



Member state
Czech Republic

OIML Certificate No.
R49/2006-CZ-11.01
Revision 1

OIML CERTIFICATE OF CONFORMITY

Issuing Authority

Name: Czech Metrology Institute
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638 00 Brno, CZ
Person responsible: Jan Kalandra

Applicant

Name: Emerson Process Management / Rosemount Flow Division
Address: 12001 Technology Drive
Eden Prairie, 553 44 MN
USA

Manufacturer of the certified type

Name: Emerson Process Management / Rosemount Flow Division
Address: 12001 Technology Drive
Eden Prairie, 553 44 MN
USA

Identification of the certified type

Magnetic Flow Meter

Type: Transmitter type 8732 and Flow Sensor types 8705 and 8711

Further characteristics see page 3

This certificate attests the conformity of above identified type (represented by the sample or samples identified in the associated test report) with the requirements of the following Recommendation(s) of the International Organization of Legal Metrology (OIML):

R 49, edition 2006, for accuracy class 1 and 2

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This certificate relates only to the metrological and technical characteristics of the type of instrument covered by the relevant OIML Recommendation(s) 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 Test reports: No. 6015-PT-P0076-11 that includes 41 pages (plus annexes) and No. 6015-PT-P0157-11 that includes 39 pages (plus annexes).

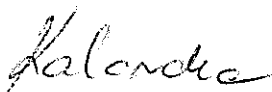
Measuring system description:

The water meters are intended for metering cold and hot potable water. The water meters consist of flow sensor types 8705 and 8711 and of measuring transducer with the electronic calculator type 8732. The water meters are based on the electromagnetic principle.

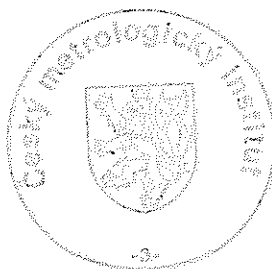
The body of flow sensor is made by stainless and carbon steel with the lining material made by Neoprene, Polyurethane or PTFE, with standard flanges (type 8705) or flangeless (wafer) (type 8711) and is installed by the measurement electrodes.

The measuring transducer is covered by stainless steel box with transparent sight hole for LCD display and for four buttons. A part of measuring transducer is two connector cables designated for supply and for communication by an impulse output and by a current output. A part of measuring transducer is two rows LCD display displaying the metrological parameters; it is possible to browse parameters by switching the buttons.

The flow sensor and the transducer are remote mount design (connected via cable) or compact design.


The Issuing Authority
Jan Kalandra

19 December 2011




The CIML Member
Pavel Klenovský

19 December 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 the associated test report is not permitted although either may be reproduced in full.

Characteristics:

Magnetic Flow Meter Transmitter types 8732 and Magnetic Flow Sensor types 8711 with the lining material made by PTFE

Nominal diameter (DN) [mm]:	4	8	15	25	40
Overload flowrate (Q_4) [m ³ /h]:	≤ 0.50	≤ 2.0	≤ 7.9	≤ 20.0	≤ 50.0
Permanent flowrate (Q_3) ¹ [m ³ /h]:	≤ 0.40	≤ 1.6	≤ 6.3	≤ 16.0	≤ 40.0
Transitional flowrate (Q_2) [m ³ /h]:	≥ 0.00512	≥ 0.0205	≥ 0.0504	≥ 0.128	≥ 0.320
Minimum flowrate (Q_1) [m ³ /h]:	≥ 0.00320	≥ 0.0128	≥ 0.0320	≥ 0.080	≥ 0.200
Ratio Q_3 / Q_1 :	≤ 125 ²		≤ 200 ²		
Ratio Q_2 / Q_1 :	1.6				
Ratio Q_4 / Q_3 :	1.25				
Accuracy class:	2				
Maximum permissible error for the lower flowrate zone (MPE _l):	± 5 %				
Maximum permissible error for the upper flowrate zone (MPE _u):	± 2 % for water having a temperature ≤ 30 °C ± 3 % for water having a temperature > 30 °C				
Temperature classes:	T90 for PTFE liner				
Maximum admissible pressure [bar]:	0 to 19			0 to 50	
Maximum pressure-loss [bar]:	0.16				
Environmental classes:	B and C				
Electromagnetic environment:	E1 and E2				
Indicating range [m ³]:	9 999 to 99 999				
Resolution of the indicating device [L]:	0.01	0.1		1	
Minimum straight length of inlet pipe:	5				
Minimum straight length of outlet pipe:	3				
Orientation limitation:	Arbitrary orientation				
Length of water meter [mm]:	55	55	56	57	73
Connection type:	Wafer				
Power supply:					
Type:	AC				
U_{max} [V]:	250				
U_{min} [V]:	90				
Frequency:	50 or 60				
Type:	DC				
U_{max} [V]:	42				
U_{min} [V]:	12				

¹ The value of Q_3 shall be chosen from the R5 line of ISO 3:1973.

² The ratio Q_3 / Q_1 shall be chosen from the R10 line from ISO 3:1973 and this value shall be higher than 10.

Nominal diameter (DN) [mm]:	50	65	80	100	150	200
Overload flowrate (Q_4) [m^3/h]:	≤ 78.8	≤ 125	≤ 200	≤ 313	≤ 788	≤ 1250
Permanent flowrate (Q_3) ¹ [m^3/h]:	≤ 63.0	≤ 100	≤ 160	≤ 250	≤ 630	≤ 1000
Transitional flowrate (Q_2) [m^3/h]:	≥ 0.504	≥ 1.60	≥ 2.56	≥ 4.0	≥ 10.1	≥ 16.0
Minimum flowrate (Q_1) [m^3/h]:	≥ 0.315	≥ 1.00	≥ 1.60	≥ 2.5	≥ 6.3	≥ 10.0
Ratio Q_3 / Q_1 :	≤ 100 ²					
Ratio Q_2 / Q_1 :	1.6					
Ratio Q_4 / Q_3 :	1.25					
Accuracy class:	2	1				
Maximum permissible error for the lower flowrate zone (MPE _l):	$\pm 5\%$	$\pm 3\%$				
Maximum permissible error for the upper flowrate zone (MPE _u):						
for water having temperature $\leq 30\text{ }^\circ\text{C}$	$\pm 2\%$	$\pm 1\%$				
for water having temperature $> 30\text{ }^\circ\text{C}$	$\pm 3\%$	$\pm 2\%$				
Temperature classes:	T90 for PTFE liner					
Environmental classes:	B and C					
Electromagnetic environment:	E1 and E2					
Maximum admissible pressure [bar]:	0 to 50					
Maximum pressure-loss [bar]:	0.16					
Indicating range [m^3]:	999 999 to 9 999 999					
Resolution of the indicating device [L]:	1				10	
Minimum straight length of inlet pipe:	5					
Minimum straight length of outlet pipe:	3					
Orientation limitation:	Arbitrary orientation					
Length of water meter [mm]:	84	120	149	180	230	
Connection type:	Wafer					
Power supply:						
Type:	AC					
U_{max} [V]:	250					
U_{min} [V]:	90					
Frequency:	50 or 60					
Type:	DC					
U_{max} [V]:	42					
U_{min} [V]:	12					

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² The ratio Q_3 / Q_1 shall be chosen from the R10 line from ISO 3:1973 and this value shall be higher than 10.

Magnetic Flow Meter Transmitter types 8732 and Magnetic Flow Sensor types 8705 with the lining material made by Neoprene, Polyurethane and PTFE

Nominal diameter (DN) [mm]:	15	25	40	50	80
Overload flowrate (Q_4) [m^3/h]:	≤ 7.9	≤ 20.0	≤ 50.0	≤ 78.8	≤ 200
Permanent flowrate (Q_3) ¹ [m^3/h]:	≤ 6.3	≤ 16.0	≤ 40.0	≤ 63.0	≤ 160
Transitional flowrate (Q_2) [m^3/h]:	≥ 0.0504	≥ 0.128	≥ 0.320	≥ 0.504	≥ 2.56
Minimum flowrate (Q_1) [m^3/h]:	≥ 0.0320	≥ 0.080	≥ 0.200	≥ 0.315	≥ 1.60
Ratio Q_3 / Q_1 :	≤ 200 ²				≤ 100 ²
Ratio Q_2 / Q_1 :	1.6				
Ratio Q_4 / Q_3 :	1.25				
Accuracy class:	2				1
Maximum permissible error for the lower flowrate zone (MPE _l):	$\pm 5\%$				$\pm 3\%$
Maximum permissible error for the upper flowrate zone (MPE _u):					
for water having temperature $\leq 30\text{ }^\circ\text{C}$	$\pm 2\%$				$\pm 1\%$
for water having temperature $> 30\text{ }^\circ\text{C}$	$\pm 3\%$				$\pm 2\%$
Temperature classes:	T50 for polyurethane liner T70 for neoprene T90 for PTFE liner				
Environmental classes:	B and C				
Electromagnetic environment:	E1 and E2				
Maximum admissible pressure [bar]:	0 to 50				
Maximum pressure-loss [bar]:	0.16				
Indicating range [m^3]:	99 999 to 999 999				
Resolution of the indicating device [L]:	0.1	1			
Minimum straight length of inlet pipe:	5				
Minimum straight length of outlet pipe:	2				
Orientation limitation:	Arbitrary orientation				
Length of water meter [mm]:	200	200	200	200	200
Connection type:	Standard flanges				
Power supply:					
Type:	AC				
U_{\max} [V]:	250				
U_{\min} [V]:	90				
Frequency:	50 or 60				
Type:	DC				
U_{\max} [V]:	42				
U_{\min} [V]:	12				

¹ The value of Q_3 shall be chosen from the R5 line of ISO 3:1973.

² The ratio Q_3 / Q_1 shall be chosen from the R10 line from ISO 3:1973 and this value shall be higher than 10.

Nominal diameter (DN) [mm]:	100	150	200	250	300	350
Overload flowrate (Q_4) [m ³ /h]:	≤ 313	≤ 788	≤ 1250	≤ 2000	≤ 3125	≤ 3125
Permanent flowrate (Q_3) ¹ [m ³ /h]:	≤ 250	≤ 630	≤ 1000	≤ 1600	≤ 2500	≤ 2500
Transitional flowrate (Q_2) [m ³ /h]:	≥ 4.0	≥ 10.1	≥ 16.0	≥ 25.6	≥ 40.0	≥ 50.0
Minimum flowrate (Q_1) [m ³ /h]:	≥ 2.5	≥ 6.3	≥ 10.0	≥ 16.0	≥ 25.0	≥ 31.3
Ratio Q_3 / Q_1 :	≤ 100 ²					≤ 80 ²
Ratio Q_2 / Q_1 :	1.6					
Ratio Q_4 / Q_3 :	1.25					
Accuracy class:	1					
Maximum permissible error for the lower flowrate zone (MPE _l):	± 3 %					
Maximum permissible error for the upper flowrate zone (MPE _u):	± 1 % for water having a temperature ≤ 30 °C ± 2 % for water having a temperature > 30 °C					
Temperature classes:	T50 for polyurethane liner T70 for neoprene liner T90 for PTFE liner					
Environmental classes:	B and C					
Electromagnetic environment:	E1 and E2					
Maximum admissible pressure [bar]:	0 to 50					
Maximum pressure-loss [bar]:	0.16					
Indicating range [m ³]:	999 999 to 9 999 999					
Resolution of the indicating device [L]:	1	10				100
Minimum straight length of inlet pipe:	5					
Minimum straight length of outlet pipe:	2					
Orientation limitation:	Arbitrary orientation					
Length of water meter [mm]:	250	300	350	435	512	588
Connection type:	Standard flanges					
Power supply:						
Type:	AC					
U_{max} [V]:	250					
U_{min} [V]:	90					
Frequency:	50 or 60					
Type:	DC					
U_{max} [V]:	42					
U_{min} [V]:	12					

¹ The value of Q_3 shall be chosen from the R5 line of ISO 3:1973.

² The ratio Q_3 / Q_1 shall be chosen from the R10 line from ISO 3:1973 and this value shall be higher than 10.

Nominal diameter (DN) [mm]:	400	450	500	600	750	900
Overload flowrate (Q_4) [m ³ /h]:	≤ 3125	≤ 3125	≤ 5000	≤ 5000	≤ 7875	≤ 12500
Permanent flowrate (Q_3) ¹ [m ³ /h]:	≤ 2500	≤ 2500	≤ 4000	≤ 4000	≤ 6300	≤ 10000
Transitional flowrate (Q_2) [m ³ /h]:	≥ 63.5	≥ 80.0	≥ 101.6	≥ 128.0	≥ 201.6	≥ 320.0
Minimum flowrate (Q_1) [m ³ /h]:	≥ 39.7	≥ 50.0	≥ 63.5	≥ 80.0	≥ 126.0	≥ 200.0
Ratio Q_3 / Q_1 :	≤ 63 ²	≤ 50 ²	≤ 63 ²	≤ 50 ²		
Ratio Q_2 / Q_1 :	1.6					
Ratio Q_4 / Q_3 :	1.25					
Accuracy class:	1					
Maximum permissible error for the lower flowrate zone (MPE _l):	± 3 %					
Maximum permissible error for the upper flowrate zone (MPE _u):	± 1 % for water having a temperature ≤ 30 °C ± 2 % for water having a temperature > 30 °C					
Temperature classes:	T50 for polyurethane liner T70 for neoprene liner T90 for PTFE liner					
Environmental classes:	B and C					
Electromagnetic environment:	E1 and E2					
Maximum admissible pressure [bar]:	0 to 40					
Maximum pressure-loss [bar]:	0.16					
Indicating range [m ³]:	9 999 999					
Resolution of the indicating device [L]:	100					
Minimum straight length of inlet pipe:	5					
Minimum straight length of outlet pipe:	2					
Orientation limitation:	Arbitrary orientation					
Length of water meter [mm]:	664	761	839	1000	1200	1200
Connection type:	Standard flanges					
Power supply:						
Type:	AC					
U_{max} [V]:	250					
U_{min} [V]:	90					
Frequency:	50 or 60					
Type:	DC					
U_{max} [V]:	42					
U_{min} [V]:	12					

¹ The value of Q_3 shall be chosen from the R5 line of ISO 3:1973.

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