

# Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

Member State of OIML  
Germany



OIML Certificate No.  
**R49/2006-DE1-08.02**  
**Revision 9**

## OIML CERTIFICATE OF CONFORMITY

### Issuing Authority

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

### Applicant

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

Manufacturer of the certified type is the applicant and

Elster Metering LTD (Circle Ring Network)  
No. 10 Jalan Jurutera U1/23, Section U1  
Kawasan Perindustrial Hicom Glenmarie  
40150 Shah Alam, Selangor Darul Ehsan  
Malaysia

and

Elster Water Metering s.r.o.  
8. aprila 259  
91601 Stará Turá  
Slovenská republika

### Identification of the certified type

Water meter intended for the metering of cold potable water

Type: Q200 Q3=1.6 (E, P, M)

Q200 Q3=2.5 (E, P, M)

SM250 (E, P, M)

SM700 (E, P, M)

SM800 (E, P, M)

Further characteristics see page 4

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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.

The conformity was established by the results of tests and examinations provided in the associated OIML Basic Type Evaluation Reports

PTB-1.5-4036396, Revision 6, dated 2014-08-20 that includes 94 pages  
PTB-1.5-4025664, Revision 8, dated 2014-08-20 that includes 95 pages

## Certificate history

Issue no.	Date	Description of modification
Initial	2008-07-08	-----
1	2009-08-05	Manufacturer's name has changed from Severn Trent Metering Services Ltd. to Elster Metering Ltd.
2	2010-03-04	Modified documentation of the meters in the test reports Additional manufacturer is Elster Metering Ltd., Malaysia Model SM700 (SM250 with 1" NPSM thread) added
3	2012-01-07	Modified documentation of the meters in the test reports
4	2012-06-07	Modified documentation of the meters in the test reports Additional manufacturer is Elster s.r.o., Slovenská republika
5	2013-04-11	Modified documentation of the meters in the test reports
6	2013-05-15	Modified documentation of the meters in the test reports Type designation has changed from SM150 to Q200 Q3=2.5 and from SM100 to Q200 Q3=1.6
7	2013-11-18	Modified documentation of the meters in the test reports Manufacturer's name has changed from Elster Metering Ltd. to Elster Water Metering Ltd.
8	2014-07-17	Modified documentation of the meters in the test reports Manufacturer's name has changed from Elster s.r.o. to Elster Water Metering s.r.o.
9	2014-08-20	Model SM800 (SM250/700 with R=125) added

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## The Issuing Authority

Dr. M. Rinker  
Head of Working Group

2014-08-20

## The OIML Member

Dr. R. Schwartz  
Vice-President

2014-08-20

*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:

Model	SM250 (E,P)		SM700 (E,P)		SM800 (E,P)
Q <sub>3</sub> (m <sup>3</sup> /h)	4.0		4.0		4.0
Q <sub>4</sub> (m <sup>3</sup> /h)	5.0		5.0		5.0
Q <sub>2</sub> /Q <sub>1</sub>	1.6		1.6		1.6
Q <sub>1</sub> (m <sup>3</sup> /h)	0.020	0.025	0.020	0.025	0.032
Q <sub>2</sub> (m <sup>3</sup> /h)	0.032	0.040	0.032	0.040	0.051
Q <sub>3</sub> /Q <sub>1</sub>	200	160	200	160	125
Length (mm)	190		190		190
thread	G 1" B		1" or 1¼" NPSM		1" or 1¼" NPSM

Model	Q200 Q3=1.6			Q200 Q3=2.5		
Q <sub>3</sub> (m <sup>3</sup> /h)	1.6			2.5		
Q <sub>4</sub> (m <sup>3</sup> /h)	2.0			3.125		
Q <sub>2</sub> /Q <sub>1</sub>	1.6			1.6		
Q <sub>1</sub> (m <sup>3</sup> /h)	0.010	0.008	0.0064	0.0156	0.0125	0.010
Q <sub>2</sub> (m <sup>3</sup> /h)	0.016	0.0128	0.01024	0.025	0.020	0.016
Q <sub>3</sub> /Q <sub>1</sub>	160	200	250	160	200	250
Length (mm)	110			110		
thread	G ¾" B (alternatively with 7/8" brass thread adaptor)					

Verification scale interval (m <sup>3</sup> )	Arbitrary
Accuracy class	2
Temperature class	T30
Maximum admissible pressure (bar)	16
Maximum admissible temperature (°C)	30
Environmental class	B and C
Electromagnetic environment	Residential, Commercial and Light industrial use

Installation details:

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