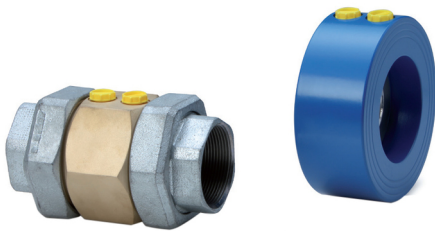


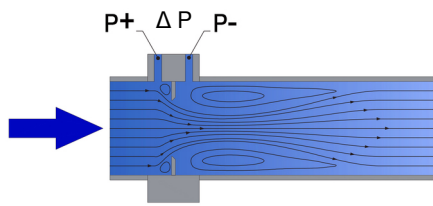
Orifice flow-meter DDM-DB



- For liquids and gases
- Wafer type or Threaded fittings
- ND 40 to 200, or Threads 1/4" to 2"
- Horizontal or vertical installation
- No moving parts
- Materials: Brass, steel, stainless steel

APPLICATIONS

These differential pressure flowmeters are of the most common use, in all measurements with liquids, gases or steam in various industries. They are designed for various operating conditions, under normal conditions (Water supply, swimming pool, etc.) as well as with high pressure and temperature (Steam, hydrocarbons, etc.) and aggressive fluids. They are economical, reliable for natural gas or wet gas measurements. The orifice flow-meter (differential pressure flowmeter) covers a wide range of piping diameters.



DESCRIPTION

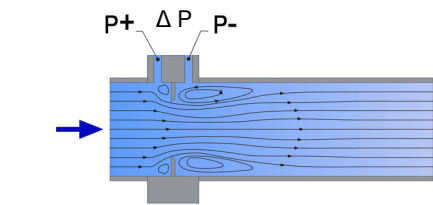
The device works according to the principle of differential pressure, proportional to the square of the volume rate of flow through the pipeline. A DDM flow-meter consists of an orifice plate, integrated into an armature, flanged or with unions fittings. The low and high pressure outlets on either side of the plate can be connected to a differential pressure sensor (pressure gauge, pressure switch, differential pressure transmitter).

The reliability of the measurement depends of the constant flow at the measuring point. The region of steady flow should covers piping distances of 6 DN upstream and 4 DN downstream of the device.

Several versions in steel, stainless steel or brass are available:

DDM-DN	Wafer, flanges acc. DIN EN 1092-1
DDM-Gi	Female threads acc. DIN EN ISO 228
DDM-Ga	Male threads acc. DIN EN ISO 228
DDM-Rp	Unions acc. DIN EN 10226-1 (ISO 7-1)

- Every BAMO Kirchner instrument is tested in conformity with EC directives.
- The corresponding declaration of conformity is available on request.
- The current version in force is available on our WEB site.
- Our production center Kirchner, is certified DIN EN ISO 9001: 2015



Principle

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Orifice flow-meter
DDM-DB

03-03-2021

D-763.01-EN-AA

DEB

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TECHNICAL FEATURES

Measuring principle	Orifice plate for differential pressure measurement.
Differential pressure	Air : 5 to 1000 mbar Water: 100 to 1000 mbar
Pressure drop	About 40 % of measured differential pressure
Pressure resistance strength	PN 16 (Caution with the pressure limit of the display unit)
Ambient temperature	-10...+70 °C
Fluid temperature	Standard: Max. -10 ... +70 °C; Max. 130 °C with insulated pipe The fluid must not freeze. Option: Temperature limit over 130 °C on request
Fittings:	
Wafer mounting, between flanges	PN10 or PN16 according DIN EN 1092-1, shapes A & B
Unions (Rp)	2 pieces - Female thread, cylindrical, DIN EN 10226-1 (ISO 7-1)
Female thread (Gi)	Cylindrical, internal fastening screw thread according to DIN EN ISO 228
Male thread (Ga)	Cylindrical, external fastening screw thread according to DIN EN ISO 228 T1
Materials:	
DDM-DN	Ring in S355 (Option AISI 316 Ti) Corrosion protection: Epoxy powder coating, traffic blue (RAL 5017) glossy Corrosion class: C3 Orifice plate: AISI 316 Ti
DDM- Rp, Gi, Ga	Fittings: Malleable cast iron, zinc plated (Rp only) Orifice plate: Brass Seals: NBR (other on request)

MEASURING RANGES

For water: Other liquids on request.

*) for AIR at standard operating conditions: 0 °C and 1013 mbar ABS (in-between ranges on request)

Wafer mounting flow-meters (DDM-DB-DN)

DDM DN	Water [m³/h]		*) AIR [m³/h]	
	Lowest range	Highest range	Lowest range	Highest range
40	0.85 - 5	5.35 - 32	5.8 - 35	25 - 150
50	1.2 - 7	8.7 - 52	9 - 54	45 - 270
65	2 - 12	13 - 78	13.5 - 81	83 - 500
80	3 - 18	19.7 - 118	20 - 120	125 - 750
100	4.7 - 28	30.7 - 184	35 - 210	142 - 850
125	7.3 - 44	48 - 288	60 - 360	292 - 1750
150	10.7 - 64	68.8 - 413	75 - 450	433 - 2600
200	18.8 - 113	122.5 - 735	125 - 750	667 - 4000

Unions (DDM-DB-Rp) and threaded fittings (female: DDM-DB-Gi / Male; DDM-DB-Ga)

DDM Rp, Ga, Gi	Water [m³/h]		*) AIR [m³/h]	
	Lowest range	Highest range	Lowest range	Highest range
¼"	0,05 - 0,3	0.2 - 1.2	0.5 - 3	1.3 - 8
⅜"	0,05 - 0,4	0.4 - 2.3	0.8 - 5	2.3 - 14
½"	0.1 - 0.7	0.75 - 4.5	1 - 6	3.5 - 21
¾"	0.2 - 1.3	1.4 - 8.5	1.3 - 8	7.5 - 45
1"	0.35 - 2	2.25 - 3.5	2.0 - 12	9 - 54
1 ¼"	0.6 - 3.5	4 - 24	4.0 - 24	18 - 108
1 ½"	0.85 - 5	5.35 - 32	5.8 - 35	25 - 150
2"	1.25 - 7.5	8.65 - 52	8.3 - 50	45 - 270

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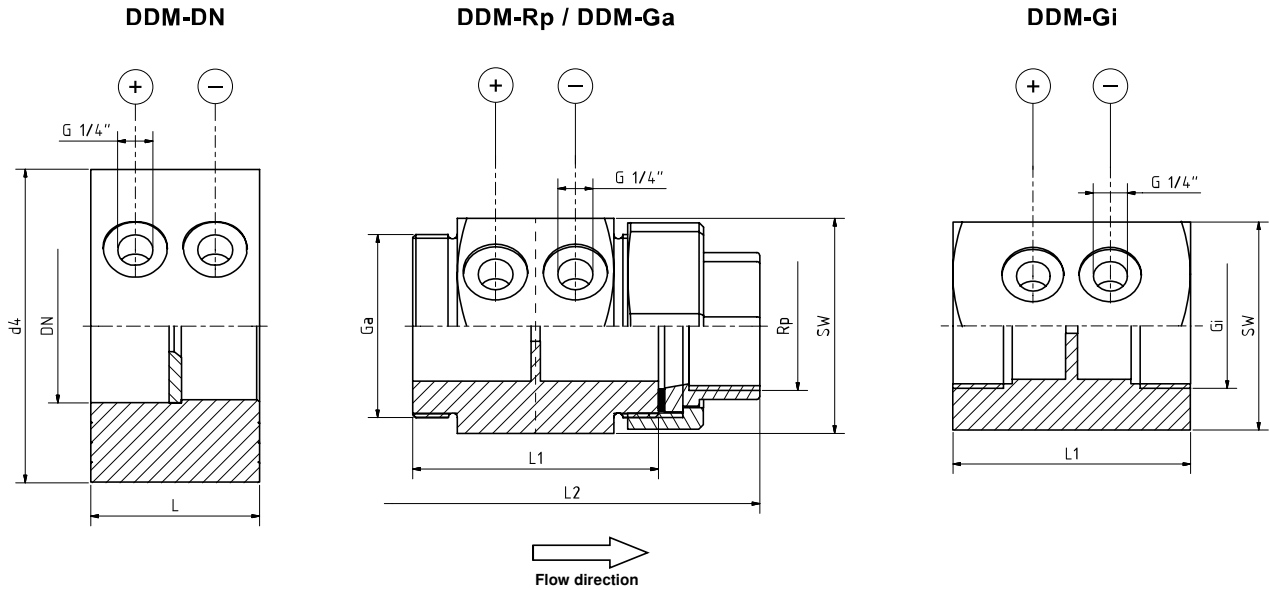
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DIMENSIONS - FITTINGS



DDM-DN			DDM- Rp, Gi, Ga							
DN	d4	L	Rp	L1	L2	SW	Gi	Ga	L1	SW
40	88	55	1/4"	80	124	41	1/4"	3/4"	80	41
50	102	55	3/8"	80	128	46	3/8"	3/4"	80	46
65	122	55	1/2"	80	128	46	1/2"	1 1/8"	80	46
80	138	55	3/4"	80	128	50	3/4"	1 1/4"	80	50
100	158	55	1"	80	136	60	1"	1 1/2"	80	60
125	188	55	1 1/4"	80	146	70	1 1/4"	2"	80	70
150	212	55	1 1/2"	80	149	70	1 1/2"	2 1/4"	80	70
200	268	55	2"	90	164	85	2"	2 3/4"	90	85

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