

Analogue flow-meter with orifice plate DDM-DS11



- For liquids and gases
- Mounting: BSP fittings or Wafer versions
- BSP 1/4" to 2" or DN40 to DN200
- With differential pressure gauge
- Brass, Steel, AISI, coated aluminum

APPLICATIONS

These differential pressure flowmeters are the most common in use. They find their use in measurements with liquids, gases or steam in various industries. They are suitable for many operating conditions, common ones (water supply, swimming pool, etc.) as well as for high pressure and temperature (steam pipes, hydrocarbons, etc.) and aggressive fluids. They are very reliable for natural gas or wet gas measurements, and economical. Differential pressure flow-meters are suitable for a wide range of piping dimensions.

DESCRIPTION

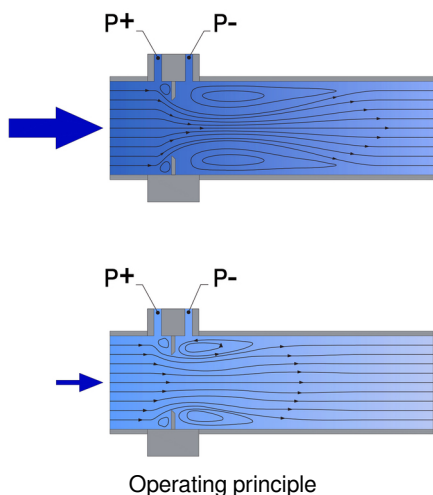
The device works according to the principle of differential pressure which is proportional to the square of the volume rate of flow through the pipeline. The DDM-DS11 series integrates an orifice plate inside an armature for wafer mounting or with threaded fittings. The low and high pressure outlets on either side of the diaphragm are connected to a gauge in accordance with customer specifications.

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

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

DDM-DS11-DN	Wafer mounting according DIN EN 1092-1
DDM-DS11-Gi	BSP-F according DIN EN ISO 228
DDM-Ga	BSP-M according DIN EN ISO 228
DDM-DS11-Rp	Unions according 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



BAMO INTERNATIONAL

22, Rue de la Voie des Bans · Z.I. de la gare · 95100 ARGENTEUIL

Tel +33 (0)1 30 25 83 20 Web www.bamo.eu

Fax +33 (0)1 34 10 16 05 E-mail export@bamo.fr

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31-08-2022

D-763.05-EN-AB

DEB

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TECHNICAL FEATURES

Measuring principle	Differential pressure of an orifice plate Differential pressure Air: 200 mbar H ₂ O: 250 mbar (Other: On request)
Pressure drop	≈ 40 % of differential pressure
Nominal pressure	PN16 (Caution with gauge limits)
Ambient temperature	-10...+70 °C
Fluid temperature	Standard: -10...+70 °C; With thermic isolation: 130 °C Max. The fluid must not freeze Option "HT" above 130 °C

Couplings:

Wafer mounting (ND)	PN10 or PN16 according DIN EN 1092-1, shape A & B
Unions (Rp)	Two pieces - Female thread DIN EN 10226-1 (ISO 7-1) cylindrical
Female threads (Gi)	Cylindrical BSP-F DIN EN ISO 228 (BSP)
Male threads (Ga)	Cylindrical BSP-M DIN EN ISO 228 T1

Materials :

DDM-DS11-DN	Body: S355 (Option AISI 316 Ti) Corrosion protection: Epoxy powder coating, traffic blue (RAL 5017) glossy Corrosion class: C2 Orifice plate: AISI 316 Ti (1.4571)
DDM-DS11- Rp, Gi, Ga	Fittings: Malleable cast iron; Option for Rp only: zinc plated Orifice plate: Brass Seals: NBR (Other on request)
DS11	Gauge sensor: Aluminum GkAlSi12 (Cu) coated Diaphragm: NBR Window: Polycarbonate

INDICATORS

Other models on request

MEASURING RANGES

*) : AIR scales at standard conditions = 0 °C and 1013 mbar

DDM-DS11 DN	H ₂ O [m³/h]		*) AIR [m³/h]	
	Minimum	Maximum	Minimum	Maximum
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

DDM-DS11 Gi, Ga, Rp	H ₂ O [m³/h]		*) AIR [m³/h]	
	Minimum	Maximum	Minimum	Maximum
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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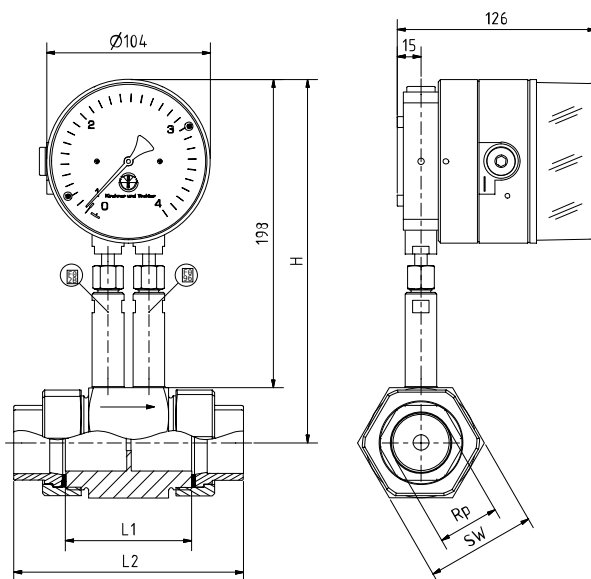
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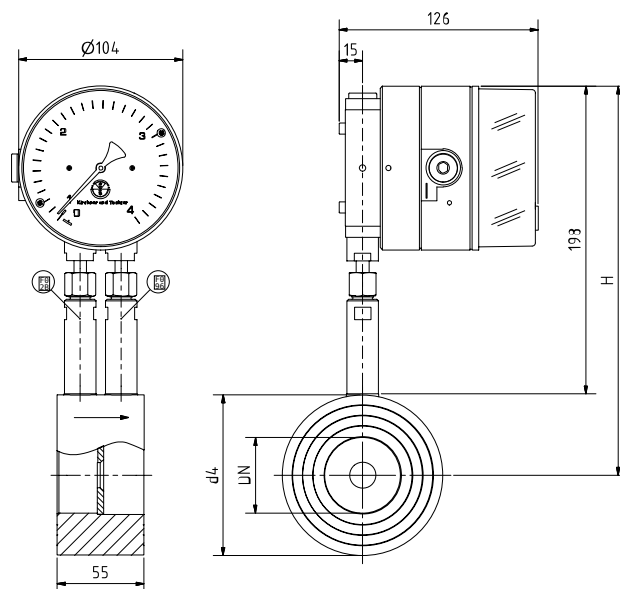
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DIMENSIONS

DDM-DS11-Rp



DDM-DS11-DN



Rp	L1	L2	SW	H		DN	D4	H
1/4"	80	124	41	218		40	88	246
3/8"	80	128	46	221		50	102	249
1/2"	80	128	46	221		65	122	259
3/4"	80	128	50	223		80	138	267
1"	80	136	60	228		100	158	277
1 1/4"	80	146	70	233		125	188	292
1 1/2"	80	149	70	233		150	212	304
2"	90	164	85	240		200	268	332

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MOUNTING POSITIONS

The devices are delivered according to the specifications given when ordering. These assembly possibilities can be quickly implemented, with the device delivered, without specific tools.

Fig.A: Assembly alternatives with wafer mounting version

Fig.B : Assembly alternatives with threaded fittings

Fig. A

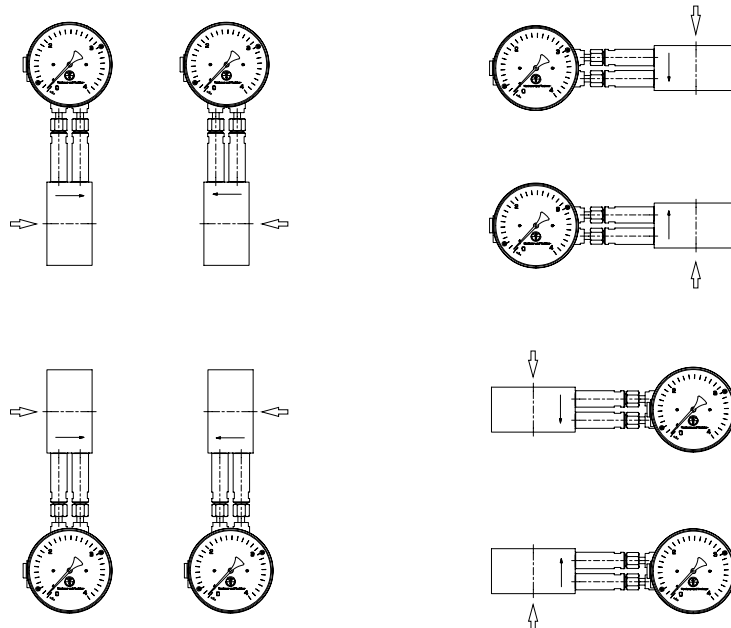
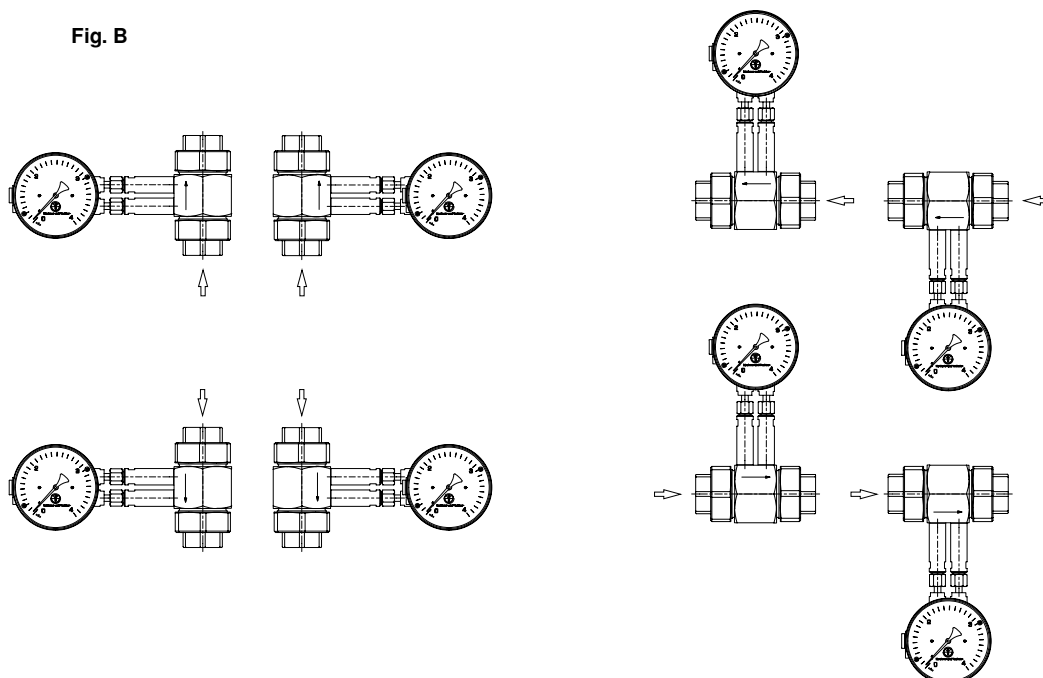


Fig. B



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