

# Uf 831

## ULTRASONIC FIXED FLOW METER



MEDIA  
MEASURED  
LIQUIDS



PIPE DIAMETERS  
UP TO  
10000MM



MODELS  
SINGLE PIPE  
MULTI-PIPE

### HIGH PERFORMANCE

- > Up to eight speed chords on a single pipe
- > Up to 10 input/output modules (analogue, digital)
- > Graphic screen
- > Echo, gain and quality index displayed

### ACCURATE

- > Accurate up to 0.5%
- > Repeatability up to 0.1%
- > Automatic zero calibration

### ADVANCED FUNCTIONS

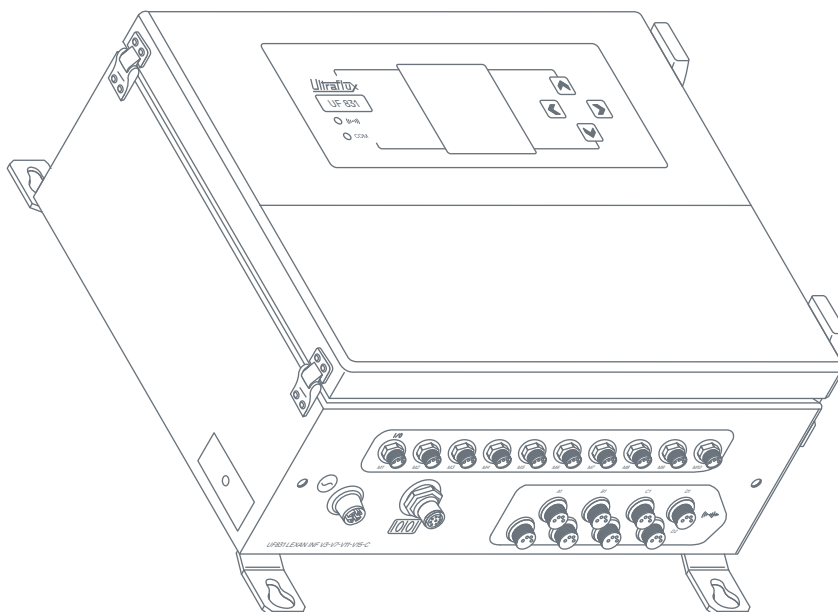
- > Mathematical functions generator
- > Multi-parameter data logger
- > Field bus option: Modbus TCP/Modbus RTU

### COMPETITIVE

- > Up to eight measurement points with a single device
- > Rapid installation
- > No moving parts, no mechanical wear: little or no maintenance required

### ADAPTABLE

- > Connection of all Ultraflux probes or probes already installed\*



### TYPICAL APPLICATIONS

**Waste water and drinking water:** Flow measurement and metering, process control, system supervision

**Waste water:** Measurement of inlet and outlet flows, and flows within the treatment process

**Climate engineering:** Water metering (hot or cold) for air conditioning

**Chemical products, even aggressive liquids:** Process control, system management

**Food/farming products**  
**Crude oil:** Management of samplers for controlling loading/unloading

**Refined oil products or liquefied gas (LPG):** Regulation and control of transport system

**Energy:** calculation of the yield from hydroelectric power stations

\* PLEASE ENQUIRE

# Ultraflux



EXPERT IN FLOW METERS  
SINCE 1974

MODEL	SINGLE PIPE	MULTI-PIPE
NATURE OF EQUIPMENT	Fixed	
INTERNAL DIAMETER OF PIPE	From 8mm to 9,900mm approximately (depending on wall thickness)	
EXTERNAL DIAMETER OF PIPE	From 10mm to 10,000mm	
INPUT/OUTPUT	<ul style="list-style-type: none"> <li>&gt; With Field bus option: Up to 5 programmable input/output modules</li> <li>&gt; Without Field bus option: Up to 10 programmable input/output modules</li> </ul>	
2 MANDATORY BASE MODULES	<ul style="list-style-type: none"> <li>&gt; 1 isolated active analogue output: current 4-20mA, 0-20mA, 0-24mA (single module)</li> <li>&gt; 2 static relay digital outputs (50V - 10mA) usable on frequency outputs (single module)</li> </ul>	
IN OPTION, OTHER MODULES AVAILABLE	<ul style="list-style-type: none"> <li>&gt; 1 isolated, active analogue output: current 4-20mA, 0-20mA, 0-24mA · Module 1 (single)</li> <li>&gt; 2 static relay outputs (50V - 10mA) usable as frequency outputs (up to 1kHz) · Module 2 (single)</li> <li>&gt; 2 isolated, passive current inputs 4-20mA, 0-20mA, 0-24mA · Module 3 (single)</li> <li>&gt; 2 isolated, passive analogue 0-10V inputs: 0 to 15V voltage · Module 4 (single)</li> <li>&gt; 2 temperature inputs PT100/PT1000 · Module 5 (dual)</li> <li>&gt; 2 contact 5V inputs (pulse or state) · Module 6 (single)</li> </ul>	
IN OPTION, CALORIMETRIC FUNCTION	<ul style="list-style-type: none"> <li>&gt; 2 temperature inputs PT100/PT1000 · Module 5</li> <li>+ 2 probes PT100</li> <li>+ 2 2.5m cables</li> </ul>	
USE	Flow measurement in a pipe with the ability to incorporate up to eight speed chords (optimised accuracy for difficult hydraulic conditions)	Flow measurement on 1 to 8 pipes with the ability to incorporate up to eight speed chords (depending on the chosen configuration)
OPTION, COMMUNICATION PROTOCOL - FIELD BUS -	Choice of 2 buses: <ul style="list-style-type: none"> <li>&gt; Modbus TCP</li> <li>&gt; Modbus RTU</li> </ul> Note: physically takes the place of 5 input/output modules	
DISPLAY	<ul style="list-style-type: none"> <li>&gt; Numeric and graphical (14 lines x 20 characters)</li> <li>&gt; Backlit LCD screen with time delay feature</li> </ul>	
TROUBLESHOOTING HELP	Oscilloscope function (echo displayed) · Gain · Quality index	
SET-UP	<ul style="list-style-type: none"> <li>&gt; Quick and simple - by 7-key touchpad with 2 dynamically allocated - or - via dedicated software supplied</li> <li>&gt; Possible to build in an access code</li> </ul>	
INFORMATION STORAGE	<ul style="list-style-type: none"> <li>&gt; 8MB data logger: time stamping - 1 to 30 variables - up to 536,886 data items</li> <li>&gt; 3-variable time-stamping: 268,443 lines · 14 variables: 71,584 lines · 30 variables: 34,637 lines</li> <li>&gt; Logging frequency from 1 second to 24 hours</li> </ul>	
OPERATING SYSTEM	Windows for transfer of content and operation of logger using common software (Excel, etc.)	
7 LANGUAGES	French · English · German · Portuguese · Spanish · Italian · Russian	
SERIAL LINK	RS232 or RS485 to JBUS/MODBUS protocol · 115,200 Bauds	
CHOICE OF POWER SUPPLY	Low voltage: 9-36V dc · Mains: 110 to 240V ac	
ENCLOSURE	Stainless steel 304, epoxy paint · Plug-in connectors · 8kg · 300 x 346.5 x 148mm	
PROTECTION	IP67 (except with field bus option: IP20)	
TEMPERATURE RANGE	For use from -10°C to 50°C	

TECHNOLOGY	PERFORMANCES			
<b>ULTRASONIC TRANSIT TIME</b> > Continuous bidirectional measurement  <b>SIGNAL ANALYSIS</b> > By double Digital Signal Process (real-time Echo Shape Control, digital filtering and regulation of gain on each firing)	<b>ACCURACY</b> > Up to 0.5%	<b>TEMPORAL RESOLUTION</b> > 0.1ns	<b>VOLUME METERING</b> > From a millilitre up to 1,000 cubic metres	<b>ANOTHER IMPORTANT DETAIL</b> > Laminar and turbulent transitions considered (calculation of the Reynolds number) - except for parallel chords > Freedom to mount probes: modes /, V, N and W
	<b>REPEATABILITY</b> > Up to 0.1%	<b>TIME BETWEEN EACH FLOW CALCULATION</b> > 100ms	<b>MEMORY CAPACITY</b> > Up to 11 configurations	
	<b>LINEARITY</b> > Up to 0.1%	<b>UNITS OF MEASUREMENT</b> > From litres per second to cubic metres per day		

