Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

Member State of OIML
Germany

OIML Certificate No.
R49/2006-DE1-08.01
Revision 1

OIML CERTIFICATE OF CONFORMITY

Issuing Authority

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

Applicant

Name: ZENNER International GmbH & Co. KG

Address: Römerstadt 6, 66121 Saarbrücken

Manufacturers:

Zenner International GmbH & Co KG.
Talstraße 42
09619 Mulda
GERMANY

Zenner Meters Ltd
15 Dongxing Road
Songjiang Industrial Zone
201613 Shanghai
CHINA

Zenner do Brasil Instrumentos de Medição Ltda.
Rua Bartolomeu de Gusmão, 2.444
Canudos – Nuovo Hamburgo RS
CEP: 93546-000
BRAZIL

ZENNER Coma JVC
Construction Machinery Company
125D Minh Khai,Q Hai Ba Trung
Hanoi
VIETNAM

Zenner Aquamet India Pyt Ltd.
39-B, HSIDC Industrial Estate, Sec. 31
Faridabad-121003
INDIA

R3-0033

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Revision 1

Identification of the certified type

Water meter intended for the metering of cold potable water
Type: MTK-AM, MTK-N, MTK-I, MTK-8R, MTK-CC, MTK-45, MTK-D
Based on multi jet principle with mechanical register
Viewing window (counter lens): plastic or mineral glass

Further characteristics see pages 4-7.

Certificate history

Issue no.	Date	Description of the modification
R49/2006-DE1-08.01	02.06.2008	First issue
R49/2006-DE1-08.01, Revision 1	31.01.2014	Integration of: - radio module - version MTK-CC, MTK-45, D 8R MD, D 8R MD CC, D 7R MD and D 7R MD CC - additional measuring intervals in version D in bearing type b) Q_3=6,3 m^3/h R 125 in orientation „H“ and R 40 in orientation „any“ Q_3=10 m^3/h R 160 in orientation „H“ and R 50 in orientation „any“ Q_3=16 m^3/h R 160 in orientation „H“ and R 40 in orientation „any“ - temperature class T50 - additional measuring intervals Q_3=6,3 m^3/h R 40 in orientation „H“ R 40 in orientation „V“ R 25 in orientation „any“ R 31,5 in orientation „any“ Q_3=10 m^3/h R 40 in orientation „H“ R 50 in orientation „H“ R 40 in orientation „V“ R 25 in orientation „any“ R 31,5 in orientation „any“ Q_3=16 m^3/h R 40 in orientation „H“ and R 50 in orientation „H“ - additional nominal values Q_3=25m^3/h in version MTK-D in bearing type a) with measuring intervals R 40, 50, 63, 80, 100, 125 in orientation „H“ and R 25, 31,5, 40 in orientation „V“

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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 Test Reports No.

PTB-1.5-4033816a	(127 pages),	MTK Q3-6,3 DN25 8R MD	(68 pages),
PTB-1.5-4033816b	(205 pages),	MTK Q3-10 DN32 5R CC	(36 pages),
PTB-1.5-4033816c	(127 pages),	MTK Q3-10 DN32 5R 45	(39 pages),
PTB-1.5-4033816d	(205 pages),	MTK Q3-6,3 DN25 5R CC	(36 pages),
PTB-1.5-4033816e	(407 pages),	MTK Q3-6,3 DN25 7R MD	(55 pages),
PTB-1.5-4033816f	(311 pages),	MTK Q3-16 DN40 5R CC	(36 pages),
PTB-1.5-4033816g	(223 pages),	MTK Q3-16 DN40 5R 45	(39 pages),
PTB-1.5-4033816h	(407 pages),	MTK-D Q3-25 300	(164 pages),
PTB-1.5-4033816i	(312 pages),	MTK Q3-16 DN40 7R MD	(55 pages),
PTB-1.5-4033816j	(223 pages),	MTK Q3-16 DN40 8R MD	(68 pages),
PTB-1.5-4033816k	(423 pages),	MTK Q3-10 DN32 8R MD	(196 pages),
PTB-1.5-4033816l	(123 pages),	MTK Q3-10 DN32 8R MD CC	(55 pages),
PTB-1.5-4033816m	(443 pages),	MTK-D Q3-25 FL 270	(63 pages),
MTK Q3-6,3 DN25 5R 45	(39 pages).		

The Issuing Authority

Dr. Gudrun Wendt
Head of Department

31.01.2014

The CIML Member

Dr. Roman Schwartz
Head of Division

31.01.2014

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

Type details:

Type MTK, MTK-N, MTK-8R, MTK-CC, MTK-45, MTK-D
a)Lower bearig plate without bush and jewel, magnet clamp in polyamide.

Q_3	m^3/h	6.3		10	
Q_4	m^3/h	7.875		12.5	
Q_2/Q_1	---	1.6		1.6	
Length	mm	≥175 [2)]	≥ 175 [1)]	≥175 [2)]	≥175 [2)]
Nominal diameter	DN	25	32	25	32
Connection dimensions	---	G 1 ¼ B	G 1 ½ B	G 1 ¼ B	G 1 ½ B
Q_1 (orientation H)	m^3/h	0.157 / 0.126 / 0.100 / 0.079 / 0.063		0.250 / 0.200 / 0.159 / 0.125 / 0.100 / 0.080	
Q_2 (orientation H)	m^3/h	0.252 / 0.202 / 0.160 / 0.126 / 0.101		0.400 / 0.320 / 0.254 / 0.200 / 0.160 / 0.128	
Q_3/Q_1 (orientation H)	---	40 / 50 / 63 / 80 / 100		40 / 50 / 63 / 80 / 100 / 125	
Q_1 (orientation V)	m^3/h	0.200 / 0.157 / 0.126		0.317 /0.250 / 0.200	
Q_2 (orientation V)	m^3/h	0.320 / 0.252 / 0.202		0.508 / 0.400 / 0.320	
Q_3/Q_1 (orientation V)		31.5 / 40 / 50		31.5 / 40 / 50	
Q_1 (orientation any) [4)]	m^3/h	0.252 / 0.200 / 0.158		0.400 / 0.317 / 0.250	
Q_2 (orientation any) [4)]	m^3/h	0.403 / 0.320 / 0.252		0.640 / 0.508 / 0.400	
Q_3/Q_1 (orientation any) [4)]	---	25 / 31.5 / 40		25 / 31.5 / 40	
Minimum straight length of inlet pipe	mm	0			
Minimum straight length of outlet pipe	mm	0			
Flow conditioner	---	none			
Verification scale interval	ℓ	0.02 or 0.05 or 0.1 or 0.5			
Accuracy class	---	2			
Temperature class	---	T30 / T50			
Maximum admissible pressure	bar	16			
Maximum admissible temperature	°C	50			
Indicating range	m^3	99999			
Maximum pressure loss at Q_3	bar	0.25		0.63	

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Q_3	m^3/h	16		25
Q_4	m^3/h	20		31.25
Q_2/Q_1	---	1.6		1.6
Length	mm	≥ 270 [3)]	≥ 270	≥ 270
Nominal diameter	DN	40	50	50
Connection dimensions	---	G 2 B	G 2 ½ B or flange	G 2 ½ B or flange
Q_1 (orientation H)	m^3/h	0.400 / 0.320 / 0.254 / 0.200 / 0.160 / 0.128		0.625 / 0.500 / 0.396 / 0.312 / 0.250 / 0.200
Q_2 (orientation H)	m^3/h	0.640 / 0.512 / 0.406 / 0.320 / 0.256 / 0.205		0.1000 / 0.800 / 0.633 / 0.499 / 0.400 / 0.320
Q_3/Q_1 (orientation H)	---	40 / 50 / 63 / 80 100 / 125		40 / 50 / 63 / 80 / 100 / 125
Q_1 (orientation V)	m^3/h	----		0.1000 / 0.793 / 0.625
Q_2 (orientation V)	m^3/h	----		0.1600 / 0.1268 / 0.1000
Q_3/Q_1 (orientation V)		----		25 / 31.5 / 40
Q_1 (orientation any) [4)]	m^3/h	0.640		---
Q_2 (orientation any) [4)]	m^3/h	1.024		---
Q_3/Q_1 (orientation any) [4)]	---	25		---
Minimum straight length of inlet pipe	mm	0		
Minimum straight length of outlet pipe	mm	0		
Flow conditioner	---	none		
Verification scale interval	ℓ	0.02 or 0.05 or 0.1 or 0.5		
Accuracy class	---	2		
Temperature class	---	T30 / T50		
Maximum admissible pressure	bar	16		
Maximum admissible temperature	°C	50		
Indicating range	m^3	99999		
Maximum pressure loss at Q_3	bar	0.40		0.63

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Typ MTK-D

b) Lower bearig plate with bush and jewel, magnet clamp in polyamide.

Q_3	m^3/h	6.3		10		16	
Q_4	m^3/h	7.875		12.5		20	
Q_2/Q_1	---	1.6		1.6		1.6	
Length	mm	≥175[2)]	≥ 175[1)]	≥175[2)]	≥175[2)]	≥ 270[3)]	≥ 270
Nominal diameter	DN	25	32	25	32	40	50
Connection dimensions	---	G 1 ¼ B	G 1 ½ B	G 1 ¼ B	G 1 ½ B	G 2 B	G 2 ½ B or flange
Q_1 (orientation H)	m^3/h	0.157 / 0.126 / 0.100 / 0.79 / 0.63 / 0.50		0.250 / 0.200 / 0.159 / 0.125/ 0.100 / 0.80 / 0.62		0.400 / 0.320 / 0.254 / 0.200 / 0.160 / 0.128 / 0.100	
Q_2 (orientation H)	m^3/h	0.252 / 0.202 / 0.160 /0.126 / 0.101 / 0.80		0.400 / 0.320 / 0.254 / 0.200/ 0.160 / 0.128 / 0.100		0.640 / 0.512 / 0.406 / 0.320 / 0.256 / 0.205 / 0.160	
Q_3/Q_1 (orientation H)	---	40 / 50 / 63 / 80 / 100 / 125		40 / 50 / 63 / 80 / 100 / 125 / 160		40 / 50 / 63 / 80 / 100 / 125 / 160	
Q_1 (orientation V)	m^3/h	---		---		----	
Q_2 (orientation V)	m^3/h	---		---		----	
Q_3/Q_1 (orientation V)		---		---		----	
Q_1 (orientation any) [4)]	m^3/h	0.252 / 0.200 / 0.158		0.400 / 0.317 / 0.250 / 0.200		0.640 /0. 508 / 0.400	
Q_2 (orientation any) [4)]	m^3/h	0.403 / 0.320 / 0.252		0.640 / 0.508 / 0.400 / 0.320		0.1024 / 0.813 / 0.640	
Q_3/Q_1 (orientation any) [4)]	---	25 / 31.5 / 40		25 / 31.5 / 40 / 50		25 / 31.5 / 40	
Minimum straight length of inlet pipe	mm	0					
Minimum straight length of outlet pipe	mm	0					
Flow conditioner	---	none					
Verification scale interval	ℓ	0.02					
Accuracy class	---	2					
Temperature class	---	T30 / T50					
Maximum admissible pressure	bar	16					
Maximum admissible temperature	°C	50					
Indicating range	m^3	99999					
Maximum pressure loss at Q_3	bar	0.25		0.63		0.40	

Note for all tables: [1)] Riser pipe version ≤ 150 mm, [2)] Riser pipe version = 150 mm, [3)] Riser pipe version 150 mm and 200 mm, [4)] Meter installation in horizontal, vertical or inclined pipe, no overhead orientation (i.e. no face down meter)