UltraRanger MUR 1
Ultrasonic level, volume, pump control flow meter

The **ULTRARANGER** is an ultrasonic level gauge for solids and liquids consisting of an ultrasonic/radar transducer and separate electronics for analysing reflected echoes.

It is available in various versions that offer the same performance for analysis and interpretation of the reflected echo, and differ only in the type of output signals.

The UltraRanger is programmable via the keypad on the front side or via PC. The UltraRanger provides the technology you need, without the complexity you don't need. The Terry Ferraris SW that manages the operation of the instrument is particularly user-friendly, but it is also the world's most advanced solution for managing ultrasonic measuring instruments.

MUR is a non-contact ultrasonic level meter with a 4 to 20mA current output proportional to the level, which can be displayed on a dislpay or PC. It is equipped with 2 alarm relays with voltage-free changeover contacts.

Transducers

The UltraRanger series instruments are compatible with all UTF series transducers, allowing the widest possible choice of the one best suited to your needs. The working range of the transducers is from 2.45 to 50 metres. The UltraRanger unit can be placed up to 3,000 metres away from the transducer, solving all installation problems.

The connection of the UTF transducer with the UltraRanger unit is made with a three-core shielded cable. See transducer documentation for Atex approvals.

The characteristics of the UltraRanger

All devices have three IP67 watertight cable glands and two LEDs indicating operation; they can be supplied with or without the keypad and display on the front panel. Programming can be done, depending on the model, with the standard SW supplied, or with the hand-held programmer via the RJ11 (RS232) port or with the keypad on the front panel. A dedicated SW is available on request, allowing programming, diagnostics and echo analysis, and data logging via serial or USB connector.

ULTRARANGER	MUR 1
Power supply 115÷230Vac	•
Power supply 10÷28Vdc	•
0/4÷20 mA output	•
2 SPTD relays 230V, 2A	•

Continuous product development may lead to changes in the data displayed.

Technical specifications

ELECTRONICS

Dimensions	130 x 130 x 60 (H x L x P)
Weight	0.65Kg
Enclosure	ABS base, polycarbonate lid, flame resistant UL94HB
Cable inlet	3 x M20 nylon cable glands, for cables Ø 6 ÷ 12mm
Transducer/electronics distance	max. 3000m, three-core shielded cable
Protection rating	IP66/67
Accuracy	0.25 for cent of the measuring range or 6mm of the two the larger
Solution	0.1% of the measuring range or 2mm of the two the larger
Working range	0.2 ÷ 50m depending on the transducer used (minimum measuring range 100mm)
Echo analysis	Dedicated SW
Safety	via access code (freely programmable)
Data security	Non-volatile RAM
Power supply	115Vca +5/-10% 50÷60Hz 230Vca +5/-10% 50÷60Hz 10÷28Vcc
Consumption	max10W (typical 5W)
Fuses	50mA @ 200÷240Vca 100mA @ 90÷120Vca
Electronic temperature	-20÷ 50°C
Tropicalised electronics	on request
Display	2 x 12 alphanumeric
Analogue output	MUR 1 0/4 to 20mA max. 1KΩ isolated, resolution 0.1%.
Digital output	2 SPDT relays, capacity 2A@240Vac, only for MUR 1/2/3/4/5
Programming	via RJ11 connector (RS 232) and supplied SW via keyboard, on request via RJ11 connector and calibrator, powered by the MUR, on request via PC and dedicated SW
Transducers	compatible with all UTF series transducers
Certification	CE suitable for Atex safe environments on request

Installation in a flammable atmosphere: The electronics must be mounted in a safe area, the transducers must have the appropriate certification for that installation. The fuses are contained within the electronics enclosure.

TRANSDUCERS

Measurement range	0.3 to 40m depending on the UTF transducer used or dBxx / dBR
Protection	IP68
Temperature	- 40 to 90°C depending on model
Assembly	for level measurements on solids the transducer must be mounted with an orientation joint