



FU-01

Ultrasonic Level Limit Switch

Features

- / Contactless
- / Bulk goods and fluids
- / Simple commissioning
- / 2 relay contacts or
2 transistor outputs
- / Electronics provided with
fail-safe function

Description:

The FU-01 is a level switch that works without contact to the media. The sensor and evaluating electronic components are located in a housing. Continually emitted ultrasonic signals strike the surface of the measuring medium, are reflected by it and again received as echo. The signal runtime is measured and interpreted as the distance. The device has two setpoints which can be programmed as alarm functions (e.g. Max/Max, Max, Min or Min/Min). As a standard, these outputs are designed as potential-free relay contacts. However, optionally, they can be supplied in transistor version. Complete parameterizing for the FU-01 is operator-friendly as only two keys need to be operated. Current measurement and operating status are displayed on an LCD display unit.

Application:

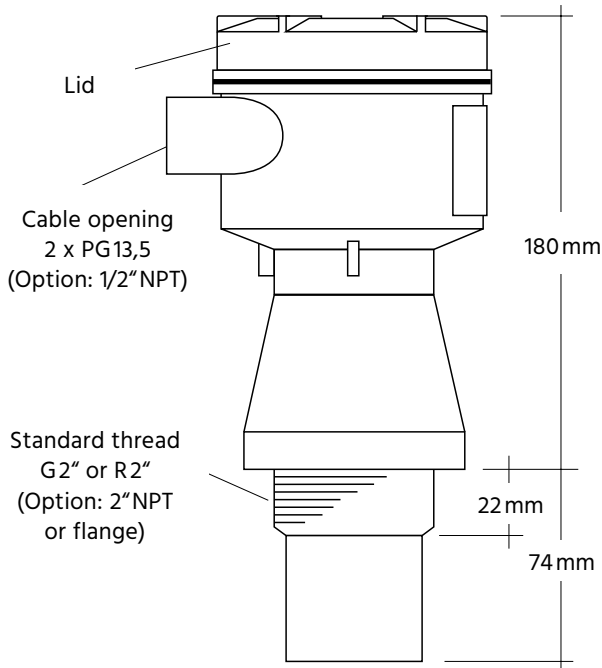
The FU-01 series of ultrasonic level switches is used wherever contactless measuring is advantageous. Typical applications are, for example, in water and effluent management, for bulk goods or in sewage treatment plants. As far as level monitoring is concerned, problems caused by soiling, blockages or corrosion belong therefore to the past.



Technical Specifications:

max. Pressure /	0.5 bar
max. Operating temp. /	-40...+60°C, (for mounting in metal bushing -20...+60°C)
Operating range /	0.25 m to 3 m for bulk goods, 0.25 m to 5 m for fluids and slurries
Operating modes /	Max, Min, Max/Max and Min/Min
Housing /	polycarbonate
Sensor /	Kynar (PVDF) or Tefzel (ETFE)
Weight /	1,5 kg (polycarbonate)
Accuracy /	0.25% of the operating range
Resolution /	3 mm
Beam angle /	12°

Dimensions in mm:

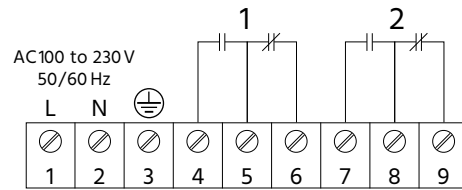


Electrical Specifications:

Display /	3-digit LCD, height 9 mm, to display the distance between sensor and medium, multi-segment graphic for showing the operating status
Operation /	two keys
Protection class /	IP67 / Typ 6 / NEMA 6

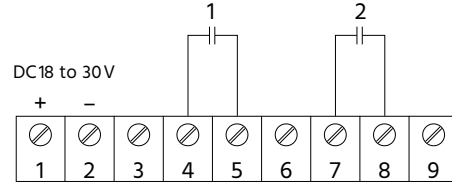
Outputs:

Relay output



+ or - DC18 to 30V Two Form 'C' (SPDT) relays can switch external devices such as alarms, relays, contractors, PLCs, DSCs, etc.

Transistor Output: DC version only



Two non-polarized transistor outputs are suitable for connection to PLCs, DSCs, or customer supplied relays.

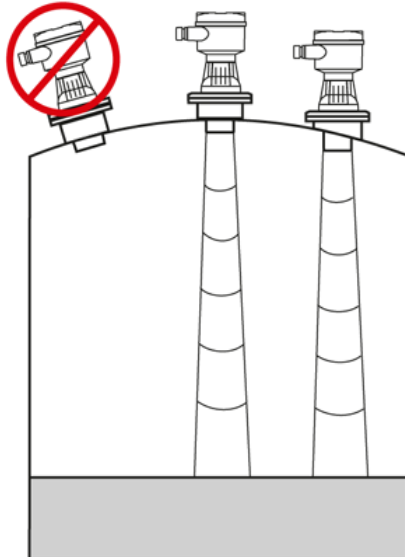
Ordering Codes:

Order number	FU-01.	1.	2.	1.	1
FU-01 Ultrasonic Level Limit Switch					
Material /	1 = Tefzel (ETFE) 2 = Kynar-Flex (PVDF)				
Process connection /	1 = 2" NPT [(conic), ANSI/ASME B1.20.1] 2 = G2" [(BSPP), EN ISO 228-1] 3 = 4" Tri-Clamp, sanitary version (only for PVDF) 4 = flange assembly (specify flange in detailed text, min. DN80) 5 = R2" [(BSPT), EN 10226]				
Housing /	1 = polycarbonate				
Supply /	1 = 24VDC, with 2 potential-free relay outputs 2 = 24VDC, with 2 transistor outputs 3 = 100 to 230VAC, with 2 potential-free relay outputs				

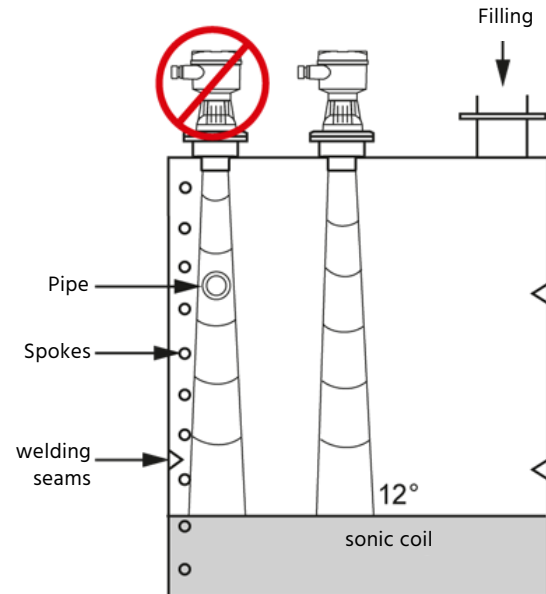


Mounting:

Mounting on a parabolic roof



Mounting on a flat roof and sound cone



Please mind to install the FU-01 not in range of possible disturbances, like high-voltage- or motor-cables, noise protection or frequency converters. Also, make sure, the sound cone can reach the surface of your medium in an 90° angle, while keeping your distance to the filling, welding seams, ladder spokes and so on.

