Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

Member State of OIML
Germany

OIML Certificate No.
R49/2006-DE1-10.03
Revision 3

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-Ring 2-4 64653 Lorsch Germany

Manufacturer of the certified type is the applicant.

Identification of the certified type

Water meter intended for the metering of cold potable water
Combination meter with mechanical register
Type: C4000

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

R3-0033

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The conformity was established by the results of tests and examinations provided in the associated Test Reports PTB-1.5-4046578 (127 pages) and
PTB-1.5-4051570 (35 pages).

The Issuing Authority

Dr. G. Wendt
Head of Department

05.08.2013

The CIML Member

Dr. R. Schwartz
Head of Division

05.08.2013

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 C4000

Nominal diameter	Q_3 [m^3/h]	Q_4 [m^3/h]	Q_{x1} [m^3/h]	Q_{x2} [m^3/h]	Q_3/Q_1	Q_2/Q_1
DN 50	25	31,25	0,8 - 1,4	1,6 - 2,0	630; 800; 1000; 1250; 1600	1,6
DN 65						
DN 80	63	78,75	1,1 – 1,9	2,1 – 3,0	1250; 1600; 2000; 2500; 3150; 4000	
DN 100	100	125	1,1 – 2,0	2,1 – 3,0	1250; 1600; 2000; 2500; 3150; 4000; 5000; 6300	

The measuring system consists of a large meter of the Woltman parallel type and a small meter of the piston type (Q_3 4 m^3/h) in conjunction with change over valve and three mechanical versions of dry running registers for the large meter and one version of dry running register for the small meter:

- dry register large meter (Woltman): Multipulse-copper can counter (inductive, 6 rollers and 3 pointers, verification scale interval 0,5 ℓ), Multipulse-copper can counter (magnetic, 6 rollers and 2 pointers, verification scale interval 1 ℓ) or Multipulse-copper can counter (magnetic, 6 rollers and 3 pointers, verification scale interval 0,5 ℓ).
- dry register small meter (Piston): copper can counter (inductive, 7 rollers and 2 pointers, verification scale interval 0,02 ℓ).

The dry running registers can be combined with two types of retrofittable pulse generators:

- inductive pulse generator Falcon PR7, Falcon PR7M and Falcon TPR7 (dry register large meter) and / or Falcon PR6, Falcon PR6M and Falcon TPR6 (dry register small meter) respectively
- magnetic reed contact pulse generator T160 (dry register large meter).

Accuracy class:	2
Temperature class:	T30
Environmental class:	B (M1)
Electromagnetic environment:	not applicable (n/a)
Climatic environment:	+5 °C to 55 °C
Maximum admissible temperature:	+30 °C
Pressure loss class ΔP:	0,063 MPa (0,63 bar)
Maximum admissible pressure:	1,6 MPa (16 bar)
Orientation:	All orientations except upside down (no overhead installation with register up side down)
Installation details:	
Connection type:	Flange (partially with screw thread)
Minimum straight length of inlet pipe:	150 mm [3 x DN] (DN 50) and 0 mm [0 x DN] (DN 80 and DN 100)
Minimum straight length of outlet pipe:	0 mm [0 x DN] (DN 50, DN 80 and DN 100)
Flow conditioner:	n/a
Mounting:	Flange connection with suitable gaskets
Minimal body length:	270 mm (DN 50), 300 mm (DN 80) and 350 mm (DN 100)