



Uf821

Ultrasonic fixed flowmeter



media measured
liquids & gases



Pipe diameters
up to 10 000mm



Model
Standard

Dual pipe
Dual chord

High performing

- Graphic screen
- Echo, gain and quality index displayed
- Accuracy up to 0,5 % of flow reading
- Repeatability up to 0.1%
- Range +/- 30m/s

Adaptive

- Multi-parameter data logger
- Mathematical functions generator
- Optional Input/output modules (analogue, digital)
- UF 821 can work on all homogeneous pipe materials (Steel, PVC, Cast Iron, Stainless Steel...)
- Up to 3 different pipe layers

Reliable

- Automatic calibration of the zero point on site
- Ten flow calculations per second
- EU (CE) conformity according to 2014/30/UE (EMC) & 2011/65/UE (RoHS)

Competitive

- Up to 4 measurement points with the same device
- Reduced installation & commissioning time

Typical Applications

Drinking water:

Flow measurement and metering in treatment station works, abstraction flow measurement

Waste water:

Flow measurement at pumping stations, in systems, inlets/outfalls in treatment works

Raw water:

Flow measurement in fire mains, system monitoring

Climate engineering:
energy assessment

Chemical products, including aggressive chemicals:

Flow measurement for acids, chlorides

Pharmaceutical sector:
ultrapure water flows

Automotive, food and farming, energy...

Gas: measuring on homogenous gas*

Uf821 Ultrasonic fixed flowmeter

model	Single pipe version	Multi pipe version
Technology	Ultrasonic transit-time flowmeter – continuous and bidirectional flow metering – 10 flow measurement/s	
Signal analysis	By digital signal process (real-time echo shape control, digital filtering and regulation of gain on each signal transmission)	
Accuracy	Up to 0,5% of flow reading (minimum velocity of 0,2m/s for DN40 – 0,05m/s for DN300)	
Repeatability	Up to 0,1%	
Linearity	Up to 0,1 %	
Velocity limits	+/- 30 m/s	
Temporal resolution	0,1 ns	
Response time	Less than 1 second	
Damping & Memory	Adujustable from 0 to 3600 s	
Internal ø of pipe	From 6mm to 9,900mm approximately (depending on pipe thickness)	
External ø of pipe	From 10mm to 10,000mm	
Use	Flow measurement in a single pipe with the ability to incorporate up to 4 speed chords	Flow measurements in 1 to 4 pipes with the ability to incorporate up to 4 speed chords
Standard input/output	2 static relays outputs (50v-10ma) usable as frequency outputs (up to 1kHz) – module 2 (single)	
In option, Supplementary input/output single modules (standard module will be removed to reach maximum capacity)	Up to 4 single or 2 dual modules to choose from: <ul style="list-style-type: none"> › 1 Isolated, active analogue output: current 4-20ma, 0-20ma, 0-24ma • Module 1 (single) › 2 Static relay outputs (50V – 10mA) usable as frequency outputs (single) (up to 1kHz) • Module 2 (single) › 2 Isolated, passive current inputs 4-20ma, 0-20ma, 0-24ma • Module 3 (single) › 2 Isolated, passive analogue 0-10v inputs: 0 to 15v voltage • Module 4 (single) › 2 Pt 100 / pt 1000 temperature – Module 5 (dual) › 2 Contact 5v inputs (pulse or state) • Module 6 (single) › 2 static relay outputs (50v – 100mA) usable as frequency outputs (up to 30 Hz) – Module 8 (single) 	
In option, Communcation protocol	HART or Modbus TCP/IP	
Display	<ul style="list-style-type: none"> › Graphical LCD screen (14 lines x 20 characters) › Backlit screen with time delay feature › Flowrate unit: l/s, l/min, l/h, m3/s, m3/h, m3/day, Gps, Gpm, Gph, Bps, Bpm, Bpd 	
Troubleshooting help	Oscilloscope function (echo displayed) • gain • quality index	
Set-up	<ul style="list-style-type: none"> › Quick and simple – by 7-key touchpad – or – via dedicated software supplied › Possible to build in an access code 	
Information storage	<ul style="list-style-type: none"> › 8mb data logger: time stamping – 1 to 30 variables – up to 536,886 lines › 3-Variable time stamping: 268,443 lines • 14 variables: 71,584 lines • 30 variables: 34,637 lines › Logging frequency from 1 second to 24 hours 	
Configuration recording	Up to 11 embedded configurations	
Totalization	Resolution from 1 ml to 1000 m ³	
Operating system	Ultraflux dedicated software (Windows compatible) for configuration (upload/download the settings), read/re-record the measurement values and download the logger's data. Measured values and logged data are readable with spread sheet software (Microsoft Excel, etc.)	
6 Languages	French • English • German • Portuguese • Spanish • Italian	
Communication	Serial link RS232 or RS485 to jbus/modbus protocol • 115,200 bauds – USB port	
Power supply	DC power supply: 10-32V DC – peak consumption < 12W – average consumption < 6W AC power supply: 110-240V AC – peak consumption < 15W – average consumption < 7,5W	
Enclosure / IP	<ul style="list-style-type: none"> › Fiber-glass reinforced polycarbonate • dimensions 290x290x100 – weight 3kg – IP67 / EN / IEC 60529 › Delivered with wall bracket in stainless steel 	
Temperature range	For use from –20°C to 60°C	