

FT-210 Turbine Flow Sensor

FEATURES

- Economical flow sensor.
- Ideal for low-flow liquid monitoring (0.1 - 2.5 Litres/min flowrange @ $\pm 3\%$ accuracy).
- High pulse count, high resolution (22,000 pulses/Litre).
- $\pm 0.5\%$ repeatability.
- Fast response time.
- Lightweight plastic design enables mounting in any orientation.
- Can be used with dark liquids.



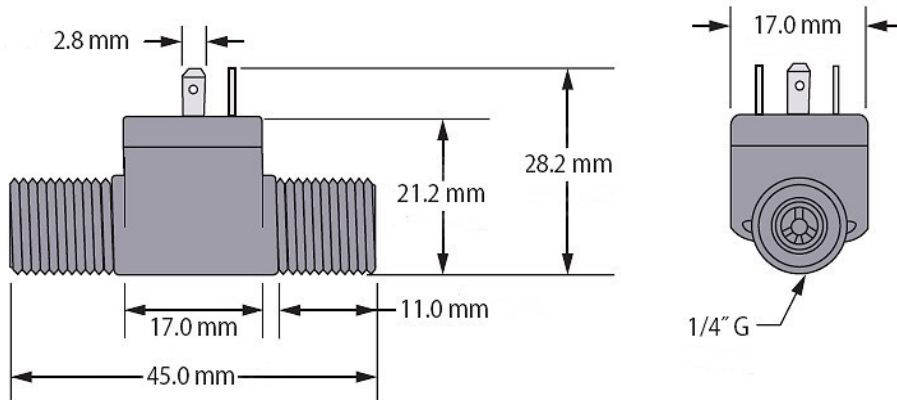
The FT-210 features proven turbine technology in a small package for low-flow liquid measurement, providing a highly repeatable sensor ideally suited for measurement of either volume dispensing and/or flow rate applications.

The body of the unit is constructed in Grilamid TR55, an amorphous thermoplastic with high chemical and stress crack resistance and transparency. Liquid flow causes the bladed ferrite rotor of the FT-210 to rotate at an angular velocity directly proportional to the velocity of the liquid being measured. A signal is generated from the rotating blades, where each pulse is equivalent to a discrete volume of liquid. The pulse rate is directly proportional to the liquid flow rate. The small turbine reacts quickly to on/off dispensing applications, and is not influenced by changes in system pressure e.g. caused by ageing filters.

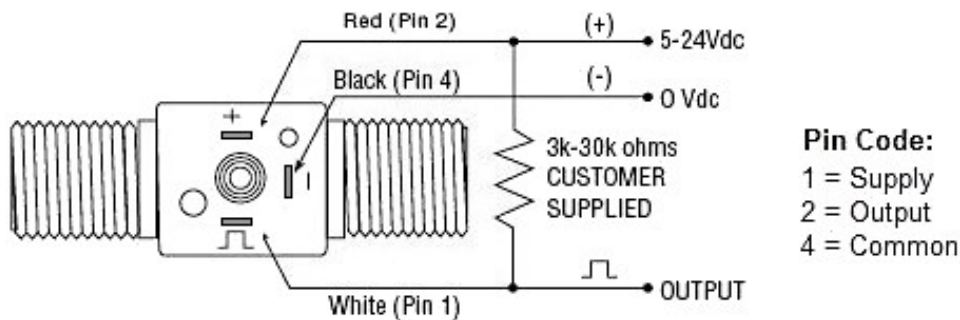
SPECIFICATIONS

Flowrange	0.1 - 2.5 Litres/minute
Accuracy	$\pm 3\%$ of reading (repeatability: $\pm 0.5\%$ of full scale)
Input Power	5 - 24 VDC @ 8mA
Output Pulses/Litre	22,000
Output pulse frequency	36.6 to 916.66 Hz
Output signal	NPN sinking Open Collector @ 20mA maximum (3 k Ω to 30 k Ω pull-up resistor required)
Temperature range	-20 °C to +100 °C
Max. Pressure	24 bar (350 PSI)
Liquid Viscosity (ISO)	0.8 to 16 Centistokes
End connection	G 1/4" (recommended torque = 6 Nm)
Filter	If liquid contains particles, then a 20 - 40 micron prior filter is recommended.
Electrical connection	Mini Din connector to EN60529, mating connector supplied as standard. 9.4mm spacing 3-pole DIN Connector (1" high)
Materials	<ul style="list-style-type: none">• Body: Nylon 12 (Grilamid TR55, PA12)• Turbine: Nylon 12 Composite (PA12 Ferrit)• Bearings: PTFE / 15% Graphite
Dimensions of sealing	Inside \varnothing 7mm, outside \varnothing 13mm, thickness 2mm, hardness approximately 70 Sh A

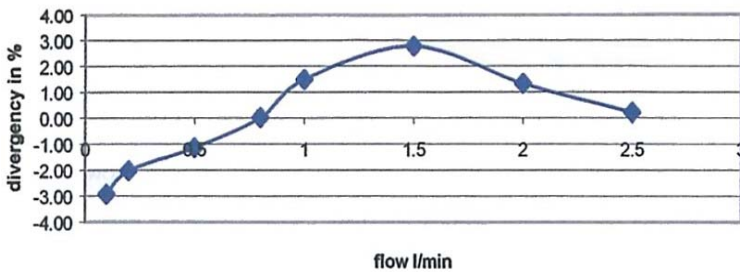
Dimensions (mm)



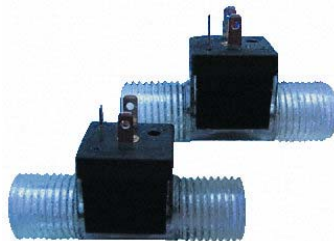
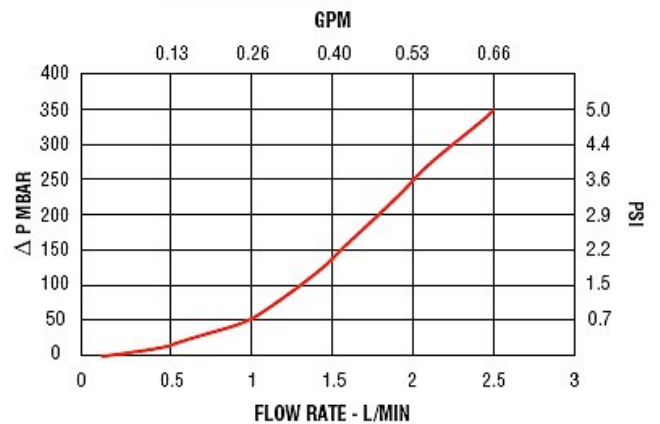
Wiring



Accuracy



Typical Pressure Drop



Due to continuous product improvement, specifications are subject to change without notice.