



# GKM KSM

## 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

- Volumetric rotary-piston principle of measurement ensures registration even at the very lowest rates of flow with maintained accuracy over the flow range
- Unique grooved piston design
- Can be installed in horizontal, vertical or inclined pipelines without affecting accuracy
- The co-polymer resin manufactured body allows its use with absolute confidence where waters with aggressive or dezincification properties exist
- Requires no calibration throughout its lifespan
- 'O' ring seal placed between the measuring chamber and meter body ensures that internal leaks which could by-pass the measuring chamber are eliminated
- Use of advanced engineered plastics for the measuring chamber minimises wear and maintains reliability under all operating conditions
- Large surface area fine filter prevents damage by gathering solid particles. Due to its design, a partially obstructed filter will not affect the meter's accurate registration

### Compliance with standards

Performance figures for the KSM range meet the requirements of the following standards:

- OIML R49
- ISO 4064
- EEC Directive 75/33/EEC

### Tamperproof

The KSM offers outstanding resistance to illegal tampering. Its unique conical body-half design means it cannot be disassembled while in service and the mechanically-driven register cannot be interfered magnetically. An individual serial number engraved on each body

### Optional features

Internal disc-type reverse flow restrictor can be included as an optional feature. This reduces the possibility of water being flow back illegally

### Register

The register is fully-sealed, vacuum filled, with a simple straight-reading presentation. The number rollers are totally immersed in a non-toxic liquid which acts as a lubricant. The sac attached to the register casing acts as a balancing membrane and ensures the pressure of the liquid in the register is the same as that of the water inside the meter. The register is placed in a window inside the meter body in the direction of flow for easy reading

### Remote-reading

The KSM operates as a standard meter until the need arises, and then by simply removing a plastic plug and inserting a magnetically operated signal sensor, it can be converted on location whilst still in use without any disconnection, risk of component damage or need to re-calibrate. The pulse provided by the probe can be used to step a remote register or in the longer term, the output can also be interfaced with a module which could be interrogated by a computer or other device. The KSM model is particularly suitable for incorporation in energy management system

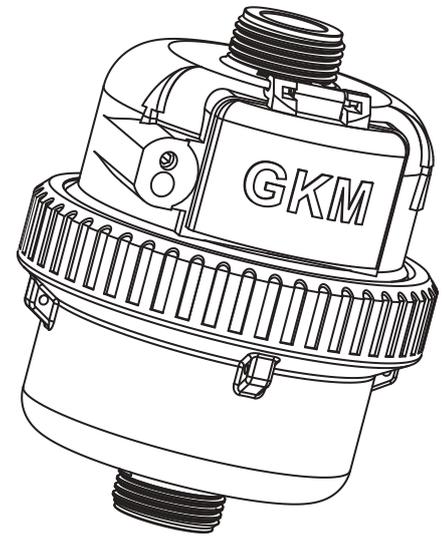
## Technical Specification:

### Specification according to OIML R49 and ISO 4064

R160 flow range (Q3 / Q1)

Class C equivalent

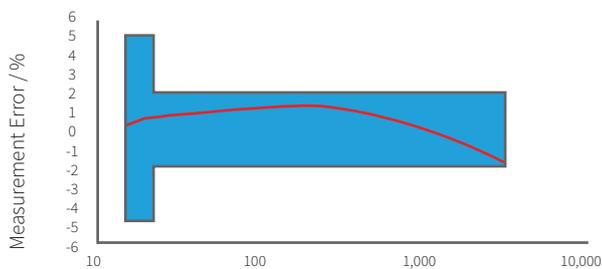
Meter size			DN15
Meter thread size			G 3/4" A
Overload flow rate	Q4 ±2%	m <sup>3</sup> /h	3.125
Permanent flow rate	Q3 ±2%	m <sup>3</sup> /h	2.5
Transitional flow rate	Q2 ±2%	m <sup>3</sup> /h	0.025
Minimum flow rate	Q1 ±5%	m <sup>3</sup> /h	0.01562
Starting flow (approximate)		l/h	2
Maximum registration		m <sup>3</sup>	9999.99999
Output pulse		l/pulse	0.5
All models	Head loss at Q3 less than 0.63 bar. Maximum water temperature 50°C. Maximum working pressure 16 bar.		



## Physical properties

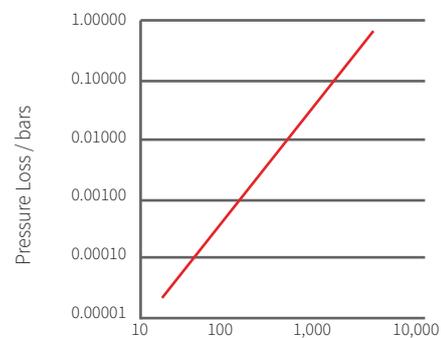
Meter size			DN15	DN15
Meter diameter	mm		100	100
Meter length	mm		115	165
Length over connectors	mm		200	250
Weight - meter only (approximate)	kg		0.43	0.44

Typical Accuracy Curve



Flow Rate / l/h

Typical Pressure Loss Curve



Flow Rate / l/h

## Installation

Care should be taken during installation to ensure that the meter and its connectors are not subjected to elongation, compression or bending forces. Allowance should be made for expected expansion and contraction of adjacent pipework. High installation stresses may eventually give rise to joint leakage or even permanent damage to the meter or its connections



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