Honeywell
THE POWER OF CONNECTED

Water Metering

V100

Accurate, robust metering

V100 range of domestic volumetric cold water meters

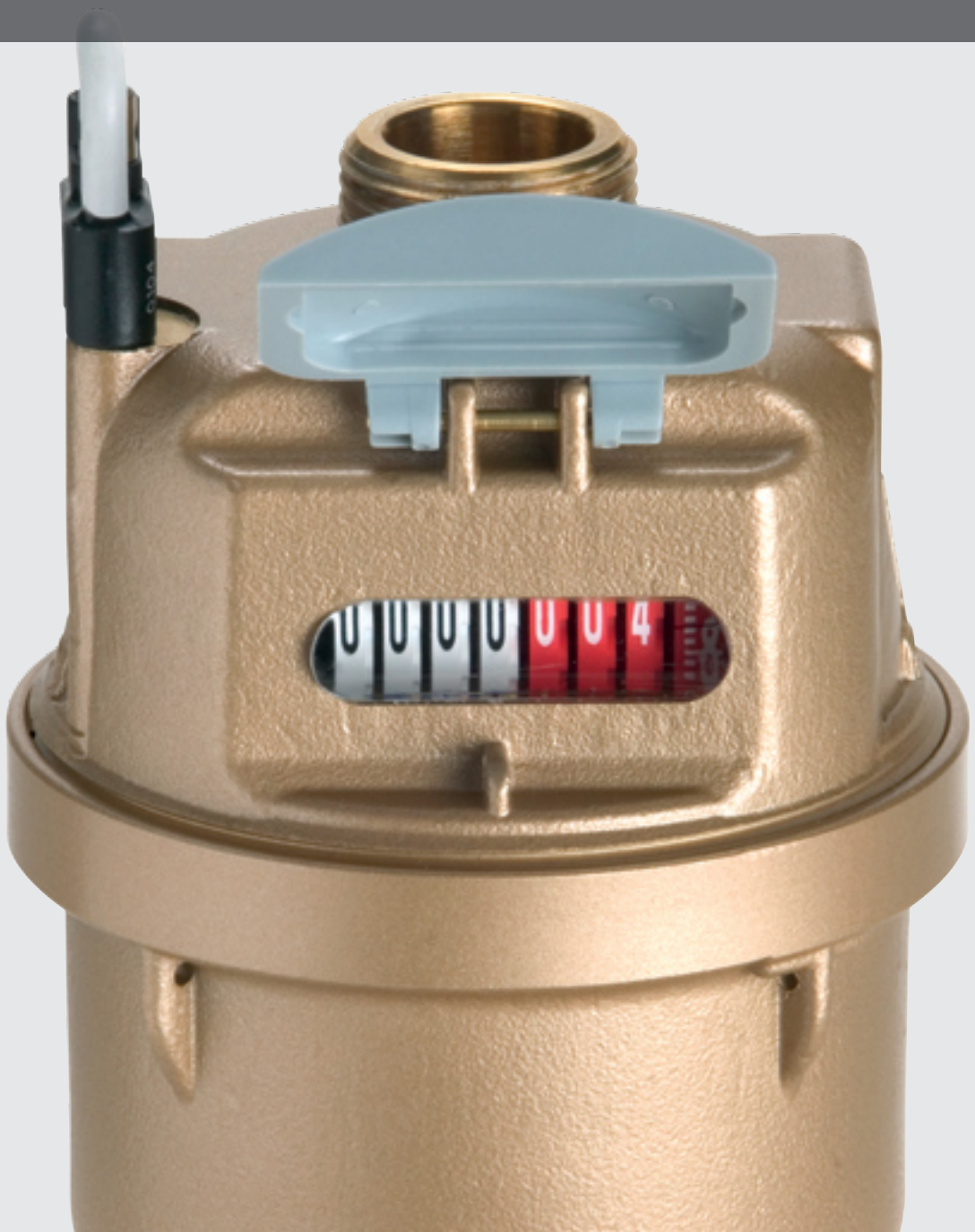
V100 volumetric cold water meters

The V100 is a volumetric meter designed for measuring domestic flows of cold potable water for revenue billing. The V100's unique design offers an unparalleled blend of accuracy, durability and security.

Key features

- Optimum accuracy and performance at all times, in any position
- Revolutionary grooved piston for improved durability and performance
- Durable tamper-proof construction
- Full range of sizes from 15mm to 40mm
- Water temperatures up to 50°C
- Maximum working pressure of 16 bar
- Pulse output available providing access to management information

Available in sizes from 15mm to 40mm, with flow rates of between 7.5 l/h to 20 m^3/h, V100 meters offer unrivalled performance approved to European Directive 2014/32/EU. With over 50 million units in service, in over 100 countries, the product offers high accuracy, long-life, low maintenance and tamper-proof operation, as well as the ability to provide valuable management information via a probe pulse unit upgrade.



Easy to read

Fully-sealed and liquid-filled, the meter's counter offers simple, straight-reading presentation, and the counter window is mounted inside the meter body in the direction of flow for easy reading. The number rollers are completely immersed in a lubricating non-toxic liquid, and a sac attached to the counter casing acts as a balancing membrane to ensure equalisation of pressure between the liquid in the counter and that of the external water.

Robust, leak-proof construction

A variety of design features contribute to the meter's leak-proof performance. The use of advanced engineering plastics for the meter's measuring chamber, for example, significantly reduces wear, while a large surface area strainer prevents solid particulate from causing damage. The advanced design of the V100 range ensures partial obstruction of the strainer does not adversely affect the accuracy of the meter's registration, and a body 'O' ring seal between the measuring chamber and meter body ensures that the possibility of internal leaks by-passing the measuring chamber are eliminated.

High accuracy in any position, for any flow

Based on the volumetric rotary piston measurement principle, the V100 range offers the very highest levels of reading accuracy, even at the lowest flow rate. Optimum accuracy is maintained whether the meter is installed horizontally, vertically or on an incline.

Tamper proof operation

The V100 offers extremely high resistance to illegal tampering through a unique design which eliminates the risk of disassembly in the field. A mechanically-driven cyclometer-type counter protects the meter from magnetic interference, and an optional return reverse flow restrictor can be used to prevent it from being operated in the reverse direction to reduce the reading. This restrictor cannot be removed without opening the meter and destroying the seal.

Reducing stoppages with the grooved piston

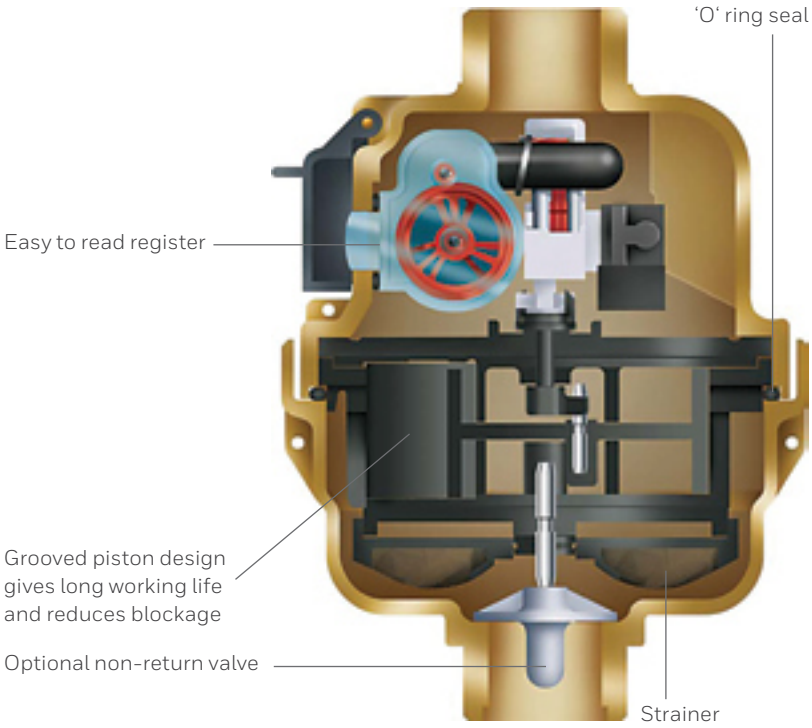
The relative motion of the grooved piston, with the stationary chamber wall, creates small flow eddies which hold solids in suspension until flushed out, reducing meter stoppages.

Powerful management information tool

V100 meters enable the collection of valuable management information, such as consumption and flow, through the use of an optional probe pulse unit. This information is available on a temporary or permanent basis, allowing analysis of consumption patterns and the ability to detect leaks early on. Volt-free probe pulsers provide output signals for interrogation by externally-powered reading devices, and can be retrofitted – at any time, and without interrupting the water supply – to any V100 meter with a probe pulse unit facility.

High performance, guaranteed reliability

To significantly reduce meter stoppages, enhance durability and improve performance, the V100 range features a unique grooved piston within the meter measuring chamber (available in 15mm and 20mm sizes). Every meter is manufactured from the highest quality materials to ensure maximum resistance to wear and corrosion, and is individually tested over its flow range before shipping. All meters are UK WRAS approved.



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Product Specification

Measuring Instruments Directive 2004/22/EC
Specifications according to OIML R49, EN14154 or ISO4064

R250 FLOW RANGE (Q_3/Q_1) — Exceeding Class D equivalent

METER SIZE (mm)			15	20
METER THREAD SIZE		in	G ¾"A	G 1"A
OVERLOAD FLOW RATE	Q_4 ± 2%	m³/h	3.125	5
PERMANENT FLOW RATE	Q_3 ± 2%	m³/h	2.5	4
TRANSITIONAL FLOW RATE	Q_2 ± 2%	l/h	16	25.6
MINIMUM FLOW RATE	Q_1 ± 5%	l/h	10	16
STARTING FLOW (APPROXIMATE)		l/h	2	2
MAXIMUM REGISTRATION		m³	9999.99999	9999.99999
OUTPUT PULSE		l/pulse	0.5	0.5
ALL MODELS	Headloss at Q_3 less than 0.63 bar. Maximum water temperature 30°C. Maximum working pressure 16 bar.			

R160 FLOW RANGE (Q_3/Q_1) — Class C equivalent

METER SIZE (mm)			15	20	25	30	40
METER THREAD SIZE		in	G ¾"A	G 1"A	G 1¼"A	G 1½" A	G 2" A
OVERLOAD FLOW RATE	Q_4 ± 2%	m³/h	3.125	5	7.875	12.5	20
PERMANENT FLOW RATE	Q_3 ± 2%	m³/h	2.5	4	6.3	10	16
TRANSITIONAL FLOW RATE	Q_2 ± 2%	l/h	25	40	63	100	160
MINIMUM FLOW RATE	Q_1 ± 5%	l/h	15.625	25	39.375	62.5	100
STARTING FLOW (APPROXIMATE)		l/h	2	2	6	12	20
MAXIMUM REGISTRATION		m³	9999.99999	9999.99999	99999.9999	99999.9999	99999.9999
OUTPUT PULSE		l/pulse	0.5	0.5	5	5	5
ALL MODELS	Headloss at Q_3 less than 0.63 bar. Maximum water temperature 30°C. Maximum working pressure 16 bar.						

PHYSICAL PROPERTIES

METER SIZE (mm)		15	20	25	30	40
METER DIAMETER	mm	86	86	104	120	158
METER RADIUS (WIDTH FROM PIPE CENTRE)	mm	43	43	52	60	79
METER LENGTH PREFERRED	mm	165	190	-	260	300
METER LENGTH ALTERNATIVE	mm	115 or 134	165	199	199	-
LENGTH OVER CONNECTORS	mm	200 or 228	267	311	327 or 375	421
WEIGHT - METER ONLY (APPROXIMATE)	kg	0.80 or 0.90	1.30	1.30	2.20	3.70

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