



## Flownetix Ultrasonic Watermeters

The Flowquip range of Flownetix battery powered Ultrasonic flowmeters uses transit time ultrasonic technology to produce a unique water meter with no moving parts. Available in 15mm to 50mm bore sizes covering a flow range of 15 l/hr to 30 m<sup>3</sup>/hr.

- ◆ 10 year battery life
- ◆ No moving parts
- ◆ Does not measure air
- ◆ Low pressure drop
- ◆ Ideal for gravity feed applications
- ◆ 9 digit totaliser with pulse output
- ◆ Rated to 85° C and 16 barg
- ◆ WRAS approved wetted parts



### Application

Flowquip Flownetix unique low cost low power Ultrasonic Flow Measurement Technology solves all the problems commonly encountered with mechanical water meters. Flownetix watermeters have no moving parts so will not wear over time which guarantees long-term calibration accuracy. Flownetix flowmeters will not meter air so will not provide operators with erroneous readings unlike their mechanical counterparts. Having no moving parts means also that protective strainers and non-return valves are not required which offers the user further cost saving. Flownetix flowmeters are tamperproof and sealed for life with a minimum ten year battery life ensuring years of trouble-free operation. As well as the large nine-digit LCD totaliser Flownetix flowmeters also provide a scaled pulse output for remote totalisation.

### Installation

Flownetix may be installed at any angle although in situations where large amounts of air are present vertical installation is recommended. Flowmeters should not be placed on the suction side of a pump but always on the outlet. A pipe inlet side. A pipe inlet diameter which matches the Flowmeter bore is also recommended.

### Calibration

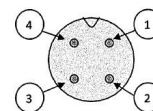
Users can be sure of the accuracy of Flowquip Flownetix flowmeters as they are individually calibrated on water and issued, as standard, with a four-point calibration certificate traceable to UK National Standards.

### Pressure Test Information

Before leaving the factory all Flownetix flowmeters are individually pressure tested in accordance with the requirements of OIML R49 for PN16 (15 minutes at 25 Barg and one minute at 32 Barg). A pressure test is also carried out at 32 Barg and 90 degs. C. to confirm body integrity for applications involving elevated temperature.

### Pulse Output

All Flownetix flowmeters provide an NPN scaled pulse output as standard. The 15mm, 20mm and 25mm sizes have 1 p/l output whilst the 40mm and 50mm versions provide one pulse every 10 litres.



Pin	Colour	Description
1	Black	Pulse -
2	----	Not Used
3	----	Not Used
4	Blue	Pulse +

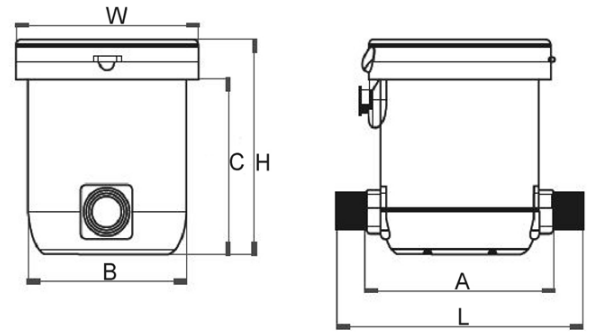
Where the pulse output is required a 5m cable fitted with connector is supplied as an optional extra.

Pinout Connections—viewed from side of meter





- Principle of operation : Ultrasonic transit time using inline flow cell
- Battery life : 10 years
- Display : 9 digit LCD
- Enclosure rating : IP68 to BS EN 60529 : 1992
- Interfaces : 4 pin IP68 rated connector giving:
- Signal output : NPN open collector (30VDC Max. / 50mA Max.)
- Materials Wetted parts: : EMS Grivory HTV-4X1 black 9225 (WRAS listed)
- Other parts: : Polycarbonate
- Reverse flow : Indicated but not accumulated
- Strainers/non-return valves : Not required to protect meter
- Accuracy : Better than +/-2% of reading



Dimensions shown in mm

The Flowquip Flownetix offers ISO4064 Class C / OIML R49 performance. and its < 2% accuracy easily exceeds the requirements of the UK MCERTS Standard of < 8%.

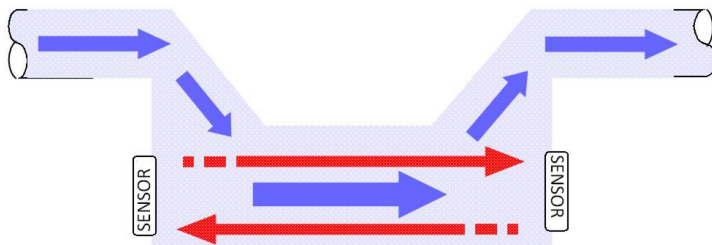
Bore	Model	L	W	H	A	B	C
15mm	315	145	106.7	120	110	92	98
20mm	320	200	106.7	157.3	158	103.7	135
25mm	325	200	106.7	157.3	158	103.7	135
40mm	340	245	106.7	157.3	205	100.2	135
50mm	350	240	106.7	157.3	205	100.2	135

Nominal bore mm	15mm	20mm	25mm	40mm	50mm
Meter Conns. BSP	1/2"	3/4"	1"	1 1/2"	2"
Length mm	145	200	200	245	245
Weight Kg.	0.5	0.6	0.7	1	1
Max. Flow rate m3/h	3	5	7	20	30
Nominal flow rate m3/h	1.5	2.5	3.5	10	15
Transitional flow rate l/h	22.5	37.5	52.5	150	220
Minimum flow rate l/h	15	25	35	100	150
Max. liquid temp. Deg. C.	85	85	85	85	85
Max W.P. Barg	16	PN10/16	PN10/16	PN10/16	PN10/16
DP at Qmax Mpa	< 0.05	< 0.05	< 0.05	zero	zero

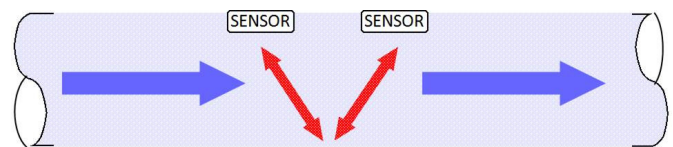


Nine digit LCD register reading down to 0.001 m3 with scaled pulse output provided as standard ( 1 pulse per litre for Model 315/320 and 325 and 1 pulse per 10 litres for model 340 and 350).

The Model 315,320 and 325 have an internal bend and the transducers scan horizontally across the whole diameter of the internal bore.



The Model 340 and 350 have straight through bores and the sensors detect vertically which covers the complete bore area,



Specification subject to change without prior notice.

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