



## Ultrasonic Flowmetering & Control Catalogue



Portable Transit Time

Portable Doppler

Dedicated Doppler/Transit Time

Open Channel Meters



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# Portable Transit Time Meters



## Portaflow 300

- Compact, lightweight, rugged, waterproof, IP 66 electronics housing.
- User friendly, menu driven set up.
- Large graphics display - 64x240 pixels.
- Choice of English, German, French.
- Internal battery, mains or DC powered.
- Data logger, Totaliser.

**'A' Transducers in mounting rail:-** 13mm ID to 89mm ID pipes.  
**'B' Transducers in mounting rail:-** 90mm ID to 1000mm ID pipes.  
 Guide rail for diagonal operation using 'B' or 'C' Transducers for pipes larger than 300 mm with Hi-Velocity flows.  
**Optional Transducers:-** 'C' and 'D' for pipes > 300mm up to 5000mm  
**Transducer Operating Temp:-** 'A' 'B' 'C' -25°C to +125°C, 'D' -25°C to +80°C.  
 Optional Hi-Temp Transducers for operation above +125°C to 175°C.  
**Outputs:-** Opto Isolated 0/4 -20mA; RS 232; 5v pulse @ 1 pulse/sec max.  
**Power:-** 110 - 240V AC +/-10% supply via Battery charger.

12V DC input supply converter (optional).  
**Battery Life:-** 24-38 hours from fully charged battery.  
**Display:-** 64 x 240 pixels Graphic display. Size 48 x 125mm viewable area. Backlight.  
**Programming:-** Via 16 key control panel.  
**Data Logging:-** 50000 data points. Up to 20 named recording blocks. Data displayed locally in text or graph format. Real time or stored. Can be downloaded via RS 232 port to Windows based PC.

## Portaflow SE

- User friendly, rechargeable battery, mains or DC powered.
- Compact, rugged, lightweight, IP 55 electronics housing.
- Hi-resolution backlit graphics display.
- Imperial, Metric, US, volume or velocity units.
- Data logger.
- Totaliser.

**Pipe Operating Range:-** 50mm ID to 1000mm ID. Reflex or Diagonal Mode.  
**Transducer Temperature working range:-** -25°C to +125°C.  
**Option:-** HI Temperature Transducers to 175°C max.  
**Power:-** 110 - 240VAC +/-10% via charger.  
**Option:-** 12v DC Input supply converter.  
**Battery:-** Rechargeable cells. 8-10 hours operational life from full charge.

**Display:-** 64x128 pixel graphics display, Backlight.  
**Data Logging:-** 50000 data points: 20 named blocks: Text/graph format. Local or downloaded to Window based PC.  
**Outputs:-** Opto isolated 0/4-20mA, RS 232.  
**Programming:-** Via 16 key control panel.



## Portaflow 216



- Low cost.
- Lightweight, compact, IP 55.
- Menu driven, simple functionality.
- Volume, velocity, total in metric and Imperial units.

**Pipe operating Range:-** 50mm to 400mm ID.  
**Transducer Operational Temperature Range:-** -20°C to +125°C.  
**Option:-** Hi temperature transducers to 175°C max.  
**Power:-** 110 - 240v AC +/-10% via charger.  
**Option:-** 12v DC Input supply converter.

**Battery Life:-** 8-10 hours from full charge.  
**Display:-** 64x128 pixels graphics display. Backlit.  
**Programming:-** via 16 key control panel.  
**Outputs:-** Opto Isolated 0/4 -20mA; 4V pulse @ 1 pulse/ sec.

## Portaflow 204

- Simple to use, compact, rugged.
- IP 55.
- LCD display.
- Low cost.

**Pipe Range:-** 13mm to 100mm ID.  
**Transducer temperature Range:-** -20°C to +125°C.  
**Power:-** 110v -240v AC +/-10% via battery charger.  
**Option:-** 12v DC Input supply converter.  
**Battery Life:-** Approximately 7hours from full charge.

**Display:-** 8 x 9mm characters LCD.  
**Units:-** Selectable, volume rate, velocity or total.  
**Output:-** Pulse: 4v @ 1 pulse/sec max.  
**Programming:-** via 15 key control panel.



# Portable Doppler Meters

## PDFM-IV Portable Doppler Flow meter

Suitable for most contaminated fluid flows

- Single clamp-on transducer.
- Fast, simple operation.
- Rugged, waterproof.
- On board data logger.
- Free analysis software.

**Pipe Range:-** 25mm to 4500mm.  
**Transducer Temperature Range:-** -20 to + 80°C.  
**Power:-** 110 –240v AC +/-10%; 12/24v DC option.  
**Internal Rechargeable Battery:-**  
30 hours from full charge.  
**Programming:-** via 3 key input controller.

**Display:-** 4.5 digit Seven segment display.  
**Data Logger:-** 50000 point data store for transfer to windows compatible PC. Software included FOC.  
**Sensitivity:-** fully adjustable.  
**Damping:-** fully adjustable.  
**Outputs:-** Opto isolated 0/4 –20mA; RS 232.



## Stingray Portable Area/Velocity meter

Suitable for any open channel or partially full pipe.



- Compact, rugged, water tight, dustproof.
- Up to 4 years logging from Alkaline "D" cells.
- Free onboard Windows compatible analysis software.
- Large capacity memory store.
- Fast download via RS232 port.

**Electronics Housing:-**  
208x166x86mm, polycarbonate, 4.5kg.  
**Operating Temp. Range:-** -20°C to +60°C  
**Set-Up:-** Via Windows compatible on-board software.  
**Display:-** LCD Bar Graph selectable  
Displays: Memory, battery, temp, velocity, level.  
**Logger Interval:-** 10secs (15 days) to 20mins (4 years).

**Data Capacity:-** 130,000 Data points.  
**Output:-** RS 232 @ 28,800 baud.  
**Power:-** 4 Alkaline "D" cells.  
**Velocity Range:-** 0.03m/sec to 3m/sec  
**Level Range:-** Minimum Head 25.4mm, Maximum Head 4.5metres.  
**Sensor Operating Temp Range:-**  
-15°C to +65°C (5°F to +150°F).

## dedicated meters

## Ultraflo 2000 Flow & Heat Meters

- Simple set-up menu.
- Current, pulse or set point outputs.
- High temp. Transducers-option.
- Energy meter version.

**Pipe Range:-** 25mm to 5000mm ID.  
**Electronics:-** ABS housing with clear polycarbonate front panel waterproof and dustproof to IP66.  
**Temperature Range:-** +5°C to + 60°C.  
**Keypad:-** 16 key panel for set up, Diagnostics. Access password protected  
**Display:** 2 x 16 LCD. Backlit.  
**Power Input:-** 110/240VAC +/-10% 50/60Hz @ 50watts 24VDC +/- 10%, 6 watts.

**Outputs:-** Flow proportional 0/4 – 20mA Active opto isolated into 500ohms. Bi-directional; Pulse or set point relay. 5A-SPDT. Selectable rate and totaliser to 12

digits.  
**Transducers:-** A, B, C or D sensors factory selected based on flow rate.  
**Range:-** 0.5m/sec to 10m/sec.  
**Operating Temp.** -20°C to +125°C Optional hi-temp to +175°C  
**Accuracy:-** < +/- 3% of reading or +/- 0.05m/sec whichever is the greater  
**Repeatability:-** < +/- 1% with unchanged Transducer positions.



# Dedicated Doppler/Transit Time meters

## U-100



- Application specific.
- Pre-calibrated and scaled.
- No mechanical adjustment required.

**Electronics:-** Cast aluminium housing 150x90x60mm, Waterproof, Dust proof to IP54.  
**Operating Temp Range:-** +5°C to +60°C.  
**Storage Temp Range:-** -5°C to + 65°C.  
**Power:-** 90-260VAC, 50/60Hz or 20-28VDC @ 5W.  
**Outputs:-** 0/4-20mA, Pulse (1per sec max) RS 232 Opto Isolated. Diagnostics and reconfiguration via RS232 port using installed GUI software.

**Pipe Range:-** 50mm to 200mm ID.  
**Application Temp Range:-** - 20°C to +80°C.  
**Flow Range:-** up to 24L/sec in 100mm pipe.  
**Minimum flow:-** 0.3m/sec.  
**Typical Accuracy:-** +/-1 to 3% of reading or 0.05m/sec whichever is the greatest.  
**Repeatability:-** +/- 1% with unchanged sensor position.  
**Linearity:-** +/-1% of calibrated range.

## DFM-IV Doppler Flow Meter

- Watertight enclosure.
- Signal strength Indicator.
- RFI rejection Filters.
- Backflow protection.

**Pipe Range:-** >13mm up to 4.5m  
**Power Input:-** 100 –260VAC, 50/60Hz, 12-28VDC 5watts max.  
**Flow Rate Range:-** 0.08m/s to 12m/s  
**Accuracy:-** +/-2% of full scale. Requires solids or bubbles of minimum size 100 microns, minimum concentration 75ppm.  
**Repeatability:-** +/- 0.1%.  
**Linearity:-** +/-0.5% of full scale.  
**Display:-** Large 4 Digit LCD for programmable output in engineering units.16-digit alpha numeric for Totaliser, Menu, status, signal strength.

**Output:-** Isolated 0/4 –20mA(1000ohm load max.) 3-5amp rated SPDT relays, programmable flow alarms and/or proportional pulse. Adjustable sensitivity and damping.  
**Electronics Operating Temp:-** -23°C to + 60°C.  
**Sensor Operating Temp:-** -40°C to + 90°C.  
**Options:-** Intrinsic safety barriers, high temp to 150°C, ISE insertion and dual head types for special applications. Enclosure heater controlled to maintain temp. at 40°C  
**Data logger:-** 50,000 points via RS 232 output with Windows software.



## DFS-II Doppler Flow Switch



- Suitable for liquids or solids.
- Watertight, dustproof (IP67).
- Easy to install.
- Low cost.

**Electronics:-** Wall mounting – 175x125x75mm.  
**Power Input:-** 100 – 130VAC, 50/60Hz, 4.2watts. 200 – 260VAC, 50/60Hz, 4.8watts. Optional 24VDC, 3.6watts. Surge protection on power Input.  
**Output:-** 5amp relay, DPDT.  
**Set Point:-** On/Off adjustment – 0.1 to 3m per sec.

**Time delay:-** Switch selectable.  
**Failsafe Mode:-** Switch selectable.  
**Indication:-** Relay status and signal strength LED's.  
**Pipe Range:-** 12.5mm ID to 4.5m ID.  
**Sensor cable:-** Surge protected, 5m-Shielded Coax  
 Optional:- 15m.  
**Hazardous Locations:-** Intrinsic safety Barriers option.

## MFS100 Microphone Flow Switch

**Electronics Housing:-** Water tight, Dustproof-IP66.  
**Power Input:-** 90 – 130VAC 50/60Hz, 2watts.  
**Output:-** 5amp relay – SPDT.  
**Indication:-** Power and relay condition LED's.  
**Sensitivity:-** Application adjustable.  
**Sensor Operating Temperature Range:-** -30°C to + 90°C.

- Non invasive.
- Liquids or solids.
- Enclosure heater (optional).
- Low cost.

