



QS200 INSERTION ULTRASONIC FLOWMETER

The QS200 Insertion Ultrasonic Flowmeter provides an accurate reading of liquid flow rate and accumulated flow. Designed to support commercial irrigation applications, the QS200 is available in five pipe sizes, 1 to 4 inches.

The QS200 ultrasonic insert is available with a PVC tee or as an "insert retrofit" for replacement of existing paddlewheel flow sensors.

FEATURES & BENEFITS

- Low-cost, effective and easy installation
- No moving mechanical parts (low-maintenance)
- Simple two-wire connector (for power and pulse)
- Compatible with irrigation controllers (common name)
- High accuracy: $\pm 2.0\%$ of reading (compared to full scale accuracy)
- Provides extended leak detection down to 0.1 fps (0.03 m/s)
- LED light indicators: (green for power and amber for pulse)
- Patented design
- Ideal for clean water flow measurement
- External wiring: (direct burial wire)

PRODUCT CONFIGURATION

Designed for above and below grade applications, such as irrigation, municipal and underground monitoring where the flow rates are between 0.1 to 15 fps (0.03 to 4.57 m/s) and temperatures are below 60°C (140°F). QS200 inserts are supplied with two single conductors, 18 AWG solid copper wire leads that are 36 inches (914.4 mm) in length with UL Style 116666 direct burial insulation.

SPECIFICATIONS

Tee Housing Material:	Schedule 80 PVC
Insert Wetted Materials:	Body: PPS (Ryton R-4)
	Sensor: PEI (Uterm 1000)
	O-Ring: EPDM
Temperature Rating	
Operating	0°C to 60°C (32°F to 140°F)
Storage	-29°C to +71°C (-20°F to 160°F)
Flow Range	0.1 to 15 fps (0.03 to 4.57 m/s)
Accuracy	Typically $\pm 2\%$ of reading
Operating Pressure	10 bar @ 23°C (150 psi @ 73°F)
	7 bar @ 60°C (100 psi @ 140°F)
Transducer Excitation	Supply voltage: 7.5V (dc) min. to 36V (dc) max
	Quiescent Current: 200µA (typical)
Output Frequency	0 to 100 Hz
Output Pulse Width:	4 ms
Electrical Cable for Insert Electronics	914.4 mm (36 inches) of 18 AWG, solid copper, "Direct Burial" (UL 493 & 83)

APPLICATIONS

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|---------------------------------------|------------------------------|
| Sub-Metering Applications: | |
| ● Agriculture Irrigation | ● High Rise Tenant Buildings |
| ● Turf / Landscape Irrigation Systems | ● Apartment Complex |
| ● Micro Irrigation | ● Universities |
| ● Groundwater Monitoring | ● Commercial Businesses |
| | ● Processing Facilities |

APPROVALS



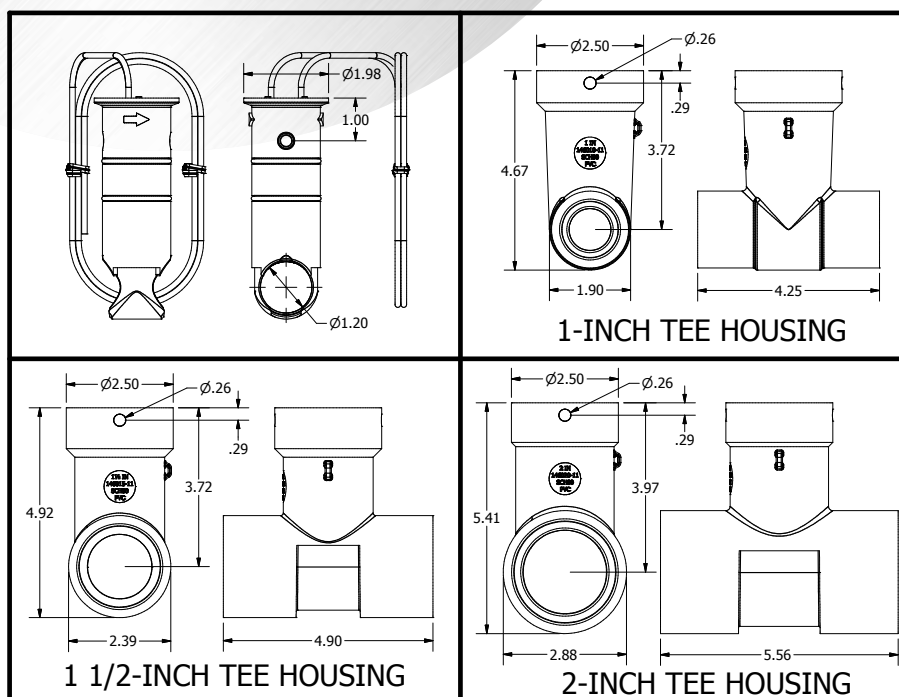
Flowmeter Model:	Pipe Size	Operating Range (Min.)	Operating Range (Max)	Maximum Water Pressure***	FLOMEC Tee K-Factor (Freq)*	Non-FLOMEC Tee K-Factor (Freq)*	Offset Value**	Meter Material	Adaptor Material	Tee Material	Process Port
QS200-10	1 inch	0.83 L/min (0.22 GPM) 0.1 ft/sec	124.92 L/min (33 GPM) 15 ft/sec	10 bar @ 23°C (150 psi @ 73°F)	0.5386	N/A	0	Ryton	-	PVC	Slip
QS200-15	1.5 inch	2.08 L/min (0.55 GPM) 0.1 ft/sec	310.41 L/min (82 GPM) 15 ft/sec	10 bar @ 23°C (150 psi @ 73°F)	0.7926	0.7947	0	Ryton	-	PVC	Slip
QS200-20	2 inch	3.48 L/min (0.92 GPM) 0.1 ft/sec	522.39 L/min (138 GPM) 15 ft/sec	10 bar @ 23°C (150 psi @ 73°F)	1.3765	1.3583	0	Ryton	-	PVC	Slip
QS200-30	3 inch	7.80 L/min (2.06 GPM) 0.1 ft/sec	1169.70 L/min (309 GPM) 15 ft/sec	10 bar @ 23°C (150 psi @ 73°F)	3.8444	4.2505	0	Ryton	PVC	PVC	Slip
QS200-40	4 inch	13.55 L/min (3.58 GPM) 0.1 ft/sec	2032.78 L/min (537 GPM) 15 ft/sec	10 bar @ 23°C (150 psi @ 73°F)	7.1676	7.2229	0	Ryton	PVC	PVC	Slip
QS200	Insert only			10 bar @ 23°C (150 psi @ 73°F)	Use pipe size to determine value	use pipe size to determine value	0	Ryton	PVC	PVC	Slip

*K and offset values are used to calculate the frequency of the pulses from the QS200 electronics. The formula for frequency is $Freq = (GPM/K) - offset$

** Offsets listed in this table are expected to be calibrated at the factory and therefore no additional correction should be required.

*** Maximum water pressure for larger line sizes would be based on the material of the sensor, adapter and pipe. Pressure is also derated due to temperature (1.20 psi /°F).

DIMENSIONS



Service & Warranty: For technical assistance, warranty replacement or repair contact your distributor:

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