

CT5-S20 20mm totaliser positive displacement flowmeter with high rate 72 pulses/Litre pulse output

FEATURES

- Volumetric rotary piston principle, measures accurately in any position.
- Mechanical totaliser.
- 72 counts/Litre Reed Switch contact closure output for precision data collection and flowrate readings.
- Designed to meet AS3565.1-1998.
- Accuracy (Qt to Qs): $\pm 2\%$, Repeatability: $\pm 0.1\%$



The CT5-S20 (TD8) 20mm water meter is suitable for measurement of water up to 30 °C continuously (and up to 50 °C for up to 2 hours) with a working pressure upto 1500 kPa. The meter offers great accuracy and a long operating life for domestic drinking water applications.

The mechanical counter register is positioned for easy reading and displays from 0.02 to 9,999,999 Litres. The precision engineered rotary piston measuring chamber ensures accurate measurement even at very low starting flow rates. Meters can be installed in any position without affecting accuracy and require no onsite calibration. An inline filter element prevents blockages and an internal check valve stops backflows (can optionally have dual check-valves).

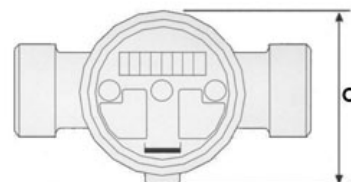
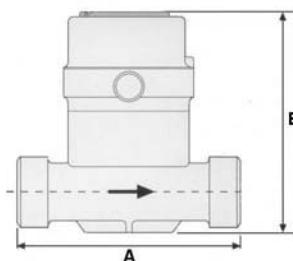
CT5-S20 flowmeters are fitted with a high resolution reed switch contact closure output. At the request of various water authorities, with ManuFlo technology, 72 pulses per Litre (ppL) output signal is achieved, which is the highest amount of pulses per Litre for a domestic water meter of this size (whilst retaining the mechanical register). This allows capture of precision water measurement information to data-loggers and to other data collection devices. Very accurate data can then be obtained for water usage totals and flowrate habits of consumers. Electrical connection is via a 1.5 metre 2-core shielded cable.

All meters are supplied with a gasket seat coupling connection kit (optional ball seat available for SydneyWater/NSW). CT5-S20 flowmeters are an adaptation of Aquadis+/TD8 flowmeters, which are manufactured from high quality materials to meet Australian and international specification requirements for residential water billing purposes.

The CT5-S20 20mm provides the best pulse output rate for domestic water meters, with 72 pulses/Litre.

SPECIFICATIONS

Size (mm)		20
Pulse output rate	Pulses/Litre	72
Mechanical register	Minimum Litres	0.02
	Maximum KL	9999.9999
Temperature (liquid)	°C (continuous)	30
Temperature (liquid)	°C (up to 2 hours)	50
Temperature (ambient)	°C	-10 to 70
Starting flow rate	Litres/min	0.033
Min. registration	Qr $\pm 5\%$ Litres/min	0.05
Min. transitional flow	Qt $\pm 2\%$ Litres/min	0.41
Nom. continuous flow	Qn $\pm 2\%$ Litres/min	41.6
Max. intermittent flow	Qs $\pm 2\%$ Litres/min	83.3
Weight with couplings	kg	1.9



DIMENSIONS	
Length A	152 mm
Height B	145 mm
Width C	92 mm

Pipeline must be full at all times for correct measurement.
Suitable for clean water only. Purge the pipeline prior to install.
Once installed, to avoid damage to measuring chamber, bleed the liquid into the pipeline and flowmeter.

ORDER CODES

Order Code	Description
CT5-S20	20mm flowmeter, with Gasket Seat $\frac{3}{4}$ " BSP (male) coupling set

Options	(add suffix to flowmeter Order Code)
-DCV	Dual Check Valve
-MBW	Manifold type (Brisbane Water, Europe)
-G1	European 1" BSP body thread with matching couplings
-BS20	Ball seat $\frac{3}{4}$ " BSP (female) coupling set for NSW, instead of Gasket Seat

Thread connections available to suit different states.

Also available : 25mm CT5-S25 (see separate data sheets). Other local variants available on request.

Manifold Type



- Accuracy Q_t to Q_s : $\pm 2\%$; Repeatability: $\pm 0.15\%$. 10,000,000,000 switch life operations.
- Cable: 2-core, 1.5 metre length (with some input devices, to avoid bounce install a 450pF capacitor across input).
- Although the cable gasket is sealed, loop the cable downwards from the flowmeter so that water cannot run down the cable and leach into the meter readout through the gasket cable outlet.
- Typically 50% duty cycle pulse (equal on/off state). Largest difference 46% on / 54% off state.
- Reed switch pulse V_{max} : 24 VDC; I_{max} : 50mA, with anti-bounce and internal 470 Ω current-limiting resistor fitted. 2-wire connection.
- At Q_{max} : 1.39 Litres/second x 72 pulses/Litre = 100 Hz max possible output to collection device.
- Headloss @ Q_n <25 kPa; Maximum pressure rating 1500 kPa;
- Maximum water temperature: 30 °C continuous, up to 50 °C for up to 2 hours.

Hermetically Sealed Register* (Counter)
Glass lens and copper can register, condensation and water proof (IP 68), allows permanent readability

* option for plastic case, for specific applications

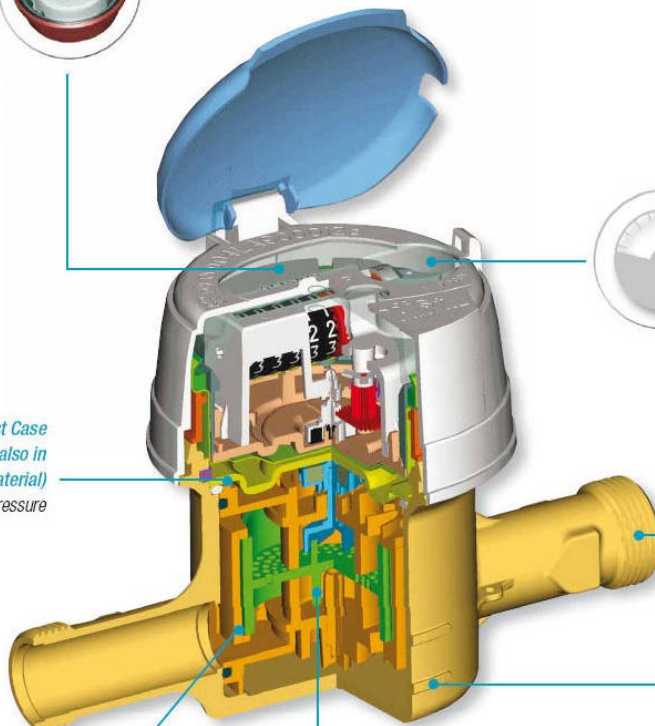


Communication
Pre-equipped with the proven Cyble target allowing the meter's integration into remote reading systems by adding the relevant module



Robust Case
(available also in thermoplastic material)
High resistance to pressure

Effective and Easy Maintenance Filter
Prepared to contain major particles, easy to clean

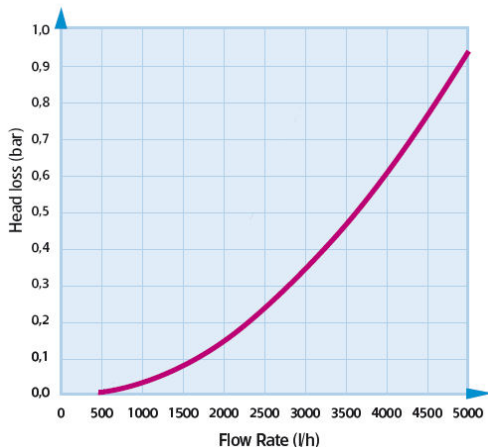


Compact and Easy Handling

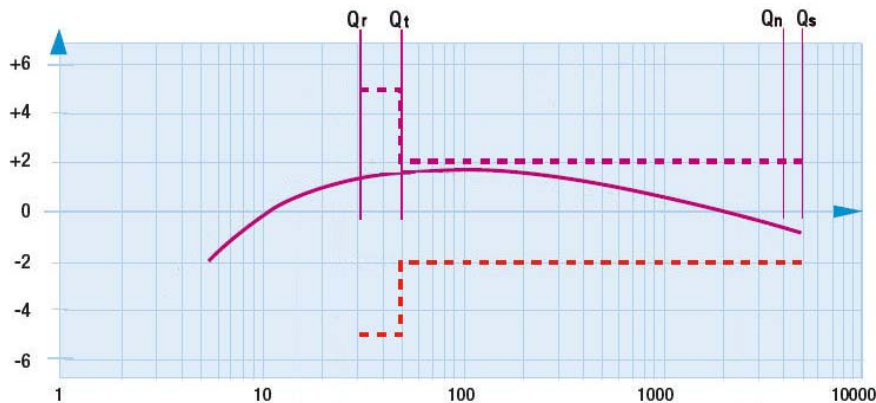
> Aquadis+ DN15



HEAD LOSS



TYPICAL ACCURACY CURVE



Due to continuous product improvement, specifications may change without notice.