

# Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

Member State of OIML  
Germany



OIML Certificate No.  
**R49/2006-DE1-11.02**

## OIML CERTIFICATE OF CONFORMITY

### Issuing Authority

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

### Applicant

Name: Elster Messtechnik GmbH  
Address: Otto-Hahn-Straße 25,  
D- 68623 Lampertheim  
Germany

Manufacturer of the certified type is the applicant.

### Identification of the certified type

Water meter intended for the metering of cold potable water and hot water.  
Multi jet meter with electronic register.  
Type: M200, M210, M210 genius

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):

R 49-1 (Edition 2006) Metrological and technical requirements  
R 49-2 (Edition 2006) Test methods  
R 49-3 (Edition 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 Test Report No. PTB-1.5-4048632 (203 pages).

## The Issuing Authority

Dr. Gudrun Wendt  
Head of Department

12.08.2011

## The OIML Member

Dr. Roman Schwartz  
Head of Division

12.08.2011

*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 type - page 1 continued

Type details M200, M210, M210 genius

Meter size $Q_3$ [m <sup>3</sup> /h]	$Q_4$ [m <sup>3</sup> /h]	$Q_3/Q_1$	$Q_2/Q_1$	Orientation(s)
2,5	3,125	40; 80	1,6	any*
		100; 125; 160; 200		Horizontal
4	5	40; 80; 100; 125		any*
		160; 200; 250		Horizontal
6,3	7,875	40; 80; 100; 125		any*
		160; 200; 250		Horizontal
10	12,5	40; 80		Horizontal and Vertical
		100; 125; 160; 200		Horizontal
16	20	40; 80		Horizontal and Vertical
		100; 125; 160; 200; 250		Horizontal
25	31,25	40; 80; 100; 125; 160	Horizontal and Vertical	
		200; 250	Horizontal	

\*) All orientations except upside down (no overhead installation with register upside down)

Accuracy class: 2  
 Temperature class: T50  
 Environmental class: B (M1)  
 Electromagnetic environment: E1  
 Climatic environment: +5 °C to 70 °C  
 Maximum admissible temperature: +50 °C  
 Pressure loss class  $\Delta P$ : 0,063 MPa (0,63 bar)  
 Maximum admissible pressure: 1,6 MPa (16 bar)

Installation details:

Connection type: Screw threads ( $Q_3$  2,5 m<sup>3</sup>/h to  $Q_3$  25 m<sup>3</sup>/h) or  
 Flange ( $Q_3$  25 m<sup>3</sup>/h)  
 Minimum straight length of inlet pipe: 0 mm  
 Minimum straight length of outlet pipe: 0 mm  
 Flow conditioner: n/a  
 Mounting: Screw connection with screw tread ( $Q_3$  2,5 m<sup>3</sup>/h to  
 $Q_3$  25 m<sup>3</sup>/h) or  
 Flange connection with suitable gaskets ( $Q_3$  25 m<sup>3</sup>/h)  
 Minimal body length: 145 mm ( $Q_3$  2,5 m<sup>3</sup>/h), 165 mm ( $Q_3$  4 m<sup>3</sup>/h), 260 mm  
 ( $Q_3$  6,3 m<sup>3</sup>/h,  $Q_3$  10 m<sup>3</sup>/h), 300 mm ( $Q_3$  16 m<sup>3</sup>/h) and 270 mm  
 ( $Q_3$  25 m<sup>3</sup>/h)

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The measuring system consists of a multi jet dry top meter and two electronic versions of dry running registers:

M210, M210 genius: Electronic register Standard (IP 68) with radio functionality 868 MHz (double-spaced 11- place volume advice in LCD- technology, verification scale interval 0,01 ℓ) and

M200: Electronic register Standard (IP 68) with radio functionality 868 MHz and air-detection (double-spaced 11- place volume advice in LCD- technology, verification scale interval 0,01 ℓ).

The electronic dry running registers can be combined with two general types of communications facilities:

- optical infrared interface and
- three versions of integrated radiocommunication-modules:
  - Coronis radio 433 MHz (wavenis) or
  - Coronis radio 868 MHz (wavenis) or
  - M-Bus radio 868 MHz .