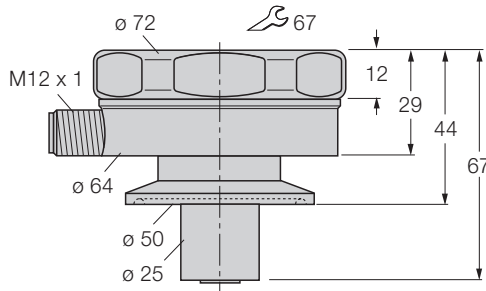
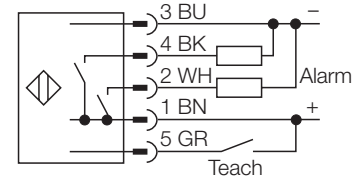


## non-invasive filling level control sensor levelprox LPRE-T50-UP6X3-H1151



- detection of liquids through the wall of a container
- echo or reverberation mode adjustable via DIP switches
- suited for a large variety of container materials such as metal and glass (plastic and other materials on request)
- non-invasive, without medium contact, thus especially hygienic
- simple mounting with welding or adhesive Tri-Clamp adapter
- alarm output and alarm indication in case of errors or insufficient coupling
- automatic teach-in of ambient conditions via push button or teach line

### Wiring diagram




### Function principles

Non-invasive ultrasonic sensors detect liquids through the metal wall of a container or tank by means of high frequency ultrasonic pulses. In the reverberation mode, the reflection of the interior container wall adjacent to the sensor are evaluated. Contamination of or air bubbles in the medium hardly effect operation, whereas residues on the container inside will lead to unwanted switching. In the echo mode, the sound is evaluated that it reflected by the opposing interior wall. Residues on the container inside will not cause any problems; but if the container contains built-in components such as stirring devices, or if the medium is contaminated or contains air bubbles, this operation mode may not be used. Electrical or acoustic interference or a sensor failure due to insufficient coupling are indicated by an LED and an alarm output.

<b>Type</b>	LPRE-T50-UP6X3-H1151
Ident-No.	1606201
<b>Container</b>	1... 15 mm wall thickness
Material	Steel, Stainless steel, Glass
Min. container diameter	100 mm
Max. container diameter	2000 mm (echo mode) no limit (reverberation mode)
Adjustment to ambient conditions	via push button or teach line
Min. absolute repeat accuracy	$\geq \pm 5$ mm
Switching delay	1...10 sec (adjustable via DIP-switches)
<b>Rated operational voltage (DC) <math>U_B</math></b>	15... 30 VDC
Function of switching element	programmable
Alarm output	PNP
No-load current $I_0$	$\leq 60$ mA
Rated operational current (DC) $I_e$	$\leq 200$ mA
Overload trip point	$>270$ mA
Max. voltage drop at $I_e$	$\leq 2,5$ V
Switching frequency	$\leq 1$ Hz
Time delay before availability	$\leq 2$ s
Short-circuit protection	yes
Reverse polarity protection	complete
Wire breakage protection	yes
<b>Housing style</b>	cylindrical/smooth; T50 (Tri-Clamp Gehäuse)
Housing material	metal, A4 1.4404 (AISI 316L)
Wiring	connector, M12 x 1
Operating temperature	-25 ...+ 70 °C
Degree of protection	IP67 (cover screw connections tightened)
Protection class	III, SELV
<b>Supply voltage indication</b>	LED green
Switching status indication	LED yellow
Error indication	LED red flashing and alarm output on
Alarm indication	LED red on and alarm output on

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### Accessories

Typ	Ident-No.	Description	Dimension drawing
LP-MS-T50-S	6900253	Tri-Clamp adapter for weld mounting. seal and clamping collar are included in delivery.	
LP-MS-T50-K	6900255	Tri-Clamp adapter for adhesive mounting. Seal, clamping collar and two-component adhesive are included in delivery.	

