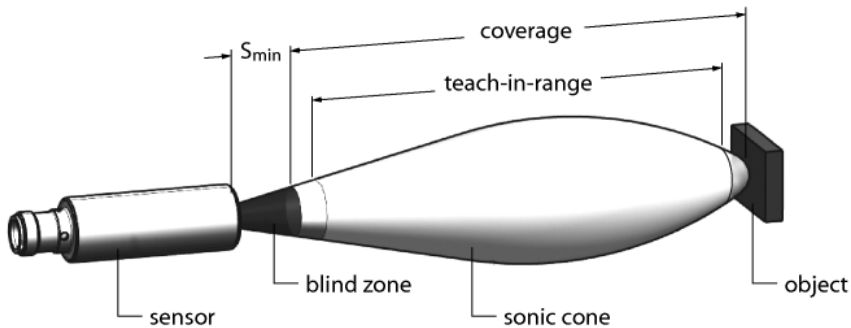
Ultrasonic sensors capture a multitude of objects contactless and wear-free with ultrasonic waves. It does not matter whether the object is transparent or opaque, metallic or non-metallic, firm, liquid or powdery. Even environmental conditions such as spray, dust or rain hardly affect their function.

**Sonic Cone**



# Ultrasonic sensor diffuse mode sensor RU40U-EM18E-LIU2PN8X2T-H1151/3GD

## Mounting instructions / Description



### Settings

The ultrasonic sensor can be parametrized in such a way that you can either set a measuring range via an analog and a switching output, or a switching range via two switching outputs. These settings are done with the Easy-Teach adapter or with the buttons at the sensor. Object presence is signalled by the green and yellow LED.

Two limiting values are taught. They mark the end-points of a measuring window and may be selected freely within the overall detection range.

### Via Easy-Teach adapter

- Connect the teach adapter TX1-Q20L60 between sensor and connection cable
- For the first limit value, place object accordingly
- Press and hold button for at least 2 to 7 s against Ub
- For the second limit value, place object accordingly
- Press and hold button for at least 2 to 7 s against Gnd

### Via buttons

- For the first limit value, place object accordingly
- Press and hold button 1 for at least 2 to 7 s
- For the second limit value, place object accordingly
- Press and hold button 2 for at least 2 to 7 s

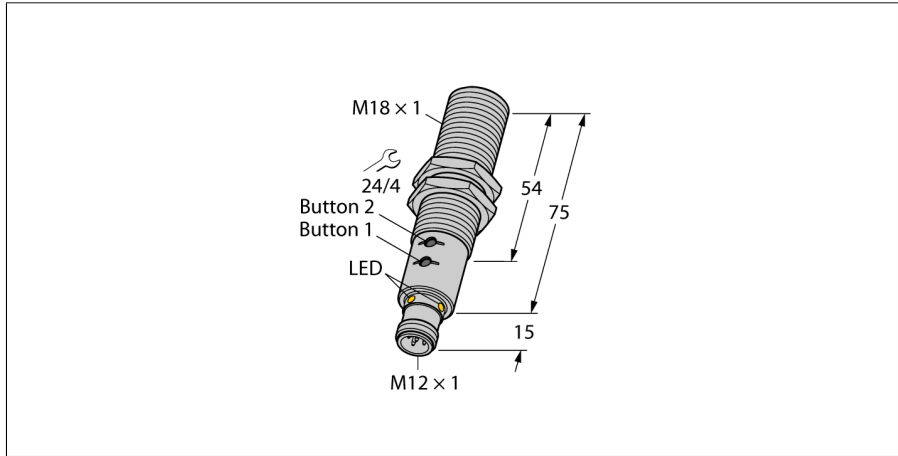
After successful teach-in the sensor starts running automatically in standard operating mode. Unsuccessful teach-in is signalled by the LED flashing slowly at a frequency of 5 Hz.

### LED response

In standard operating mode both LEDs signal the switching states of the sensor.

- green: Object is in the detection range but not in the measuring range
- yellow: Object is in the measuring range
- off: Object is outside the detection range

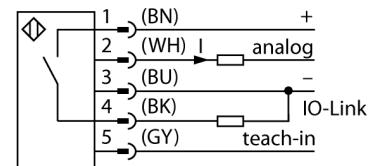
**Ultrasonic sensor**  
**diffuse mode sensor**  
**RU130U-EM18E-LIU2PN8X2T-H1151/3GD**



<b>Type code</b>	RU130U-EM18E-LIU2PN8X2T-H1151/3GD
<b>Ident-No.</b>	1610072
<b>Pass speed</b>	≤ 1.5 m/s
<b>Repeatability</b>	≤ 0.15 % of full scale
<b>Edge lengths of the nominal actuator</b>	100 mm
<b>Hysteresis</b>	≤ 10 mm
<b>Ambient temperature</b>	-25...+70 °C
<b>Storage temperature</b>	-40...+80°C
<b>Operating voltage</b>	15... 30VDC
<b>Residual ripple</b>	≤ 10 % U <sub>in</sub>
<b>DC rated operational current</b>	≤ 150 mA
<b>No-load current I<sub>0</sub></b>	≤ 50 mA
<b>Short-circuit protection</b>	yes/ cyclic
<b>Voltage drop at I<sub>0</sub></b>	≤ 2.5 V
<b>Wire breakage / Reverse polarity protection</b>	yes/ yes
<b>Output function</b>	5-wire, NO/NC , PNP/NPN, Analog output, IO-Link
<b>Output 1</b>	Switching output or IO-Link mode
<b>Voltage output</b>	0...10VDC
<b>Current output</b>	4...20mA
<b>Readiness delay</b>	≤ 300 ms
<b>IO-Link</b>	
<b>IO-Link Specification</b>	V 1.1
<b>IO-Link port type</b>	class A
<b>Communication Mode</b>	COM 2 (38.4 kBaud)
<b>Process data width</b>	16 bit
<b>Measured value information</b>	15 bit
<b>Switchpoint information</b>	1 bit
<b>Status bit information</b>	0 bit
<b>Frame type</b>	2.2
<b>Minimum cycle time</b>	2 ms
<b>Function Pin 4</b>	IO-Link
<b>Function Pin 2</b>	DI
<b>Maximum cable length</b>	20 m
<b>Profilunterstützung</b>	Smart Sensor Profil
<b>Construction</b>	Threaded barrel, M18
<b>Dimensions</b>	90 mm
<b>Housing material</b>	Stainless steel 1.4404 (AISI 316L)
<b>Electrical connection</b>	Flange connector, M12 x 1
<b>Protection class</b>	IP67
<b>MTTF</b>	202 years acc. to SN 29500 (Ed. 99) 40 °C
<b>Switching state</b>	LED yellow

- ATEX II 3 G approval
- Gases and vapors IIC group, zone 2
- IIC group, zone 22, dusts
- When used in hazardous areas, the special conditions of the approval must be observed
- Smooth sonic transducer face
- Cylindrical housing M18, potted
- Connection via M12 x 1 male
- Teach range adjustable via pushbutton or adapter
- Temperature compensation
- Blind zone: 15 cm
- Range: 130 cm
- Resolution: 1 mm
- Sonic cone angle: 16°
- 1 x switching output, PNP/NPN
- 1 x analog output, 4...20 mA / 0...10V / additional switching output, PNP/NPN
- NO/NC programmable
- Transmission of process value and parametrization via IO-link

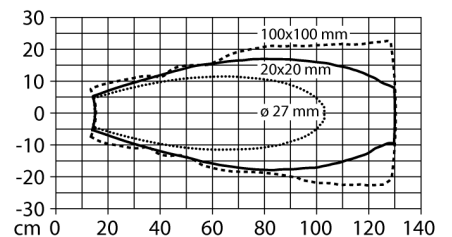
**Wiring Diagram**



**Functional principle**

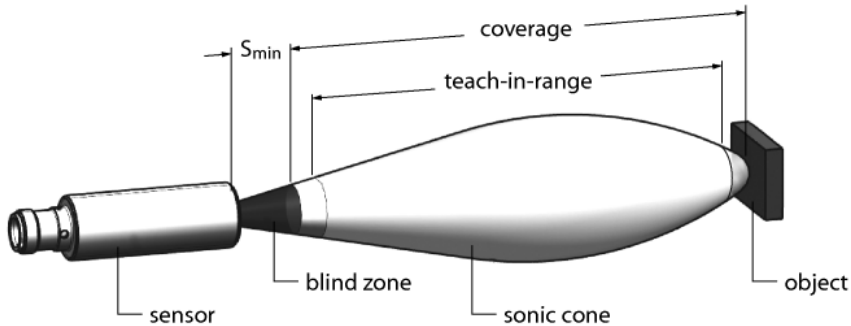
Ultrasonic sensors capture a multitude of objects contactless and wear-free with ultrasonic waves. It does not matter whether the object is transparent or opaque, metallic or non-metallic, firm, liquid or powdery. Even environmental conditions such as spray, dust or rain hardly affect their function.

**Sonic Cone**



# Ultrasonic sensor diffuse mode sensor RU130U-EM18E-LIU2PN8X2T-H1151/3GD

## Mounting instructions / Description



### Settings

The ultrasonic sensor can be parametrized in such a way that you can either set a measuring range via an analog and a switching output, or a switching range via two switching outputs. These settings are done with the Easy-Teach adapter or with the buttons at the sensor. Object presence is signalled by the green and yellow LED.

Two limiting values are taught. They mark the end-points of a measuring window and may be selected freely within the overall detection range.

### Via Easy-Teach adapter

- Connect the teach adapter TX1-Q20L60 between sensor and connection cable
- For the first limit value, place object accordingly
- Press and hold button for at least 2 to 7 s against Ub
- For the second limit value, place object accordingly
- Press and hold button for at least 2 to 7 s against Gnd

### Via buttons

- For the first limit value, place object accordingly
- Press and hold button 1 for at least 2 to 7 s
- For the second limit value, place object accordingly
- Press and hold button 2 for at least 2 to 7 s

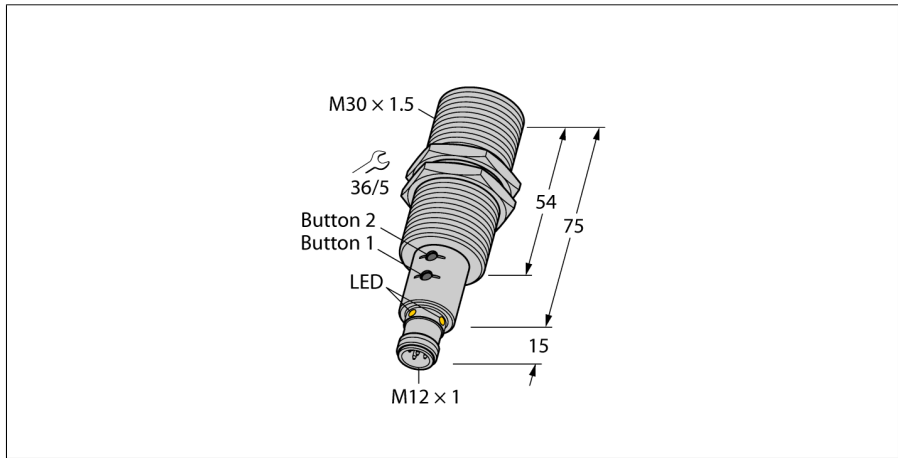
After successful teach-in the sensor starts running automatically in standard operating mode. Unsuccessful teach-in is signalled by the LED flashing slowly at a frequency of 5 Hz.

### LED response

In standard operating mode both LEDs signal the switching states of the sensor.

- green: Object is in the detection range but not in the measuring range
- yellow: Object is in the measuring range
- off: Object is outside the detection range

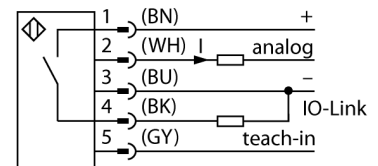
**Ultrasonic sensor**  
**diffuse mode sensor**  
**RU130U-EM30E-LIU2PN8X2T-H1151/3GD**



- ATEX II 3 G approval
- Gases and vapors IIC group, zone 2
- IIC group, zone 22, dusts
- When used in hazardous areas, the special conditions of the approval must be observed
- Smooth sonic transducer face
- Cylindrical housing M30, potted
- Connection via M12 x 1 male
- Measuring range adjustable via teach button/Easy-Teach
- Temperature compensation
- Blind zone: 15 cm
- Range: 130 cm
- Resolution: 1 mm
- Sonic cone angle: 16°
- 1 x switching output, PNP/NPN
- 1 x analog output, 4...20 mA / 0...10V / additional switching output, PNP/NPN
- NO/NC programmable
- Transmission of process value and parametrization via IO-link

<b>Type code</b>	RU130U-EM30E-LIU2PN8X2T-H1151/3GD
<b>Ident-No.</b>	1610073
<b>Pass speed</b>	≤ 1.5 m/s
<b>Repeatability</b>	≤ 0.15 % of full scale
<b>Edge lengths of the nominal actuator</b>	100 mm
<b>Hysteresis</b>	≤ 10 mm
<b>Ambient temperature</b>	-25...+70 °C
<b>Storage temperature</b>	-40...+80°C
<b>Operating voltage</b>	15... 30VDC
<b>Residual ripple</b>	≤ 10 % U <sub>in</sub>
<b>DC rated operational current</b>	≤ 150 mA
<b>No-load current I<sub>0</sub></b>	≤ 50 mA
<b>Short-circuit protection</b>	yes/ cyclic
<b>Voltage drop at I<sub>0</sub></b>	≤ 2.5 V
<b>Wire breakage / Reverse polarity protection</b>	yes/ yes
<b>Output function</b>	5-wire, NO/NC , PNP/NPN, Analog output, IO-Link
<b>Output 1</b>	Switching output or IO-Link mode
<b>Voltage output</b>	0...10VDC
<b>Current output</b>	4...20mA
<b>Readiness delay</b>	≤ 300 ms
<b>IO-Link</b>	
<b>IO-Link Specification</b>	V 1.1
<b>IO-Link port type</b>	class A
<b>Communication Mode</b>	COM 2 (38.4 kBaud)
<b>Process data width</b>	16 bit
<b>Measured value information</b>	15 bit
<b>Switchpoint information</b>	1 bit
<b>Status bit information</b>	0 bit
<b>Frame type</b>	2.2
<b>Minimum cycle time</b>	2 ms
<b>Function Pin 4</b>	IO-Link
<b>Function Pin 2</b>	DI
<b>Maximum cable length</b>	20 m
<b>Profilunterstützung</b>	Smart Sensor Profil
<b>Construction</b>	Threaded barrel, M30
<b>Dimensions</b>	89 mm
<b>Housing material</b>	Stainless steel 1.4404 (AISI 316L)
<b>Electrical connection</b>	Flange connector, M12 x 1
<b>Protection class</b>	IP67
<b>MTTF</b>	202 years acc. to SN 29500 (Ed. 99) 40 °C
<b>Switching state</b>	LED yellow

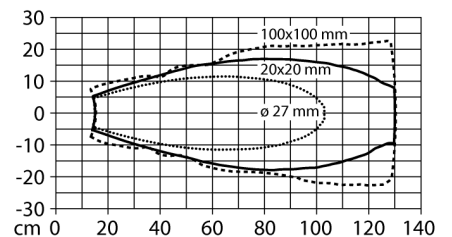
**Wiring Diagram**



**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**

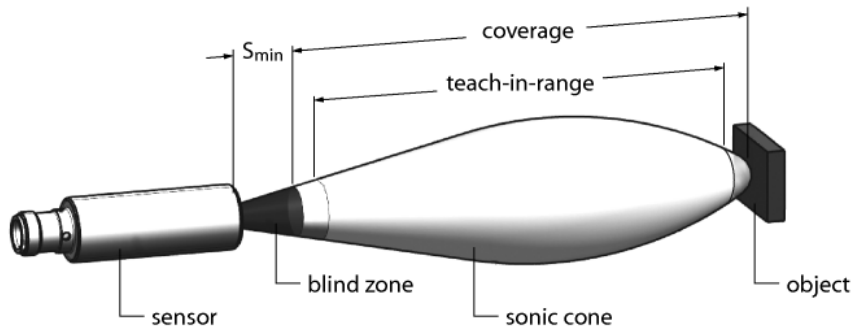


# Ultrasonic sensor

## diffuse mode sensor

### RU130U-EM30E-LIU2PN8X2T-H1151/3GD

#### Mounting instructions / Description



#### Settings

The ultrasonic sensor can be parametrized in such a way that you can either set a measuring range via an analog and a switching output, or a switching range via two switching outputs. These settings are done with the Easy-Teach adapter or with the buttons at the sensor. Object presence is signalled by the green and yellow LED.

Two limiting values are taught. They mark the end-points of a measuring window and may be selected freely within the overall detection range.

#### Via Easy-Teach adapter

- Connect the teach adapter TX1-Q20L60 between sensor and connection cable
- For the first limit value, place object accordingly
- Press and hold button for at least 2 to 7 s against Ub
- For the second limit value, place object accordingly
- Press and hold button for at least 2 to 7 s against Gnd

#### Via buttons

- For the first limit value, place object accordingly
- Press and hold button 1 for at least 2 to 7 s
- For the second limit value, place object accordingly
- Press and hold button 2 for at least 2 to 7 s

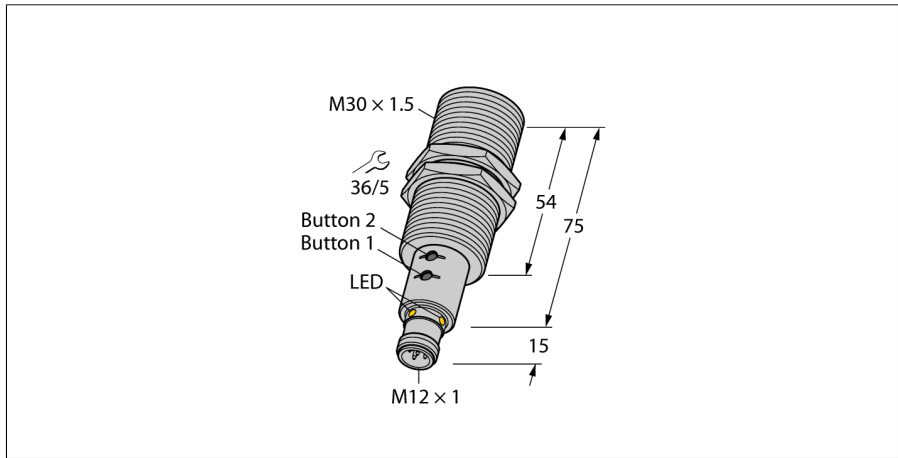
After successful teach-in the sensor starts running automatically in standard operating mode. Unsuccessful teach-in is signalled by the LED flashing slowly at a frequency of 5 Hz.

#### LED response

In standard operating mode both LEDs signal the switching states of the sensor.

- green: Object is in the detection range but not in the measuring range
- yellow: Object is in the measuring range
- off: Object is outside the detection range

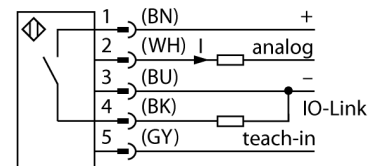
**Ultrasonic sensor**  
**diffuse mode sensor**  
**RU300U-EM30E-LIU2PN8X2T-H1151/3GD**



- ATEX II 3 G approval
- Gases and vapors IIC group, zone 2
- IIC group, zone 22, dusts
- When used in hazardous areas, the special conditions of the approval must be observed
- Smooth sonic transducer face
- Cylindrical housing M30, potted
- Connection via M12 x 1 male
- Measuring range adjustable via teach button/Easy-Teach
- Temperature compensation
- Blind zone: 30 cm
- Range: 300 cm
- Resolution: 1 mm
- Sonic cone angle: 15°
- 1 x switching output, PNP/NPN
- 1 x analog output, 4...20 mA / 0...10V / additional switching output, PNP/NPN
- NO/NC programmable
- Transmission of process value and parametrization via IO-link

<b>Type code</b>	RU300U-EM30E-LIU2PN8X2T-H1151/3GD
<b>Ident-No.</b>	1610074
<b>Pass speed</b>	≤ 1.5 m/s
<b>Repeatability</b>	≤ 0.15 % of full scale
<b>Edge lengths of the nominal actuator</b>	100 mm
<b>Hysteresis</b>	≤ 25 mm
<b>Ambient temperature</b>	-25...+70 °C
<b>Storage temperature</b>	-40...+80°C
<b>Operating voltage</b>	15... 30VDC
<b>Residual ripple</b>	≤ 10 % U <sub>in</sub>
<b>DC rated operational current</b>	≤ 150 mA
<b>No-load current I<sub>0</sub></b>	≤ 50 mA
<b>Short-circuit protection</b>	yes/ cyclic
<b>Voltage drop at I<sub>0</sub></b>	≤ 2.5 V
<b>Wire breakage / Reverse polarity protection</b>	yes/ yes
<b>Output function</b>	5-wire, NO/NC , PNP/NPN, Analog output, IO-Link
<b>Output 1</b>	Switching output or IO-Link mode
<b>Voltage output</b>	0...10VDC
<b>Current output</b>	4...20mA
<b>Readiness delay</b>	≤ 300 ms
<b>IO-Link</b>	
<b>IO-Link Specification</b>	V 1.1
<b>IO-Link port type</b>	class A
<b>Communication Mode</b>	COM 2 (38.4 kBaud)
<b>Process data width</b>	16 bit
<b>Measured value information</b>	15 bit
<b>Switchpoint information</b>	1 bit
<b>Status bit information</b>	0 bit
<b>Frame type</b>	2.2
<b>Minimum cycle time</b>	2 ms
<b>Function Pin 4</b>	IO-Link
<b>Function Pin 2</b>	DI
<b>Maximum cable length</b>	20 m
<b>Profilunterstützung</b>	Smart Sensor Profil
<b>Construction</b>	Threaded barrel, M30
<b>Dimensions</b>	89 mm
<b>Housing material</b>	Stainless steel 1.4404 (AISI 316L)
<b>Electrical connection</b>	Flange connector, M12 x 1
<b>Protection class</b>	IP67
<b>MTTF</b>	191 years acc. to SN 29500 (Ed. 99) 40 °C
<b>Switching state</b>	LED yellow

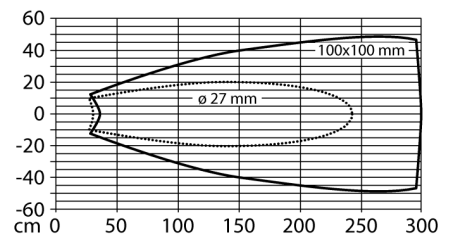
**Wiring Diagram**



**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.

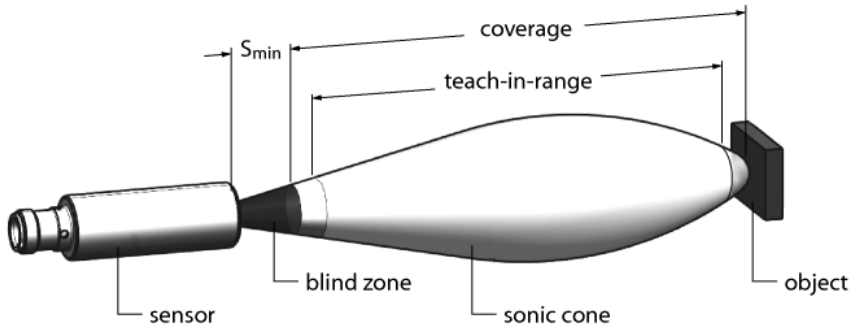
**Sonic Cone**





# Ultrasonic sensor diffuse mode sensor RU300U-EM30E-LIU2PN8X2T-H1151/3GD

## Mounting instructions / Description



### Settings

The ultrasonic sensor can be parametrized in such a way that you can either set a measuring range via an analog and a switching output, or a switching range via two switching outputs. These settings are done with the Easy-Teach adapter or with the buttons at the sensor. Object presence is signalled by the green and yellow LED.

Two limiting values are taught. They mark the end-points of a measuring window and may be selected freely within the overall detection range.

### Via Easy-Teach adapter

- Connect the teach adapter TX1-Q20L60 between sensor and connection cable
- For the first limit value, place object accordingly
- Press and hold button for at least 2 to 7 s against Ub
- For the second limit value, place object accordingly
- Press and hold button for at least 2 to 7 s against Gnd

### Via buttons

- For the first limit value, place object accordingly
- Press and hold button 1 for at least 2 to 7 s
- For the second limit value, place object accordingly
- Press and hold button 2 for at least 2 to 7 s

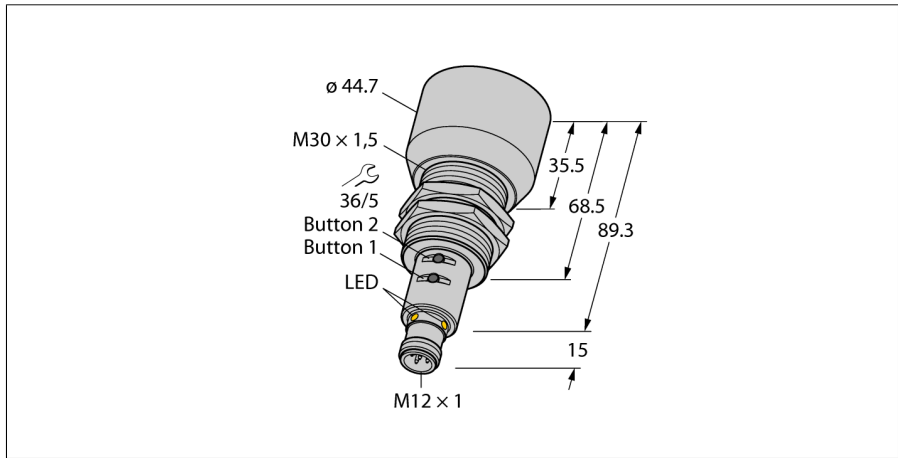
After successful teach-in the sensor starts running automatically in standard operating mode. Unsuccessful teach-in is signalled by the LED flashing slowly at a frequency of 5 Hz.

### LED response

In standard operating mode both LEDs signal the switching states of the sensor.

- green: Object is in the detection range but not in the measuring range
- yellow: Object is in the measuring range
- off: Object is outside the detection range

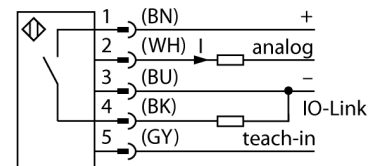
**Ultrasonic sensor**  
**diffuse mode sensor**  
**RU600U-EM30E-LIU2PN8X2T-H1151/3GD**



- ATEX II 3 G approval
- Gases and vapors IIC group, zone 2
- IIIC group, zone 22, dusts
- When used in hazardous areas, the special conditions of the approval must be observed
- Smooth sonic transducer face
- Cylindrical housing M30, potted
- Connection via M12 x 1 male
- Measuring range adjustable via teach button/Easy-Teach
- Temperature compensation
- Blind zone: 60 cm
- Range: 600 cm
- Resolution: 1 mm
- Sonic cone angle: 15°
- 1 x switching output, PNP/NPN
- 1 x analog output, 4...20 mA / 0...10V / additional switching output, PNP/NPN
- NO/NC programmable
- Transmission of process value and parametrization via IO-link

<b>Type code</b>	RU600U-EM30E-LIU2PN8X2T-H1151/3GD
<b>Ident-No.</b>	1610075
<b>Pass speed</b>	≤ 3 m/s
<b>Repeatability</b>	≤ 0.15 % of full scale
<b>Edge lengths of the nominal actuator</b>	100 mm
<b>Hysteresis</b>	≤ 50 mm
<b>Ambient temperature</b>	-25...+50 °C
<b>Storage temperature</b>	-40...+80°C
<b>Operating voltage</b>	15... 30VDC
<b>Residual ripple</b>	≤ 10 % U <sub>in</sub>
<b>DC rated operational current</b>	≤ 150 mA
<b>No-load current I<sub>0</sub></b>	≤ 50 mA
<b>Short-circuit protection</b>	yes/ cyclic
<b>Voltage drop at I<sub>0</sub></b>	≤ 2.5 V
<b>Wire breakage / Reverse polarity protection</b>	yes/ yes
<b>Output function</b>	5-wire, NO/NC , PNP/NPN, Analog output, IO-Link
<b>Output 1</b>	Switching output or IO-Link mode
<b>Voltage output</b>	0...10VDC
<b>Current output</b>	4...20mA
<b>Readiness delay</b>	≤ 300 ms
<b>IO-Link</b>	
<b>IO-Link Specification</b>	V 1.1
<b>IO-Link port type</b>	class A
<b>Communication Mode</b>	COM 2 (38.4 kBaud)
<b>Process data width</b>	16 bit
<b>Measured value information</b>	15 bit
<b>Switchpoint information</b>	1 bit
<b>Status bit information</b>	0 bit
<b>Frame type</b>	2.2
<b>Minimum cycle time</b>	2 ms
<b>Function Pin 4</b>	IO-Link
<b>Function Pin 2</b>	DI
<b>Maximum cable length</b>	20 m
<b>Profilunterstützung</b>	Smart Sensor Profil
<b>Construction</b>	Threaded barrel, M30
<b>Dimensions</b>	104.3 mm
<b>Housing material</b>	Stainless steel 1.4404 (AISI 316L)
<b>Electrical connection</b>	Flange connector, M12 x 1
<b>Protection class</b>	IP67
<b>MTTF</b>	193 years acc. to SN 29500 (Ed. 99) 40 °C
<b>Switching state</b>	LED yellow

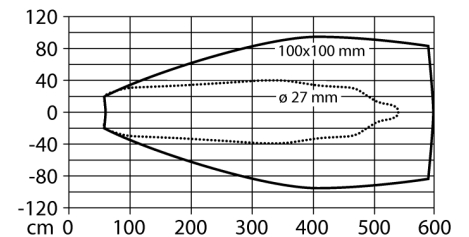
**Wiring Diagram**



**Functional principle**

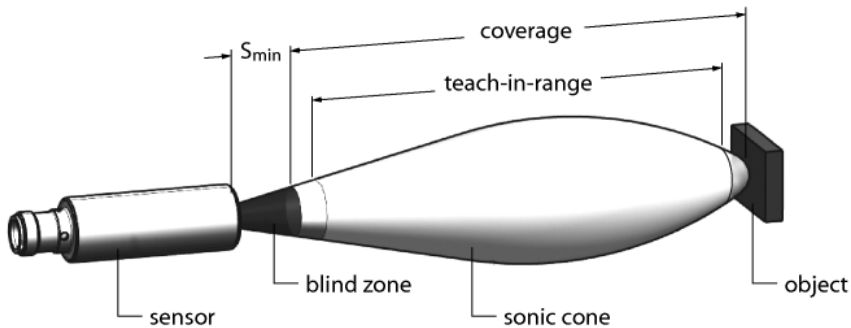
Ultrasonic sensors capture a multitude of objects contactless and wear-free with ultrasonic waves. It does not matter whether the object is transparent or opaque, metallic or non-metallic, firm, liquid or powdery. Even environmental conditions such as spray, dust or rain hardly affect their function.

**Sonic Cone**



# Ultrasonic sensor diffuse mode sensor RU600U-EM30E-LIU2PN8X2T-H1151/3GD

## Mounting instructions / Description



### Settings

The ultrasonic sensor can be parametrized in such a way that you can either set a measuring range via an analog and a switching output, or a switching range via two switching outputs. These settings are done with the Easy-Teach adapter or with the buttons at the sensor. Object presence is signalled by the green and yellow LED.

Two limiting values are taught. They mark the end-points of a measuring window and may be selected freely within the overall detection range.

### Via Easy-Teach adapter

- Connect the teach adapter TX1-Q20L60 between sensor and connection cable
- For the first limit value, place object accordingly
- Press and hold button for at least 2 to 7 s against Ub
- For the second limit value, place object accordingly
- Press and hold button for at least 2 to 7 s against Gnd

### Via buttons

- For the first limit value, place object accordingly
- Press and hold button 1 for at least 2 to 7 s
- For the second limit value, place object accordingly
- Press and hold button 2 for at least 2 to 7 s

After successful teach-in the sensor starts running automatically in standard operating mode. Unsuccessful teach-in is signalled by the LED flashing slowly at a frequency of 5 Hz.

### LED response

In standard operating mode both LEDs signal the switching states of the sensor.

- green: Object is in the detection range but not in the measuring range
- yellow: Object is in the measuring range
- off: Object is outside the detection range