

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 can be retrofitted with a pulser (Reed) for remote readout.



Performance characteristics at a glance

- Wet dial register construction
- For horizontal and vertical installation (also for ascending and descending pipes)
- Register window made of UV-resistant 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

- Serially equipped with communication interface for PDC-module (PulseDataCapture):
 - PDC-wireless M-Bus radio module according to OMS-Standard (868 MHz), EN 13757-4
 - PDC- LPWAN-Radio module for LoRaWAN®
- Retrofittable with pulser
 - Standard resolution 10 l/pulse
 - Optional 100 l/pulse

Technical data								
Permanent flowrate	Q ₃	m ³ /h	2.5	2.5	2.5	2.5	2.5	2.5
Comparable to nominal flow (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	Q ₄	m ³ /h	3.13	3.13	3.13	3.13	3.13	3.13
Transitional flowrate ²	Q ₂	l/h	20H/80V	20H/80V	20H/80V	20H/80V	20H/80V	20H
Minimum flowrate ²	Q ₁	l/h	13H/50V	13H/50V	13H/50V	13H/50V	13H/50V	13H
Start-up flow rate	-	l/h	<4	<4	<4	<4	<4	<4
Display range	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 oder 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	-	-	M2	M2	M2	M2	M2	M2
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

Dimensions and weights:								
Nominal diameter	DN	mm	15	15	20	20	25	20
		Inch	½"	½"	¾"	¾"	1"	¾"
Overall length without connectors	L2	mm	110	165/170	130	190	175	105
Overall length with connectors approx.	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 approx.	-	kg	1.2	1.3	1.3	1.45	1.8	1.7

¹ Other measuring ranges on request

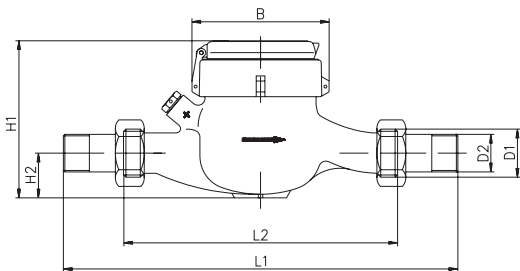
² The data refers to the maximum measuring range

³ Condensation possible

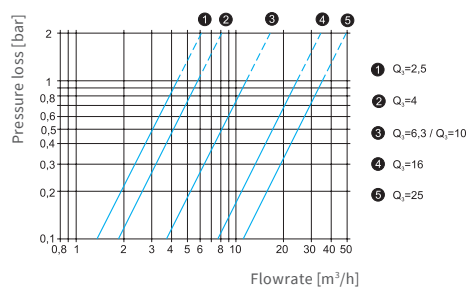
⁴ For horizontal installation only

⁵ Flange according to ISO 7005-2

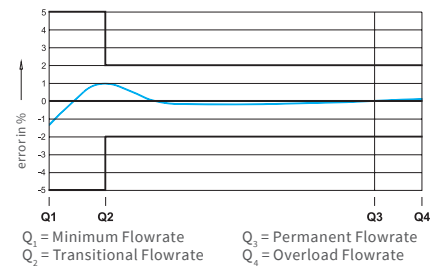
Attention: not all versions are available in all markets



Dimensions



Typical pressure loss curve



Typical error curve

Technical data							
Permanent flowrate	Q_3	m ³ /h	4	4	4	4	4
Comparable to nominal flow (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	Q_4	m ³ /h	5	5	5	5	5
Transitional flowrate ²	Q_2	l/h	32H/80V	32H/80V	32H/80V	32H/80V	32H
Minimum flowrate ²	Q_1	l/h	20H/50V	20H/50V	20H/50V	20H/50V	20H
Start-up flow rate	-	l/h	<5	<5	<5	<5	<5
Display range	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 oder PDC)	-	l/pulse	10/100	10/100	10/100	10/100	10/100
Pressure loss class at Q_3	Δp	bar	$\Delta 0.63$	$\Delta 0.63$	$\Delta 0.63$	$\Delta 0.63$	$\Delta 0.63$
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

Dimensions and weights:							
Nominal diameter	DN	mm	20	20	20	25	20
		Inch	¾"	¾"	¾"	1"	¾"
Overall length without connectors	L2	mm	130	165/190	220	175	105
Overall length with connectors approx.	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 approx.	-	kg	1.3	1.4/1.45	1.6	1.7	1.7

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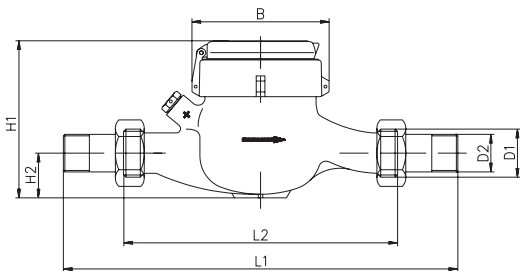
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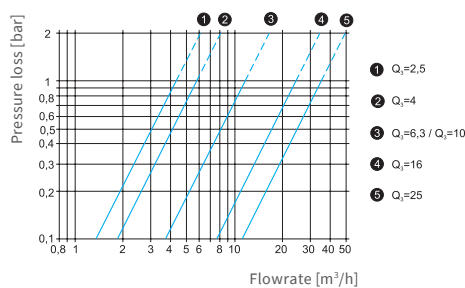
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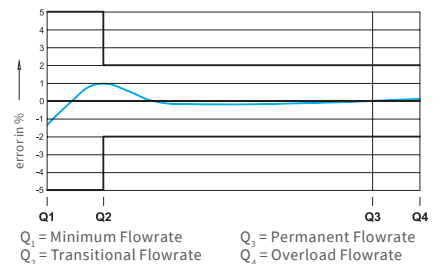
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Dimensions



Typical pressure loss curve



Typical error curve

Technical data							
Permanent flowrate	Q_3	m ³ /h	6.3	10	10	10	16
Comparable to nominal flow (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	Q_4	m ³ /h	7.88	12.5	12.5	12.5	20
Transitional flowrate ²	Q_2	l/h	50H/126V	80H/200V	80H/200V	80H	128H/406V
Minimum flowrate ²	Q_1	l/h	32H/79V	50H/125V	50H/125V	50H	80H/254V
Start-up flow rate	-	l/h	<10	<10	<10	<10	<20
Display range	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 oder PDC)	-	l/pulse	10/100	10/100	10/100	10/100	10/100
Pressure loss class at Q_3	Δp	bar	$\Delta 0.63$	$\Delta 0.63$	$\Delta 0.63$	$\Delta 0.63$	$\Delta 0.63$
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

Dimensions and weights:							
Nominal diameter	DN	mm	25	25	32	25	40
		Inch	1"	1"	1 ¼"	1"	1 ½"
Overall length without connectors	L2	mm	175/260	175/260	260	150	300
Overall length with connectors approx.	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 approx.	-	kg	1.7/2.1	1.7/2.1	2.2	2.6	3.6

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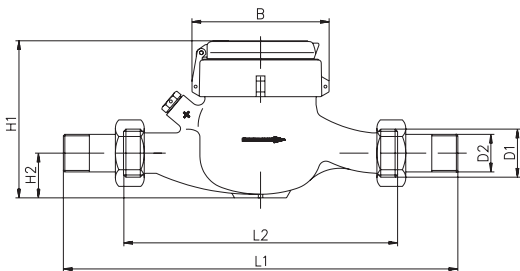
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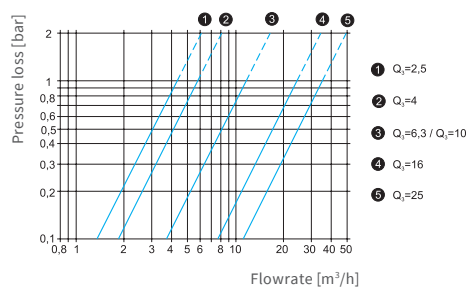
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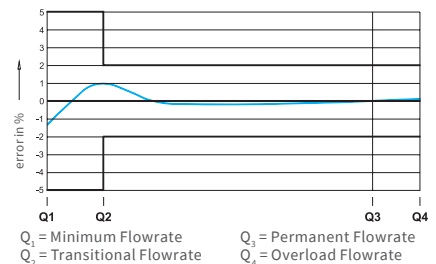
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Dimensions



Typical pressure loss curve



Typical error curve

Technical data							
Permanent flowrate	Q_3	m ³ /h	16	16	25 ⁴	25 ⁴	25 ⁴
Comparable to nominal flow (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	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 flowrate ²	Q_1	l/h	200H/400V	200	313H	313H	313H
Start-up flow rate	-	l/h	<20	<20	<25	<25	<25
Display range	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 oder PDC)	-	l/pulse	10/100	10/100	10/100	10/100	10/100
Pressure loss class at Q_3	Δp	bar	$\Delta 0.63$	$\Delta 0.63$	$\Delta 0.63$	$\Delta 0.63$	$\Delta 0.63$
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

Dimensions and weights:							
Nominal diameter	DN	mm	40	40	50	50	50
		Inch	1 ½"	1 ½"	2"	2"	2"
Overall length without connectors	L2	mm	270	150/200	270/300	270	300
Overall length with connectors approx.	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 approx.	-	kg	7.5	4.1/4.3	3.8/4.0	8.8	9

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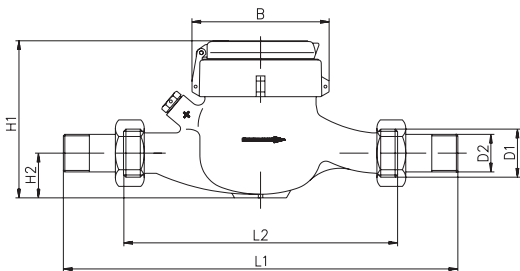
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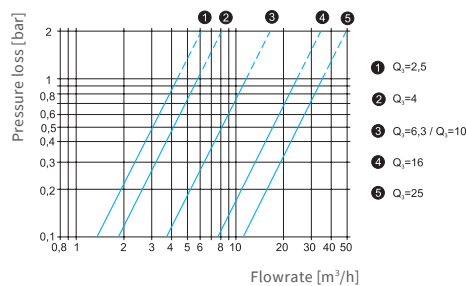
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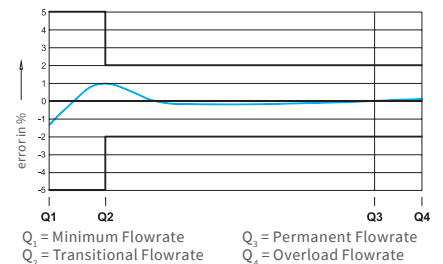
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Typical error curve

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