

Woltmann Meters - Class B.

Legal Requirements

Water meters used in this application with nominal bore sizes 40mm, 50mm, 65mm, 80mm and 100mm must comply with the requirements of S.A.N.S 1529-1: 2019 (Class B) and the N.R.C.S. and section 22 of the Legal Metrology Act 2014 (Act 9 of 2014). NRCS letter of compliance must be submitted.

Metrological Class – the meter Class and performance figures for meters offered must be calculated correctly in accordance with section 4.9 and Table 1 of SANS 1529-1: 2019. Exaggerated or manipulated performance figures will not be accepted. Meters supplied are to be marked accordingly as is required by section 6 of SANS 1529-1: 2019.

Meters sizes 40mm, 50mm, 80mm and 100mm must be verified within the borders of South Africa in accordance with the requirements of section 7 of the Legal Metrology Act 2014 (Act 9 of 2014) All verification to be performed by registered Verification Officers in an S.A.N.A.S Accredited Verification Laboratory in terms of NRCS document LM-P-045-09-19 of 2019. Valid Accreditation Certificate including Annexure A must be submitted.

Performance Specification

The Water Meter must be of the Woltmann helical vane inferential velocity type with the following capabilities: -

METER SIZE (mm)	50	65	80	100
Maximum Flowrate $q_s \pm 2\%$ (m ³ /h)	30	50	80	120
Permanent Flowrate $q_p \pm 2\%$ (m ³ /h)	15	25	40	60
Transitional Flowrate $q_t \pm 2\%$ (m ³ /h)	3	5	8	12
Minimum Flowrate $q_{min} \pm 5\%$ (m ³ /h)	0.45	0.75	1.2	1.8
Starting Flow (m ³ /h)	0.125	0.19	0.32	0.45
Maximum Working Pressure (kPa)	1 600	1600	1600	1600
Body Length (mm)	200	200	225	250

In addition, the meters offered must comply with the following: -

- Body to be epoxy coated both internally and externally.
- Meter must have the following features to facilitate ease of on-site replacement:
 - (a) Pre-calibrated interchangeable internal mechanism.
 - (b) Meter to have a fully shrouded cartridge which directs the entire volume of water through the measuring element thus ensuring that the impact of the body is negligible the meter accuracy.
- The meter must have synthetic sapphire rotor bearings and steel pivots to ensure durability and maximum wear life.

- Maximum (T50) operating temperature 50°C.
- Nominal working pressure 1 600 kPa. (16 Bar)
- All internal plastic components to be constructed of hard wearing anhygroscopic anti-scaling engineering plastic materials.
- All plastic components to be manufactured from virgin material.
- Body manufactured from SG (spheroidal graphite) cast iron for extra strength and shock resistance.
- Built in flow straightener on inlet side of meter.
- Meter must perform within the legal accuracy specifications without the need for fitment of straight lengths of pipe upstream or downstream of the meter body. (U0-D0)
- Hermetically sealed IP68 copper can counter/register with scratch resistant mineral glass lens.
- Register/counter to have magnetic protection to prevent external magnetic interference and tampering.
- Counter to be Pulse ready for after fitment of an optional bi-directional inductive pulser and/or a separate magnetic reed switch.
- Counter to have 2 separate pulse outputs with the capability of generating 2 separate pulses at the same time.
- Suitable for horizontal, inclined, or vertical (Up↑) installation.
- Serial number to be marked on the dial face of the meter to be always legible.
- Each Meter must be backed with a 1-year warranty against faulty factory workmanship and/or materials.

General

Spare parts for all Water Meters offered must be available in South Africa for a period of ten years after the purchase of the water meter.

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