MNK-N

Multi-jet wet dial meters for cold water

MNK-N is an MID compliant water meter for service connection.

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

The meter is equipped with a reed switch interface as standard.

The interface enables remote reading of the meter data via PDC radio module with LoRaWAN® or wM-Bus.

Performance characteristics at a glance

- Multi-jet wet dial meter
- For horizontal and vertical (riser / downpipe) installation, on request also available with a special riser / downpipe housing
- All materials, which are used in the drinking water section, comply with the required standards, guidelines and the current German drinking water approval (other country-specific drinking water approvals on request)
- Register cap made of high-quality UV-resistant polymer plastic
- Brass body according to UBA (Federal Environment Office) list
- Operating pressure MAP 16
- Approved in accordance with MID

Applications

- For consumption measuring of drinking water and unpolluted service water up to 50 °C

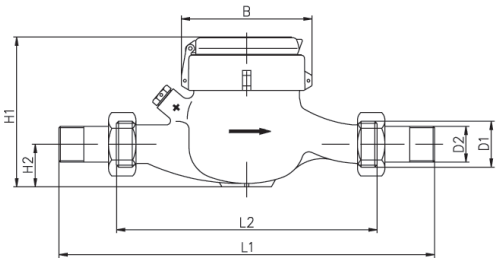
AMR options

- Can be retrofitted with PDC module (PulseDataCapture):
  - PDC- wireless M-Bus radio module (868 MHz)
  - PDC - LPWAN radio module for LoRaWAN®
- Retrofittable with mechanical reed-switch:
  - Standard pulse valve 10 l/pulse

MNK-N

Technical data								Riser / Down
Permanent Flowrate	Q_3	m^3/h	2.5	2.5	2.5	2.5	2.5	2.5
Comparable to permanent flowrate (EEC)	Q_n	m^3/h	1.5	1.5	1.5	1.5	1.5	1.5
Attainable measuring range [1]	Q_3/Q_1	R	200H/50V	200H/50V	200H/50V	200H/50V	200H/50V	200H
Comparable to metrological class (EEC)	Class	-	C-H/A-V	C-H/A-V	C-H/A-V	C-H/A-V	C-H/A-V	C-H
Overload Flowrate [2]	Q_4	m^3/h	3.13	3.13	3.13	3.13	3.13	3.13
Transitional Flowrate [2]	Q_2	l/h	80H/101V	80H/101V	80H/101V	80H/101V	80H/101V	49.6
Minimum flow [2]	Q_1	l/h	31H/63V	31H/63V	31H/63V	31H/63V	31H/63V	31
Start-up flow rate	-	l/h	<4	<4	<4	<4	<4	<4
Display	min.	l	0.1	0.1	0.1	0.1	0.1	0.1
	max.	m^3	99999	99999	99999	99999	99999	99999
Temperature range	-	°C	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	16
Pulse value (Reed pulser or PDC)	-	l/pulse	10/100	10/100	10/100	10/100	10/100	10/100
Pressure loss class at Q_3	Δp	bar	Δ0.63	Δ0.63	Δ0.63	Δ0.63	Δ0.63	Δ0.63
Mechanical environmental condition	-	-	M1	M1	M1	M1	M1	M1
Climatic condition [3]	-	°C	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
Weight and dimensions:								
Nominal diameter	DN	mm	15	15	20	20	25	20
		inch	½"	½"	¾"	¾"	1"	¾"
Overall length without connectors [1]	L2	mm	110	165/170	130	190	175	105
Overall length with connectors	L1	mm	190	245/250	226	286	255	201
Thread meter G x B	D1	inch	¾"	¾"	1"	1"	1 ¼"	1"
Thread connector R x	D2	inch	½"	½"	¾"	¾"	1"	¾"
Width approx.	B	mm	95	95	95	95	95	95
Height approx.	H1	mm	125	125	125	125	125	140
	H2	mm	~30	~35	~25	~25	~35	---
Weight ca.	-	kg	1.2	1.3	1.3	1.45	1.8	1.7

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



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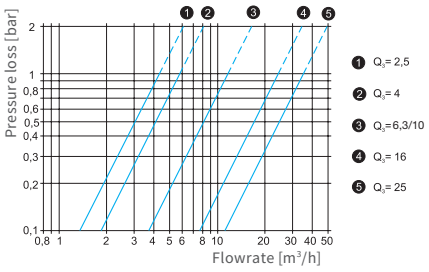
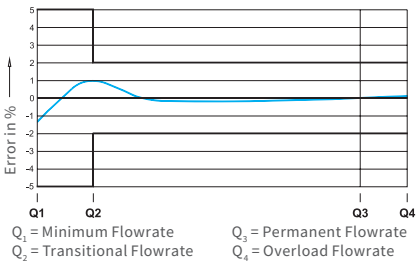


Typical pressure loss curve



Typical error curve

MNK-N

Technical data							Riser / Down
Permanent Flowrate	Q_3	m^3/h	4	4	4	4	4
Comparable to permanent flowrate (EEC)	Q_n	m^3/h	2.5	2.5	2.5	2.5	2.5
Attainable measuring range [1]	Q_3/Q_1	R	200H/80V	200H/80V	200H/80V	200H/80V	200H
Comparable to metrological class (EEC)	Class	-	C-H/B-V	C-H/B-V	C-H/B-V	C-H/B-V	C-H
Overload Flowrate [2]	Q_4	m^3/h	5	5	5	5	5
Transitional Flowrate [2]	Q_2	l/h	80H/160V	80H/160V	80H/160V	80H/160V	80
Minimum flow [2]	Q_1	l/h	50H/100V	50H/100V	50H/100V	50H/100V	50
Start-up flow rate	-	l/h	<5	<5	<5	<5	<5
Display	min.	l	0.1	0.1	0.1	0.1	0.1
	max.	m^3	99999	99999	99999	99999	99999
Temperature range	-	°C	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	16
Pulse value (Reed pulser or PDC)	-	l/pulse	10/100	10/100	10/100	10/100	10/100
Pressure loss class at Q_3	Δp	bar	Δ0.63	Δ0.63	Δ0.63	Δ0.63	Δ0.63
Mechanical environmental condition	-	-	M1	M1	M1	M1	M1
Climatic condition [3]	-	°C	5 - 55	5 - 55	5 - 55	5 - 55	5 - 55
Flow profile sensitivity	-	-	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0
Weight and dimensions:							
Nominal diameter	DN	mm	20	20	20	25	20
		inch	¾"	¾"	¾"	1"	¾"
Overall length without connectors [1]	L2	mm	130	165/190	220	175	105
Overall length with connectors	L1	mm	226	261/286	316	293	201
Thread meter G x B	D1	inch	1"	1"	1"	1 ¼"	1"
Thread connector R x	D2	inch	¾"	¾"	¾"	1"	¾"
Width approx.	B	mm	95	95	95	95	95
Height approx.	H1	mm	125	125	125	125	140
	H2	mm	~25	~25	~35	~40	---
Weight ca.	-	kg	1.3	1.4/1.45	1.6	1.7	1.7

[1] Other measuring ranges (R) and overall lengths on request
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[5] Flange according to ISO 7005-2 / EN 1092-2
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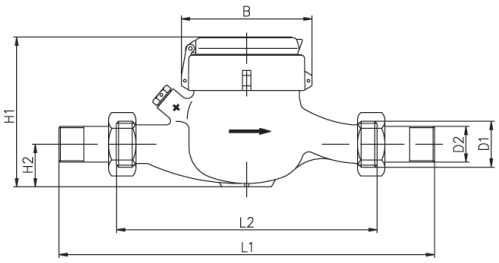

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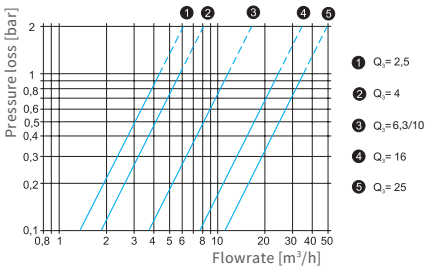
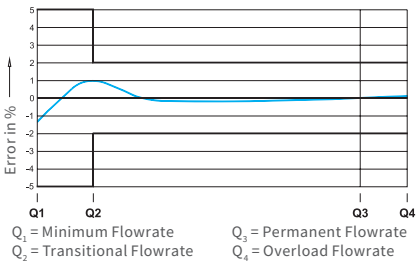


Typical pressure loss curve



Typical error curve

MNK-N

Technical data						Riser	
Permanent Flowrate	Q_3	m^3/h	6.3	10	10	10	16
Comparable to permanent flowrate (EEC)	Q_n	m^3/h	3.5	6	6	6	10
Attainable measuring range [1]	Q_3/Q_1	R	200H/80V	200H/80V	200H/80V	200H	200H/63V
Comparable to metrological class (EEC)	Class	-	C-H/B-V	C-H/B-V	C-H/B-V	C-H	C-H/A-V
Overload Flowrate [2]	Q_4	m^3/h	7.88	12.5	12.5	12.5	20
Transitional Flowrate [2]	Q_2	l/h	128H/253V	200H/400V	200H/400V	200	320H/640V
Minimum flow [2]	Q_1	l/h	80H/158V	125H/250V	125H/250V	125	200H/400V
Start-up flow rate	-	l/h	<10	<10	<10	<10	<20
Display	min.	l	0.1	0.1	0.1	0.1	0.1
	max.	m^3	99999	99999	99999	99999	99999
Temperature range	-	°C	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	16	0.3 - 16
Pulse value (Reed pulser or PDC)	-	l/pulse	10/100	10/100	10/100	10/100	10/100
Pressure loss class at Q_3	Δp	bar	Δ0.63	Δ0.63	Δ0.63	Δ0.63	Δ0.63
Mechanical environmental condition	-	-	M2	M2	M2	M2	M2
Climatic condition [3]	-	°C	5 - 55	5 - 55	5 - 55	5 - 55	5 - 55
Flow profile sensitivity	-	-	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0
Weight and dimensions:							
Nominal diameter	DN	mm	25	25	32	25	40
		inch	1"	1"	1 ¼"	1"	1 ½"
Overall length without connectors [1]	L2	mm	175/260	175/260	260	150	300
Overall length with connectors	L1	mm	293/378	293/378	384	268	428
Thread meter G x B	D1	inch	1 ¼"	1 ¼"	1 ½"	1 ¼"	2"
Thread connector R x	D2	inch	1"	1"	1 ¼"	1"	1 ½"
Width approx.	B	mm	95	95	95	95	110
Height approx.	H1	mm	125	125	125	160	150
	H2	mm	~40	~40	~40	---	~50
Weight ca.	-	kg	1.7/2.1	1.7/2.1	2.2	2.6	3.6

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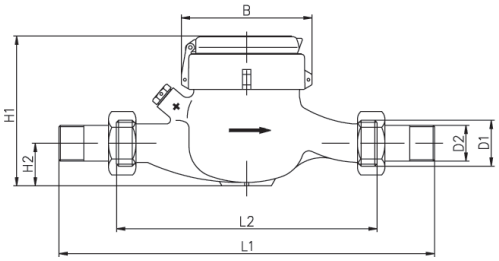

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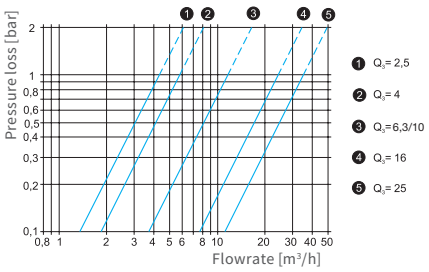
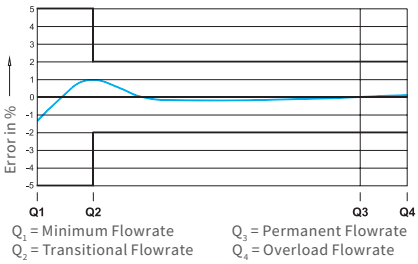


Typical pressure loss curve



Typical error curve

MNK-N

Technical data				Riser			
Permanent Flowrate	Q_3	m^3/h	16	16	25 [4]	25 [4]	25 [4]
Comparable to permanent flowrate (EEC)	Q_n	m^3/h	10	10	15	15	15
Attainable measuring range [1]	Q_3/Q_1	R	200H/63V	200H	160H	160H	160H
Comparable to metrological class (EEC)	Class	-	C-H/A-V	C-H	C-H	C-H	C-H
Overload Flowrate [2]	Q_4	m^3/h	20	20	31.3	31.3	31.3
Transitional Flowrate [2]	Q_2	l/h	320H/640V	320	501H	501H	501H
Minimum flow [2]	Q_1	l/h	200H/400V	200	313H	313H	313H
Start-up flow rate	-	l/h	<20	<20	<25	<25	<25
Display	min.	l	0.1	0.1	0.1	0.1	0.1
	max.	m^3	99999	99999	99999	99999	99999
Temperature range	-	°C	0.1 - 50	0.1 - 50	0.1 - 50	0.1 - 50	0.1 - 50
Operating pressure	MAP	bar	0.3 - 16	16	0.3 - 16	0.3 - 16	0.3 - 16
Pulse value (Reed pulser or PDC)	-	l/pulse	10/100	10/100	10/100	10/100	10/100
Pressure loss class at Q_3	Δp	bar	Δ0.63	Δ0.63	Δ0.63	Δ0.63	Δ0.63
Mechanical environmental condition	-	-	M2	M2	M2	M2	M2
Climatic condition [3]	-	°C	5 - 55	5 - 55	5 - 55	5 - 55	5 - 55
Flow profile sensitivity	-	-	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0
Weight and dimensions:							
Nominal diameter	DN	mm	40	40	50	50	50
		inch	1 ½"	1 ½"	2"	2"	2"
Overall length without connectors [1]	L2	mm	270	150/200	270/300	270	300
Overall length with connectors	L1	mm	---	278/328	414/444	---	---
Thread meter G x B	D1	inch	Flange [5]	2"	2 ½"	Flange [5]	Flange [5]
Thread connector R x	D2	inch	---	1 ½"	2"	---	---
Width approx.	B	mm	110	110	110	110	110
Height approx.	H1	mm	165	165	150	170	170
	H2	mm	~70	---	~60	~75	~75
Weight ca.	-	kg	7.5	4.1/4.3	3.8/4.0	8.8	9

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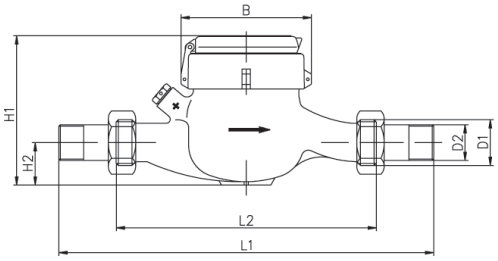

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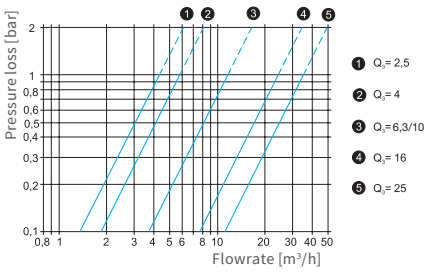
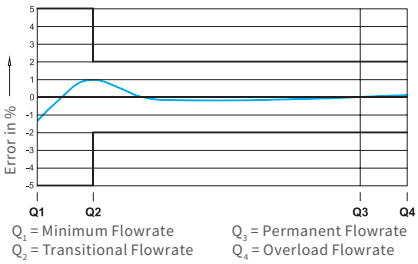


Typical pressure loss curve



Typical error curve

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