

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

RU	600	U	Series	-	M30	E	Design	-	LIU2	PN	8	X2	T	Electrical version	-
			Series				Housing length							T	with teach button
			U universal				E long							blank	without teach button
			L retroreflective sensor				S sonic converter angled							Indication	
			Range				Housing							X2	2 x LED/2-color LED
			... [cm]				M... threaded barrel, metal, Ø in [mm]							Voltage range	
			Functional principle											8	15...30 VDC
			RU ultrasonic sensor											Output mode	
														N	NPN output
														P	PNP output
														Output function	
														U	adjustable NO/NC

H1	1	5	1	Electrical Connection: Connector
				Assignment
				1 standard assignment
				... contacts
				5 ... contacts
				Connector type
				1 straight
				Connector design
				H1 flange connector M12 x 1

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



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

RU	300	U	Series	-	EM30	E	Design	-	LIU2	PN	8	X2	T	Electrical version	-
			Series U universal				Housing length E long							T with teach button blank without teach button	
			Range ... [cm]				Housing EM... threaded barrel, stainless steel, Ø in [mm]							Indication X2 2 x LED/2-color LED	
			Functional principle RU ultrasonic sensor											Voltage range 8 15...30 VDC	
														Output mode PN bipolar	
														Output function 2 number outputs, if > 1 LIU analog output and voltage	
H1	1	5	1	Electrical Connection: Connector	/	3GD	Approval								
			Assignment 1 standard assignment				Approval 3D ATEX II 3D approval 3G ATEX II 3G approval 3GD ATEX II 3G and II 3D approval								
			... contacts 5 ... contacts												
			Connector type 1 straight												
			Connector design H1 flange connector M12 x 1												

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



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