MTKD-N / MTKD-M (-CC)

Multi-jet dry dial meter for cold water

The current level of development of the MTKD guarantees the most precise measurement results, minimum bearing load and a long service life.

The MTKD-M (-CC) is equipped with an 8-digit dry dial meter register and a modulator disc. This enables electronic, non-reactive scanning and is the basis for remote reading of meter data via radio with LoRaWAN® or wM-Bus (according to OMS). A combined M-Bus/ pulse module is also possible.

The MTKD-N is equipped with an 8-digit register and 1 l/pulse as standard or is available with a 7-digit register and 10 l/pulse.

Performance characteristics at a glance

- Multi-jet dry dial meter with protected magnetic coupling
- For horizontal and vertical installation, also available in standpipe and downpipe design on request
- Register cap made of UV-resistant polymer plastic
- Available with glass/copper register (IP68)
- Brass body according to UBA (Federal Environment Office) list
- Register rotatable 355°
- Operating pressure MAP 16
- Approved in accordance with MID

AMR options

- (-M/-CC) As standard with communication interface for EDC modules (Electronic Data Capture):
  - EDC LPWAN radio module (868 MHz) for LoRaWAN®
  - EDC wireless M-Bus radio module (868 MHz)
  - EDC- combined M-Bus and pulse module
- (-N) Can be retrofitted with pulser:
  - Standard pulse value 1 l/pulse
  - Optional 10 l/pulse

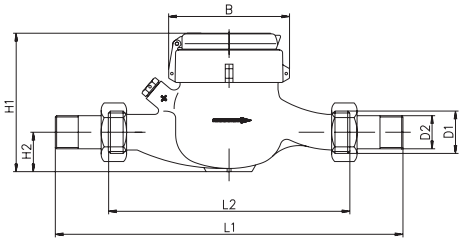
Applications

- For the consumption measurement of hot and unpolluted drinking water or service water up to 50°C

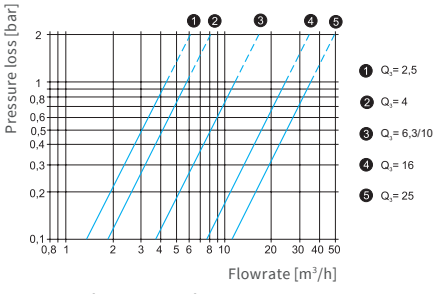
MTKD-N / MTKD-M (-CC)

Technical data				Riser / Down		Riser / Down			Riser
Permanent flowrate	Q_3	m^3/h	2.5	2.5	4	4	6.3	6.3	6.3
Comparable to nominal flowrate (EEC)	Q_n	m^3/h	1.5	1.5	2.5	2.5	3.5	3.5	3.5
Attainable measuring range [1]	Q_3/Q_1	R	100H	100H	R40 160H	160H	R40 160H	R40 160H	160H
Comparable to metrological class (EEC)	Class	-	B-H	B-H	C-H / A-V	C-H	A / C-H	A / C-H	C-H
Overload flowrate [2]	Q_4	m^3/h	3.13	3.13	5	5	7.88	7.88	7.88
Transitional flowrate [2]	Q_2	l/h	40H	40H	40H / 160V	40H	253V / 63H	253V / 63H	63H
Minimum flowrate [2]	Q_1	l/h	25H	25H	25H / 100V	25H	158V / 40H	158V / 40H	39H
Start-up flow rate	-	l/h	<10	<10	<10	<10	<18	<18	<18
Display range	min.	l	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	max.	m^3	R8 99,999.999 R7 99,999.99	R8 99,999.999 R7 99,999.99	R8 99,999.999 R7 99,999.99	R8 99,999.999 R7 99,999.99	R8 99,999.999 R7 99,999.99	R8 99,999.999 R7 99,999.99	R8 99,999.999 R7 99,999.99
Temperature range	-	°C	0.1 - 50	0.1 - 50	0.1 - 50	0.1 - 50	0.1 - 50	0.1 - 50	0.1 - 50
Operating pressure	MAP	bar	0.3 - 16	0.3 - 16	0.3 - 16	0.3 - 16	0.3 - 16	0.3 - 16	0.3 - 16
Pulse value	-	l/pulse	1/10	1/10	1/10	1/10	1/10	1/10	1/10
Pressure loss class at Q_3	Δp	bar	Δ0.63	Δ0.63	Δ0.63	Δ0.63	Δ0.63	Δ0.63	Δ0.63
Mechanical environmental condition	-	-	M2	M2	M2	M2	M2	M2	M2
Climatic condition [3]	-	°C	5 - 55	5 - 55	5 - 55	5 - 55	5 - 55	5 - 55	5 - 55
Flow profile sensitivity	-	-	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0
Dimensions and weights:									
Nominal diameter	DN	mm	15	20	20	20	25	32	25
		inch	½"	¾"	¾"	¾"	1"	1 ¼"	1"
Overall length without connectors [1]	L2	mm	165/170	105	165/190	105	260	260	150
Overall length with connectors approx.	L1	mm	245/250	201	261/286	201	378	384	268
Thread meter G x B	D1	inch	¾"	1"	1"	1"	1 ¼"	1 ½"	1 ¼"
Thread connector R x	D2	inch	½"	¾"	¾"	¾"	1"	1 ¼"	1"
Width approx.	B	mm	95	95	95	95	95	95	95
Height approx.	H1	mm	120	140	120	140	120	120	160
	H2	mm	35	---	25	---	35	40	---
Weight approx.	-	kg	1.2	1.7	1.25/1.3	1.7	2.1	2.1	2.1

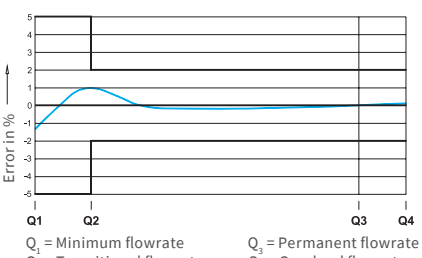
[1] Other measuring ranges (R) and overall lengths on request
[2] The data refers to the attainable measuring range
[3] Condensation possible
[4] Flange according to ISO 7005-2 / EN 1092-2
Attention: not all versions are available in all markets



Dimensions



Typical pressure loss curve



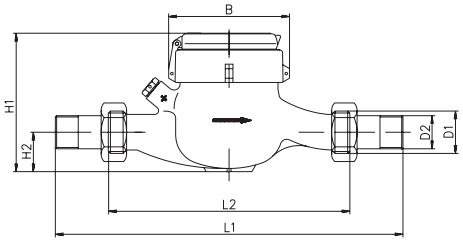
Q_1 = Minimum flowrate
Q_2 = Transitional flowrate
Q_3 = Permanent flowrate
Q_4 = Overload flowrate

Typical error curve

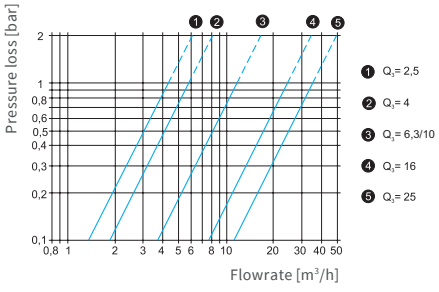
MTKD-N / MTKD-M (-CC)

Technical data					Riser		Riser		
Permanent flowrate	Q_3	m^3/h	10	10	10	16	16	25	25
Comparable to nominal flowrate (EEC)	Q_n	m^3/h	6	6	6	10	10	15	15
Attainable measuring range [1]	Q_3/Q_1	R	R50 160H	R50 160H	160H	R40 160H	160H	160H/40V	160H/40V
Comparable to metrological class (EEC)	Class	-	A / C-H	A / C-H	C-H	A / C-H	C-H	C-H / A-V	C-H / A-V
Overload flowrate [2]	Q_4	m^3/h	12.5	12.5	12.5	20	20	31.3	31.3
Transitional flowrate [2]	Q_2	l/h	400V / 100H	400V / 100H	100H	640V / 160H	100H	250H / 1000V	250H / 1000V
Minimum flowrate [2]	Q_1	l/h	250V / 63H	250V / 63H	63H	400V / 100H	160H	156H / 625V	156H / 625V
Start-up flow rate	-	l/h	<18	<18	<18	<40	<40	<45	<45
Display range	min.	l	0.02	0.02	0.02	0.02	0.02	0.1	0.1
	max.	m^3	R8 99,999.999 R7 99,999.99	R8 99,999.999 R7 99,999.99	R8 99,999.999 R7 99,999.99	R8 99,999.999 R7 99,999.99	R8 99,999.999 R7 99,999.99	R8 99,999.999 R7 99,999.99	R8 99,999.999 R7 99,999.99
Temperature range	-	°C	0.1 - 50	0.1 - 50	0.1 - 50	0.1 - 50	0.1 - 50	0.1 - 50	0.1 - 50
Operating pressure	MAP	bar	0.3 - 16	0.3 - 16	0.3 - 16	0.3 - 16	0.3 - 16	0.3 - 16	0.3 - 16
Pulse value	-	l/pulse	1/10	1/10	1/10	1/10	1/10	1/10	1/10
Pressure loss class at Q_3	Δp	bar	Δ0.63	Δ0.63	Δ0.63	Δ0.63	Δ0.63	Δ0.63	Δ0.63
Mechanical environmental condition	-	-	M2	M2	M2	M2	M2	M2	M2
Climatic condition [3]	-	°C	5 - 55	5 - 55	5 - 55	5 - 55	5 - 55	5 - 55	5 - 55
Flow profile sensitivity	-	-	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0
Dimensions and weights:									
Nominal diameter	DN	mm	25	32	25	40	40	50	50
		inch	1"	1 ¼"	1"	1 ½"	1 ½"	2"	2"
Overall length without connectors [1]	L2	mm	260	260	150	300	150/200	270/300	270
Overall length with connectors approx.	L1	mm	384	384	268	428	278/328	314/444	---
Thread meter G x B	D1	inch	1 ¼"	1 ½"	1 ¼"	2"	2"	2 ½"	Flange [4]
Thread connector R x	D2	inch	1"	1 ¼"	1"	1 ½"	1 ½"	2"	---
Width approx.	B	mm	95	95	95	110	110	110	110
Height approx.	H1	mm	120	120	160	150	165	150	175
	H2	mm	40	40	15	---	---	60	75
Weight approx.	-	kg	2.1	2.1	2.1	4.0	4.0/4.9	3.8/4.0	9.5

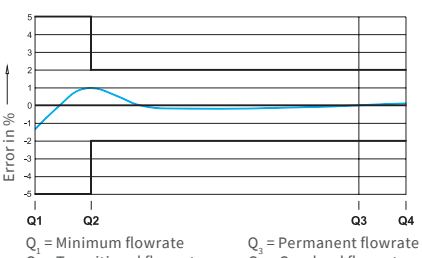
[1] Other measuring ranges (R) and overall lengths on request
[2] The data refers to the attainable measuring range
[3] Condensation possible
[4] Flange according to ISO 7005-2 / EN 1092-2
Attention: not all versions are available in all markets



Dimensions



Typical pressure loss curve



Q_1 = Minimum flowrate
Q_2 = Transitional flowrate
Q_3 = Permanent flowrate
Q_4 = Overload flowrate

Typical error curve

ZENNER International GmbH & Co. KG
Heinrich-Barth-Straße 29
66115 Saarbrücken
Germany

Phone +49 681 99 676-30
Fax +49 681 99 676-3100

E-mail info@zenner.com
Internet www.zenner.com