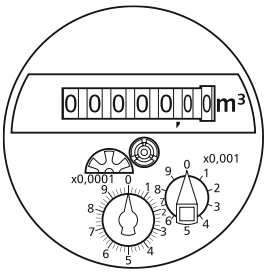
MTKD-M and MTKD-N

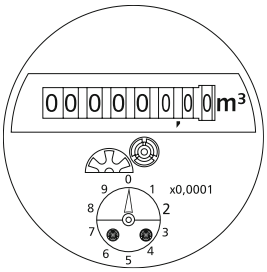
Multi-jet dry dial water meter for cold water

In use by the million worldwide the MTKD provides a high technical standard and a high-quality workmanship. Precise measurement results are achieved, even with difficult water quality or in difficult installation situations.

The MTKD is equipped with the ZENNER D-register and is available in two versions:
MTKD-M with 8-digit-rollers register and modulator disc for non-reactive scanning for radio (wireless M-bus, LPWAN), M-bus or pulse. MTKD-N with 7- or 8-digit rollers for different pulse values and retrofittable with mechanic pulser.



MTKD-N



MTKD-M

Performance characteristics

- High-quality UV-resistant plastic inspection window
- Dry dial register with shielded magnetic coupling
- Operating pressure PN 16
- Available with flood-proof (IP68 hermetically sealed glass/copper register)
- Approved in accordance with MID

Applications

- For the consumption measuring of cold potable water up to 50° C
- Water meter for horizontal and vertical installation

AMR options

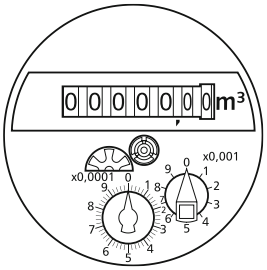
- MTKD-N with pulse output (reed) for remote readout
- Standard pulse value 10 l/pulse, optional 1 l/pulse available
- MTKD-M serially equipped with communication interface for:
  - Electronic pulser
  - Wired M-bus
  - Radio via wireless M-bus
  - Radio via LPWAN (LoRaWAN™, SIGFOX)

MTKD-L-M and MTKD-L-N

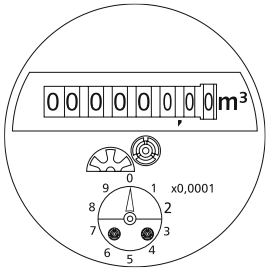
Multi-jet dry dial water meter in an innovative plastic housing

The new series of our multi-jet dry dial meter are an improvement of the classical MTKD. Its main features are a low starting flow and reliable performance even with difficult water qualities or dezincification effects. Constant development guarantees accurate measuring results and the best long-term stability.

The MTKD-L is equipped with the ZENNER D-register and is available in two versions:
MTKD-L-M with 8-digit-rollers register and modulator disc for non-reactive scanning for radio (wireless M-bus, LPWAN), M-bus or pulse.
MTKD-L-N with 7- or 8-digit rollers for different pulse values and retrofittable with mechanic pulser.



MTKD-L-N



MTKD-L-M

Performance characteristics

- Almost 50% lighter than a meter with a brass housing
- Dry dial register with shielded magnetic coupling
- High-quality UV-resistant plastic inspection window
- Operating pressure MAP 16
- Available with flood-proof (IP68) hermetically sealed glass/copper register
- Approved in accordance with MID

Applications

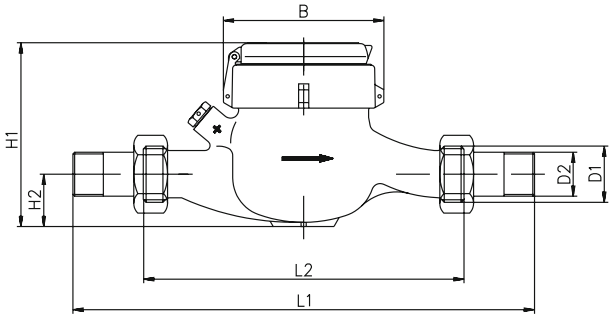
- For the consumption measuring of cold potable water up to 30° C
- Water meter for horizontal and vertical installation

AMR options

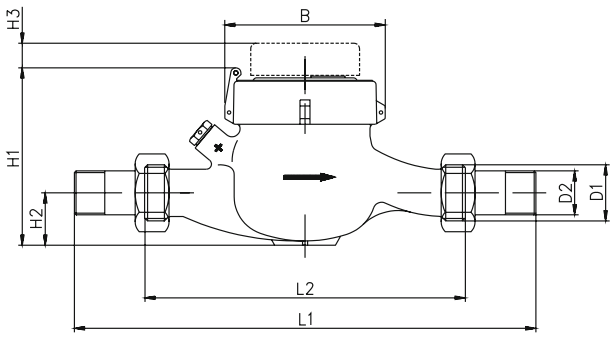
- MTKD-L-N with pulse output (reed) for remote readout
- Standard pulse value 10 l/pulse, optional 1 l/pulse available
- MTKD-L-M serially equipped with communication interface for:
  - Electronic pulser
  - Wired M-bus
  - Radio via wireless M-bus
  - Radio via LPWAN (LoRaWAN™, SIGFOX)

Technical data MTKD-N, MTKDI-N, MTKD-M							
Permanent flow	Q_3	m³/h	2,5	4	6,3	10	10
Comparable to nominal flow (EWG)	Q_n	m³/h	1,5	2,5	3,5	6	6
Attainable measuring range	Q_3/Q_1	R	100H	160H/40V	R40 160H	R50 160H	R50 160H
Standard measuring range (*)	Q_3/Q_1	R	R80H	R80H/40V	R40 R80H	R40 R80H	R40 R80H
Comparable to metrological class (EWG)	class		B-H	B-H / A-V	A / B-H	A / B-H	A / B-H
Overload flow (**)	Q_4	m³/h	3,13	5	7,88	12,5	12,5
Minimum flow (**)	Q_1	l/h	100 / 31H	160 / 50H	158 / 79H	250 / 125H	250 / 125H
Start-up flow rate	-	l/h	<10	<10	<18	<18	<18
Display range	min	l	0,02	0,02	0,02	0,02	0,02
	max	m³	R8 99999.999 R7 99999.99	R8 99999.999 R7 99999.99	R8 99999.999 R7 99999.99	R8 99999.999 R7 99999.99	R8 99999.999 R7 99999.99
Maximum temperature	-	°C	50	50	50	50	50
Operating pressure, max.	MAP	bar	16	16	16	16	16
Pulse value		l/pulse	1/10	1/10	1/10	1/10	1/10
Dimensions:							
Nominal diameter	DN	mm	15	20	25	25	32
		inch	½"	¾"	1"	1"	1 ¼"
Overall length without connectors (*)	L2	mm	165/170	190	260	260	260
Overall length with connectors approx.	L1	mm	245/250	286	378	384	384
Thread meter G x B	D1	inch	¾"	1"	1 ¼"	1 ¼"	1 ½"
Thread connector R x	D2	inch	½"	¾"	1"	1"	1 ¼"
Width approx.	B	mm	95	95	95	95	95
Height (plastic glass) approx.	H1 k*	mm	120	120	120	120	120
	H2	mm	35	25	35	40	40
	H3	mm	15	15	15	15	15
Weight approx.	-	kg	1,2	1,3	2,1	2,1	2,1

(*) Other measuring ranges (R) and overall lengths on request.
(**) The data refer to the standard measuring range
k* plastic glass



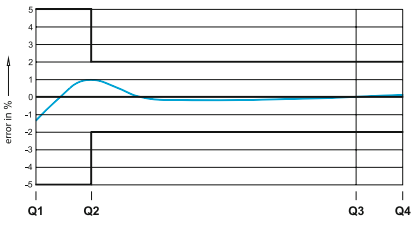
Dimensions MTKD-N/ -M, MTKD-L-N/ -M



Dimensions MTKDI-N, MTKDI-L-N with pulser

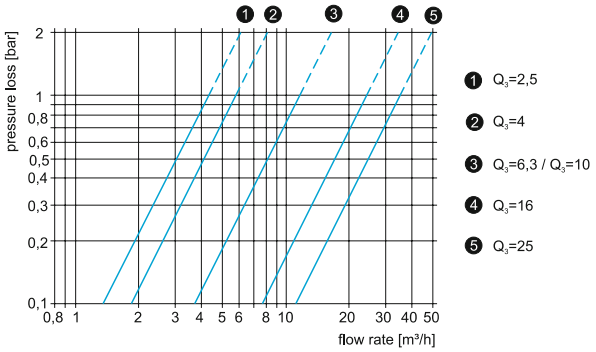
Technical data MTKD-N, MTKDI-N, MTKD-M						MTKD-L-N, MTKDI-L-N, MTKD-L-M	
Permanent flow	Q_3	m³/h	16	25	25	2,5	4
Comparable to nominal flow (EWG)	Q_n	m³/h	10	15	15	1,5	2,5
Attainable measuring range	Q_3/Q_1	R	R40 160H	125H/40V	125H/40V	100H	160H/40V
Standard measuring range (*)	Q_3/Q_1	R	R40 R80H	80H/40V	80H/40V	R80H	R80H/40V
Comparable to metrological class (EWG)	class		A / B-H	B-H / A-V	B-H / A-V	B-H	B-H / A-V
Overload flow (**)	Q_4	m³/h	20	31,3	31,3	3,13	5
Minimum flow (**)	Q_1	l/h	640 / 200H	313H	313H	100 / 31H	160 / 50H
Start-up flow rate	-	l/h	<40	<25	<25	<10	<10
Display range	min	l	0,02	0,1	0,1	0,02	0,02
	max	m³	R8 99999.999 R7 99999.99	R8 99999.999 R7 99999.99	R8 99999.999 R7 99999.99	R8 99999.999 R7 99999.99	R8 99999.999 R7 99999.99
Maximum temperature	-	°C	50	50	50	30	30
Operating pressure, max.	MAP	bar	16	16	16	16	16
Pulse value		l/pulse	1/10	1/10	1/10	1/10	1/10
Dimensions:							
Nominal diameter	DN	mm	40	50	50	15	20
		inch	1 ½"	2"	---	½"	¾"
Overall length without connectors (*)	L2	mm	300	300	270	165/170	190
Overall length with connectors approx.	L1	mm	428	444	---	245/250	286
Thread meter G x B	D1	inch	2"	2 ½"	flange	¾"	1"
Thread connector R x	D2	inch	1 ½"	2"	---	½"	¾"
Width approx.	B	mm	110	110	110	99	99
Height (plastic glass) approx.	H1 k*	mm	150	150	175	120	120
	H2	mm	50	60	75	35	30
	H3	mm	15	15	15	15	15
Weight approx.	-	kg	4,0	4	9,5	0,6	0,6

(*) Other measuring ranges (R) and overall lengths on request.
(**) The data refer to the standard measuring range
k* plastic glass



Q1 = the minimum flow
Q2 = the transitional flowrate
Q3 = the permanent flow
Q4 = the overload flow

Typical accuracy curve



Typical pressure loss curve

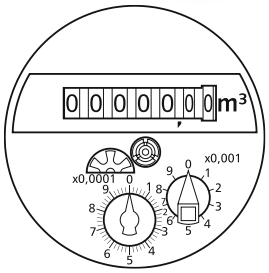
MTKD-M-ST and MTKD-N-ST

Multi-jet dry dial water meter in a standpipe housing

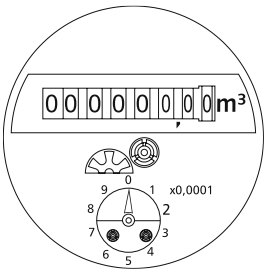
The proven MTK dry dial measuring insert is available in a standpipe housing. It is designed for installation in vertical pipelines with an upwards flow direction and makes calibration replacement uncomplicated.

The MTKD-ST is equipped with the new ZENNER D-register and is available in two versions:
MTKD-M-ST with 8-digit rollers register and modulator disc for non-reactive scanning for radio (wireless M-bus, LPWAN), M-bus or pulse.
MTKD-N-ST with 7- or 8-digit rollers for different pulse values and retrofit-table with mechanic pulser.

In comparison with a vertically installed standard water meter, the register keeps on functioning, even in a horizontal position. Thanks to the resulting decrease in bearing load, a significant improvement in the long-term measuring stability can be achieved.



MTKD-N-ST



MTKD-M-ST

Performance characteristics

- Dry dial register with shielded magnetic coupling
- High-quality UV-resistant plastic inspection window
- Operating pressure MAP 16
- Available with flood-proof (IP68) hermetically sealed glass/copper register
- Approved in accordance with MID

Applications

- For the consumption measuring of cold potable water up to 50° C
- Water meter for standpipe installation

AMR options

- MTKD-N-ST with pulse output (reed) for remote readout
- Standard pulse value 10 l/pulse, optional 1 l/pulse available
- MTKD-M-ST serially equipped with communication interface for:
  - Electronic pulser
  - Wired M-bus
  - Radio via wireless M-bus
  - Radio via LPWAN (LoRaWAN™, SIGFOX)

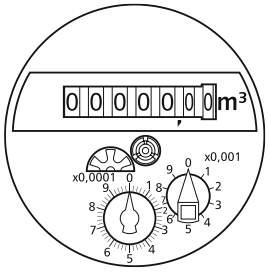
MTKD-M-FA and MTKD-N-FA

Multi-jet dry dial water meter in a downpipe housing

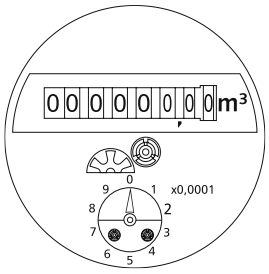
The proven MTK water meters dry dial measuring insert is available in a downpipe housing for vertical installation positions with a downward flow direction and makes calibration replacement uncomplicated.

The MTKD-FA is equipped with the new ZENNER D-register and is available in two versions:
MTKD-M-FA with 8-digit rollers register and modulator disc for non-reactive scanning for radio (wireless M-bus, LPWAN), M-bus or pulse.
MTKD-N-FA with 7- or 8-digit rollers for different pulse values and retrofittable with mechanic pulser.

In comparison with a vertically installed standard water meter, the register keeps on functioning, even in a horizontal position. Thanks to the resulting decrease in bearing load, a significant improvement in the long-term measuring stability can be achieved.



MTKD-N-FA



MTKD-M-FA

Performance characteristics

- Dry dial register with shielded magnetic coupling
- High-quality UV-resistant plastic inspection window
- Operating pressure MAP 16
- Available with flood-proof (IP68) hermetically sealed glass/copper register
- Approved in accordance with MID

Applications

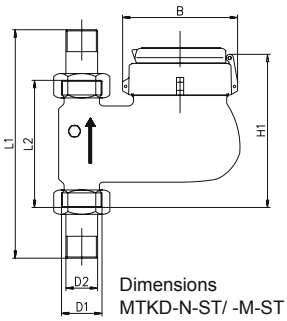
- For the consumption measuring of cold potable water up to 50° C
- Water meter for downpipe installation

AMR options

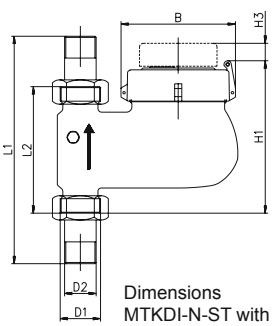
- MTKD-N-FA with pulse output (reed) for remote readout
- Standard pulse value 10 l/pulse, optional 1 l/pulse available
- MTKD-M-FA serially equipped with communication interface for:
  - Electronic pulser
  - Wired M-bus
  - Radio via wireless M-bus
  - Radio via LPWAN (LoRaWAN™, SIGFOX)

Technical data MTKD-N-ST, MTKDI-N-ST, MTKD-M-ST								
Permanent flow	Q_3	m³/h	2,5	4	6,3	10	16	16
Comparable to nominal flow (EWG)	Q_n	m³/h	1,5	2,5	3,5	6	10	10
Attainable measuring range	Q_3/Q_1	R	100H	160H	125H	160H	160H	160H
Standard measuring range (*)	Q_3/Q_1	R	R80H	R80H	R80H	R80H	R80H	R80H
Comparable to metrological class (EWG)	class		B-H	B-H	B-H	B-H	B-H	B-H
Overload flow (**)	Q_4	m³/h	3,13	5	7,88	12,5	20	20
Minimum flow (**)	Q_1	l/h	31H	50H	79H	125H	200H	200H
Start-up flow rate	-	l/h	<10	<10	<18	<18	<40	<40
Display range	min	l	0,02	0,02	0,02	0,02	0,02	0,02
	max	m³	R8 99999.999 R7 99999.99	R8 99999.999 R7 99999.99	R8 99999.999 R7 99999.99	R8 99999.999 R7 99999.99	R8 99999.999 R7 99999.99	R8 99999.999 R7 99999.99
Maximum temperature	-	°C	50	50	50	50	50	50
Operating pressure, max.	MAP	bar	16	16	16	16	16	16
Pulse value		l/pulse	1/10	1/10	1/10	1/10	1/10	1/10
Dimensions:								
Nominal diameter	DN	mm	20	20	25	25	40	40
		inch	¾"	¾"	1"	1"	1 ½"	1 ½"
Overall length without connectors (*)	L2	mm	105	105	150	150	150	200
Overall length with connectors approx.	L1	mm	201	201	268	268	278	328
Thread meter G x B	D1	inch	1"	1"	1 ¼"	1 ¼"	2"	2"
Thread connector R x	D2	inch	¾"	¾"	1"	1"	1 ½"	1 ½"
Width approx.	B	mm	95	95	95	95	110	110
Height (plastic glass) approx.	H1 k*	mm	140	140	160	160	165	165
	H3	mm	15	15	15	15	15	15
Weight approx.	-	kg	1,7	1,7	2,1	2,1	4,0	4,9

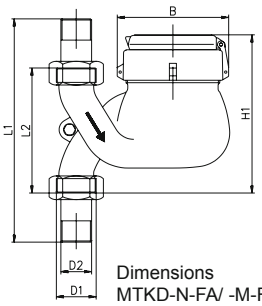
(*) Other measuring ranges (R) and overall lengths on request.
(**) The data refer to the standard measuring range
k* plastic glass



Dimensions
MTKD-N-ST/ -M-ST



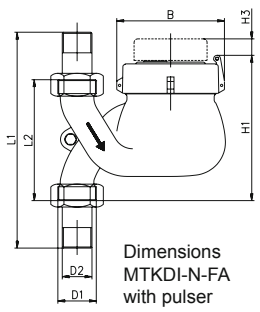
Dimensions
MTKDI-N-ST with pulser



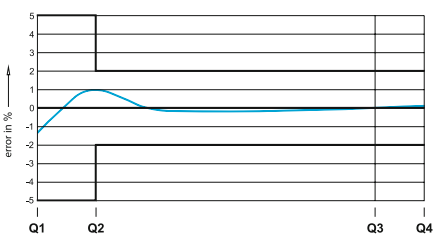
Dimensions
MTKD-N-FA/ -M-FA

Technical data MTKD-FA, MTKD-N-FA, MTKDI-N-FA, MTKD-M-FA				
Permanent flow	Q_3	m³/h	2,5	4
Comparable to nominal flow (EWG)	Q_n	m³/h	1,5	2,5
Attainable measuring range	Q_3/Q_1	R	100H	160H
Standard measuring range (*)	Q_3/Q_1	R	R80H	R80H
Comparable to metrological class (EWG)	class		B-H	B-H
Overload flow (**)	Q_4	m³/h	3,13	5
Minimum flow (**)	Q_1	l/h	31H	50H
Start-up flow rate	-	l/h	<10	<10
Display range	min	l	0,02	0,02
	max	m³	R8 99999.999 R7 99999.99	R8 99999.999 R7 99999.99
Maximum temperature	-	°C	50	50
Operating pressure, max.	MAP	bar	16	16
Pulse value		l/pulse	1/10	1/10
Dimensions:				
Nominal diameter	DN	mm	20	20
		inch	¾"	¾"
Overall length without connectors (*)	L2	mm	105	105
Overall length with connectors approx.	L1	mm	201	201
Thread meter G x B	D1	inch	1"	1"
Thread connector R x	D2	inch	¾"	¾"
Width approx.	B	mm	95	95
Height (plastic glass) approx.	H1 k*	mm	140	140
	H3	mm	15	15
Weight approx.	-	kg	1,7	1,7

(*) Other measuring ranges (R) and overall lengths on request.
(**) The data refer to the standard measuring range
k* plastic glass

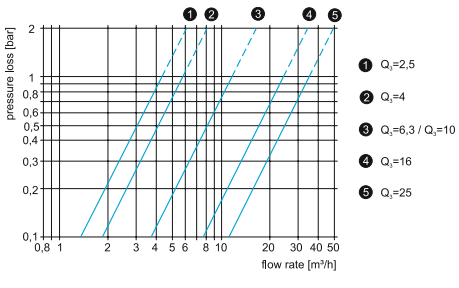


Dimensions
MTKDI-N-FA
with pulser



Typical accuracy curve

Q1 = the minimum flow
Q2 = the transitional flowrate
Q3 = the permanent flow
Q4 = the overload flow

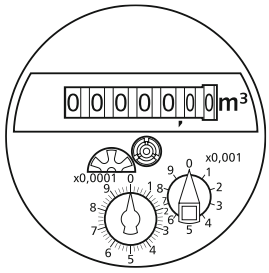


Typical pressure loss curve

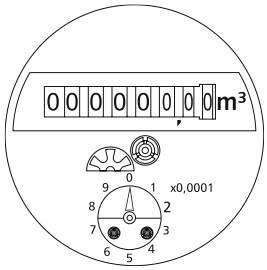
MTKD-S

Multi-jet dry dial meter for cold water

Equipped with the new ZENNER D-register, the MTKD-S is a compact dry dial multi-jet meter for cold potable water with a lightweight brass body. Our developers succeeded in reducing substantially the weight of the brass body - with positive effects on the measuring quality. The innovation is called MTKD-S. „S“ stands for small body. It´s almost 25% lighter than a WVG brass housing.

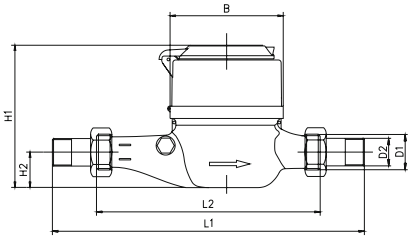


MTKD-S-N



MTKD-S-M

M-Bus | M-Bus wireless | LoRa | SIGFOX



Dimensions MTKD-S

Technical data MTKD-S, MTKD-S-N, MTKD-S-M					
Permanent flow	Q_3	m³/h	1,6	2,5	4
Comparable to nominal flow (EWG)	Q_n	m³/h	1,0	1,5	2,5
Attainable measuring range	Q_3/Q_1	R	100H/25V	160H/40V	160H/40V
Standard measuring range (*)	Q_3/Q_1	R	R80H	R80H	R80H
Comparable to metrological class (EWG)	class		B-H	B-H	B-H
Overload flow (**)	Q_4	m³/h	2,0	3,13	5,0
Minimum flow (**)	Q_1	l/h	20H	31H	50H
Start-up flow rate	-	l/h	<8	<8	<10
Display range	min	l	0,02	0,02	0,02
	max	m³	R8 99999.999 R7 99999.99	R8 99999.999 R7 99999.99	R8 99999.999 R7 99999.99
Maximum temperature	-	°C	30	30	30
Operating pressure, max.	MAP	bar	16	16	16
Pulse value		l/pulse	1/10	1/10	1/10
Dimensions:					
Nominal diameter	DN	mm	15	15	20
		inch	½"	½"	¾"
Overall length without connectors (*)	L2	mm	165/190	165/190	190
Overall length with connectors approx.	L1	mm	245/270	245/270	286
Thread meter G x B	D1	inch	¾"	¾"	1"
Thread connector R x	D2	inch	½"	½"	¾"
Width approx.	B	mm	85	85	85
Height approx.	H1	mm	105	105	105
	H2	mm	30	30	30
	H3	mm	15	15	15
Weight approx.	-	kg	0,85/0,95	0,85/0,95	1,0

(*) Other measuring ranges (R) and overall lengths on request.
(**) The data refer to the standard measuring range