

Glass tube flowmeters Series 60M1

Glass tube variable area flowmeter for low flows of liquids and gases

- Reduced mounting length and compact construction, specially indicated for control panels
- Easy installation
- Flow measurement in vertical pipes with upwards flow
- Scaled directly in l/h, %

Other scales for liquids and gases on request

- Flow rate:
 - Water: 0.1 l/h ... 100 l/h
 - Air: 1 NI/h ... 3600 NI/h
- Accuracy: 3% ($q_G=50\%$)
- Connections: 1/4" or 1/2" BSP / NPT
- Materials:
 - Flow tube: borosilicate glass -
 - Wetted parts: EN 1.4404 (AISI 316L)
 - Float: EN 1.4404 (AISI 316L), glass, plastic, ceramic
 - Gaskets: NBR, VITON®, EPDM
- Local indication

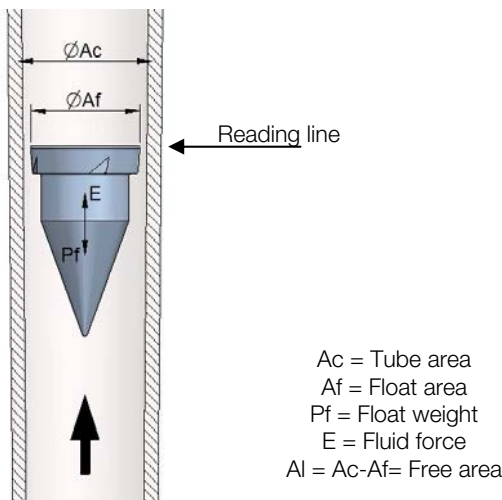


Working principle

A fluid flows upwards through a tapered tube in vertical position and displaces a float until it reaches an equilibrium point that is a function of:

- E = fluid force
- Pf = float weight
- A1 = free area
(A1 = Ac, tube area - Af, float area)

Each position of the float corresponds to a different flow rate, which is shown by the equivalent scale engraved directly on the tube.



Applications

- Control panels and pilot plants
- Measurement and control in machinery
- Research and control laboratories
- Water treatment plants
- Cooling and process industries
- Control of gas burners and treatment furnaces
- Chemical, pharmaceutical and cosmetic industries

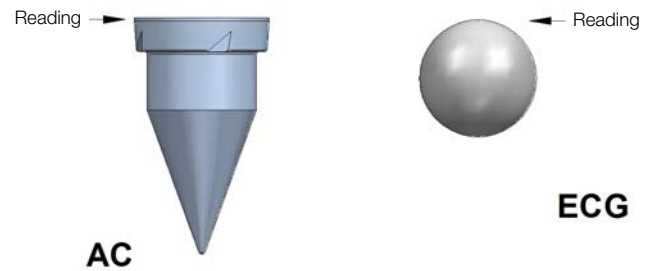
Technical data

- Accuracy, acc. to VDI/VDE 3513 sheet 2 ($q_G=50\%$): 3%
- Scales calibrated directly in l/h, %. Other units and special scales for liquids and gases on request
- Scale range: 10:1
- Fluid temperature: 0°C ... 80°C
- Ambient temperature: 0°C ... 60°C
- Working pressure: 15 bar max.
- Connections: 1/4" or 1/2" BSP / NPT
- Tube length: 150 mm

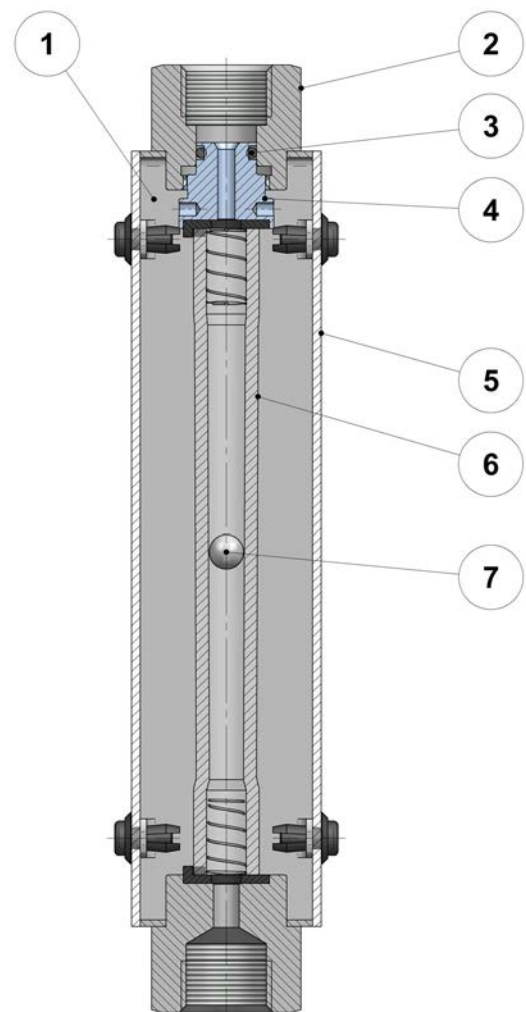
Operation

- Vertical with upwards flow

Float types



Materials

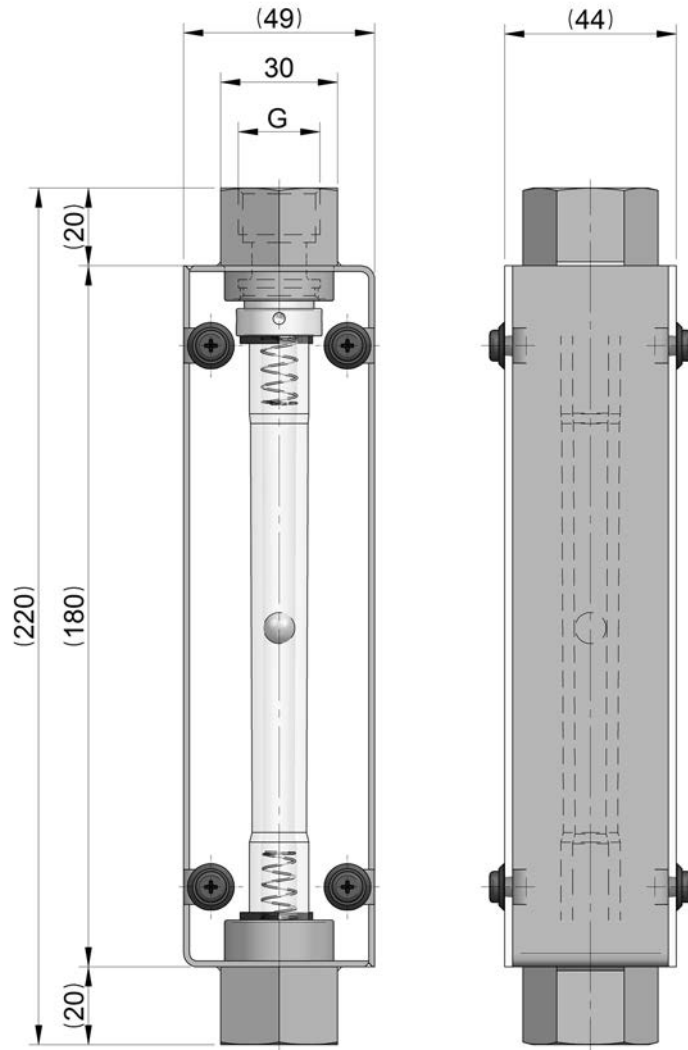


N°	Description	Materials
1	Body	EN 1.4404 (AISI 316L)
2	Connections	EN 1.4404 (AISI 316L)
3	Gaskets	NBR / VITON® / EPDM
4	Piston	EN 1.4404 (AISI 316L)
5	Protection shield	Polycarbonate
6	Flow tube	Borosilicate glass
7	Float	EN 1.4404 (AISI 316L) / Glass / Ceramic / Plastic

Glass tube flowmeters

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Dimensions



G = ¼" o ½" BSP / NPT

Flow ranges

Model N°	Tube length (mm)	Flow scales, ECG type float					ΔP mbar	
		l/h water		NI/h air 1.013 bar abs 20°C				
		AISI 316L (EN 1.4404)	GLASS	AISI 316L (EN 1.4404)	GLASS	PLASTIC		CERAMIC
C210/0001	150	0.1-1	0.05-0.5	3-30	1-12	1-10	2-15	2
C210/0002		0.2-2.5	0.1-1	10-110	4-40	2-16	6-60	2
C211/0005		0.5-5	0.2-2	15-180	8-80	3-30	10-110	2
C211/0010		1-10	0.4-4	30-350	15-180	10-100	20-230	2
C211/0016		1.6-16	0.6-6	50-510	25-260	10-150	30-340	2
C212/0025		2.5-25	1-10	80-830	40-440	20-270	50-540	4
C213/0040		4-40	1.6-16	130-1300	70-700	40-440	80-880	4
C214/0060		6-60	2-20	150-2100	100-1100	70-740	100-1400	4
C215/0100		10-100	4-40	300-3600	150-1900	100-1200	100-2400	5

