

Ultra 4

Level / flow meter / control up to max 3 pumps with ultrasonic or radar transducers

ELECTRONIC EQUIPMENT

ACOUSTIC

WEIGHING

ANTI-TILTING

VALVES

TEMPERATURE

DETECT A FIRE®

FLOW/ RATE

DENSITY

INTERFACE

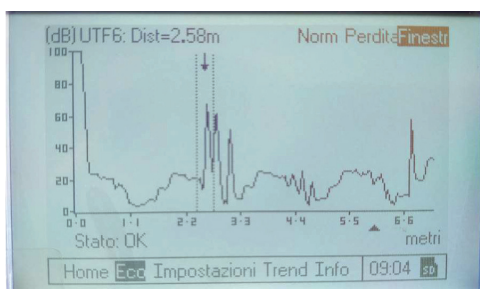
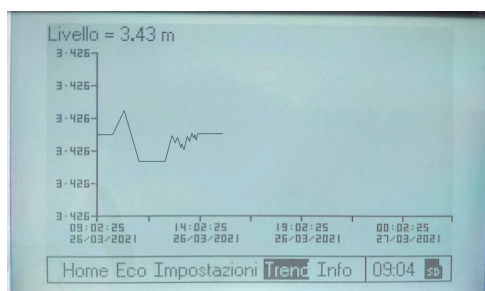
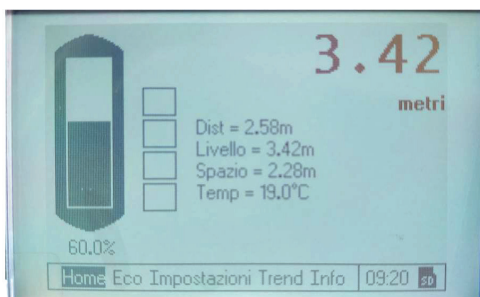
PRESSURE

LEVEL

TF
134



WALL-MOUNTED ELECTRONICS



Ultra 4 offers the advanced features of the rest of the Ultra range in a compact, cost-effective package with useful new features that make configuration and installation even easier. As the name suggests, it offers the option of four alarms or relay controls (3 x isolated SPCO and 1 x solid-state SPNO) and a multifunctional display, maintaining an easy configuration that has made the Ultra range the natural choice for non-contact measurement worldwide.

Like the rest of TF's 'transducer + controller' range, Ultra 4 is compatible with both UTFxx / dBxx and UTFHR dBR series radar transducers. Ultra 4 can be wall- or fascia-mounted and includes a choice of HART, Profibus and Modbus digital communications along with a micro SD card slot for extended data logging. Like the rest of the Ultra range, Ultra 4 also offers integrated volume calculations based on standard tank shapes, as well as advanced pump control and channel flow calculation always with a choice of different primary types

- Rectangular, triangular weirs
- Rectangular, trapezoidal, U-shaped channels
- Parshall Channels, Venturi
- Universal channels via linearizer up to 32 points



ELECTRONICS IN BAND EXECUTION

Features

3 SPCO relays + 1 SPNO contact and 30V at 100mA

Volume calculation using standard tank shapes or via a 32-point calibration curve

8 GB Micro SD

Programmable relays

Ultrasonic or radar measurement

Echo trend and level display

HART/RS485 Modbus/Profibus communication protocol on request

Home screen

Ultra 4 allows on-board relays to be configured in four different modes.

A: Alarm - e.g. Very Low, Low, High, Maximum

P: Pump - Advanced pump control functions

C: Control - Control functions

M: Misc - For other functions such as totalization

Trending screen

It shows at a glance the variation of levels over time. Ultra 4 comes complete with an 8 GB Micro SD card to increase data storage capacity.

Eco Screen

View the echo profile without the need to connect an external device. TF's DATEM software is unrivalled in identifying and isolating the target, but the echo profile can help refine and improve the measurement.

ULTRA 4 Physical characteristics

Assembly (Dimensions)	Standard Wall Mounting (150x130x63.5)	With Band (160x180x63)
Enclosure Material (Weight)	Flame resistant polycarbonate UL94-V0 (700g)	
Outputs	3 M20 cable glands	
Maximum Distance	1000m, 500m for dBr16 and dBr08	
Features		
IP rating	IP67/NEMA 4X	IP64
Tmax & Tmin Electronics	-20÷40°C	
Certification	CE for safe area	
UV	UL746C F1	
Performance		
Accuracy	0.25% of measuring range or 6mm (whichever is greater) +/- 2mm for dBr16	
Solution	0.1% of measuring range or 2mm (whichever is greater)	
Max. measuring range	Depends on the type of application and transducer installed (40m x UTF40)	
Min. measuring range	Depends on type of application and installed transducer (0m x UTFHR03)	
Fast response times	Programmable	
Echo processing		
Description	DATEM (Digitally scaled echo tracing)	
Type of echo	Ultrasound and Radar	
Outputs		
Analogue output	Isolated floating output (up to 150V) for 4÷20mA or 0÷20mA 1kΩ (programmable)	
Digital output	Half Duplex RS232	
Relay	"3 SPCO isolated relays, 5A at 250Vac; 1 SPNO solid-state relay, 30V at 100mA, suitable for pulse counting"	
Display	160x240 pixels, monochrome dot graphics, programmable with integrated keyboard and navigation keys. Indicators for programming, start-up and test modes	
Programming		
Keyboard	Built-in	
PC	Via RJ11 connector or via SD Card plus dedicated PC Suite Dongle TF software	
Safety	Password (user selectable)	
Memory	Non-volatile memory	
Data and memory download	Removable 8GB micro SD card or max. 10g internal data log (only x range)	
Power supply		
Power supply (Consumption)	100÷240Vca 50/60Hz (max 250VA), 10-28Vcc ca (max 10W)	
Main fuse	1A 'T' 20mm ceramic, breaking point at 1500A	
Transducer fuse	100mA barrier, 4000A breaking point	
Communications		
MODBUS RTU/ASCII - Profibus DPV1	RS485 isolated on request	
HART 7	4÷20mA isolated on request	