

# Flowmeter M123



# M123

## Description:

The Asahi Type M123 plastic flowmeter is based on the well-known “suspended float” principle, and is used for measuring and monitoring flow in closed pipes. The medium flows upward through the flowmeter and raises the float. The flow rate can be read off against a scale on the flowmeter body. The indication point corresponds to the largest diameter of the float.

The standard M123 plastic flowmeter is fitted with a scale for water and two limit indicators.

## Features & Benefits:

- Rugged and corrosion proof.
  - May be inserted and removed radially.
  - Available with special scales for almost all liquids and gasses.
  - Guide rail for accessories.
  - Measuring tube labeled with nominal diameter, measuring range and material.
  - PVDF plastic floats and inserts are standard.
  - Available in measuring ranges from 1.5 - 1.000 1/h.
- Less space required due to short unit length.

## Materials:

Tubes	Max Temp. bei 1bar	Float	Inserts	O-Ring
PVC	40 ° C	PVDF	PVDF	EPDM
PSU	100 ° C			FPM
PVDF	140 ° C			

\* PVC tubes in test phase available in near future

## Connection Possibilities:

Socket fusions	Butt fusions	Internal thread Plastic	Internal thread Metal
PVC solvent sockets (Standard)	PP fusion sockets	PVC	Stainless steel V4A
PP fusion sockets	PVDF fusion sockets	PP	Malleable iron
PVDF fusion sockets	PE fusion sockets	PVDF	



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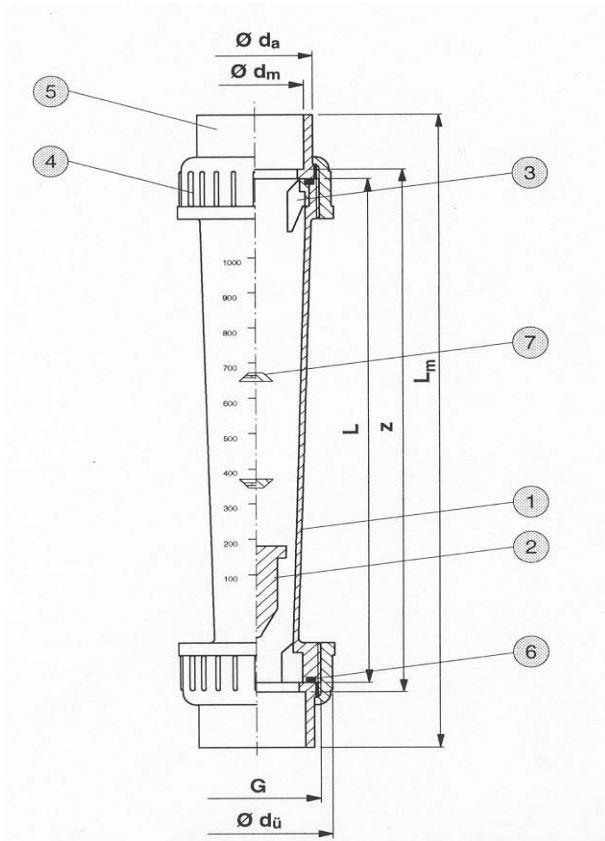


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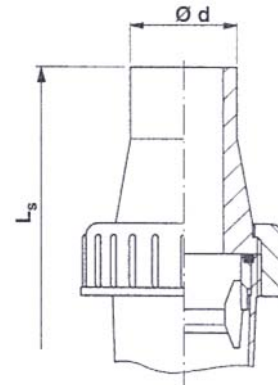
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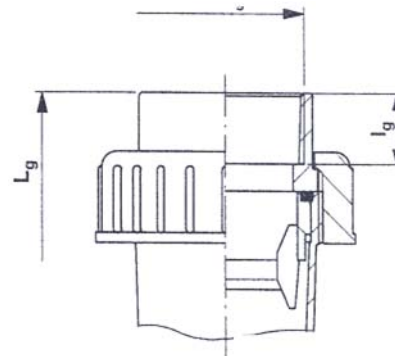
Fittings with Solvent Cement / Fusion Sockets



Fittings with Butt Fusion Sockets



Fittings with Internal Female Thread



## Single Parts

Pos	Description	Qty.	Material	Pos	Description	Qty.	Material
1	Measuring tube	1	PSU/PVC/PVDF	5	Tube Insert	2	PVC/PP/PVDF
2	Suspended float	1	PVDF	6	O-Ring	2	EPDM/FPM
3	Insert	2	PVDF	7	Limit indicator	2	PS
4	Union	2	PVC/PP/PVDF				

## Dimensions and Weights

Dimensions in mm																	Weight in kg
Range l/h H <sub>2</sub> O	DN	dü	G	L	Solvent sockets			Fusion sockets			Butt fusions			Threaded sockets			
					dm	z	Lm	dm	z	Lm	d	Ls	s	dg	Lg	lg	
1.5-15 2.5-25 5-50 10-100	10	35	¾"	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	½"	223	13	0.13
15-150 30-300 50-500 100-1000	25	60	1 1/2"	200	32	206	250	31.5	210	246	32	320	3.0	1"	250	17	0.24

Technical specifications may be changed without notice.



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## Flowmeter M123

### Pressure Losses:

Measuring range l/h	1.5-15	2.5-25	5-50	10-100	8-80	15-150	20-200	15-150	30-300	50-500	100-1000
Pressure loss mm Ws	46.0	46.0	46.0	46.0	44.7	44.7	44.7	82.8	82.8	82.8	82.8

**Max. Operating Pressure:** With PVC Connections 10 bar at 20°C

### Measuring Accuracy

Accuracy class 4 with VDE/DIN 3513 Part 2										
Flow %	10	20	30	40	50	60	70	80	90	100
Total difference from measuring value	13.00%	8.00%	6.333%	5.500%	5.00%	4.667%	4.429%	4.250%	4.111%	4.00%
Total difference from end value	1.3%	1.6%	1.9%	2.2%	2.5%	2.85	3.1%	3.4%	3.7%	4.0%

### Part Numbers

da	DN	Tube Measuring range l/h	PVC		PSU		PVDF	
			Float PVDF	Float PVDF Mag.	Float PVDF	Float PVDF Mag.	Float PVDF	Float PVDF Mag.
			Part Nr.	Part Nr.	Part Nr.	Part Nr.	Part Nr.	Part Nr.
16	10	<b>1.5-15</b>	17.003.700	17.003.711	17.000.862	17.001.459	17.003.610	17.003.621
16	10	<b>2.5-25</b>	17.003.701	17.003.712	17.000.864	17.001.461	17.003.611	17.003.622
16	10	<b>5-50</b>	17.003.702	17.003.713	17.000.866	17.001.463	17.003.612	17.003.623
16	10	<b>10-100</b>	17.003.703	17.003.714	17.000.868	17.001.465	17.003.613	17.003.624
20	15	<b>8-80</b>	17.003.704	17.003.715	17.000.895	17.001.467	17.003.614	17.003.625
20	15	<b>15-150</b>	17.003.705	17.003.716	17.000.897	17.001.469	17.003.615	17.003.626
20	15	<b>20-200</b>	17.003.706	17.003.717	17.000.899	17.001.471	17.003.616	17.003.627
32	25	<b>15-150</b>	17.003.707	17.003.718	17.000.901	17.001.473	17.003.617	17.003.628
32	25	<b>30-300</b>	17.003.708	17.003.719	17.000.903	17.001.475	17.003.618	17.003.629
32	25	<b>50-500</b>	17.003.709	17.003.720	17.000.905	17.001.477	17.003.619	17.003.630
32	25	<b>100-1000</b>	17.003.710	17.003.721	17.000.907	17.001.479	17.003.620	17.003.631

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## Special Scales

Water l/h	AIR										
	0 bar Nm3/h	1 bar Nm3/h	2 bar Nm3/h	3 bar Nm3/h	4 bar Nm3/h	5 bar Nm3/h	6 bar Nm3/h	7 bar Nm3/h	8 bar Nm3/h	9 bar Nm3/h	10 bar Nm3/h
1.5-15	0.10-0.55	0.15-0.80	0.17-0.9	0.20-1.1	0.25-1.20	0.25-1.3	0.26-1.45	0.30-1.5	0.3-1.6	0.3-1.7	0.35-1.8
2.5-25	0.2-0.95	0.25-1.3	0.3-1.6	0.4-1.9	0.4-2.1	0.5-2.4	0.5-2.5	0.5-2.7	0.6-2.9	0.6-3.0	0.6-3.2
5-50	0.5-1.9	0.7-2.7	0.8-3.4	1.0-3.8	1.2-4.2	1.2-4.6	1.2-5.0	1.4-5.4	1.4-5.8	1.6-6.0	1.6-6.4
10-100	0.8-3.0	1.0-4.2	1.2-5.4	1.4-6.4	1.6-7.0	1.6-7.4	2.0-8.0	2-8.8	2.0-9.0	2-10	2-10
8-80	0.6-2.8	0.8-4	1.0-5.0	1.2-5.6	1.4-6.4	1.4-7.0	1.5-7.5	1.5-8.0	1.5-8.5	2.0-9.0	2.0-9.5
15-150	1.4-5.6	2-8	2-10	3-12	3-13	3-14	3.5-15	3.5-16.5	4-17	4-18	4-19
20-200	1.5-7.0	2-10	3-13	3-15	4-17	4-18	4-20	5-21	5-23	5-23	5-25
15-150	1.0-6.5	1-9	1.5-11	2-13	2-14.5	2-16	2-17	2.5-18	2.5-19.5	3-20	3-21
30-300	1.5-11	2-15	2.5-18	3-22	3-24	4-26	4-28	4-30	4-33	5-34	5-35
50-500	3-18	4-25	5-30	5-35	6-40	6-44	8-48	8-50	8-54	8-56	10-60
100-1000	6-30	8-44	10-54	12-62	12-70	15-75	15-80	15-85	20-90	20-95	20-100

## Special Scales

Water l/h	HCl 30-33 % l/h	NaOH 30 % l/h	NaOH 50 % l/h
1.5-15	1-10	0.1-2.0	--
2.5-25	2.5-20	0.2-5	--
5-50	5-40	1-14	--
10-100	10-85	3-35	--
8-80	8-70	2-23	0.2-3.5
15-150	15-125	3-55	0.5-10
20-200	20-170	5-80	0.5-16
15-150	15-125	3-55	0.5-11
30-300	30-260	6-130	1-33
50-500	50-425	10-250	2-80
100-1000	100-850	40-600	10-220

### Assembly note for special scales:

When attaching special scales please assure that the marking on the scale ♦ corresponds with the marking on the tube

### Accessories for flow monitoring:

Limit switch Z 36 min.

Limit switch Z 38 max.

For further information see data sheets Z 36 & Z 38

### Special scales for customer requirements

#### Necessary data

Medium		
Specific weight	g / cm <sup>3</sup>	
Viscosity	cP over mPas	
Operating temperature	°C	
Requested measuring range	l/h	

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### Installation and assembly references:

- Install flowmeters vertically and tension free into the piping system
- Anticipate the In- and Outlet distance  
Inlet aprox. 10 x DN  
Outlet aprox. 5 x DN

### Operating information

- Avoid pressure blows as these may lead to damages of the device
- Caution by installation. The measuring tube should not come into contact with solvents.
- Before use all connections should be examined for sufficient strain.
- Please do not exchange the unions on our PVDF tubes. The construction length of the tube does not correspond with the measuring index.