MNK-RP-N

Multi-jet semi-dry-dial meter for cold water

MNK-RP-N is a MID-compliant water meter for service connection. The current state of development guarantees the most precise measurement results. Minimal 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.

The rollers of the MNK-RP-N are protected in a separate chamber that is filled with a special protective liquid. This means that the rollers can always be read even when the water is very dirty.

Performance characteristics at a glance

- Multi-jet semi-dry-dial meter
- For horizontal and vertical installation
- Register cap made of UV-resistant plastic
- Brass body according to Federal Environment Office (UBA) list
- Operating pressure MAP 16
- Approved in accordance with MID

Applications

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

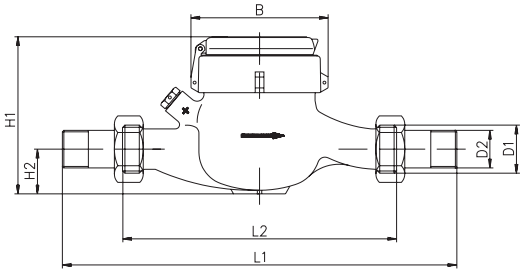
AMR options

- Serially equipped with communication interface for PDC-module (PulseDataCapture):
  - PDC-LPWAN radio module for LoRaWAN®
  - PDC-wireless M-Bus radio mudule (868 MHz)
- Retrofittable with pulser
  - Standard resolution 10 l/pulse
  - Optional 100 l/pulse

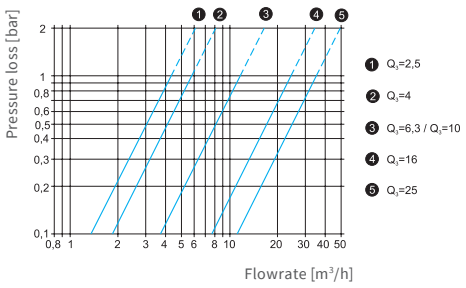
MNK-RP-N

Technical data							
Permanent Flowrate	Q_3	m^3/h	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
Attainable measuring range [1]	Q_3/Q_1	R	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
Overload Flowrate	Q_4	m^3/h	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
Minimum Flowrate [2]	Q_1	l/h	13H/50V	13H/50V	13H/50V	13H/50V	13H
Start-up flow rate	-	l/h	<4	<4	<4	<4	<4
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 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
Dimensions and weights:							
Nominal diameter	DN	mm	15	15	20	20	20
		Inch	1/2"	1/2"	3/4"	3/4"	3/4"
Overall length without connectors	L2	mm	110/145	165/170	130	190	105
Overall length with connectors approx.	L1	mm	190/225	245/250	226	286	201
Thread meter G x B	D1	Inch	3/4"	3/4"	1"	1"	1"
Thread connector R x	D2	Inch	1/2"	1/2"	3/4"	3/4"	3/4"
Width approx.	B	mm	95	95	95	95	95
Height approx.	H1	mm	125	125	125	125	140
	H2	mm	~30	~35	~25	~25	---
Weight approx.	-	kg	1.2/1.25	1.3	1.3	1.45	1.7

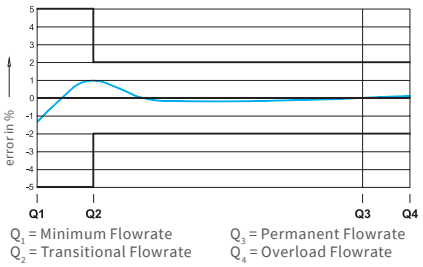
[1] Other measuring ranges on request
[2] The data refers to the maximum measuring range
[3] Condensation possible
[4] For horizontal installation only
[5] Flange according to ISO 7005-2
Attention: not all versions are available in all markets



Dimensions



Typical pressure loss curve



Typical error curve

MNK-RP-N

Technical data								
Permanent Flowrate	Q_3	m^3/h	4	4	4	6.3	10	10
Comparable to nominal flow (EEC)	Q_n	m^3/h	2.5	2.5	2.5	3.5	6	6
Attainable measuring range [1]	Q_3/Q_1	R	200H/80V	200H/80V	200H	200H/80V	200H/80V	200H/80V
Comparable to metrological class (EEC)	Class		C-H/B-V	C-H/B-V	C-H	C-H/B-V	C-H/B-V	C-H/B-V
Overload Flowrate	Q_4	m^3/h	5	5	5	7.88	12.5	12.5
Transitional Flowrate [2]	Q_2	l/h	32H/80V	32H/80V	32H	50H/126V	80H/200V	80H/200V
Minimum Flowrate [2]	Q_1	l/h	20H/50V	20H/50V	20H	32H/79V	50H/125V	50H/125V
Start-up flow rate	-	l/h	<5	<5	<5	<10	<10	<10
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	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	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	20	20	20	25	25	32
		Inch	3/4"	3/4"	3/4"	1"	1"	1 1/4"
Overall length without connectors	L2	mm	130	165/190	105	260	260	260
Overall length with connectors approx.	L1	mm	226	261/286	201	378	378	384
Thread meter G x B	D1	Inch	1"	1"	1"	1 1/4"	1 1/4"	1 1/2"
Thread connector R x	D2	Inch	3/4"	3/4"	3/4"	1"	1"	1 1/4"
Width approx.	B	mm	95	95	95	95	95	95
Height approx.	H1	mm	125	125	140	125	125	125
	H2	mm	~25	~25	---	~40	~40	~40
Weight approx.	-	kg	1.3	1.4/1.45	1.7	2.1	2.1	2.2

[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
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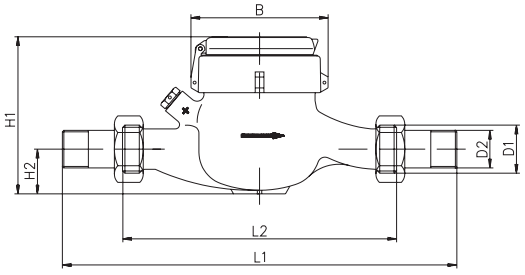
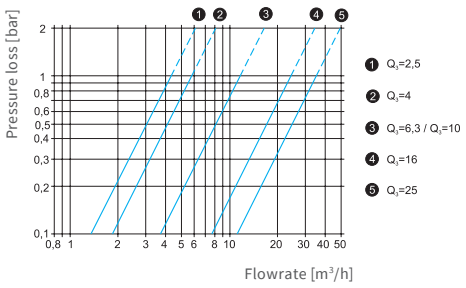
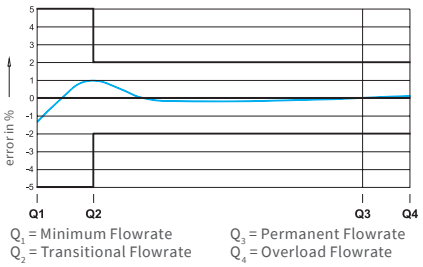


Dimensions



Typical pressure loss curve



Typical error curve

MNK-RP-N

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/63V	160H	160H	160H
Comparable to metrological class (EEC)	Class		C-H/A-V	C-H/A-V	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	128H/406V	128H/406V	250H	250H	250H
Minimum Flowrate [2]	Q_1	l/h	80H/254V	80H/254V	156H	156H	156H
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	0.3 - 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
Dimensions and weights:							
Nominal diameter	DN	mm	40	40	50	50	50
		Inch	1 1/2"	1 1/2"	2"	2"	2"
Overall length without connectors	L2	mm	300	270	270/300	270	300
Overall length with connectors approx.	L1	mm	428	---	414/444	---	---
Thread meter G x B	D1	Inch	2"	Flange [5]	2 1/2"	Flange [5]	Flange [5]
Thread connector R x	D2	Inch	1 1/2"	---	2"	---	---
Width approx.	B	mm	110	110	110	110	110
Height approx.	H1	mm	150	165	150	170	170
	H2	mm	~50	~70	~60	~75	~75
Weight approx.	-	kg	3.6	7.5	3.8/4.0	8.8	9

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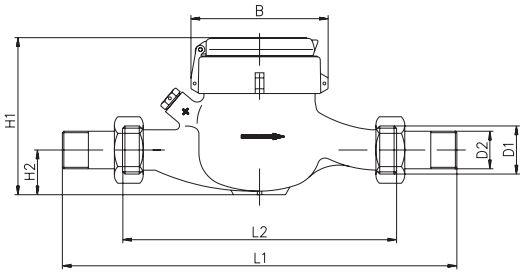
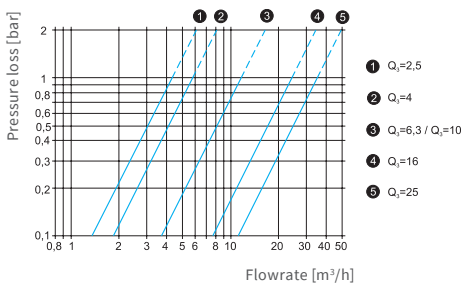
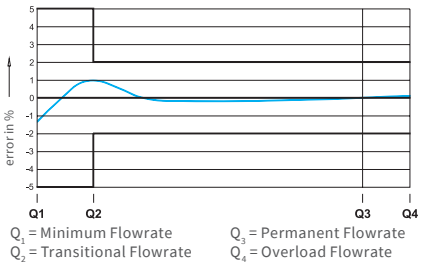


Dimensions



Typical pressure loss curve



Typical error curve

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