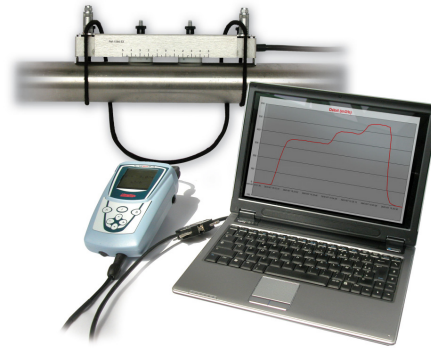


# Ultrasonic Portable Flowmeter UF801-P



## UF801-P

The most advanced portable ultrasonic flowmeter available. Incorporating over 30 years of practical field experience the **UF 801-P** is the ideal portable flowmeter for your diagnosis and monitoring requirements. Featuring long battery life and clamp on probe technology using the measurement principle (Transit Time ultrasonic) which has been Ultraflux's speciality for over 30 years. User-friendly and ergonomic, UF 801-P is designed for ease of use with optimum performance. The **UF 801-P** uses **Ultraflux's Next Generation** Digital Signal Processing (DSP), flows in a wide range of pipe sizes can be measured. The meter gives accurate, reliable results even under extreme measurement conditions.

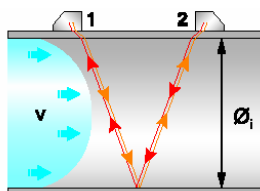
- ✓ Versatile, Diameters from 10 mm to 10 m, any liquid even non conductive, any pressure
- ✓ Non invasive external probes clamped on to the pipe
- ✓ Easy and quick installation resulting in immediate measurement
- ✓ User friendly operation, set up by keypad or software
- ✓ Digital signal processing using multiple processors enhances response times
- ✓ Possible choice of configuration from previous saved sites
- ✓ Integral data logger, with over 6 months capacity at 2 min intervals
- ✓ Robust, watertight (IP67) control unit enclosure
- ✓ Very lightweight: less than 1kg
- ✓ Battery life indicator
- ✓ Measuring accuracy: 0.5%
- ✓ Probes available from -100°C to +200 °C (pipe temperature)
- ✓ High technology probes for difficult applications
- ✓ Optional extra inputs/outputs

## Principle \*

The **UF 801-P** calculates the (v) speed and the (Q) flow of the fluid by the measurement of the ( $\Delta t$ ) difference of the transit times of ultrasonic waves ( $t_{21} - t_{12}$ ):

$$Q = f ( \phi_i, t_{12}, t_{21} )$$
$$\Delta t = t_{21} - t_{12} = Kv$$

with K : proportion coefficient



\* The fluid should be suitable for the propagation of ultrasound

## Typical Applications

- Flows in all water applications: network (potable water, raw water, sewage) – pump metering
- Flow of various oil products – refined – crude oil – multi-product pipelines
- Petrochemical and food industries, process metering and control
- Climate and hydraulic engineering – network balancing – performance
- Available in dual-pipe version

**Ultraflux**

Ultrasonic Measurements

## FEATURES

**Digital** and graphic LCD display (14 lines X 20 characters) – programmable backlight.  
**Oscilloscope** function: assist with the diagnosis, Installation, and Verification.  
**Fast and easy** parameter set up, with a 7 key keyboard– with access code option.  
**Data Logger** 4 MB memory : time & date + 1 to 14 variables (up to 3 variables → 135000 data sets, or 14 variables → 36000 data sets)  
**Communication** Windows software : transfer of the contents and export of the logger via software (Excel...)  
**Programmable delayed start**: can be set to start at any hour, time period and alarm time  
**Choice** of 6 languages: French / English / German / Portuguese / Spanish / Italian.  
**Battery life**: up to 14h, with indicator.  
**Serial link** RS 232 (JBUS).  
**Basic** configuration: 1 analogue output / 2 programmable static relays.  
**Additional** inputs/outputs by optional modules.

## OPTIONS

Pipe thickness measurement (digital and graphic function)  
Temperature measurement (calorimetric function)  
2 additional input/output functions from the following:

- 2 static relays usable as frequency outputs (until 1KHz)
- 2 current inputs 4-20 mA
- 1 input for 1 probe PT100 (calorimetric)
- 2 voltage inputs 0-5 V
- 2 contact inputs

converter cable DB9 for USB

## PACKAGING

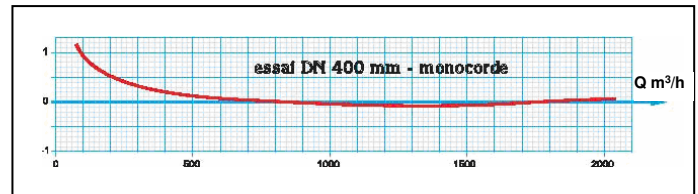
The UF 801-P is supplied in a rigid transportation case (51 x 40 x 13 cm) including:

- UF 801-P Unit in carrying case
- 5 m sensor cables to connect the probes to the converter
- Charger, PC cable and the operating software & user guide on a CD ROM
- 2 straps and 1 bottle of coupling agent (80°C max)

In addition: probes and specific attachment systems

## SPECIFICATION\*

Typical accuracy: 0.5%  
Bidirectional measurement  
Time resolution: 0,1 ns  
Repeatability: 0,2 %, linearity: 0,1%  
Choice of the units: from 1 l/s to the 100 m<sup>3</sup>/s  
Volume metering: from 10 ml to 100 m<sup>3</sup>  
Multi-layer pipes: up to 3 materials  
Storage of 3 configurations  
Built-in correction for multi-products or for laminar/turbulent transition flow  
No pressure loss  
No damage to pipe  
No or very low maintenance: no drift in time  
Choice of probes in installation: modes, V, N and W  
\* at reference conditions



## ELECTRICAL CHARACTERISTICS

CE product  
Power supply:  
Internal battery 12V NiMh non polluting (1h30 charging)  
Charger 90 V – 220 VAC - auxiliary power supply function  
Isolated and active 4-20 mA output current  
Static relays (250 V - 50 mA)

## MECHANICAL CHARACTERISTICS

Robust ABS enclosure with carrying case:  
220 mm x 115 mm x 64 mm  
Weight of unit < 1Kg  
IP67 protection against dust and immersion  
Use temperature: -10°C with 50°C

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