

# Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

Member State of OIML  
Germany



OIML Certificate N°  
**R49-1/2006-DE1-07.03**  
**Revision 2**

## OIML CERTIFICATE OF CONFORMITY

### Issuing Authority

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

### Applicant

Name: Elster Metering Limited  
130 Camford Way  
Address: Sundon Park  
Luton, Bedfordshire LU3 3AN  
LU3 3AN  
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  
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.

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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, Revision 1 (96 pages) and Test Report No. PTB-1.5-4036395, Revision 1 (93 pages).

## The Issuing Authority

Dr. Gudrun Wendt

Head of Department  
Liquid Flow

05.08.2009

## The OIML Member

Dr. Roman Schwartz

Head of Division  
Mechanics and Acoustics

05.08.2009

*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 <sub>3</sub> :	2.5	m <sup>3</sup> /h	
Q <sub>4</sub> :	3.125	m <sup>3</sup> /h	
Q <sub>2</sub> /Q <sub>1</sub> :	1.6		
Q <sub>1</sub> :	0.0156	m <sup>3</sup> /h	0.0125 m <sup>3</sup> /h
Q <sub>2</sub> :	0.025	m <sup>3</sup> /h	0.020 m <sup>3</sup> /h
Q <sub>3</sub> /Q <sub>1</sub> :	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 <sub>3</sub> :	1.6	m <sup>3</sup> /h	
Q <sub>4</sub> :	2.000	m <sup>3</sup> /h	
Q <sub>2</sub> /Q <sub>1</sub> :	1.6		
Q <sub>1</sub> :	0.01	m <sup>3</sup> /h	0.008 m <sup>3</sup> /h 0.0064 m <sup>3</sup> /h
Q <sub>2</sub> :	0.016	m <sup>3</sup> /h	0.0128 m <sup>3</sup> /h 0.01024 m <sup>3</sup> /h
Q <sub>3</sub> /Q <sub>1</sub> :	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