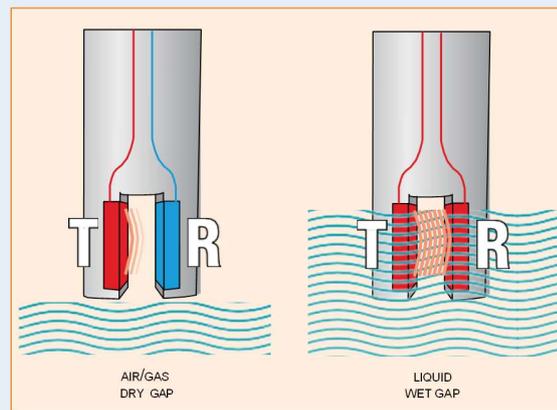


ULTRASONIC CONTACT



Echotel® ultrasonic contact operates on a two crystal pulsed or “transmit-receive” principle which applies a high frequency electronic burst to the transmit crystal. The signal is then converted into ultrasonic energy and transmitted across the sensing gap towards the receiver crystal. When there is air in the gap, the high frequency ultrasonic energy will be attenuated, thereby not allowing the energy to be received. When there is liquid in the gap, the ultrasonic energy will propagate across the gap and the current shift or relay output will indicate a reception of the signal.



ECHOTEL® 961/962 Ultrasonic level switch



DESCRIPTION

Echotel® 961/962 series are used to detect high or low level alarm(s) in a broad range of liquids. Pulsed signal technology provides superior performance in applications suffering from foam, aeration, heavy turbulence and suspensions containing solids.

ECHOTEL 961 has a tip sensitive setpoint and is ideally used as high or low level alarm.

ECHOTEL 962 offers 2 setpoints on the same transducer, a tip sensitive setpoint and a second setpoint via a flow-through upper gap. The unit is used for level alarm or to control a pump in an auto fill/empty mode.

ECHOTEL 961/962 is equipped with advanced diagnostics that continuously check the transducer and electronics. The diagnostics also alarm for electrical noise interference from external sources.

FEATURES

No calibration required.

2-wire loop powered with mA output or AC/DC line powered with integrated relay(s).

Continuous selftest with selectable error output.

LED identification for:

- process alarm
- error of transducer, electronics or electrical noise interference
- wet/dry status of transducer.

Push buttons for manual testing of alarm and error signals.

Adjustable time delay up to 45 s.

Process temperature from -80 °C to +165 °C (-110 °F to +325 °F) depending on used materials.

Process pressure up to 138 bar (2000 psi).

Metal and plastic transducers.

Suited for SIL 1 and SIL 2 loops (full FMEDA report available).

Remote electronics.

APPLICATION

VESSELS: Any mounting position.

CONDITIONS: Unaffected by

- shifting dielectric, density or pH
- presence of foam, turbulence, visible vapours
- fast drain/fill rates
- transducer coating and air bubbles
- vacuum conditions.

AGENCY APPROVALS

	Ex d	Ex ia	Ex n	Ex t	XP	IS	NI	Other
ATEX	•	•						
CCOE	•	•						
CSA					•	•	•	
FM					•	•	•	
EAC (GOST)	•	•						
IEC	•							
Inmetro	•	•						
SIL	SIL 2 (1001)							

Other approvals are available, consult factory for more details



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