

TURCK

Level Sensors - levelprox®



Housing Style	Part Number	ID Number	Container Wall Thickness	Min/Max Container Diameter	Programming	Output
Smooth Cylindrical T50 Style 	LPRE-T50-UP6X3-H1151	M1606201	1-15 mm	100-2000 mm** Stainless Steel	Push button or external teach wire	5-Wire DC PNP
Standard M30 Style 	LPRE-M30-AP6X2-H1141	M1606203	1-15 mm	100-2000 mm** Stainless Steel	VB2-SP1	
	LPRE-EM30-RP6X2-H1143	M1606209	1-15 mm	100-2000 mm** Stainless Steel	VB2-SP1	

Additional specifications below.

Accessories on page D29.

** 2000 mm (echo mode), no limit (reverberation mode).

levelprox®

Switching Delay	T50: 1-10 second (adjustable via DIP-switches) M30: None
Rated Operational Current (DC) I_o	≤ 200 mA
No-load Current I_o	≤ 60 mA
Overload Trip Point	> 270 mA
Max. Voltage Drop at 200 mA	≤ 2.5 V
Switching Frequency	1 Hz
Time Delay Before Availability	≤ 2 s
Protection Class	IP 68
Housing Material	T50: 316L stainless steel (A41.4404) M30: Chrome plated brass M30: 316L stainless steel
Operation Temperature	-25°C to +70°C (-13°F to +158°F)
Supply Voltage Indication	Green LED
Switching status indication	Yellow LED
Error Indication	T50: Red LED; flashing and alarm output on M30: Yellow/Green; alternately flashing
Alarm Indication	T50: Red LED; flashing Green LED indicates alarm off M30: None
FM Approved.	Class I, Div 2

Voltage	Switching Current (mA)	Min. Repeat Accuracy (mm)	Operating Temp. (°C)	Protection Class	Housing	Short-circuit Protection	Rev. Polarity Protection	Wire Break Protection	Mating Cord, Cable Length/Jacket	Wiring Diagram #	Wiring Diagrams
15-30 VDC	≤200	≤±5 mm	-25 to +70	IP 67	SS	Yes	Yes	Yes	RK 4.5T-*	1	
	≤200	≤±5 mm	-25 to +70	IP 67	CPB	Yes	Yes	Yes	RK 4.4T-*	2	
15-30 VDC	≤200	≤±5 mm	-25 to +70	IP 67	SS	Yes	Yes	Yes	RK 4.4T-*	2	
	≤200	≤±5 mm	-25 to +70	IP 67	SS	Yes	Yes	Yes	RK 4.4T-*	2	

* Length in meters.

Mounting the T50 levelprox®

Mounting:

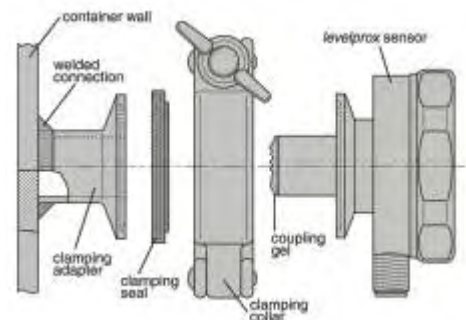
One of the most critical procedures in any levelprox application is the mounting of the sensor. Reliable operation of the sensor requires a mount that is rigidly fixed and properly oriented to the container wall.

Surface Preparation:

The surface finish and structural integrity of the container wall need to be evaluated when selecting a mounting location for the sensor. The surface finish should be smooth and free of rust, paint, and coatings that could affect the sound transmission of the sensor. The area of the tank where the sensor will mount should be in good condition, i.e. no pitting, dents, welded joints, internal structures, etc. If you are using a weld-on mount, be aware that excessive heat from the welder can distort thin walled containers.

Mounting the Sensor:

The levelprox needs to make solid contact with the container wall for proper operation. Ideally, the clamping adapter should be mounted perpendicular to the container wall. In the case of a round container, the sensor should be mounted so that the transducer is pointing at the center axis. TURCK offers several mounting options designed to keep the sensor optimally coupled with the wall of the container.



Installation:

Included with every TURCK levelprox is a small container of coupling gel. This gel is required for the sensor to efficiently pass the ultrasonic pulses into the container wall. Before installing the sensor on the container, remember to apply a generous amount of the gel to the sensor's transducer surface.