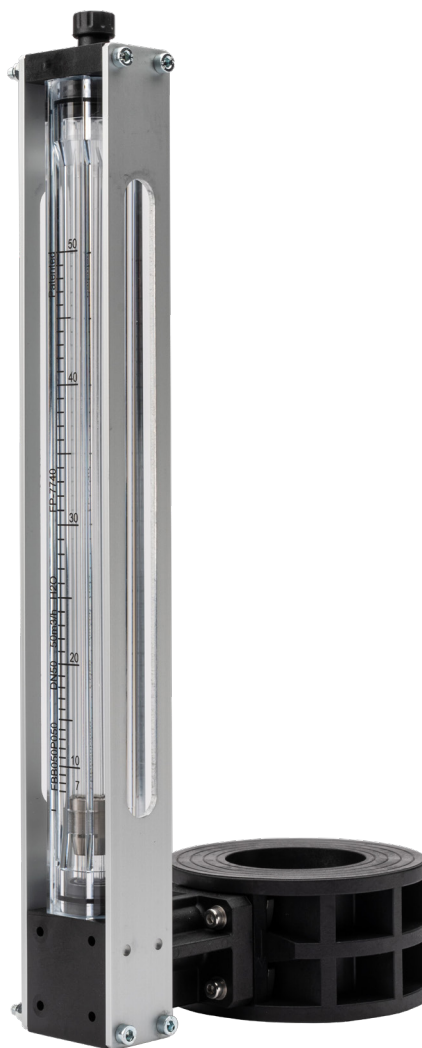


FLOWMETER FBB Series



DESCRIPTION

Patented direct reading flowmeter placed in a calibrated diaphragm designed for applications in firefighting pressurization groups, compliant to standard EN 12845 for great water flows.

The flow indication is shown directly on the flowmeter placed in junction with the main flow line.

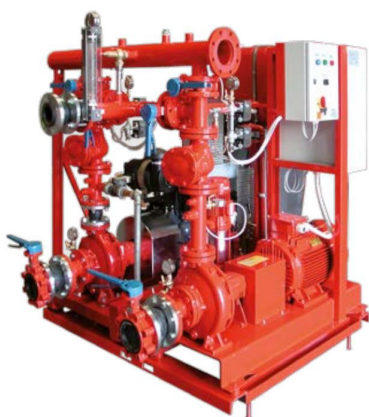
Stock standard product with **fast delivery**.

WORKING PRINCIPLE

The flowmeter uses the principle of the flanged calibrated diaphragm.

It consists of a conic pipe, directly connected to the main flange. Inside the pipe there's a float free to move vertically.

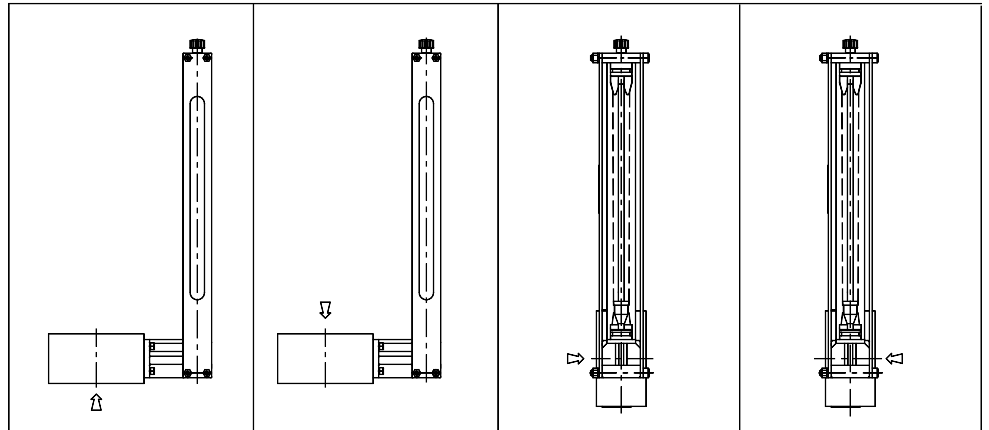
According to the Bernoulli theorem the flange causes a pressure drop, depending on the water speed, that causes the movement of the float inside the graduated pipe indicating the flow.



Typical firefighting application

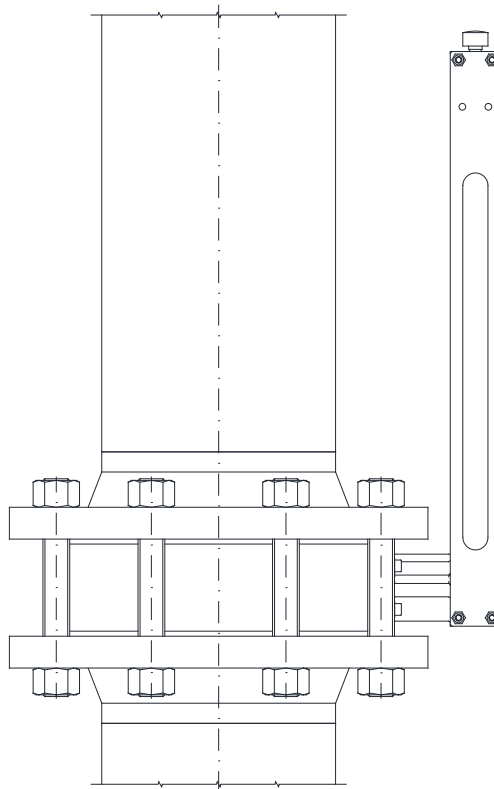
TECHNICAL DATA

- Max. pressure: 16 bar
- Max. temperature: 100°C
- Length of reading scale: ~ 200mm
- Measurement range: ~ 1:10
- Guided float
- Suitable for insertion in flanges: UNI PN10/16; ANSI 150
- Accuracy $\pm 5\%$ F.S.
- The lateral buttonholes allow the spin of the glass tube, therefore one visibility of 360° of the graduate scale for both vertical or horizontal position
- The flange can be mounted in 4 different positions



MATERIALS

Body flange:	PA6V5010 up to DN100, Painted C. Steel over DN100
Flowmeter body:	PA6V5010
Diaphragm:	AISI 316
Float:	AISI 316
Gasket:	NBR
Measuring pipe:	Polycarbonate

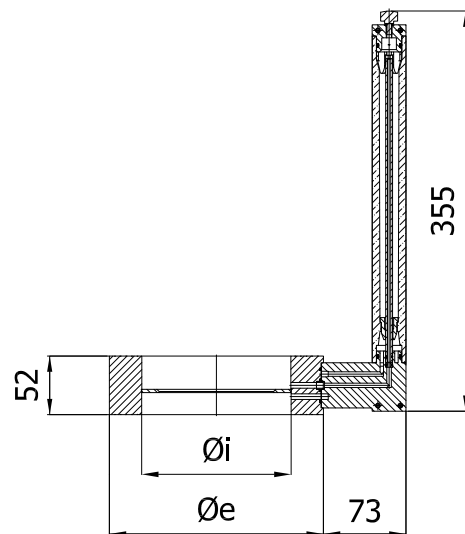




FLOWS TABLE

Full scale water flows with $\Delta P_{\max}$ 10'000 mmH₂O

DN	Øe [mm]	Øi [mm]	Q [m ³ /h]	kg ~
40	90	41.9	25	2
			40	
			55 *	
50	100	53.1	50	2
			65	
			90 *	
65	118	70.9	80	2
			100	
			140 *	
80	135	83.1	130	2
			150	
			200 *	
100	159	107.9	150	3
			200	
			280	
125	190	132.7	300	10
			420	
			480 **	
150	212	160.5	350	10
			450	
			600	
200	273	208.9	450	13
			600	
			800	
			1000	
250	324	260.5	1600	15
			800	
			1000	
300	368	311.4	1600	15
			800	



* $\Delta P_{\max}$ 19'000 mmH₂O

** $\Delta P_{\max}$ 13'000 mmH₂O

HOW TO ORDER

Example: **FBB-050-P-050**

FBB Model
050 DN
P Measuring pipe
050 Full scale flow rate



Officine Orobiche S.r.l.

Via G. Paglia, 22 - 24050 Zanica (Bergamo) - Italy
 Tel. +39 035 4530211 - Fax +39 035 570546



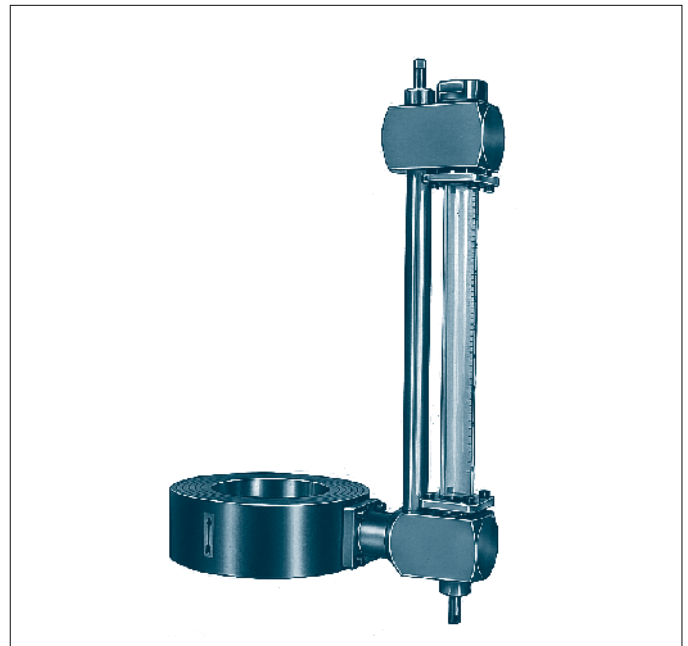
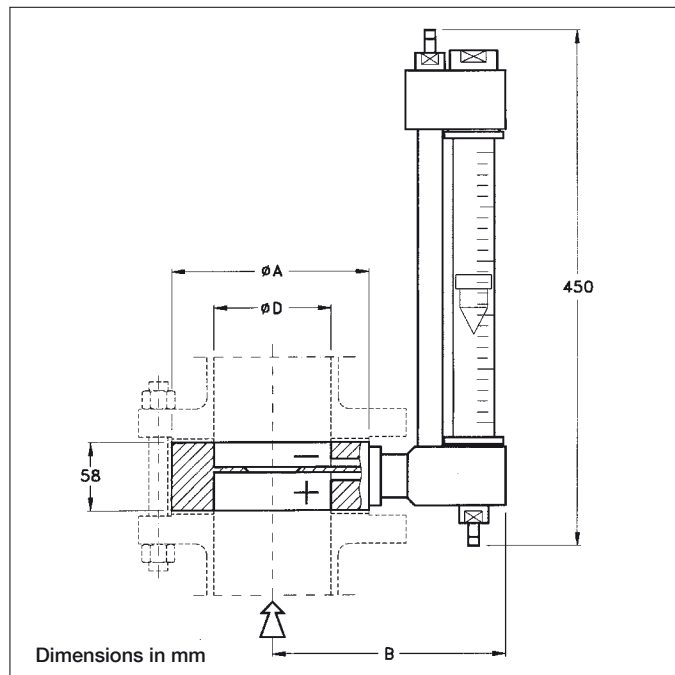
www.officineorobiche.it
info@officineorobiche.it

RV SERIES FLOWMETERS

Calibrated flange-type orifice plate flowmeters with offtake flowmeter for large and very large flows.

APPLICATIONS

Flowmeters can be used in the following industries: chemical and petrochemical, pulp and paper, food and sugar, pharmaceutical, glass, textile, mining, metallurgical and galvanizing industry. The instruments can also be used by manufacturers of water treatment plants, wine, thermal, hospital and anti-pollution plants.



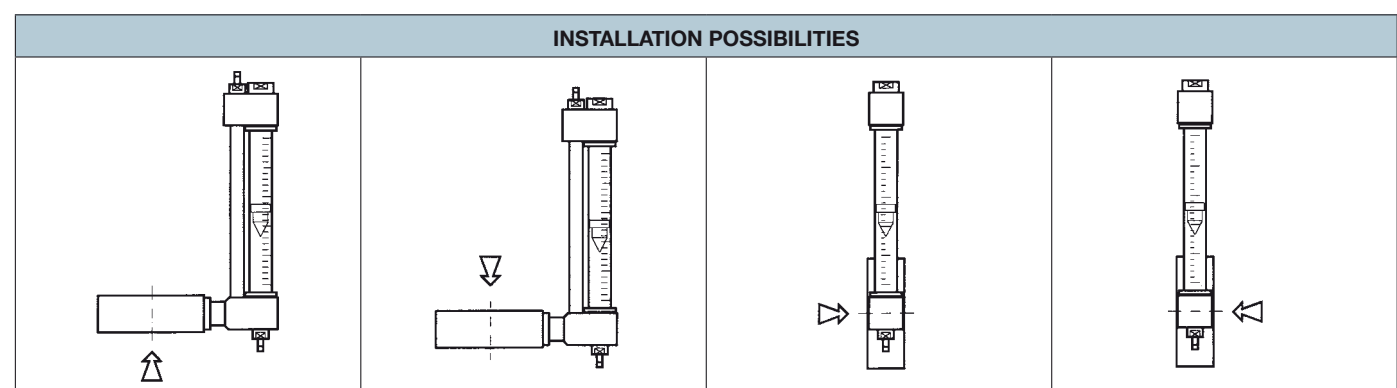
TECHNICAL DATA

- Accuracy: $\pm 3\%$ f.s.
- Max. pressure 10 Bar for the metallic version and 4 Bar for the plastic.
- Max. working temperature: 130°C . On request, versions can be made for use in temps. up to 200°C .
- Length of reading scale: about 230 mm.
- Measuring range: $1 \div 10$
- Free float
- The measuring tube is made of perfectly calibrated boron-silicate glass and therefore easily replaced by the user without needing to change the float.
- Complete with two by-pass valves for shutting-off measuring tube.
- Pressure drop 2000 mm H_2O of water flow.
- Pressure drop 800 mm H_2O of air flow

MODEL	A (1)	B	D	Std. flow of f.s.			Weight in kg	
	UNI/ANSI	UNI/ANSI	std. internal diameter	Q min H_2O ("m" 0,6 ~) m^3/h	Q max H_2O ("m" 0,6 ~) m^3/h	Q air ("m" 0,3 ~) Nm^3/h	Metallic structure	Plastic structure
RV 32	82 (2)	149	35	3	10	50-80	6	2,5
RV 40	83	150	41	5	15	100-150	6,5	2,5
RV 50	102	161	52,5	8	30	150-200	7	2,5
RV 65	121	171	62,5	14	45	300-400	8	3
RV 80	134	178	78	15	60	400-500	9	3
RV 100	162	193	102	25	120	600-800	10	3,5
RV 125	192	209	128	40	200	1000-1500	12	4,5
RV 150	218	222	154	60	250	1500-2000	13,5	5
RV 200	273	250	203	100	500	-	17,5	5,5
RV 250	328	278	254,5	180	800	-	20,5	6
RV 300	375	302	303	250	1000	-	23	7
RV 350	438	334	333,3	300	1200	-	32	8,5

1) Suitable for insertion in flanges UNI PN 10 - ANSI 150 RF / 2) suitable only for UNI flanges

RV Model	32	40	50	65	80	100	125	150	200	250	300	350
Available full scale value, for H ₂ O in m ³ /h, for the selected model	3	5	8	14	18	25	40	60	100	180	250	300
	5	6	10	15	20	30	45	70	120	200	300	350
	6	7	12	18	25	35	50	75	130	250	350	400
	7	8	14	20	30	40	55	80	150	300	400	500
	8	10	15	25	35	45	60	90	160	350	500	600
	10	12	18	30	40	50	70	100	180	400	600	700
		14	20	35	45	55	75	120	200	500	700	800
		15	25	40	50	60	80	130	250	600	800	1000
		-	30	45	55	70	90	150	300	700	900	1200
		-	-	-	60	75	100	160	350	800	1000	-
		-	-	-	-	80	120	180	400	-	-	-
		-	-	-	-	90	130	200	500	-	-	-
		-	-	-	-	100	150	250	-	-	-	-
		-	-	-	-	120	200	-	-	-	-	-



TOLERANCE LIMITS OF FLOWMETERS PLASTIC WITH STRUCTURE

MATERIALS	PVC	from 0° C to + 60° C; pressure 4 bar at 25° C; 2,5 bar at 35° C; 0,5 bar at 60° C
	MOPLEN	from 0° C to + 80° C; pressure 4 bar at 25° C; 2,5 bar at 45° C; 0,5 bar at 80° C
	PVDF	from -10° C to + 135° C; pressure 4 bar at 20° C; 2,5 bar at 65° C; 0,5 bar at 135° C

MATERIALS

CODE FOR:	Materials	Carbon steel	AISI 304	AISI 316	PVC	MOPLEN	PVDF
	Body	A	I	J	P	M	PF
	Orifice	/	-	J (1)	/	/	/
	Float	/	/	J (1) (2)	/	/	/
	Gaskets	Neoprene (N) Viton (V)					

1) For plastic version: Hastelloy C (H). 2) For air flow: aluminium (AL)

HOW TO ORDER

Example: RV 50 - I - J - J - N

RV 50 model

I body in S/steel AISI 304
J orifice in S/steel AISI 316
J float in S/steel AISI 316
N Neoprene gaskets

When ordering, specify type of flange connection into which the instrument is inserted (UNI-ANSI), and the internal diameter of the pipe if non-standard. Where there are fluids other than water, the following data is required: type of fluid, specific gravity, viscosity, temperature, and pressure under operating conditions.

ACCESSORIES

- Min. / Max. flow alarms by inductive proximity transducers (and power supply of 220 V - 110 V - 24 V/50 Hz) with output on SPDT 5 A, 220 VAC switches.
- Protection in transparent plastic material.