

RNK-RP-N

Rotary piston semi-dry-dial meter for cold water

The RNK-RP-N positive displacement meter records the flow rate according to the volumetric measuring principle. It offers a very high measuring range, excellent measuring stability and therefore guarantees extremely precise consumption recording.

The RNK-RP-N features a very low starting flow and is permitted for all installation positions. The meter is equipped with an 8-roller semi-dry dial register (RP = Roller Protected).

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

- Rotary piston semi-dry-dial meter
- For any installation position (including overhead)
- Highest precision and reliability even in case of low flow rates
- With integrated Backflow preventer, optional: Plug in backflow preventer (on request)
- 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-wireless M-Bus radio module according to DIN EN 13757-4
 - PDC- LPWAN-Radio module for LoRaWAN®
- Retrofittable with pulser
 - Standard resolution 0,5 l/pulse (5 l/pulse at $Q_3 = 16$)

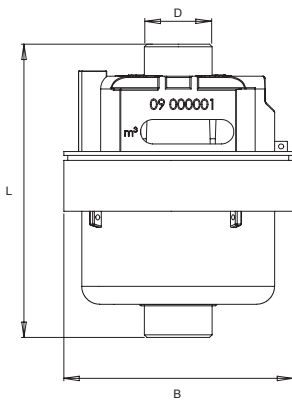
Technical data						
Permanent Flowrate	Q_3	m^3/h	1.6	1.6	2.5	2.5
Comparable to permanent flowrate (EEC)	Q_n	m^3/h	1	1	1.5	1.5
Attainable measuring range	Q_3/Q_1	R	160	160	250	250
Standard measuring range ¹	Q_3/Q_1	R	160	160	160	160
Comparable to metrological class (EEC)	class		C	C	C	C
Overload Flowrate	Q_4	m^3/h	2	2	3.125	3.125
Transitional flowrate ²	Q_2	l/h	16	16	26	26
Minimum flowrate ²	Q_1	l/h	10	10	16	16
Start-up flow rate	-	l/h	< 3.5	< 3.5	< 3.5	< 3.5
Display range	min.	l	0.02	0.02	0.02	0.02
	max.	m^3	9999	9999	9999	9999
Temperature range	-	$^{\circ}C$	0.1 - 50	0.1 - 50	0.1 - 50	0.1 - 50
Operating pressure. max.	MAP	bar	16	16	16	16
Pulse value		$l/pulse$	0.5	0.5	0.5	0.5
Pressure loss at Q_3	Δp	bar	$\Delta 0.63$	$\Delta 0.63$	$\Delta 0.63$	$\Delta 0.63$
Mechanical environmental condition	-	-	M2	M2	M2	M2
Climatic condition ³	-	$^{\circ}C$	5 - 55	5 - 55	5 - 55	5 - 55
Flow profile sensitivity	-	-	U0/D0	U0/D0	U0/D0	U0/D0

Dimensions and weights:						
Nominal diameter	DN	mm	15	15	15	15
		inch	1/2"	1/2"	1/2"	1/2"
Overall length without connectors	L	mm	110/115	165/170	110/115	165/170
Overall length with connectors approx.	-	mm	190/195	245/250	190/195	245/250
Thread meter G x B	D	inch	3/4"	3/4"	3/4"	3/4"
Width approx.	B	mm	88	88	88	88
Weight approx.	-	kg	0.79/0.80	0.95/1.00	0.79/0.80	0.95/1.00

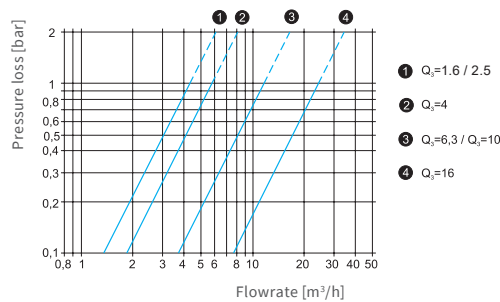
¹ Other measuring ranges (R) on request

² The data refer to the standard measuring range

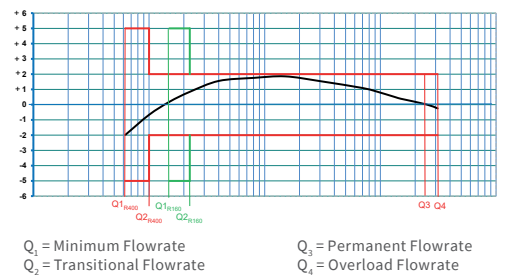
³ Condensation possible



Dimensions



Typical pressure loss curve



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

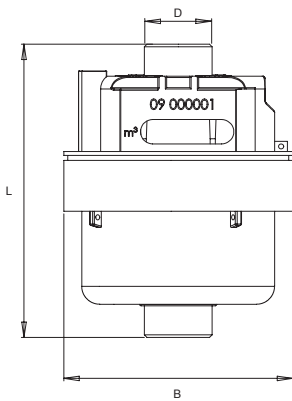
Technical data						
Permanent Flowrate	Q_3	m^3/h	4	6.3	10	16
Comparable to permanent flowrate (EEC)	Q_n	m^3/h	2.5	3.5	6	10
Attainable measuring range	Q_3/Q_1	R	200	200	200	200
Standard measuring range ¹	Q_3/Q_1	R	160	160	160	160
Comparable to metrological class (EEC)	class		C	C	C	C
Overload Flowrate	Q_4	m^3/h	5	7.875	12.5	20
Transitional flowrate ²	Q_2	l/h	40	51	80	128
Minimum flowrate ²	Q_1	l/h	25	32	50	80
Start-up flow rate	-	l/h	< 4	< 7	< 13	< 20
Display range	min.	l	0.02	0.02	0.02	0.2
	max.	m^3	9999	9999	9999	99999
Temperature range	-	$^{\circ}C$	0.1 - 50	0.1 - 50	0.1 - 50	0.1 - 50
Operating pressure, max.	MAP	bar	16	16	16	16
Pulse value		l/pulse	0.5	0.5	0.5	5
Pressure loss at Q_3	Δp	bar	$\Delta 0.63$	$\Delta 0.63$	$\Delta 0.63$	$\Delta 0.63$
Mechanical environmental condition	-	-	M2	M2	M2	M2
Climatic condition ³	-	$^{\circ}C$	5 - 55	5 - 55	5 - 55	5 - 55
Flow profile sensitivity	-	-	U0/D0	U0/D0	U0/D0	U0/D0

Dimensions and weights:						
Nominal diameter	DN	mm	20	25	32	40
		inch	3/4"	1"	1 1/4"	1 1/2"
Overall length without connectors	L	mm	165/190	260	260	300
Overall length with connectors approx.	-	mm	261/286	378	384	428
Thread meter G x B	D	inch	1"	1 1/4"	1 1/2"	2"
Width approx.	B	mm	100	117	145	179
Weight approx.	-	kg	1.1/1.2	2.5	3.6	5.9

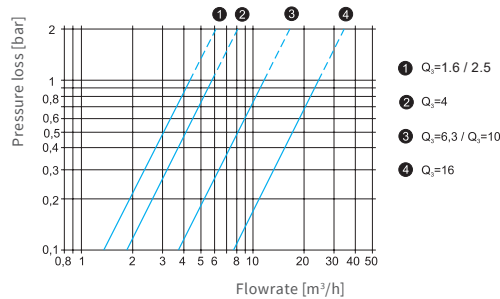
¹ Other measuring ranges (R) on request

² The data refer to the standard measuring range

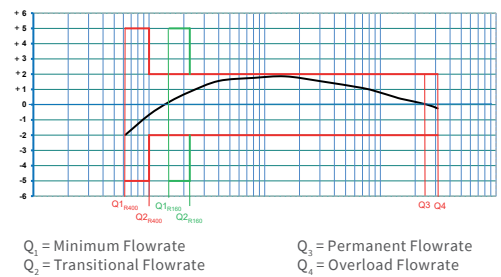
³ Condensation possible



Dimensions



Typical pressure loss curve



Typical error curve

ZENNER International GmbH & Co. KG

Römerstadt 6
66121 Saarbrücken
Germany

Phone +49 681 99 676-30
Fax +49 681 99 676-3100
E-Mail info@zenner.com
Internet www.zenner.com