



GKM PSM

Volumetric Cold Potable Water Meters

The world's most successful domestic water meter. The GKM PSM unique design offers an unparalleled blend of accuracy, durability and security.

FEATURES

- The world's biggest selling domestic water meter
- 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

High accuracy in any position, for any flow

Based on the volumetric rotary piston measurement principle, the GKM PSM 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.

The Technology

Available in sizes from 15mm to 40mm, with flow rates of between 6.25 l/h to 20 m³/h, GKM PSM meters offer unrivalled performance to OIML R49 and ISO 4064 . 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 GKM PSM 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.

Tamper proof operation

The GKM PSM 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.

Powerful management information tool

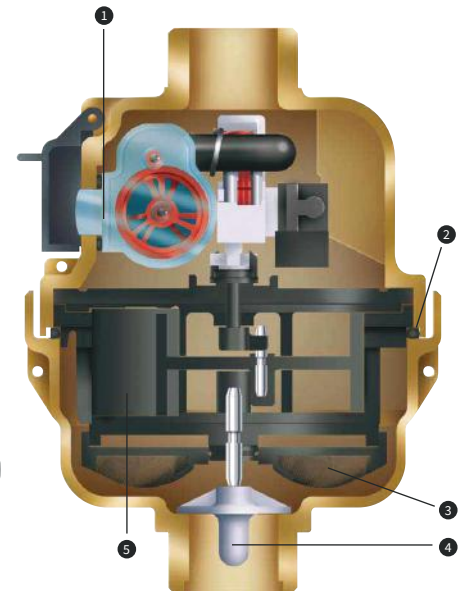
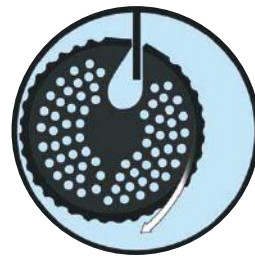
GKM PSM meters enable the collection of valuable management information, such as consumption and flow, through the use of an optional probe pulse unit. This information is available on a temporary or permanent basis, allowing analysis of consumption patterns and the ability to detect leaks early on.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

Reducing stoppages with the grooved piston

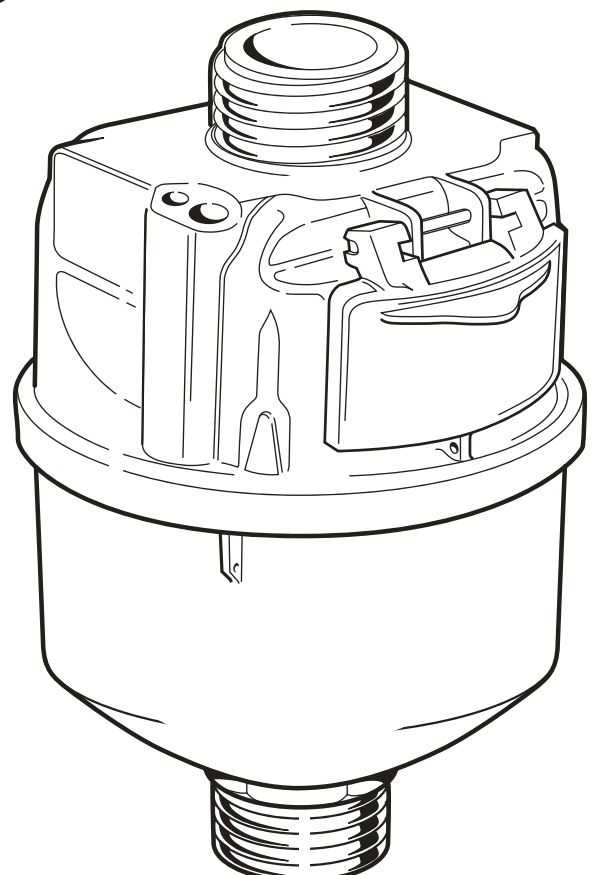
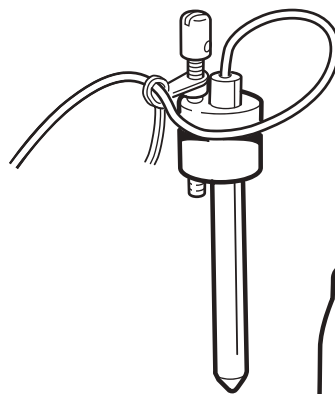
The relative motion of the grooved piston, with the stationary chamber wall, creates small flow eddies which hold solids in suspension until flushed out, reducing meter stoppages.

High performance, guaranteed reliability

To significantly reduce meter stoppages, enhance durability and improve performance, the GKM PSM 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 every GKM PSM meter is individually tested over its flow range before dispatch, and is manufactured from the highest quality materials ensuring maximum resistance to wear and corrosion



- 1 Easy to read register
- 2 'O' ring seal
- 3 Strainer
- 4 Optional non-return valve
- 5 Grooved piston design gives long working life and reduces blockages



Technical Specification:

Specification according to OIML R49 and ISO 4064

R160 flow range (Q3 / Q1)

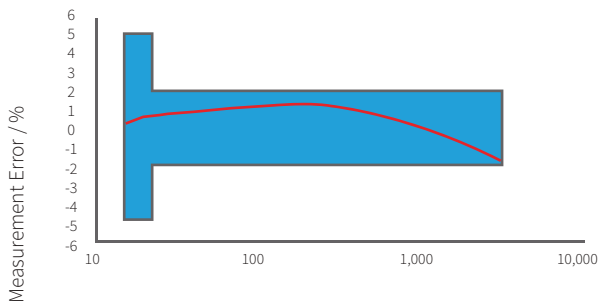
Class C equivalent

			DN15	DN20	DN25	DN32	DN40
Meter size			G ¾" A	G 1" A	G 1¼" A	G 1¾" A	G 2" A
Meter thread size	Q4 ±2%	m³/h	3.125	5.0	7.875	12.5	20
Overload flow rate	Q3 ±2%	m³/h	2.5	4.0	6.3	10	16
Permanent flow rate	Q2 ±2%	m³/h	0.025	0.040	0.063	0.100	0.160
Transitional flow rate	Q1 ±5%	m³/h	0.01562	0.025	0.039375	0.0625	0.100
Minimum flow rate		l/h	2	2	6	12	20
Starting flow (approximate)		m³	9999.99999	9999.99999	99999.9999	99999.9999	99999.9999
Maximum registration		l/pulse	0.5	0.5	5	5	5
Output pulse	Head loss at Q3 less than 0.63 bar.						
All models	Maximum water temperature 50°C. Maximum working pressure 16 bar.						

Physical properties

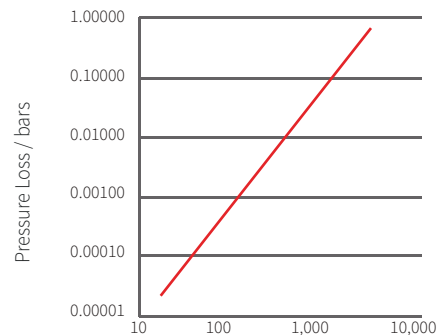
			DN15	DN15	DN20	DN25	DN32	DN40
Meter size			DN15	DN15	DN20	DN25	DN32	DN40
Meter diameter	mm		85	85	85	105	120	152
Meter length	mm		115	165	165	199	260	300
Length over connectors	mm		200	250	267	311	327	421
Weight - meter only (approximate)	kg		0.90	1.00	1.30	1.80	2.20	3.70

Typical Accuracy Curve



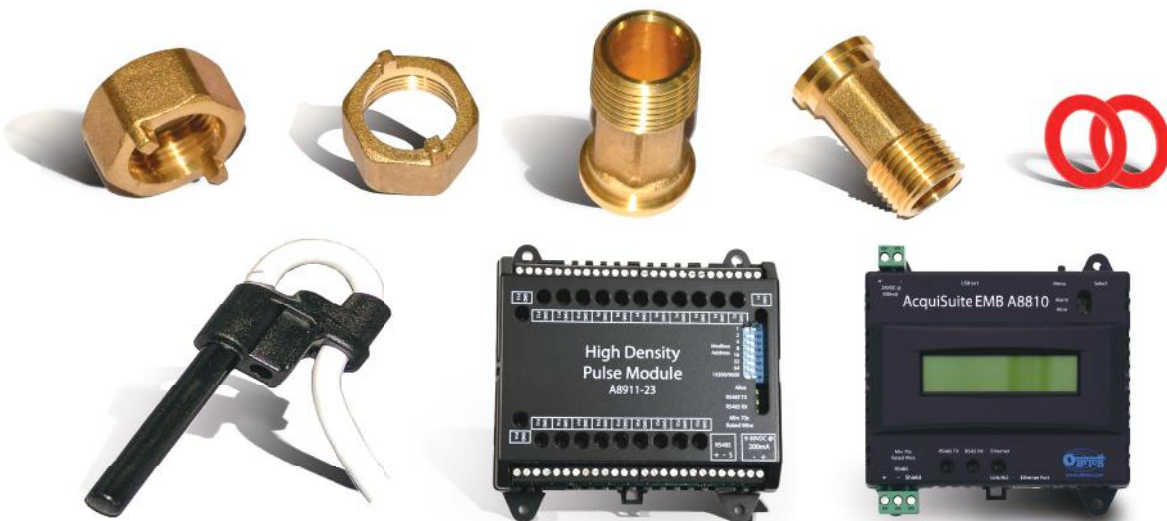
Flow Rate / l/h

Typical Pressure Loss Curve



Flow Rate / l/h

Water Meter Accessories





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