

SV-RTK

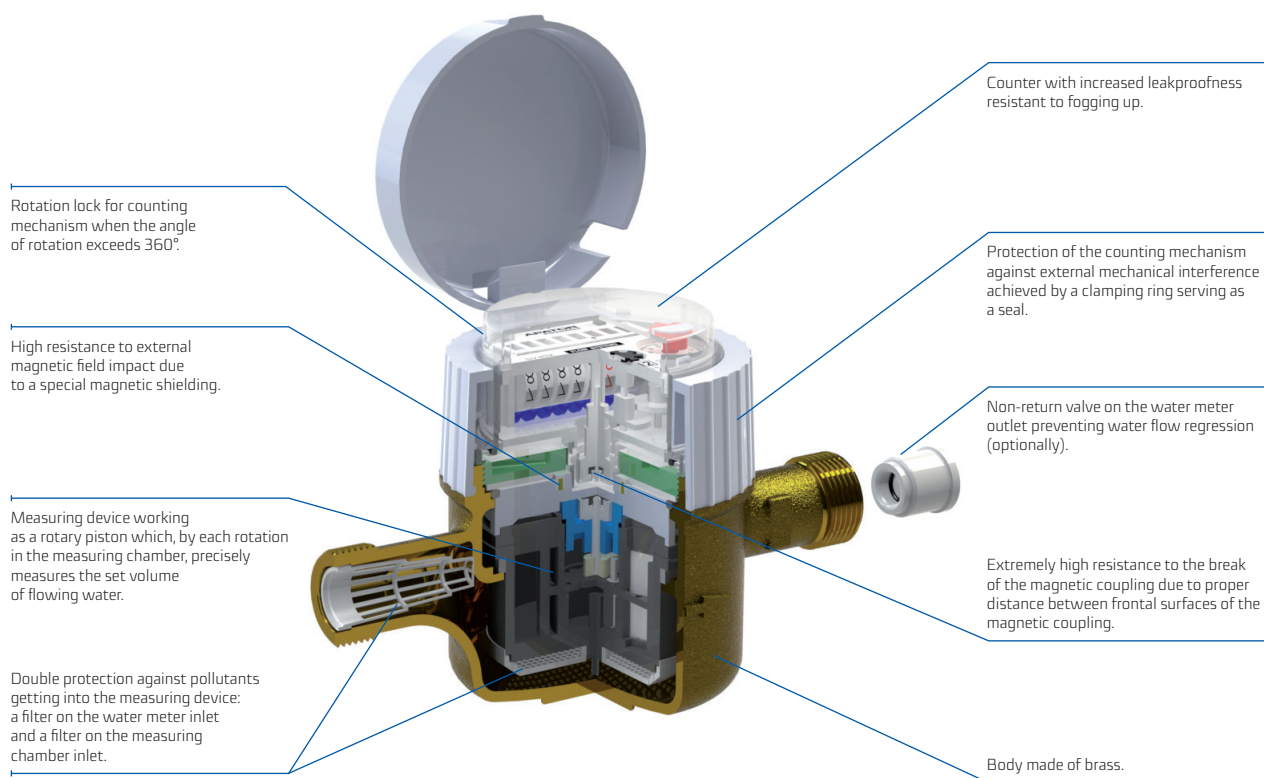
Volumetric dry water meter for cold water DN15÷40



SV-RTK is a volumetric dry water meter which fulfils the strictest requirements for indication accuracy set out in the standard EN 14154+A1:2007 and is designed for precise measuring of supplied water use. Due to advanced structural solutions, the water meter is fully compatible to be integrated with a remote reading system. Moreover, it is very well protected against strong magnetic field impact. The water meter complies with the MID Directive for the measurement range corresponding to the value of R=200 – formerly metrological class D for DN15 and DN20 or higher (optionally R250, R315 or R400).

APPLICATION

Water supply systems for cold water up to 30°C or water up to 50°C for single or multifamily houses, public buildings and metering points. The water meter design allows it to be installed in any position without the loss of metrological parameters. Thanks to a rotary counter enabling easy read-out of indications, the water meter works unfailingly in different installation positions. Constituting a part of a metering unit, it enables to determine the water consumption profile in buildings.



Advantages

COST SAVING:

- Accurate measurement even of the smallest volume of flowing water determined by the R200÷400 coefficient (former class D).
- Preserving invariable metrological parameters regardless of the water meter position.
- Starting value for the water meter: DN15 = 1,5 l/h, DN20 = 2 l/h, DN25 = 3 l/h, DN32 < 10 l/h, DN40 < 20 l/h.
- Protection against:
 - strong magnetic field interference (magnetic shielding),
 - mechanical interference (a clamping ring serving as a seal),
 - multiple counter rotation by an angle exceeding 360°.

CONVENIENCE OF USE:

- Possibility of remote readings.
- Ease of reading due to:
 - eight-roller counter,
 - placing the counter in any position within 360°,
 - hermetic counter resistant to fogging up.
- Design enabling remote reading.

RELIABILITY:

- Proven and solid construction composed of materials of highest quality, resistant to wear and tear.
- Double protection against pollutants getting into measuring device.

Characteristic features

- Low starting value allowing to detect even the smallest flows (from 1,5 l/h for DN15).
- Measuring device working as a rotary piston.
- Quiet water meter mechanism.



SV-RTK
brass body

Compliance with standards and regulations

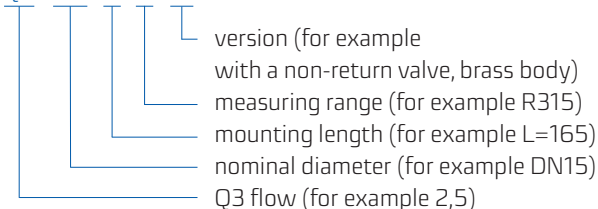
- Directive 2004/22/EC of the European Parliament and the Council of Europe of 31 March 2004 on measuring instruments.
- PN-EN-14154:2011 –Water meters. Part 1 3.
- OIML R49:2004 and 2006 –Water meters designed for the measurement of cold drinking water.
- EC-type examination certificate – cold water no. TCM 142/11-4803.
- Classification of environmental, climatic and mechanical conditions - class B - under PN-EN-14154-3:2005:A1.
- Classification of environmental, climatic and mechanical conditions - class M1 - under RMG of 18 December 2006.
- Classification of environmental and electromagnetic conditions - class E1 - under RMG as of 18 December 2006.

All materials used to manufacture the SV-RTK water meter have appropriate Hygienic Certificates allowing the product to come into contact with drinking water.

Sample order

Indication

SV-RTK - Q3 - DN - L - R - W



Additional information:

- brass body (in a standard version, all sizes).
- protection degree - IP65 in a standard version.

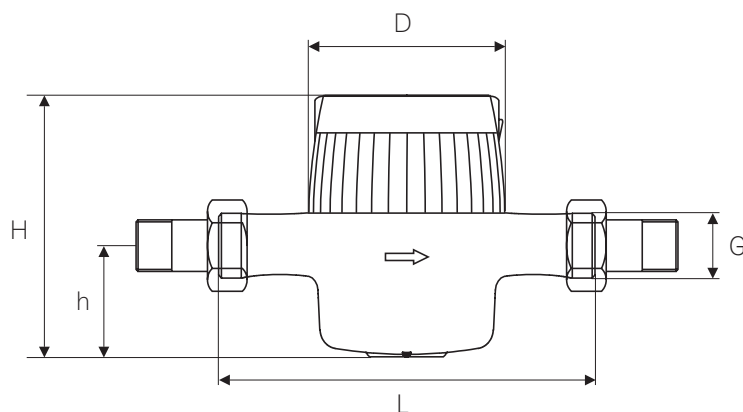
The following elements are supplied on additional request:

- Connectors to water meters without a non-return valve.
- Disposable clamps with snap-in seals made of plastic with individual, unique numbering (preventing mechanical manipulation of water meter connectors).

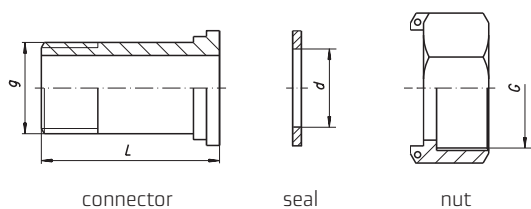
Table 1. TECHNICAL DATA

Parameter			SV-RTK					
			SV-RTK-2,5	SV-RTK-4,0	SV-RTK-6,3	SV-RTK-10	SV-RTK-16	
Nominal diameter	DN	mm	15 or 20*	20	25	32	40	
Continuous flow rate	Q_3	m ³ /h	2,5	4,0	6,3	10,0	16,0	
Overload flow rate	Q_4	m ³ /h	3,125	5,0	7,875	12,5	20,0	
Transitional flow rate	R200	Q_2	dm ³ /h	20	32	50,4	80	128
	R250			16	25,6	40,32	64	102,4
	R315			12,7	20,3	32	50,8	81,3
	R400			10	16	25,2	40	64
Minimum flow rate	R200	Q_1	dm ³ /h	12,5	20	31,5	50	80
	R250			10	16	25,2	40	64
	R315			7,94	12,7	20	31,8	50,8
	R400			6,25	10	15,75	25	40
Starting flow rate	–	dm ³ /h	<1,5	<2	<3	<10	<20	
Q_3/Q_1 ratio - standard version	–	R	200 in all installation positions					
Q_3/Q_1 ratio - custom-made	–	R	250, 315, 400 in all installation positions					
Q_2/Q_1 ratio	–	–	1,6					
Temperature class (nominal temperature class)	–	–	T30 / T50					
Flow profile sensitivity classes	–	–	U0, D0					
Indications range	–	m ³	99 999,999				999 999,99	
Resolution of reading	–	m ³	0,00002				0,0002	
Maximum pressure	P_{max}	MPa	1,6					
Maximum pressure loss	Δp	kPa	63					
Admissible limiting error within: $Q_2 < Q < Q_4$	ϵ	%	± 2 for cold water ($T \leq 30^\circ C$), ± 3 for water ($T > 30^\circ C$)					
Admissible limiting error within: $Q_1 < Q < Q_2$	ϵ	%	± 5					
Protection degree of the water meter counter	–	–	IP65					
Thread of connection pipe, input and output	G	cal	G $\frac{3}{4}$	G1	G1 $\frac{1}{4}$	G1 $\frac{1}{2}$	G2	
Height	h	mm	40	55	60	75	85	
	H	mm	110	130	150	160	175	
Length	L	mm	110 or 165	190	260	260	300	
Diameter	D	mm	80	90	120	150	175	
Weight (without connection elements)	–	kg	1,0 / 1,4	1,3	3,2	4,6	6,9	

* SV-RTK-2,5 DN20 for length 165 mm only

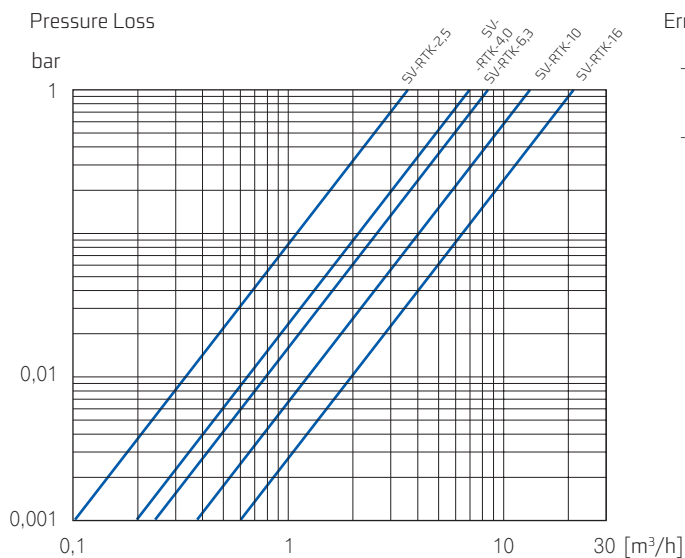


CONNECTING ELEMENTS

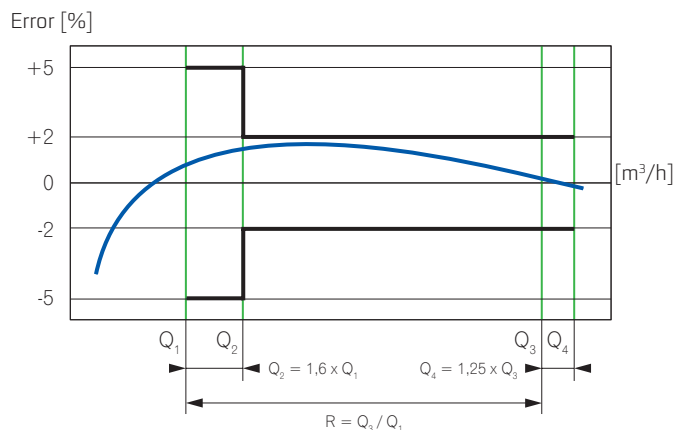


DN	G	g	d	L
15	3/4"	1/2"	17	37,5
20	1"	3/4"	23	45,5
25	1 1/4"	1"	29	46,5
32	1 1/2"	1 1/4"	36	56,0
40	2"	1 1/2"	43	66,0

PRESSURE LOSS CHART



TYPICAL ERROR CHART



Remote reading transmission, flow rate measurement

