

# Miniature Sensors – Cylindrical Design



The smallest ultrasonic sensors in the M8 threaded housing are available in four versions, as screens or barriers, each with PNP or NPN interfaces. The sensors have a range of 100 millimeters and a blind zone of only 20 millimeters.

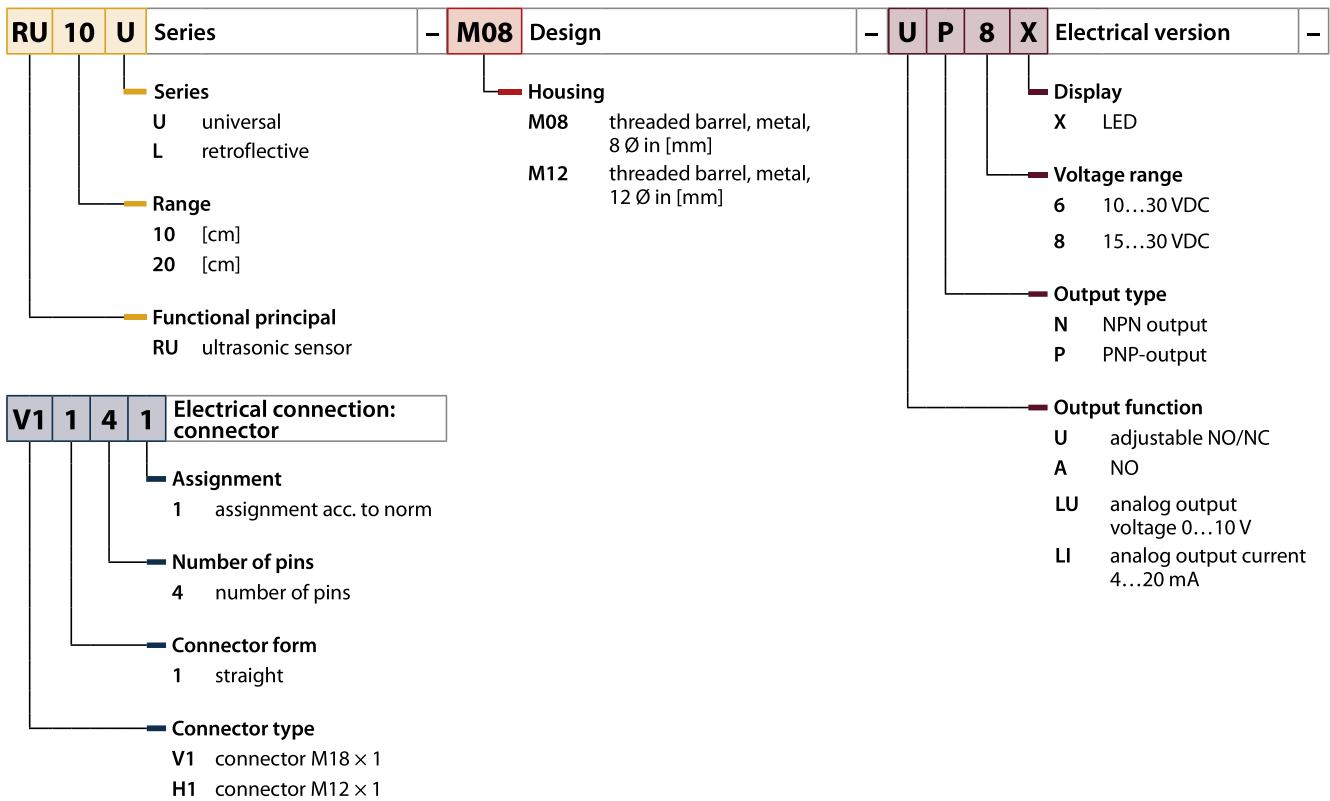
The ultrasonic sensors in the M12 threaded housing are available in six variants, four types with analog output and two variants with switching output. The ultrasonic sensors with switching output also have integrated IO-Link functionality. The sensors have a range of 200 or 400 millimeters, the blind zones are small in both cases and are just 20 or 40 millimeters.

## Features


- Large measuring range
- Short blind zone
- Robust mechanics thanks to metal housing and metal plug
- Use in confined environments
- IO-Link
- Teach-Function via PIN 2 or PIN 4

## Type Code

**RU 10 U - M08 - U P 8 X - V1 1 4 1**




## Miniature sensor M8 – Diffuse Mode/Mode – Switching

General data				
	<b>Operating voltage</b>	18...30 VDC	<b>Transducer material</b>	Plastic, epoxy resin and PU-foam
	<b>DC rated operating current</b>	≤ 150 mA	<b>Connection</b>	Connector M8 x 1
	<b>Ambient temperature</b>	0...+50 °C	<b>Protection class</b>	IP67
	<b>Housing material</b>	Metal, CuZn, nickel-plated	<b>Temperature drift</b>	± 1.5 % of full scale

**Types and Data – Selection table**

Type	Ident. no.	Operating mode	Output function
RU10U-M08-UP8X-V1141	100003157	Diffuse	PNP, IO-Link
RU10U-M08-UN8X-V1141	100003158	Diffuse	NPN, IO-Link
RU10L-M08-UP8X-V1141	100003159	Retroreflective	PNP, IO-Link
RU10L-M08-UN8X-V1141	100003160	Retroreflective	NPN, IO-Link

## Miniature sensor M12 –Diffuse Mode – Switching

General data				
	<b>Operating mode</b>	Ultrasonic diffuse mode	<b>Transducer material</b>	Plastic, epoxy resin and PU-foam
	<b>Operating voltage</b>	10...30 VDC (AP) 15...30 VDC (LI/LU)	<b>Connection</b>	Connector, M12 x 1
	<b>DC rated operating current</b>	≤ 150 mA	<b>Protection class</b>	IP67
	<b>Ambient temperature</b>	10...+60 °C	<b>Temperature drift</b>	± 1.5 % of full scale
	<b>Housing material</b>	Metall, CuZn, nickel-plated		

**Types and Data – Selection table**

Type	Ident. no.	Range [cm]	Output function
RU20U-M12-AP6X2-H1141	100000278	2...20	PNP, IO-Link
RU40U-M12-AP6X2-H1141	100000279	2.5...40	PNP, IO-Link
RU20U-M12-LI8X2-H1141	100000280	2...20	4...20 mA
RU40U-M12-LI8X2-H1141	100000281	2.5...40	4...20 mA
RU20U-M12-LU8X2-H1141	100000282	2...20	0...10 V
RU40U-M12-LU8X2-H1141	100000283	2.5...40	0...10 V

# ECO Series – Cylindrical Design



Based on state-of-the-art transducer technology, a new ultrasonic sensor has been developed which, despite its economy orientation, does not compromise on quality.

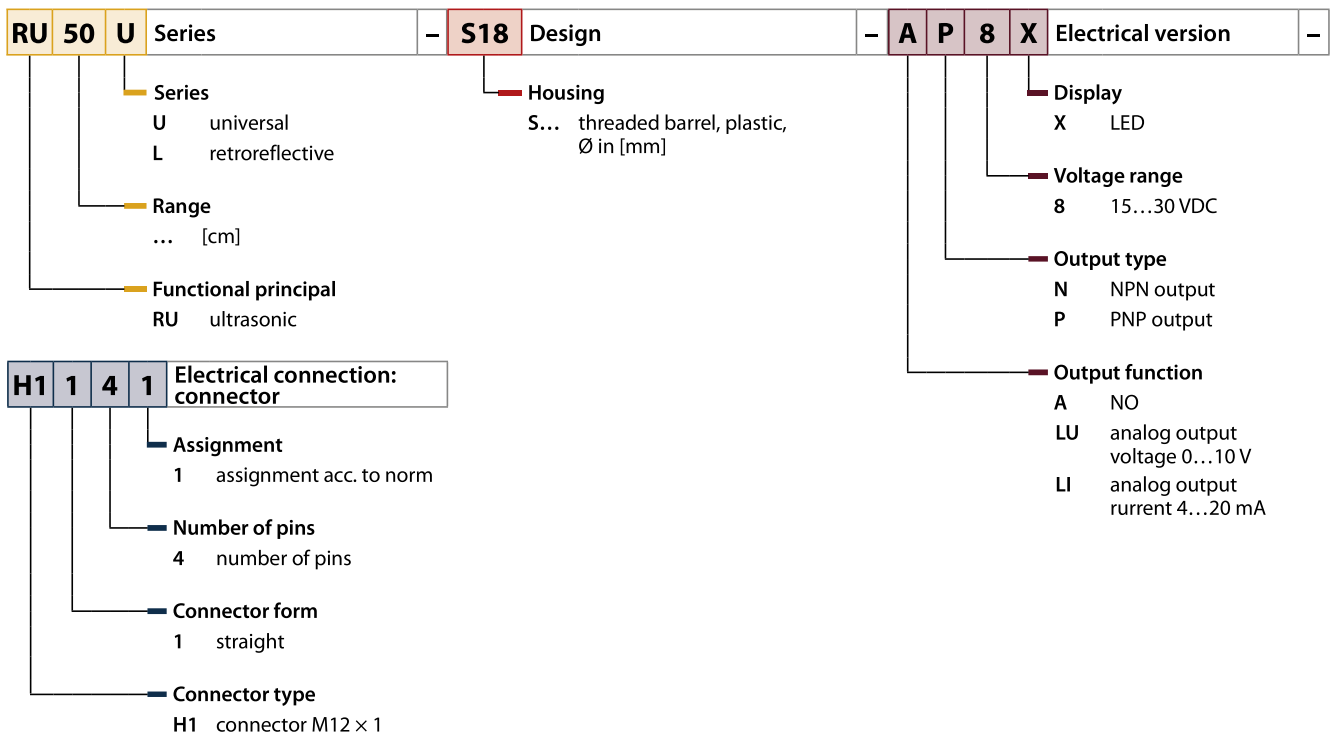
The devices in the plastic threaded barrel are made of highly resistant liquid crystal polymer (LCP), the translucent end cap with M12 connector output is made of Ultem. The customer can choose between a variant with M12 connector output and a variant with cable output. The translucent end cap also has the advantage that the switching status of the sensor can be clearly seen from almost any angle.

## Features

- Optimum price/performance ratio
- Simple to use
- Robust sensors in plastic housing with integrated LED display
- Analog or switching output
- Teach-Function via PIN 2 or PIN 4

## Type code

**RU 50 U - S18 - A P 8 X - H1 1 4 1**



## ECO Series – S18 – Diffuse Mode/Mode-Switching/Measuring



General data			
<b>Operating voltage</b>	15...30 VDC	<b>Transducer material</b>	Plastic, epoxy resin and PU-foam
<b>DC rated operating current</b>	≤ 150 mA	<b>Protection class</b>	IP67
<b>Ambient temperature</b>	-20...+50 °C	<b>Temperature drift</b>	± 1.5 % of full scale
<b>Housing material</b>	Plastic, LCP		

**Types and Data – Selection table**

Type	Ident. no.	Output	Electrical connection	Operating mode
RU50U-S18-AP8X	100000394	Switching output PNP	Cable 2 m	Diffuse
RU50U-S18-AN8X	100000984	Switching output NPN	Cable 2 m	Diffuse
RU50U-S18-AP8X-H1141	100000746	Switching output PNP	Connector M12 x 1	Diffuse
RU50U-S18-AN8X-H1141	100000983	Switching output NPN	Connector M12 x 1	Diffuse
RU50L-S18-AP8X	100002165	Switching output PNP	Cable 2 m	Retroreflective
RU50L-S18-AN8X	100002166	Switching output NPN	Cable 2 m	Retroreflective
RU50L-S18-AP8X-H1141	100002167	Switching output PNP	Connector M12 x 1	Retroreflective
RU50L-S18-AN8X-H1141	100002168	Switching output NPN	Connector M12 x 1	Retroreflective
RU50U-S18-LI8X	100000747	4...20 mA	Cable 2 m	Diffuse
RU50U-S18-LU8X	100000749	0...10 V	Cable 2 m	Diffuse
RU50U-S18-LI8X-H1141	100000748	4...20 mA	Connector M12 x 1	Diffuse
RU50U-S18-LU8X-H1141	100000750	0...10 V	Connector M12 x 1	Diffuse

# Compact Series – Cylindrical Design



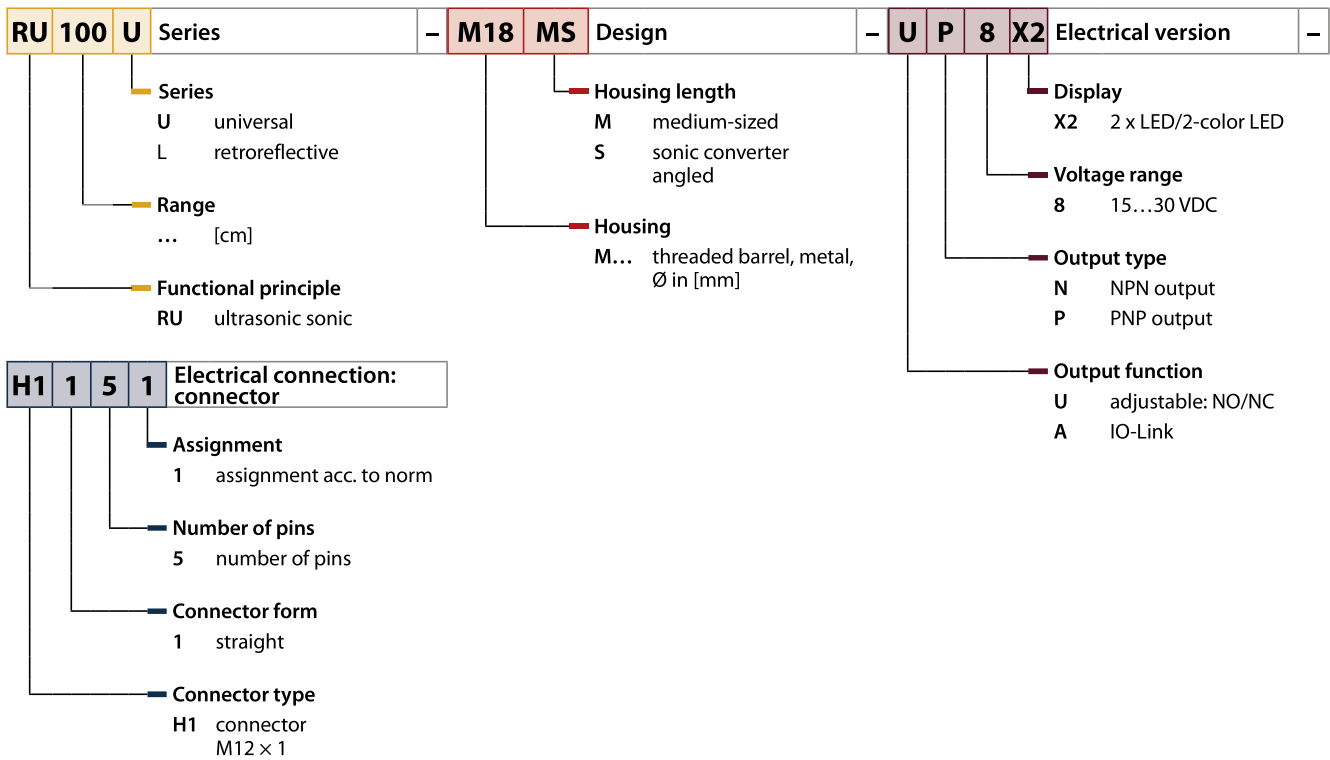
The very robust compact variant offers ranges up to 100 cm and is available in straight and angled design. The compact devices are especially suited for use in applications with restricted installation conditions. Little installation effort and high availability make commissioning and maintenance easier for the user.

## Features

- Large measuring range
- Short blind zone
- Robust mechanics thanks to metal housing and metal connector
- Front-flush diaphragm
- Easy teaching via pin 2 or pin 5
- Short design

## Type code

**RU 100 U - M18 MS - U P 8 X2 - H1 1 5 1**



## Compact Series – M18 – Diffuse Mode – Switching



General data			
<b>Operating mode</b>	Diffuse mode ultrasonic sensor	<b>Transducer material</b>	Plastic, Epoxyd resin and PU foam
<b>Operating voltage</b>	15... 30 VDC	<b>Connection</b>	connector, M12 x 1
<b>DC rated operational current</b>	≤ 150 mA	<b>Protection class</b>	IP67
<b>Configuration</b>	via pin 2 or pin 5	<b>Ambient temperature</b>	-25 ... +70 °C
<b>Output 1</b>	Switching output	<b>Temperature drift</b>	± 1.5 % of full scale
<b>Housing material</b>	Metal, CuZn, nickel-plated		

## Types and Data – Selection table

Type	Ident no.	Range [cm]	Output function	Radiation direction
RU40U-M18M-AP8X2-H1151	1610094	2.4 ... 40	PNP, IO-Link	straight
RU40U-M18MS-AP8X2-H1151	1610105	2.4 ... 40	PNP, IO-Link	side
RU40U-M18M-UP8X2-H1151	1610008	2.5 ... 40	PNP	straight
RU40U-M18MS-UP8X2-H1151	1610009	2.5 ... 40	PNP	side
RU40U-M18M-UN8X2-H1151	1610080	2.5 ... 40	NPN	straight
RU40U-M18MS-UN8X2-H1151	1610082	2.5 ... 40	NPN	side
RU100U-M18M-AP8X2-H1151	1610095	15 ... 100	PNP, IO-Link	straight
RU100U-M18MS-AP8X2-H1151	1610106	15 ... 100	PNP, IO-Link	side
RU100U-M18M-UP8X2-H1151	1610010	15 ... 100	PNP	straight
RU100U-M18MS-UP8X2-H1151	1610011	15 ... 100	PNP	side
RU100U-M18M-UN8X2-H1151	1610081	15 ... 100	NPN	straight
RU100U-M18MS-UN8X2-H1151	1610083	15 ... 100	NPN	side

Compact Series – M18 – Retroreflective – Switching



**General data**

<b>Operating mode</b>	Retroreflective ultrasonic sensor	<b>Transducer material</b>	Plastic, Epoxyd resin and PU foam
<b>Operating voltage</b>	15... 30 VDC	<b>Connection</b>	connector, M12 x 1
<b>DC rated operational current</b>	≤ 150 mA	<b>Protection class</b>	IP67
<b>Configuration</b>	via pin 2 or pin 5	<b>Ambient temperature</b>	-25 ...+70 °C
<b>Output 1</b>	Switching output	<b>Temperature drift</b>	± 1.5 % of full scale
<b>Housing material</b>	Metal, CuZn, nickel-plated		

**Types and Data – Selection table**

Type	Ident no.	Range [cm]	Output Function	Radiation direction
RU40L-M18M-UP8X2-H1151	1610076	2.5...40	PNP	straight
RU40L-M18MS-UP8X2-H1151	1610078	2.5...40	PNP	side
RU40L-M18M-UN8X2-H1151	1610084	2.5...40	NPN	straight
RU40L-M18MS-UN8X2-H1151	1610086	2.5...40	NPN	side
RU100L-M18M-UP8X2-H1151	1610077	15...100	PNP	straight
RU100L-M18MS-UP8X2-H1151	1610079	15...100	PNP	side
RU100L-M18M-UN8X2-H1151	1610085	15...100	NPN	straight

Type	Ident no.	Range [cm]	Output Function	Radiation direction
RU100L-M18MS-UN8X2-H1151	1610087	15...100	NPN	side

### Compact Series – M18 – Diffuse Mode – Measuring



General data			
<b>Operating mode</b>	Diffuse mode ultrasonic sensor	<b>Transducer material</b>	Plastic, Epoxyd resin and PU foam
<b>Operating voltage</b>	15... 30 VDC	<b>Connection</b>	connector, M12 x 1
<b>DC rated operational current</b>	≤ 150 mA	<b>Protection class</b>	IP67
<b>Configuration</b>	via pin 2 or pin 5	<b>Ambient temperature</b>	-25 ... +70 °C
<b>Output Function</b>	Frequency	<b>Temperature drift</b>	± 1.5 % of full scale
<b>Housing material</b>	Metal, CuZn, nickel-plated		

#### Types and Data – Selection table

Type	Ident no.	Range [cm]	Radiation direction
RU40U-M18M-LFX-H1151	1610021	2.5...40	straight
RU40U-M18MS-LFX-H1151	1610019	2.5...40	side
RU100U-M18M-LFX-H1151	1610022	15...100	straight
RU100U-M18MS-LFX-H1151	1610020	15...100	side



# Standard Series – Cylindrical Design with Analog Output



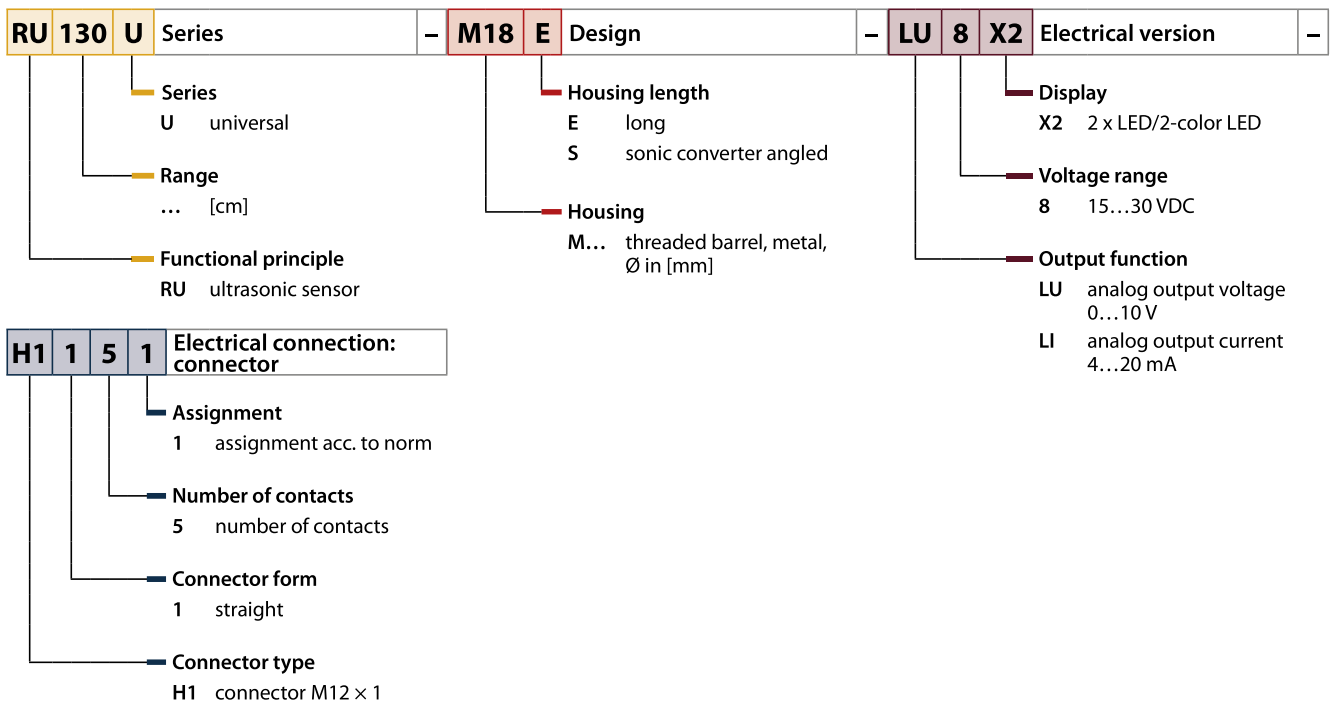
In addition to the analog output, this sensor offers a special switching output whose switching range always follows the set measuring range limits of the analog output. In the factory settings the sensor gives its output signal from 0...10 V or 4...20 mA over the entire measuring range. The measuring range can be set individually via a teach adapter or the controller. This also allows the switching point to be defined individually when used as a switch.

## Features

- Variant reduction through additional functions
- Standardized measuring output signal 4...20 mA or 0...10 V
- Variety of available ranges
- High availability due to rugged design

## Type code

**RU 130 U - M18 E - LU 8 X2 - H1 1 5 1**



## Standard Series –M18/M30 – Diffuse Mode – Measuring



General data			
<b>Operating mode</b>	Ultrasonic diffuse mode sensor	<b>Transducer material</b>	Plastic, epoxy resin and PU-foam
<b>Operating voltage</b>	15...30 VDC	<b>Electrical connection</b>	Connector, M12 x 1
<b>DC rated operating current</b>	≤ 150 mA	<b>Protection class</b>	IP67
<b>Ambient temperature</b>	-25...+70 °C	<b>Temperature drift</b>	± 1.5 % of full scale
<b>Housing material</b>	Metal, CuZn, nickel-plate		

## Standard analog

Type	Ident no.	Range	Output/AUX	Radiation direction
RU40U-M18E-LI8X2-H1151	1610069	2,5...40 cm	4...20 mA/PNP	straight
RU130U-M18E-LI8X2-H1151	1610089	15...130 cm	4...20 mA/PNP	
RU300U-M30E-LI8X2-H1151	1610099	30...300 cm	4...20 mA/PNP	
RU600U-M30E-LI8X2-H1151	1610100	60...600 cm	4...20 mA/PNP	side
RU40U-M18ES-LI8X2-H1151	1610097	2,5...40 cm	4...20 mA/PNP	
RU130U-M18ES-LI8X2-H1151	1610098	15...130 cm	4...20 mA/PNP	
RU40U-M18E-LU8X2-H1151	1610109	2,5...40 cm	0...10 V/PNP	straight
RU130U-M18E-LU8X2-H1151	1610110	15...130 cm	0...10 V/PNP	
RU300U-M30E-LU8X2-H1151	1610113	30...30 cm	0...10 V/PNP	
RU600U-M30E-LU8X2-H1151	1610114	60...600 cm	0...10 V/PNP	side
RU40U-M18ES-LU8X2-H1151	1610111	2,5...40 cm	0...10 V/PNP	
RU130U-M18ES-LU8X2-H1151	1610112	15...130 cm	0...10 V/PNP	

### RU40/130U

M18 gerade



### RU40/130U

M18 gewinkelt



### RU300U

M30



### RU600

M30



# Standard Series – Cylindrical Design



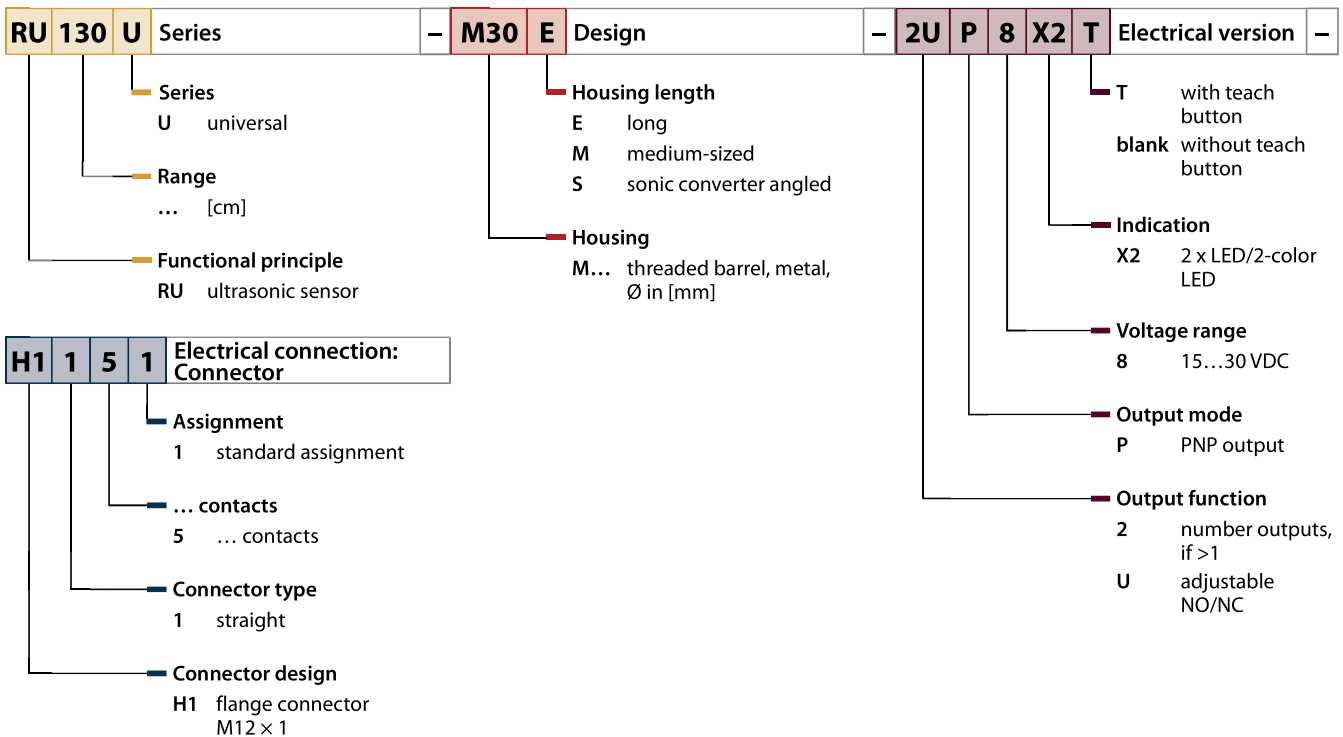
The standard variant is available as M18 and M30 versions and has two independently adjustable switching outputs. The switching outputs can either be parameterized via the external teaching adapter or directly on the sensor via the integrated button. Thanks to further setting options, the device can also be used as a retroreflective sensor or the hysteresis can be adapted to the application. The devices achieve ranges of up to 600 cm.

## Features

- Large measuring range
- Short blind zone
- Robust mechanics thanks to metal housing and metal connector
- Front-flush diaphragm
- Easy teaching via pin 5 or button
- Short design

## Type code

**RU 130 U - M30 E - 2U P 8 X2 T - H1 1 5 1**



## Standard Series – M18 – Universal – Switching



General data			
<b>Operating mode</b>	Diffuse mode ultrasonic sensor	<b>Transducer material</b>	Plastic, Epoxyd resin and PU foam
<b>Operating voltage</b>	15... 30 VDC	<b>Connection</b>	connector, M12 x 1
<b>DC rated operational current</b>	≤ 150 mA	<b>Protection class</b>	IP67
<b>Output 1</b>	Switching output	<b>Ambient temperature</b>	-25 ...+70 °C
<b>Output 2</b>	Switching output	<b>Temperature drift</b>	± 1.5 % of full scale
<b>Housing material</b>	Metal, CuZn, nickel-plated		

### Types and Data – Selection table

Type	Ident no.	Range [cm]	Configuration	Radiation direction
RU40U-M18E-2UP8X2-H1151	1610012	2.5...40	via pin 5	straight
RU40U-M18ES-2UP8X2-H1151	1610013	2.5...40	via pin 5	side
RU40U-M18E-2UP8X2T-H1151	1610016	2.5...40	via pin 5 or button	straight
RU130U-M18E-2UP8X2-H1151	1610014	15...130	via pin 5	straight
RU130U-M18ES-2UP8X2-H1151	1610015	15...130	via pin 5	side
RU130U-M18E-2UP8X2T-H1151	1610018	15...130	via pin 5 or button	straight

Switchable between diffuse mode and retroreflective mode

## Standard Series – M30 – Universal – Switching



General data			
<b>Operating mode</b>	Diffuse mode ultrasonic sensor	<b>Transducer material</b>	Plastic, Epoxyd resin and PU foam
<b>Operating voltage</b>	15... 30 VDC	<b>Connection</b>	connector, M12 x 1
<b>DC rated operational current</b>	≤ 150 mA	<b>Radiation direction</b>	straight
<b>Output 1</b>	Switching output	<b>Protection class</b>	IP67
<b>Output 2</b>	Switching output	<b>Temperature drift</b>	± 1.5 % of full scale
<b>Housing material</b>	Metal, CuZn, nickel-plated		

### Types and Data – Selection table

Type	Ident no.	Range [cm]	Configuration	Ambient temperature [°C]
RU40U-M30M-2UP8X2-H1151	1610032	2.5...40	via pin 5	-25 ...+70
RU130U-M30M-2UP8X2-H1151	1610034	15...130	via pin 5	-25 ...+70
RU130U-M30E-2UP8X2T-H1151	1610038	15...130	via pin 5 or button	-25 ...+70
RU300U-M30M-2UP8X2-H1151	1610036	30...300	via pin 5	-25 ...+70
RU300U-M30E-2UP8X2T-H1151	1610040	30...300	via pin 5 or button	-25 ...+70
RU600U-M30M-2UP8X2-H1151	1610037	60...600	via pin 5	-25 ...+50
RU600U-M30E-2UP8X2T-H1151	1610041	60...600	via pin 5 or button	-25 ...+50

Switchable between diffuse mode and retroreflective mode

# Standard Series – Rectangular Design



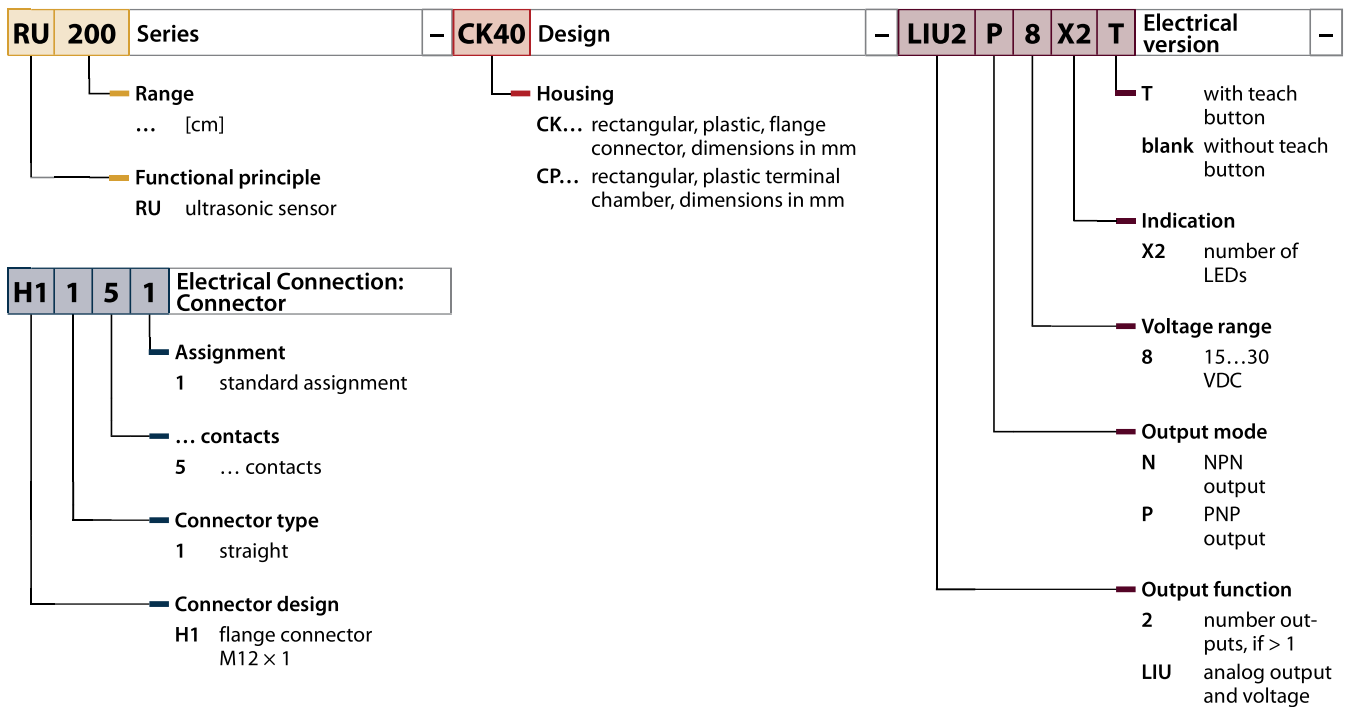
The rectangular CK40 with integrated connector or the CP40 variants with terminal chamber combine the advantages of a large detection range with a wide opening angle and a very small blind zone. These sensors are thus ideally suited for safe detection of objects that provide only a weak reflection signal due to their geometry or are moved in a large environment. Both the switching as well as the measuring devices can be customized easy to use via teach button.

## Features

- Large measuring range
- Very short blind zone
- Easy teaching via pin 5 or button
- Very large opening angle

## Type code

**RU 200 - CK40 - LIU2 P 8 X2 T - H1 1 5 1**



Standard Series – 40 x 40 – Universal – Switching



General data			
<b>Operating mode</b>	Diffuse mode ultrasonic sensor	<b>Output 2</b>	Switching output
<b>Range</b>	5...200 cm	<b>Housing material</b>	Plastic
<b>Operating voltage</b>	15... 30 VDC	<b>Radiation direction</b>	straight
<b>DC rated operational current</b>	≤ 150 mA	<b>Protection class</b>	IP40
<b>Output 1</b>	Switching output	<b>Ambient temperature</b>	0 ...+70 °C

Types and Data – Selection table

Type	Ident no.	Configuration	Output Function	Connection
RU200-CK40-2UP8X2T-H1151	1610051	via pin 5 or button	PNP	connector, M12 x 1
RU200-CK40-2UN8X2T-H1151	1610057	via pin 5 or button	NPN	connector, M12 x 1
RU200-CP40-2UP8X2T	1610052	via button	PNP	terminal chamber, Terminal box with cable gland
RU200-CP40-2UN8X2T	1610055	via button	NPN	terminal chamber, Terminal box with cable gland

Variable orientation of active face in 5 directions, switchable between diffuse mode and retroreflective mode

Standard Series – 40 x 40 – Universal – Measuring



General data			
<b>Operating mode</b>	Diffuse mode ultrasonic sensor	<b>Output 2</b>	Analog output
<b>Range</b>	5...200 cm	<b>Housing material</b>	Plastic
<b>Operating voltage</b>	15... 30 VDC	<b>Radiation direction</b>	straight
<b>DC rated operational current</b>	≤ 150 mA	<b>Protection class</b>	IP40
<b>Output 1</b>	Switching output	<b>Ambient temperature</b>	0 ...+70 °C

Types and Data – Selection table

Type	Ident no.	Configuration	Output Function	Connection
RU200-CK40-LIU2P8X2T-H1151	1610053	via pin 5 or button	PNP	connector, M12 x 1
RU200-CK40-LIU2N8X2T-H1151	1610058	via pin 5 or button	NPN	connector, M12 x 1
RU200-CP40-LIU2P8X2T	1610054	via button	PNP	terminal chamber, Terminal box with cable gland
RU200-CP40-LIU2N8X2T	1610056	via button	NPN	terminal chamber, Terminal box with cable gland

Variable orientation of active face in 5 directions, switchable between diffuse mode and retroreflective mode

# High-End Series – Cylindrical Design



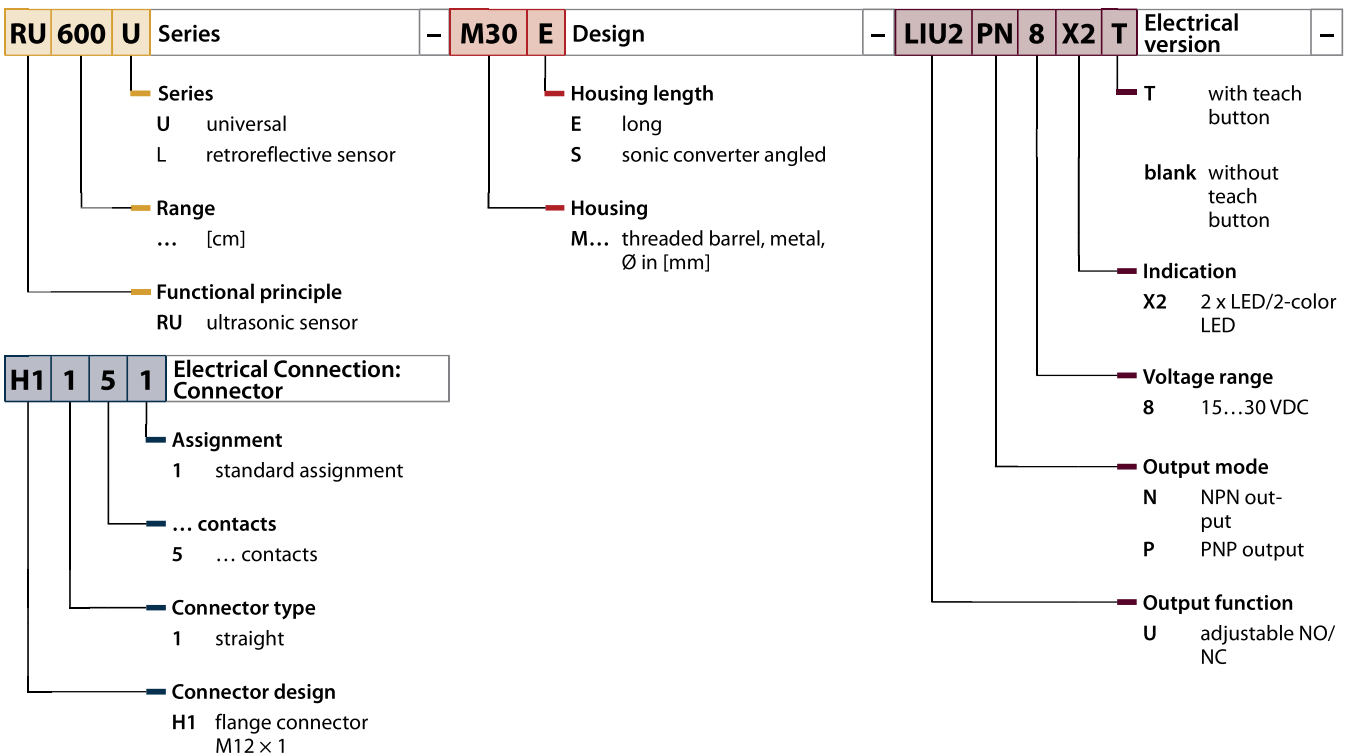
The high-end variant offers universal possibilities for adjustment and adaptation also to the most difficult application conditions. Operation as a diffuse mode, retroreflective or opposed mode sensor is possible, as well as the synchronization of multiple sensors to protect against mutual interference. On demand, process values can be transferred directly or settings changed during operation via IO-Link. The presence of the objects is typically emitted via the switching output and the distance via the analog output. Highest accuracy can be achieved through the possibility to adjust the temperature compensation.

## Features

- Large measuring range
- Short blind zone
- Robust mechanics thanks to metal housing and metal connector
- Front-flush diaphragm
- Easy teaching via pin 5 or button
- IO-Link
- Temperature compensation

## Type code

**RU 600 U - M30 E - LIU2 PN 8 X2 T - H1 1 5 1**



## High-End Series – M18 – Universal – Switching/Measuring



General data			
<b>Operating mode</b>	Diffuse mode ultrasonic sensor	<b>Housing material</b>	Metal, CuZn, nickel-plated
<b>Operating voltage</b>	15... 30 VDC	<b>Transducer material</b>	Plastic, Epoxyd resin and PU foam
<b>DC rated operational current</b>	≤ 150 mA	<b>Connection</b>	connector, M12 x 1
<b>Configuration</b>	via pin 5, button or IO-Link	<b>Protection class</b>	IP67
<b>Output 1</b>	Switching output or IO-Link mode	<b>Ambient temperature</b>	-25 ...+70 °C
<b>Output 2</b>	Analog output	<b>Temperature drift</b>	± 1.5 % of full scale
<b>IO-Link Specification</b>	V 1.1		

### Types and Data – Selection table

Type	Ident no.	Range [cm]	Radiation direction
RU40U-M18E-LIU2PN8X2T-H1151	1610024	2.5...40	straight
RU40U-M18ES-LIU2PN8X2T-H1151	1610025	2.5...40	side
RU130U-M18E-LIU2PN8X2T-H1151	1610026	15...130	straight
RU130U-M18ES-LIU2PN8X2T-H1151	1610027	15...130	side

Switchable between diffuse mode, retroreflective mode and PNP/NPN

## High-End Series – M30 – Universal – Switching/Measuring



General data			
<b>Operating mode</b>	Diffuse mode ultrasonic sensor	<b>Housing material</b>	Metal, CuZn, nickel-plated
<b>Operating voltage</b>	15... 30 VDC	<b>Transducer material</b>	Plastic, Epoxyd resin and PU foam
<b>DC rated operational current</b>	≤ 150 mA	<b>Connection</b>	connector, M12 x 1
<b>Configuration</b>	via pin 5, button or IO-Link	<b>Radiation direction</b>	straight
<b>Output 1</b>	Switching output or IO-Link mode	<b>Protection class</b>	IP67
<b>Output 2</b>	Analog output	<b>Temperature drift</b>	± 1.5 % of full scale
<b>IO-Link Specification</b>	V 1.1		

### Types and Data – Selection table

Type	Ident no.	Range [cm]	Ambient temperature [°C]
RU130U-M30E-LIU2PN8X2T-H1151	1610046	15...130	-25 ...+70
RU300U-M30E-LIU2PN8X2T-H1151	1610048	30...300	-25 ...+70
RU600U-M30E-LIU2PN8X2T-H1151	1610049	60...600	-25 ...+50

Switchable between diffuse mode, retroreflective mode and PNP/NPN



# High-End Series – Cylindrical Design for Hazardous Areas



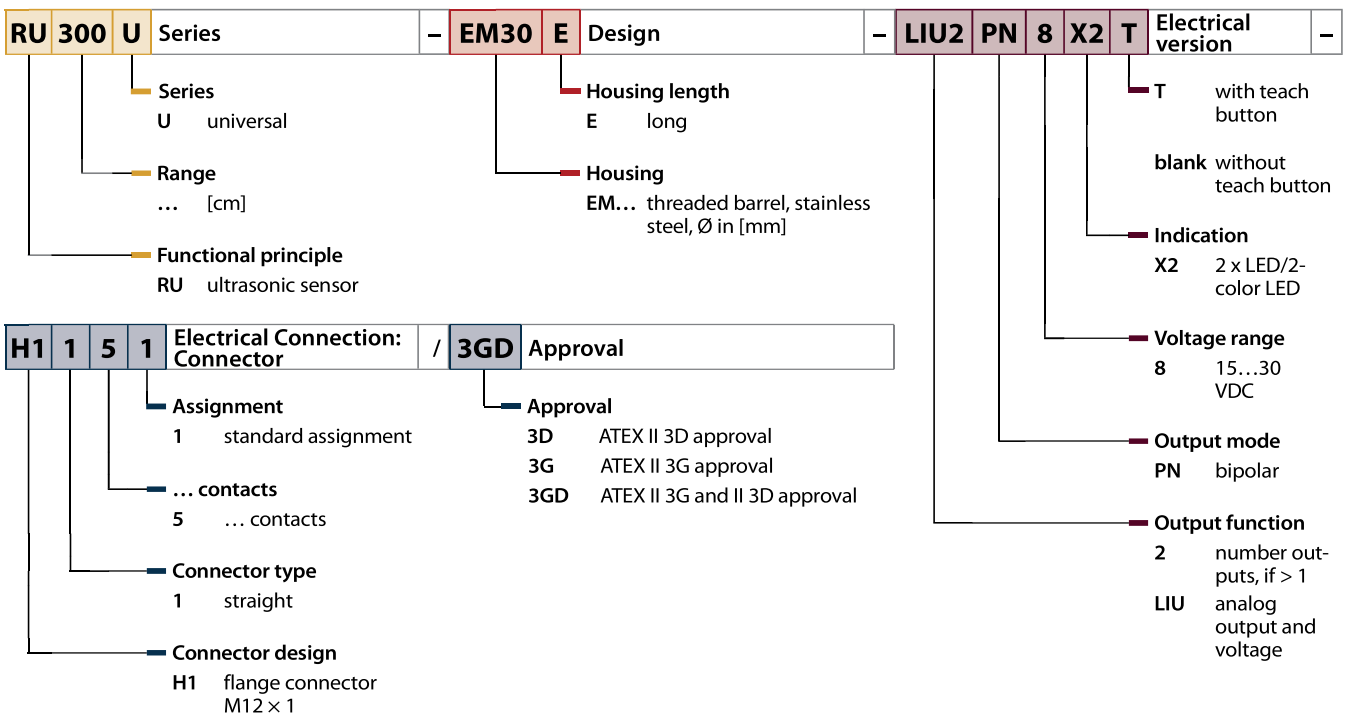
Also for use in hazardous areas, the high-end series provides a selection of cylindrical sensors with universal possibilities for adjustment and adaptation to various application conditions. Operation as a diffuse mode, retroreflective or opposed mode sensor is possible, as well as the synchronization of multiple sensors to protect against mutual interference. On demand, process values can be transferred directly or settings changed during operation via IO-Link. The presence of the objects is typically emitted via the switching output and the distance via the analog output. Highest accuracy can be achieved through the possibility to adjust the temperature compensation.

## Features

- Large measuring range
- Short blind zone
- Robust mechanics thanks to stainless steel housing
- Front-flush diaphragm
- Easy teaching via pin 5 or button
- IO-Link
- Temperature compensation
- Suitable for the Ex zones 2 and 22

## Type code

**RU 300 U – EM30 E – LIU2 PN 8 X2 T – H1 1 5 1 / 3GD**



## High-End Series – M18 – Universal – Switching/Measuring



General data			
<b>Operating mode</b>	Diffuse mode ultrasonic sensor	<b>Transducer material</b>	Plastic, Epoxyd resin and PU foam
<b>Operating voltage</b>	15... 30 VDC	<b>Connection</b>	connector, M12 x 1
<b>DC rated operational current</b>	≤ 150 mA	<b>Radiation direction</b>	straight
<b>Configuration</b>	via pin 5, button or IO-Link	<b>Protection class</b>	IP67
<b>Output 1</b>	Switching output or IO-Link mode	<b>Ambient temperature</b>	-25 ...+70 °C
<b>Output 2</b>	Analog output	<b>Temperature drift</b>	± 1.5 % of full scale
<b>IO-Link Specification</b>	V 1.1	<b>Device designation</b>	II 3 GD
<b>Housing material</b>	Stainless steel 1.4404 (AISI 316L)		

### Types and Data – Selection table

Type	Ident no.	Range [cm]
RU40U-EM18E-LIU2PN8X2T-H1151/3GD	1610071	2.5...40
RU130U-EM18E-LIU2PN8X2T-H1151/3GD	1610072	15...130

Switchable between diffuse mode, retroreflective mode and PNP/NPN

## High-End Series – M30 – Universal – Switching/Measuring



General data			
<b>Operating mode</b>	Diffuse mode ultrasonic sensor	<b>Housing material</b>	Stainless steel 1.4404 (AISI 316L)
<b>Operating voltage</b>	15... 30 VDC	<b>Transducer material</b>	Plastic, Epoxyd resin and PU foam
<b>DC rated operational current</b>	≤ 150 mA	<b>Connection</b>	connector, M12 x 1
<b>Configuration</b>	via pin 5, button or IO-Link	<b>Radiation direction</b>	straight
<b>Output 1</b>	Switching output or IO-Link mode	<b>Protection class</b>	IP67
<b>Output 2</b>	Analog output	<b>Temperature drift</b>	± 1.5 % of full scale
<b>IO-Link Specification</b>	V 1.1	<b>Device designation</b>	II 3 GD

### Types and Data – Selection table

Type	Ident no.	Range [cm]	Ambient temperature [°C]
RU130U-EM30E-LIU2PN8X2T-H1151/3GD	1610073	15...130	-25 ...+70
RU300U-EM30E-LIU2PN8X2T-H1151/3GD	1610074	30...300	-25 ...+70
RU600U-EM30E-LIU2PN8X2T-H1151/3GD	1610075	60...600	-25 ...+50

Switchable between diffuse mode, retroreflective mode and PNP/NPN