

V 220

Rotary Piston Meter

The modular metering technology with remarkable savings potential



- × Type MOR.
- × Nominal flow rate Q_n 1.5 and 2.5.
- × MOR and MON have one and the same housing.
- × Housing for horizontal pipes and risers.
- × Calibrated measuring insert means calibration replacement is a matter of moments.
- × Housing remains permanently in the pipe.
- × Cold water up to 50 °C.

V 220

Rotary Piston Meter

Superlative metering accuracy even at extremely low flow rates

Comes from a good family

MOR is the logical supplement to our MON. It comprises two independent modules: the measuring insert and the connection housing.

MOR and MON have one and the same housing! If you already have the MON or a housing of the same type in your system, then you can re-equip straight away quite easily, since the present housing will stay right there in the pipe. And that means you save significant amounts of time. And time, after all, is money!

Shows up in the bottom line

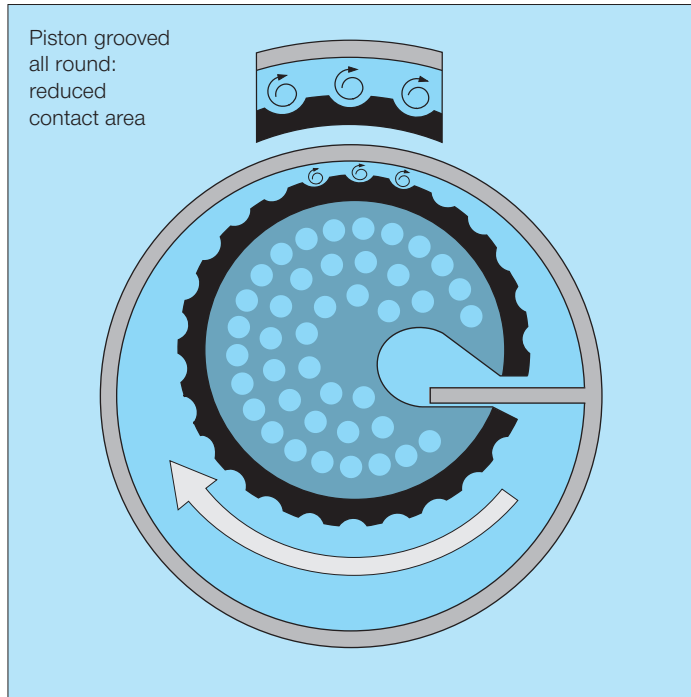
The random sampling procedure for extending calibration validity opens up opportunities for substantial savings. Because after passing the test the measuring insert can be used for another three years according to German legislation. There's no doubt about it, a rotary piston meter will always be granted this extension under optimum operating conditions. And that's worth real money!

Precise metering pays

The metering principle provides top performance in every configuration. Horizontal and vertical alike. Even the tiniest flow is detected. The meter's ultra-sensitive start-up qualities really pay off!

The figures say it all

So we can say somewhat figuratively, but with a clear conscience, that our MOR is three times over the „saving grace“ of the water supply industry.



Reed contactor	may be calibrated
Pulse sequence	litre/pulse
	1/1
	10/1
	100/1
	1 000/1

Looking ahead

The future belongs to automatic meter reading AMR. The MOR has been prepared for this. We offer it ex works with a magnetic indicator for tapping the pulses. The Reed contactor can either be retro-fitted later on, or ordered together with the meter itself.

Rotary piston meter MOR Dry-dial

- Cold water up to 50 °C.
- MOR:
D 00
6.123.10
For horizontal and vertical installation. Approval Class C, horizontal/vertical.
- MOR-S:
For installation in risers. Approval Class C, horizontal (riser housing).
- Display capacity 99 999 m³.
- Minimum scale value 0.05 l.

Typical

MOR

Persuasive

- ✘ Direct continuous connection between the housing and the pipe.
- ✘ Calibrated independent measuring insert for swift replacement at recalibration dates.
- ✘ Single-part measuring insert means easier installation.
- ✘ Guaranteed water-tight connection between housing and measuring insert.
- ✘ Only a single sealing point.

Patented

- ✘ Unique grooved rotary piston.
- ✘ Water flow creates continuous cleaning effect in the measuring chamber.
- ✘ Piston movement ensures efficacious flushing.
- ✘ Grooving reduces typical piston noise.

Random-sampling-friendly

- ✘ Optimum chances in the random sampling procedure.
- ✘ Successful retesting extends calibration validity by 3 years.

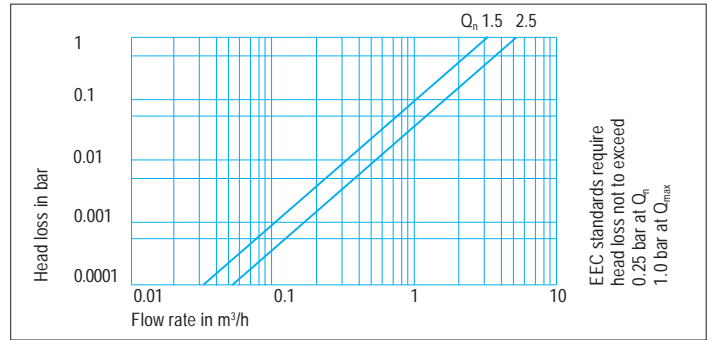
Maintenance-friendly

- ✘ Practical installation wrench.
- ✘ Space-saving storage.
- ✘ Small transport volume.

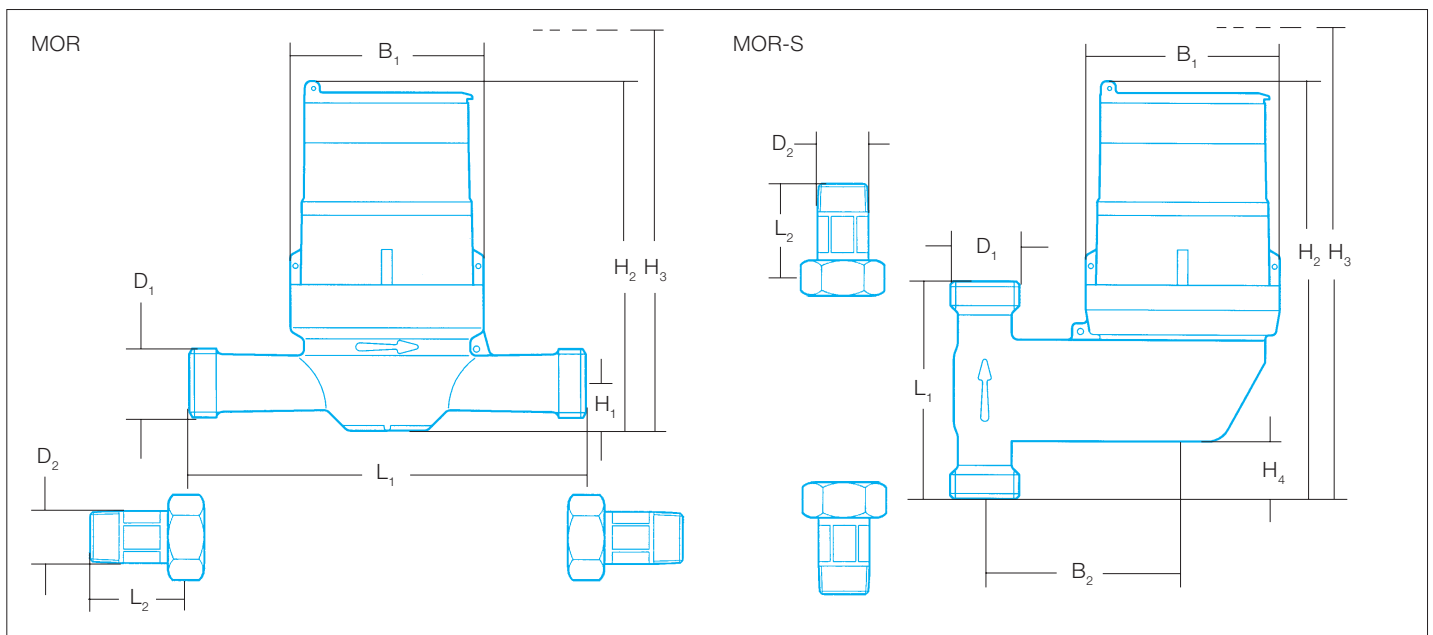
First-class

- ✘ Overfulfills the EU guidelines and ISO 4064 for cold water.
- ✘ Complies with the future European Directive MID 001.

The technical data

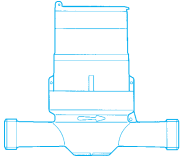


Rotary piston meter				V 220	MOR		MOR-S
Meter size / nominal flow rate	Q_n	m ³ /h		1.5	2.5	1.5	2.5
Nominal size	DN	mm		15	20	20	20
	DN	inches		1/2	3/4	3/4	3/4
D ₁ Meter connection thread	ISO 228/1	inches		G 3/4 B	G 1 B	G 1 B	G 1 B
D ₂ Connection pipe thread	ISO 7/1	inches		R 1/2	R 3/4	R 3/4	R 3/4
L ₁ Meter length	without union	mm		165	190	105	105
L ₂ Connector length		mm		40	50	50	50
B ₁ Width		mm		93	93	93	93
B ₂ Distance	Pipe axis to meter axis	mm		-	-	95	95
H ₁ Centerline height		mm		23	23	-	-
H ₂ Overall height		mm		168	168	201	201
H ₃ Height	Measuring insert replacement	mm		200	200	233	233
H ₄ Distance		mm		-	-	28	28
Weight		kg		1.8	1.8	2.2	2.2
Class C	Installation			horizontal	horizontal/ vertical	in risers	in risers
Maximum flow rate	Q_{max}	m ³ /h		3	5	3	5
Transitional flow rate	Q_1	l/h		22.5	37.5	22.5	37.5
Minimum flow rate - Required	Q_{min}	l/h		15	25	15	25
- Actual	Q_{min}	l/h		8	8	8	8
Pulse sequences		litres/pulse		100, 1000	1, 10, 100, 1000	100, 1000	1, 10, 100, 1000
Class B	Installation			horizontal/ vertical	horizontal/ vertical	in risers	in risers
Maximum flow rate	Q_{max}	m ³ /h		3	5	3	5
Transitional flow rate	Q_1	l/h		120	200	120	200
Minimum flow rate - Required	Q_{min}	l/h		30	50	30	50
- Actual	Q_{min}	l/h		8	8	8	8
Pulse sequences		litres/pulse		1, 10, 100, 1000	1, 10, 100, 1000	100, 1000	1, 10, 100, 1000
Continuous load		m ³ /h		1.5	2.5	1.5	2.5
Temperature	T_{max}	°C		50	50	50	50
Pressure rating		PN		16	16	16	16
Flow capacity - without non-return valve	at 1 bar pressure loss	m ³ /h		5.3	5.3	5.3	5.3



The order numbers

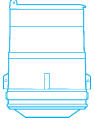
Rotary piston meter



without non-return valve

with non-return valve

Metering insert



Housing Brass



Standard register.

Option: magnetic indicator 1/1, 10/1, 100/1 or 1 000/1 litres/pulse, for retrofitting with Reed contactor.

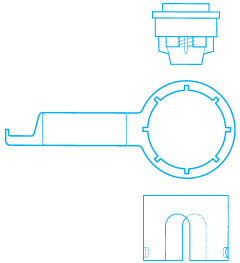
Class B certification, Class C certification on request.

Housing brass, unpainted, option for epoxy resin-coated.

Flow rate Q_n m ³ /h	Nominal size DN/inches	MOR	MOR-S			MOR-KN		MOR-S-KN			
		Order No.	Order No.	1/1 Order No.	10/1 Order No.	100/1 Order No.	1 000/1 Order No.	1/1 Order No.	10/1 Order No.	100/1 Order No.	1 000/1 Order No.
1.5	R 1/2	0654345	-	0677787	0677779	0655945	0655953	-	-	-	-
1.5	R 3/4	-	0654353	-	-	-	-	0677922	0677914	0655988	0655996
2.5	R 3/4	0655708	0654361	0677809	0677795	0655929	0655937	0677949	0677930	0655961	0656003
1.5	R 1/2	0656100	-	0677833	0677825	0656070	0656062	-	-	-	-
1.5	R 3/4	-	0656119	-	-	-	-	0677965	0677957	0656046	0656054
2.5	R 3/4	0651796	0656127	0677868	0677841	0656089	0656097	0678007	0677981	0656038	0656011
1.5	-	0654329	0654329	0677884	0677876	0655902	0655910	0677884	0677876	0655902	0655910
2.5	-	0654310	0654310	0677906	0688657	0688665	0688673	0677906	0688657	0688665	0688673
1.5	R 1/2	1144398	-	1144398	1144398	1144398	1144398	-	-	-	-
1.5	R 3/4	-	1135135	-	-	-	-	1135135	1135135	1135135	1135135
2.5	R 3/4	1127299	1135135	1127299	1127299	1127299	1127299	1135135	1135135	1135135	1135135

P: under preparation

Accessories



Description	Order No.
Non-return valve	1117439
Installation wrench	1144576
Body fixture	0615544
Flushing cap Plastic	1103330
Reed contactor MOR-KN	0656135



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