# Physikalisch-Technische Bundesanstalt

**Braunschweig und Berlin**

Member State of OIML
Germany

OIML Certificate N°
**R49-1/2006-DE1-07.03**
**Revision 1**

# OIML CERTIFICATE OF CONFORMITY

**Issuing Authority**

| | |
|---|---|
| Name: | Physikalisch-Technische Bundesanstalt |
| Address: | Bundesallee 100, 38116 Braunschweig |
| Person responsible: | Dr. Gudrun Wendt |

**Applicant**

| | |
|---|---|
| Name: | Severn Trent Metering Services Ltd. Smeckley Wood Close |
| Address: | Chesterfield Trading Estate, S41 9PZ Chesterfield<br>United Kingdom |

Manufacturer of the certified type is the applicant.

| | |
|---|---|
| **Identification of the certified type** | Water meter intended for the metering of cold potable water<br>Type: SM100VR, SM150VR |
| | Further characteristics see page 3 |

This Certificate attests the conformity of the above identified type (represented by the sample or samples identified in the associated Test Report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

R49-1 (2006): Metrological and technical requirements
R49-2 (2006): Test methods
R49-3 (2006): Test report format

This Certificate relates only to the metrological and technical characteristics of the type of instrument covered by the relevant OIML Recommendation identified above.

This Certificate does not bestow any form of legal international approval.

R3-000036

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The conformity was established by the results of tests and examinations provided in the associated Report No. PTB-1.5-4030627 ( 96 pages) and Test Report No. PTB-1.5-6395 (93 pages).

**The Issuing Authority**

Dr. Gudrun Wendt

Head of Department
Liquid Flow

08.07.2008

**The CIML Member**

Dr. Roman Schwartz

Head of Division
Mechanics and Acoustics

08.07.2008

*Important note:* Apart from the mention of the Certificate's reference number and the name of the OIML Member State in which the Certificate is issued, partial quotation of the Certificate and of the associated Test Report(s) is not permitted, although either may be reproduced in full.

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Identification of the certified pattern – page 1 continued

Metrology characteristics SM150VR:

| | | | |
|---|---|---|---|
| $Q_3$: | 2.5 $m^3/h$ | | |
| $Q_4$: | 3.125 $m^3/h$ | | |
| $Q_2/Q_1$: | 1.6 | | |
| $Q_1$: | 0.0156 $m^3/h$ | 0.0125 $m^3/h$ | |
| $Q_2$: | 0.025 $m^3/h$ | 0.020 $m^3/h$ | |
| $Q_3/Q_1$: | 160 | 200 | |
| | | | |
| Lenght: | 110 mm | | |
| Thread: | G ¾" B | | |
| | | | |
| Measuring principle: | Fluidic oscillation | | |
| Accuracy Class: | 2 | | |
| Temperature Class: | T30 | | |
| Maximum admissible pressure: | 1,6 MPa (16 bar) | | |
| Environmental Class: | B and C | | |
| Maximum admissible temperature: | 30 (°C) | | |

Metrology characteristics SM100VR:

| | | | |
|---|---|---|---|
| $Q_3$: | 1.6 $m^3/h$ | | |
| $Q_4$: | 2.000 $m^3/h$ | | |
| $Q_2/Q_1$: | 1.6 | | |
| $Q_1$: | 0.01 $m^3/h$ | 0.008 $m^3/h$ | 0.0064 $m^3/h$ |
| $Q_2$: | 0.016 $m^3/h$ | 0.0128 $m^3/h$ | 0.01024 $m^3/h$ |
| $Q_3/Q_1$: | 160 | 200 | 250 |
| | | | |
| Lenght: | 110 mm | | |
| Thread: | G ¾" B | | |
| | | | |
| Measuring principle: | Fluidic oscillation | | |
| Accuracy Class: | 2 | | |
| Temperature Class: | T30 | | |
| Maximum admissible pressure: | 1,6 MPa (16 bar) | | |
| Environmental Class: | B and C | | |
| Maximum admissible temperature: | 30 (°C) | | |

Installation details SM100VR and SM150VR:

| | |
|---|---|
| Connection type: | Screw thread |
| Minimum straight length of inlet pipe: | 0 mm |
| Minimum straight length of outlet pipe: | 0 mm |
| Flow conditioner: | none |
| Orientation limitations: | none |