

Flow Meter



Float-type flow meter

DN	Inches	da	Measuring range H ₂ O	M 335 / M 350	M 123	M 10 - 13
10	3/8	16	1.5 - 15		■ ●	◆
10	3/8	16	2.5 - 25		■ ●	◆
10	3/8	16	5 - 50		■ ●	◆
10	3/8	16	10 - 100		■ ●	◆
15	1/2	20	8 - 80		■ ●	
15	1/2	20	15 - 150		■ ●	
15	1/2	20	20 - 200		■ ●	
25	1	32	15 - 150		■ ●	
25	1	32	30 - 300		■ ●	
25	1	32	50 - 500	▲ ■ ●	■ ●	
25	1	32	100 - 1.000	▲ ■ ●	■ ●	
32	1 1/4	40	150 - 1.500	▲ ■ ●		
32	1 1/4	40	250 - 2.500	▲ ■ ●		
40	1 1/2	50	200 - 2.000	▲ ■ ●		
40	1 1/2	50	300 - 3.000	▲ ■ ●		
40	1 1/2	50	600 - 6.000	▲ ■ ●		
50	2	63	600 - 6.000	▲ ■ ●		
50	2	63	1.500 - 15.000	▲ ■ ●		
65	2 1/2	75	2.000 - 20.000	▲ ■ ●		
65	2 1/2	75	3.000 - 30.000	▲ ■ ●		
65	2 1/2	75	8.000 - 60.000	▲ ■ ●		

Connection type		Sealing elements	Float	Connection
Standard	PVC adhesive socket	EPDM	PVDF	M 10 - 13
on request	PP- / PE- / PVDF fusion socket PP- / PE- / PVDF butt fusion spigot Va/Tg female thread	FPM (Viton)	Va 1.4571 (M 10 - 13)	R 1/4" female thread M 11 + 13 also R 5/8" male thread

Key to symbols

- ▲ PA (polyamide Trogamid)
- PSU (polysulphone)
- PVC
- ◆ PMMA (polymethylmethacrylate "Plexiglas")
- Va 1.4571
- Tg Malleable cast iron

Flow meter M 335 / M 350

Measuring ranges 50 – 60.000 l/h



Function

The flow meter M 335 / M 350 operates on the float principle and is used for flow rate measurements in closed pipelines. The medium flows through the vertically installed flow meter from bottom to top. This raises the float and shows the current flow rate on the scale on the measuring device. The read-off edge corresponds to the largest diameter of the float.

M 335 / M350 flow meters come as standard with a water scale and a % scale, and two setpoint indicators.

Special features:

- Fracture - proof and corrosion-resistant
- Radially removable
- Special adhesive scales for liquid and gaseous media
- Holder for accessories (limit value contacts)
- Measuring tube carries the DN label, and also the measuring range and material
- PVDF floats and stops as standard
- Measuring ranges 50 - 60.000 l/h

Materials

Measuring tube	max. temp. at 1 bar	Float	Top and bottom inserts	O-ring
PA	+ 60 °C	PVDF (standard)	PVDF	EPDM
PVC	+ 40 °C			FPM (Viton)
PSU	+ 100 °C*			

Operating pressure: max. PN 10 at 20 °C
 * only with PVDF screw connection

Connection possibilities

Socket	Spigot	Plastic female thread	Metal female thread
PVC adhesive socket (standard)	PP fusion spigot	PVC	Stainless steel V4A
PP fusion socket	PVDF fusion spigot	PP	Malleable cast iron
PVDF fusion socket	PE fusion spigot	PVDF	

Flow meter M 335 / M 350

Measuring ranges 50 – 60.000 l/h

Pressure loss

Measuring range l/h	50 - 500	100 - 1.000	150 - 1.500	250 - 2.500	200 - 2.000	300 - 3.000
Pressure loss mbar	22.84	22.84	22.84	22.84	24.99	24.99

Measuring range l/h	600 - 6.000	1.000 - 10.000	1.500 - 15.000	2.000 - 20.000	3.000 - 30.000	8.000 - 60.000
Pressure loss mbar	24.99	24.99	28.23	45.67	45.67	47.24

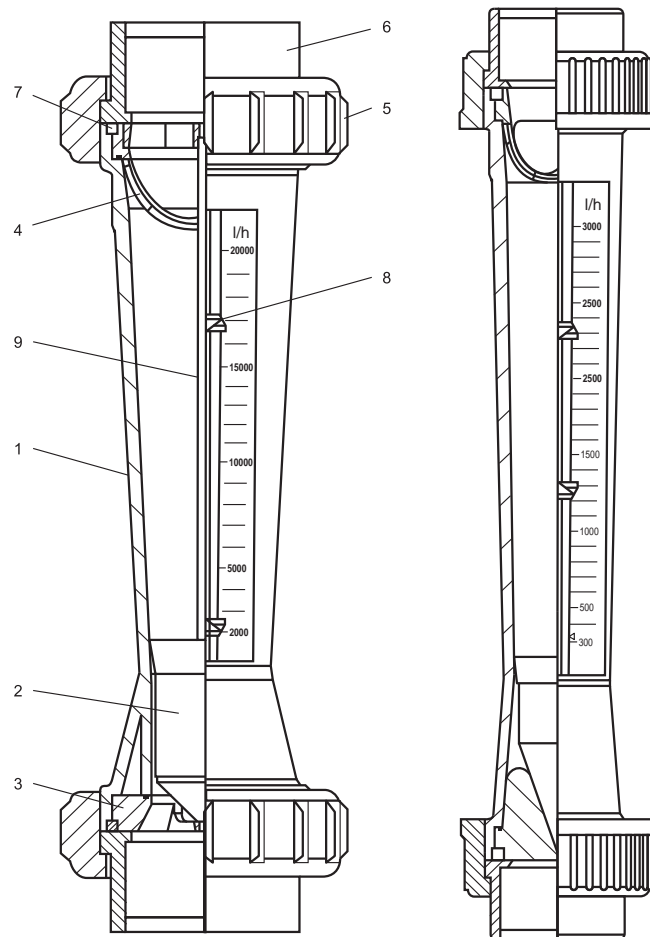
Measuring accuracy Accuracy Class 4 as defined by VDE / DIN 3513 Page 2

Flow in %	10	20	30	40	50	60	70	80	90	100
Total measured value error in %	13.00	8.00	6.33	5.50	5.00	4.67	4.43	4.25	4.11	4.00
Total limit value error in %	1.3	1.6	1.9	2.2	2.5	2.9	3.1	3.4	3.7	4.0

Individual parts

Pos.	Designation	Qty.	Material
1	Measuring tube	1	PA, PVC, PSU, PVDF
2	Float	1	PVDF
3	Insert, bottom	1	PVDF
4	Insert, top	1	PVDF
5	Union nut	2	PVC, PP, PVDF
6	Insertion part (socket, spigot)	2	PVC, PP, PVDF
7	O-ring	2	EPDM, FPM
8	Setpoint indicator	2	PS
9	Guide rod	1	PEEK*

* from DN 50 1.500 - 15.000 l/h



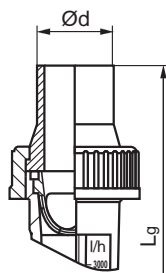
Flow meter M 335 / M 350

Measuring ranges 50 – 60.000 l/h

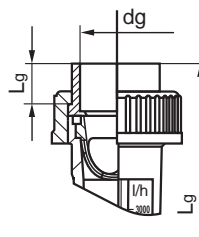
Dimensions and weights

Type M 335	Dimensions in mm																				Weight in kg/unit. approx.
						Adhesive socket			Fusion socket			Spigot PP			Spigot PVDF			Threaded socket			
	DN	d _a	G	d _ü	L	d _m	z	L _m	d _m	z	L _m	d	L _g	S SDR 11	d	L _g	S SDR 33	d _g	L _g	l _g	
50 - 500 100 - 1.000	25	32	1 1/2"	60	335	32	341	385	32	345	381	32	455	2.9	32	443	2.4	1"	385	17	0.52
150 - 1.500 250 - 2.500	32	40	2"	72	335	40	341	393	40	345	385	40	461	3.7	40	461	2.4	1 1/4"	393	19	0.60
200 - 2.000 300 - 3.000 600 - 6.000	40	50	2 1/4"	83	335	50	341	403	50	345	391	50	467	4.6	50	459	3	1 1/2"	403	23	1.22
600 - 6.000 1.000 - 10.000 1.500 - 15.000	50	63	2 3/4"	103	335	63	341	417	63	345	399	63	473	5.8	63	461	3	2"	417	23	1.68
2.000 - 20.000 3.000 - 30.000 8.000 - 60.000	65	75	3 1/2"	122	335	75	341	429	75	345	407	75	587	6.9	75	453	3.6	2 1/2"	-	-	2.90

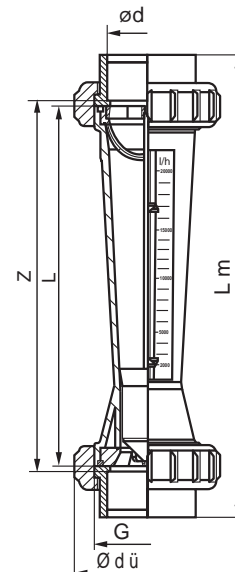
Type M 350	Dimensions in mm																				Weight in kg/unit. approx.
						Adhesive socket			Fusion socket			Spigot PP			Spigot PVDF			Threaded socket			
	DN	d _a	G	d _ü	L	d _m	z	L _m	d _m	z	L _m	d	L _g	S SDR 11	d	L _g	S SDR 33	d _g	L _g	l _g	
50 - 500 100 - 1.000	25	32	1 1/2"	60	350	32	356	400	32	360	396	32	460	2.9	32	458	2.4	1"	400	17	0.52
150 - 1.500 250 - 2.500	32	40	2"	72	350	40	356	408	40	360	400	40	476	3.7	40	476	2.4	1 1/4"	408	19	0.60
200 - 2.000 300 - 3.000 600 - 6.000	40	50	2 1/4"	83	350	50	356	418	50	360	406	50	482	4.6	50	474	3	1 1/2"	418	23	1.22
600 - 6.000 1.000 - 10.000 1.500 - 15.000	50	63	2 3/4"	103	350	63	356	432	63	360	414	63	488	5.8	63	476	3	2"	432	23	1.8
2.000 - 20.000 3.000 - 30.000 8.000 - 60.000	65	75	3 1/2"	122	350	75	356	444	75	360	422	75	602	6.9	75	468	3.6	2 1/2"	444	-	2.90



Screw connection with fusion spigot



Screw connection with threadeg socket





Flow meter M 335 / M 350

Measuring ranges 50 – 60.000 l/h

Article Numbers

		Type 335			Type 350	
		Measuring Tube	PA		PA	
da	DN	Measuring Range l/h	Float PVDF Art. No	Float PVDF/magnetic Art. No	Float PVDF Art. No.	Float PVDF/magnetic Art. No
32	25	50 - 500	77084	77097	79700	79713
32	25	100 - 1.000	77085	77098	79701	79714
40	32	150 - 1.500	77086	77099	79702	79715
40	32	250 - 2.500	77087	77100	79703	79716
50	40	200 - 2.500	77088	77101	79704	79717
50	40	300 - 3.000	77089	77102	79705	79718
50	40	600 - 6.000	77090	77103	79706	79719
63	50	600 - 6.000	77091	77104	79707	79720
63	50	1.000 - 10.000	77092	77105	79708	79721
63	50	1.500 - 15.000	77093	77106	79709	79722
75	65	2.000 - 20.000	77094	77107	79710	79723
75	65	3.000 - 30.000	77095	77108	79711	79724
75	65	8.000 - 60.000	77096	77109	79712	79725

		Measuring Tube	PSU		PSU	
32	25	50 - 500	77162	77175	79778	79791
32	25	100 - 1.000	77163	77176	79779	79792
40	32	150 - 1.500	77164	77177	79780	79793
40	32	250 - 2.500	77165	77178	79781	79794
50	40	200 - 2.500	77166	77179	79782	79795
50	40	300 - 3.000	77167	77180	79783	79796
50	40	600 - 6.000	77168	77181	79784	79797
63	50	600 - 6.000	77169	77182	79785	79798
63	50	1.000 - 10.000	77170	77183	79786	79799
63	50	1.500 - 15.000	77171	77184	79787	79800
75	65	2.000 - 20.000	77172	77185	79788	79801
75	65	3.000 - 30.000	77173	77186	79789	79802
75	65	8.000 - 60.000	77174	77187	79790	79803

		Measuring Tube	PVC		PVC	
32	25	50 - 500	77240	77253	79856	79869
32	25	100 - 1.000	77241	77254	79857	79870
40	32	150 - 1.500	77242	77255	79858	79871
40	32	250 - 2.500	77243	77256	79859	79872
50	40	200 - 2.500	77244	77257	79860	79873
50	40	300 - 3.000	77245	77258	79861	79874
50	40	600 - 6.000	77246	77259	79862	79875
63	50	600 - 6.000	77247	77260	79863	79876
63	50	1.000 - 10.000	77248	77261	79864	79877
63	50	1.500 - 15.000	77249	77262	79865	79878
75	65	2.000 - 20.000	77250	77263	79866	79879
75	65	3.000 - 30.000	77251	77264	79867	79880
75	65	8.000 - 60.000	77252	77265	79868	79881



Flow meter M 335 / M 350

Measuring ranges 50 – 60.000 l/h

Special scales

Measuring Tube H ₂ O l/h	Air 0 bar		Air 1 bar		Air 2 bar		Air 3 bar	
	Art. No.	N m ³ /h	Art. No.	N m ³ /h	Art. No.	N m ³ /h	Art. No.	N m ³ /h
50 - 500 100 - 1.000	00.005.526 00.005.527	1.5 - 14 2.5 - 29	00.005.602 00.005.603	3 - 20 4 - 41	00.005.615 00.005.616	3 - 4 5 - 50	00.005.628 00.005.629	3 - 28 5 - 58
150 - 1.500 250 - 2.500	00.005.528 00.005.529	4 - 45 7 - 79	00.005.604 00.005.605	6 - 63 10 - 111	00.005.617 00.005.618	7 - 77 12 - 136	00.005.630 00.005.631	8 - 90 14 - 158
200 - 2.000 300 - 3.000 600 - 6.000	00.005.530 00.005.531 00.005.532	6 - 58 9 - 108 17 - 174	00.005.606 00.005.607 00.005.608	9 - 82 13 - 152 24 - 246	00.005.619 00.005.620 00.005.621	11 - 100 16 - 186 30 - 301	00.005.632 00.005.633 00.005.634	12 - 116 18 - 216 34 - 348
600 - 6.000 1.000 - 10.000 1.500 - 15.000	00.005.533 00.005.534 00.005.535	17 - 175 29 - 301 53 - 405	00.005.609 00.005.610 00.005.611	24 - 247 41 - 425 75 - 572	00.005.622 00.005.623 00.005.624	30 - 302 51 - 520 92 - 700	00.005.635 00.005.636 00.005.637	34 - 350 58 - 602 106 - 810
2.000 - 20.000 3.000 - 30.000 8.000 - 60.000	00.005.536 00.005.537 00.005.538	55 - 545 80 - 758 -	00.005.612 00.005.613 00.005.614	78 - 770 113 - 1.072 -	00.005.625 00.005.626 00.005.627	96 - 942 139 - 1.311 -	00.005.638 00.005.639 00.005.640	110 - 1.090 160 - 1.516 -

Measuring Tube H ₂ O l/h	Air 4 bar		Air 5 bar		Air 6 bar		Air 7 bar	
	Art. No.	N m ³ /h	Art. No.	N m ³ /h	Art. No.	N m ³ /h	Art. No.	N m ³ /h
50 - 500 100 - 1.000	00.005.641 00.005.642	4 - 31 6 - 65	00.005.654 00.005.655	4 - 34 7 - 71	00.005.667 00.005.668	5 - 37 7 - 76	00.005.680 00.005.681	5 - 39 8 - 82
150 - 1.500 250 - 2.500	00.005.643 00.005.644	9 - 100 16 - 177	00.005.656 00.005.657	10 - 110 18 - 193	00.005.669 00.005.670	11 - 119 19 - 209	00.005.682 00.005.683	12 - 127 20 - 223
200 - 2.000 300 - 3.000 600 - 6.000	00.005.645 00.005.646 00.005.647	14 - 130 21 - 241 39 - 389	00.005.658 00.005.659 00.005.660	15 - 142 23 - 264 42 - 426	00.005.671 00.005.672 00.005.673	16 - 153 24 - 286 45 - 461	00.005.684 00.005.685 00.005.686	17 - 164 26 - 305 49 - 492
600 - 6.000 1.000 - 10.000 1.500 - 15.000	00.005.648 00.005.649 00.005.650	39 - 392 65 - 674 119 - 907	00.005.661 00.005.662 00.005.663	42 - 428 72 - 737 130 - 992	00.005.674 00.005.675 00.005.676	45 - 463 77 - 797 141 - 1.073	00.005.687 00.005.688 00.005.689	49 - 495 83 - 851 150 - 1.146
2.000 - 20.000 3.000 - 30.000 8.000 - 60.000	00.005.651 00.005.652 00.005.653	124 - 1.220 180 - 1.697 -	00.005.664 00.005.665 00.005.666	135 - 1.335 197 - 1.857 -	00.005.677 00.005.678 00.005.679	146 - 1.444 212 - 2.008 -	00.005.690 00.005.691 00.005.692	156 - 1.542 227 - 2.145 -

Measuring Tube H ₂ O l/h	Air 8 bar		HCl 30 - 33 %		NaOH 30 %		NaOH 50 %	
	Art. No.	N m ³ /h	Art. No.	l/h	Art. No.	l/h	Art. No.	l/h
50 - 500 100 - 1.000	00.005.693 00.005.694	4.5 - 42 7.5 - 87	00.005.539 00.005.540	20 - 405 55 - 866	00.005.552 00.005.553	4 - 226 15 - 600	00.005.565 00.005.566	1 - 55 3 - 192
150 - 1.500 250 - 2.500	00.005.695 00.005.696	12 - 135 21 - 237	00.005.541 00.005.542	90 - 1.340 165 - 2.310	00.005.554 00.005.555	30 - 970 70 - 1.800	00.005.567 00.005.568	6 - 365 15 - 770
200 - 2.000 300 - 3.000 600 - 6.000	00.005.697 00.005.698 00.005.699	18 - 174 27 - 324 51 - 522	00.005.543 00.005.544 00.005.545	115 - 1.660 190 - 3.050 420 - 4.900	00.005.556 00.005.557 00.005.558	35 - 1.240 75 - 2.370 230 - 4.000	00.005.569 00.005.570 00.005.571	8 - 520 15 - 1.170 50 - 2.270
600 - 6.000 1.000 - 10.000 1.500 - 15.000	00.005.700 00.005.701 00.005.702	51 - 525 87 - 903 159 - 1.215	00.005.546 00.005.547 00.005.548	430 - 5.090 750 - 9.460 1.415 - 11.570	00.005.559 00.005.560 00.005.561	240 - 4.700 475 - 7.340 1.030 - 10.330	00.005.572 00.005.573 00.005.574	55 - 2.300 140 - 4.340 420 - 5.820
2.000 - 20.000 3.000 - 30.000 8.000 - 60.000	00.005.703 00.005.704 00.005.705	165 - 1.635 240 - 2.274 -	00.005.549 00.005.550 00.005.551	1.500 - 17.300 2.175 - 4.120 -	00.005.562 00.005.563 00.005.564	915 - 11.720 1.195 - 16.040 -	00.005.575 00.005.576 00.005.577	245 - 7.590 400 - 11.120 -

Special scales as requested by the customer

Details required: Medium, spec. weight in g/cm³, viscosity in cP or mPas, operating temperature in °C, desired measuring range in l/h.

Application instructions for special scales

When applying special scales later, ensure that the marking ◀ on the scale corresponds with the one on the measuring tube.



Flow meter M 335 / M 350

Measuring ranges 50 – 60.000 l/h

Accessories

Limit value contact Z 40 min.

Limit value contact Z 42 max.

For further information, refer to the separate data sheets.

Installation and assembly instructions

- Install the flow meter into the pipeline system vertically and without tension.
- Provide an inlet and outlet section, Inlet approx. 10 x DN, outlet approx. 5 x DN.

Notes on operation

- Avoid pressure surges, as these can damage the unit.
- Exercise caution when installing. The measuring tube must not come into contact with solvent.
- Before start-up, make sure that the connected parts are sufficiently tightened.
- The union nuts must not be mixed up on a measuring tube made from the material PVDF.
 The overall length also does not correspond to the dimensions table.

We reserve the right to make technical changes in the interest of improvement.

Special scales H₂O with other units of measurement

Measuring range Series M 335 / M 350					
d mm	DN mm	l/h	l/min	m ³ /h	US GPM
32	25	50 – 500	0.8 - 8	0.05 - 0.5	0.22 - 2.2
32	25	100 - 1.000	1,7 - 17	0.1 - 1	0.44 - 4.4
40	32	150 - 1.500	2.5 - 25	0.15 - 1.5	0.66 - 6.6
40	32	250 - 2.500	4 - 41	0.25 - 2.5	1.1 - 11
50	40	200 - 2.000	3.3 - 33	0.2 - 2	0.66 - 6.6
50	40	300 - 3.000	5 - 50	0.3 - 3	1.32 - 13.2
50	40	600 - 6.000	10 - 100	0.6 - 6	2.64 - 26.4
63	50	600 - 6.000	10 - 100	0.6 - 6	2.64 - 26.4
63	50	1.000 - 10.000	16 - 166	1 - 10	4.4 - 44.02
63	50	1.500 - 15.000	25 - 250	1.5 - 15	6.6 - 66.04
75	65	2.000 - 20.000	33 - 330	2 - 20	8.8 - 88
75	65	3.000 - 30.000	50 - 500	3 - 30	13.2 - 132
75	65	8.000 - 60.000	133 - 1.000	8 - 60	35.2 - 264

Pressure corr. table for gases: Calibration pressure 0 bar

Operating pressure bar	Factor x display value	Operating pressure bar	Factor x display value
0.0	1.000	3.0	2.000
0.2	1.095	4.0	2.240
0.4	1.184	5.0	2.450
0.6	1.265	6.0	2.650
0.8	1.340	7.0	2.830
1.0	1.414	8.0	3.000
1.5	1.580	9.0	3.165
2.0	1.730	10.0	3.320

This table is used to correct values displayed for gases by the flow meter if the operating pressure deviates from the pressure used as a basis for the calibration. The values displayed on the flow meter are simply multiplied by the factor corresponding to the operating pressure.

We supply special scales for operating pressures of between 1 and 8 bar.

Flow meter M 123

Measuring ranges 15 – 1.000 l/h

Function

The M 123 flow meter works on the float principle and is used to measure the flow rate in closed pipelines. The medium flows through the vertically installed flow meter from bottom to top. This raises the float and shows the current flow rate on the scale on the measuring device. The read-off edge corresponds to the largest diameter of the float.

M 123 flow meters have a water scale and 2 setpoint indicators as standard.

Special features:

- Fracture-proof and corrosion-resistant
- Radially removable
- Adhesive special scales, for liquid and gaseous media
- Holder for accessories (limit value contacts)
- Measuring tube carries the DN label, and also the measuring range and material
- PVDF floats and stops as standard
- Measuring ranges 1.5 – 1.000 l/h
- Less space required thanks to short overall length



Materials

Measuring tube	Max. Temp. at 1 bar	Float	Insert, Top and Bottom	O-ring
PVC	+ 60 °C	PVDF	PVDF	EPDM
PSU	+ 100 °C			FPM
PVDF	+ 140 °C			

Connection Possibilities

Socket	Spigot	Plastic Female Thread	Metal Female Thread
PVC adhesive socket (standard)	PP fusion spigot	PVC	Stainless steel V4A
PP fusion socket	PVDF fusion spigot	PP	Malleable cast iron
PVDF fusion socket	PE fusion spigot	PVDF	



Flow meter M 123

Measuring ranges 15 – 1.000 l/h

Pressure Loss

Water l/h	1.5 - 15	2.5 - 25	5 - 50	10 - 100	8 - 80	15 - 150	20 - 200	15 - 150	30 - 300	50 - 500	100 - 1.000
Pressure Loss (mm WC)	46,0	46,0	46,0	46,0	44,7	44,7	44,7	82,8	82,8	82,8	82,8

Operating pressure: max. PN 10 at 20 °C

Measuring Accuracy Accuracy Class 4 as defined by VDE/DIN 3513 Page 2

Flow in %	10	20	30	40	50	60	70	80	90	100
Total measured value error in %	13.00	8.00	6.33	5.50	5.00	4.67	4.43	4.25	4.11	4.00
Total limit value error in %	1.3	1.6	1.9	2.2	2.5	2.9	3.1	3.4	3.7	4.0

Article Numbers

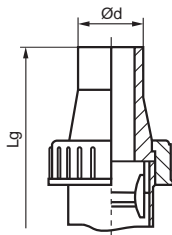
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		Measuring Tube	PSU		PVC	
da	DN	Measuring Range l/h	Float PVDF Art. No	Float PVDF/magnetic Art. No	Float PVDF Art. No.	Float PVDF/magnetic Art. No
16	10	1.5 - 15	73471	73648	74161	74183
16	10	2.5 - 25	73472	73649	74162	74184
16	10	5 - 50	73473	73650	74163	74185
16	10	10 - 100	73474	73651	74164	74186
20	15	8 - 80	73475	73652	74165	74187
20	15	15 - 150	73476	73653	74166	74188
20	15	20 - 200	73477	73654	74167	74189
32	25	15 - 150	73478	73655	74168	74190
32	25	30 - 300	73479	73656	74169	74191
32	25	50 - 500	73480	73657	74170	74192
32	25	100 - 1.000	73481	73658	74171	74193

Flow meter M 123

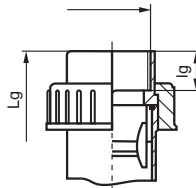
Measuring ranges 15 – 1.000 l/h

Individual parts

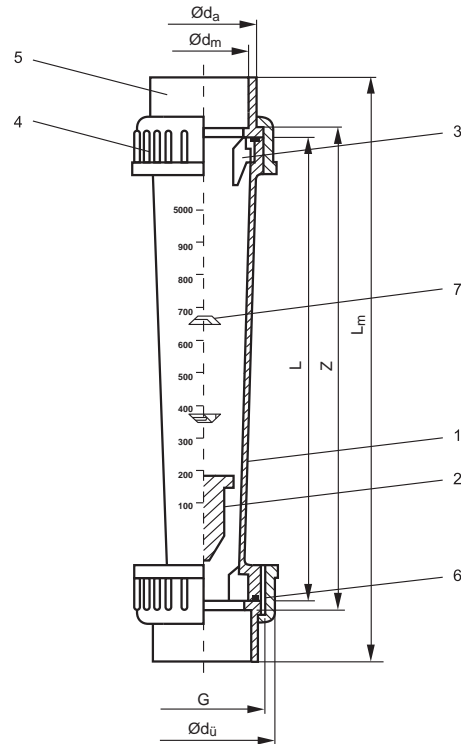
Pos.	Designation	Qty.	Material
1	Measuring tube	1	PSU, PVC, PVDF
2	Float	1	PVDF
3	Insert, top	2	PVDF
4	Union nut	2	PVC, PP, PVDF
5	Insertion part	2	PVC, PP, PVDF
6	O-ring	2	EPDM, FPM
7	Setpoint indicator	2	PS



Screw connection with fusion spigot



Screw connection with threaded socket



Dimensions and weights

Measuring range l/h H ₂ O	Dimensions in mm																Weight in kg/unit.
					Adhesive socket			Fusion socket			Spigot PP			Threaded socket			
	DN	d _ü	G	L	d _m	z	L _m	d _m	z	L _m	d	L _s	s	d _g	L _g	l _g	
1.5 - 15 2.5 - 25 5 - 50 10 - 100	10	35	3/4"	165	16	171	199	15.5	175	201				3/8"	199	11	0.08
8 - 80 15 - 150 20 - 200	15	43	1"	185	20	191	223	19.5	195	223	20	293	1.9	1/2"	223	13	0.13
15 - 150 30 - 300 50 - 500 100 - 1.000	25	60	1 1/2"	200	32	206	250	31.5	210	246	32	320	3.0	1"	250	17	0.24



Flow meter M 123

Measuring ranges 15 – 1.000 l/h

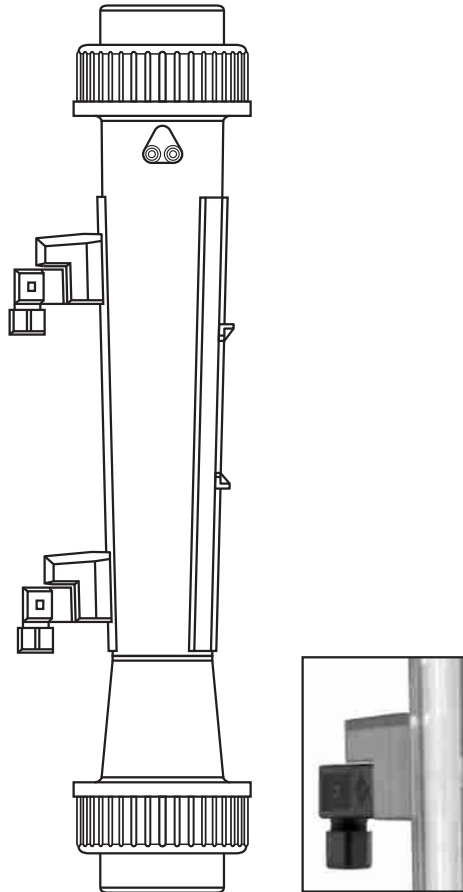
Special scales

Measuring Tube	Air 0 bar		Air 1 bar		Air 2 bar		Air 3 bar	
	H ₂ O l/h	Art. No.	N m ³ /h	Art. No.	N m ³ /h	Art. No.	N m ³ /h	Art. No.
1.5 - 15	00.000.998	0.10 - 0.55	00.001.050	0.15 - 0.80	00.001.051	0.17 - 0.9	00.001.052	0.20 - 1.1
2.5 - 25	00.001.059	0.2 - 0.95	00.001.060	0.25 - 1.3	00.001.061	0.3 - 1.6	00.001.062	0.4 - 1.9
5 - 50	00.001.070	0.5 - 1.9	00.001.071	0.7 - 2.7	00.001.072	0.8 - 3.4	00.001.073	1.0 - 3.8
10 - 100	00.001.081	0.8 - 3.0	00.001.082	1.0 - 4.2	00.001.083	1.2 - 5.4	00.001.084	1.4 - 6.4
8 - 80	00.001.092	0.6 - 2.8	00.001.093	0.8 - 4	00.001.094	1.0 - 5.0	00.001.095	1.2 - 5.6
15 - 150	00.001.103	1.4 - 5.6	00.001.104	2 - 8	00.001.105	2 - 10	00.001.106	3 - 12
20 - 200	00.001.114	1.5 - 7.0	00.001.115	2 - 10	00.001.116	3 - 13	00.001.117	3 - 15
15 - 150	00.001.125	1.0 - 6.5	00.001.126	1 - 9	00.001.127	1.5 - 11	00.001.128	2 - 13
30 - 300	00.001.136	1.5 - 11	00.001.137	2 - 15	00.001.138	2.5 - 18	00.001.139	3 - 22
50 - 500	00.001.147	3 - 18	00.001.148	4 - 25	00.001.149	5 - 30	00.001.150	5 - 35
100 - 1.000	00.001.158	6 - 30	00.001.159	8 - 44	00.001.160	10 - 54	00.001.161	12 - 62

Measuring Tube	Air 4 bar		Air 5 bar		Air 6 bar		Air 7 bar	
	H ₂ O l/h	Art. No.	N m ³ /h	Art. No.	N m ³ /h	Art. No.	N m ³ /h	Art. No.
1.5 - 15	00.001.053	0.25 - 1.20	00.001.054	0.25 - 1.3	00.000.999	0.26 - 1.45	00.001.055	0.30 - 1.5
2.5 - 25	00.001.063	0.4 - 2.1	00.001.064	0.5 - 2.4	00.001.065	0.5 - 2.5	00.001.066	0.5 - 2.7
5 - 50	00.001.074	1.2 - 4.2	00.001.075	1.2 - 4.6	00.001.076	1.2 - 5.0	00.001.077	1.4 - 5.4
10 - 100	00.001.085	1.6 - 7.0	00.001.086	1.6 - 7.4	00.001.087	2.0 - 8.0	00.001.088	2 - 8.8
8 - 80	00.001.096	1.4 - 6.4	00.001.097	1.4 - 7.0	00.001.098	1.5 - 7.5	00.001.099	1.5 - 8.0
15 - 150	00.001.107	3 - 13	00.001.108	3 - 14	00.001.109	3.5 - 15	00.001.110	3.5 - 16.5
20 - 200	00.001.118	4 - 17	00.001.119	4 - 18	00.001.120	4 - 20	00.001.121	5 - 21
15 - 150	00.001.129	2 - 14.5	00.001.130	2 - 16	00.001.131	2 - 17	00.001.132	2.5 - 18
30 - 300	00.001.140	3 - 24	00.001.141	4 - 26	00.001.142	4 - 28	00.001.143	4 - 30
50 - 500	00.001.151	6 - 40	00.001.152	6 - 44	00.001.153	8 - 48	00.001.154	8 - 50
100 - 1.000	00.001.162	12 - 70	00.001.163	15 - 75	00.001.164	15 - 80	00.001.165	15 - 85

Measuring Tube	Air 8 bar		Air 9 bar		Air 10 bar	
	H ₂ O l/h	Art. No.	N m ³ /h	Art. No.	N m ³ /h	Art. No.
1.5 - 15	00.001.056	0.3 - 1.6	00.001.057	0.3 - 1.7	00.001.058	0.35 - 1.8
2.5 - 25	00.001.067	0.6 - 2.9	00.001.068	0.6 - 3.0	00.001.069	0.6 - 3.2
5 - 50	00.001.078	1.4 - 5.8	00.001.079	1.6 - 6.0	00.001.080	1.6 - 6.4
10 - 100	00.001.089	2.0 - 9.0	00.001.090	2 - 10	00.001.091	2 - 10
8 - 80	00.001.100	1.5 - 8.5	00.001.101	2.0 - 9.0	00.001.102	2.0 - 9.5
15 - 150	00.001.111	4 - 17	00.001.112	4 - 18	00.001.113	4 - 19
20 - 200	00.001.122	5 - 23	00.001.123	5 - 23	00.001.124	5 - 25
15 - 150	00.001.133	2.5 - 19.5	00.001.134	3 - 20	00.001.135	3 - 21
30 - 300	00.001.144	4 - 33	00.001.145	5 - 34	00.001.146	5 - 35
50 - 500	00.001.155	8 - 54	00.001.156	8 - 56	00.001.157	10 - 60
100 - 1.000	00.001.166	20 - 90	00.001.167	20 - 95	00.001.168	20 - 100

Limit value contacy Z40 min. and Z42 max. For float-type flow meters M335 / M350 / M123



Use

The limit value contacts Z40 and Z42 are used for external monitoring of limited flow values on our float-type flow meters. They are pushed into the guide located on the flow measuring device and can be set to any desired value of the corresponding scale.

Function

A solenoid installed in the float closes or opens a reed contact permanently cast in the limit value contact. The switching function is bistable. This means that the switching state is maintained even is the solenoid float moves away from the contact.

Switching states

	Float above	Float below
Z40 min	open	closed
Z42 max	closed	open

Order numbers

Z40 min	17.100.686
Z42 max	17.100.687

Attention

When retrofitting limit value contacts, ensure that the standard float is replaced with a solenoid float. The solenoid float is clearly identified by a "M" on the top.

Technical data

Switching voltage*	max. 230 V~
Switching rating*	max. 10 W / 12 VA
Switching current*	max. 0.5 A
Contact resistance	< 200 mOhm
Leakage resistance	> 10 ¹¹ Ohm
Permissible ambient temperature	0 to +55 °C
Protection type	in acc. with DIN 40050-IP 65
Switching hysteresis	1-2 mm float travel

Subject to errors of typesetting, misprints and modifications. Illustrations are generic and for reference only.

We reserve the right to make technical changes in the interest of improvement.

* Even a brief overshoot is not permitted. This is uncontrollable with inductive or capacitive peaks, e.g. with contactors or solenoid valves. It is therefore recommended to use a limit value switch or a contact protection relay.