TecFluid

The art of measuring

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 Nl/h ... 3600 Nl/h
- Accuracy: 3% (q_G=50%)
- Connections: ¼" or ½" 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

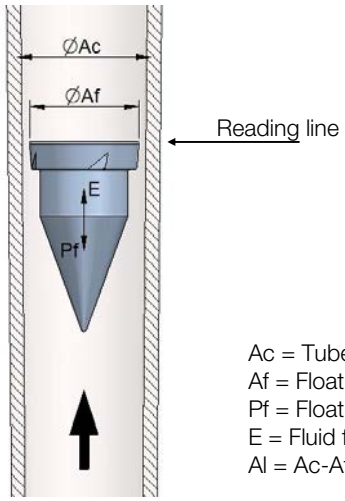
Working principle

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
- Al = free area

  (Al = 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.



Ac = Tube area
Af = Float area
Pf = Float weight
E = Fluid force
Al = Ac-Af= Free area

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

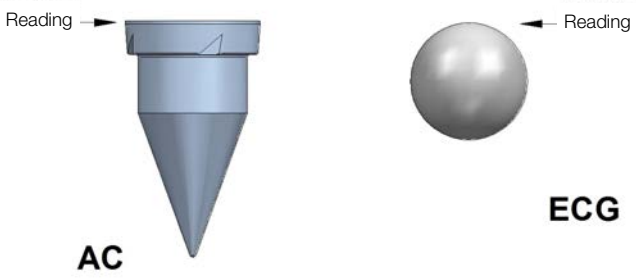
Technical data

- **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:** -20ºC ... +80ºC
- **Ambient temperature:** -20ºC ... +80ºC
- **Working pressure:** 15 bar max.
- **Connections:** ¼" or ½" BSP / NPT
- **Tube length:** 150 mm

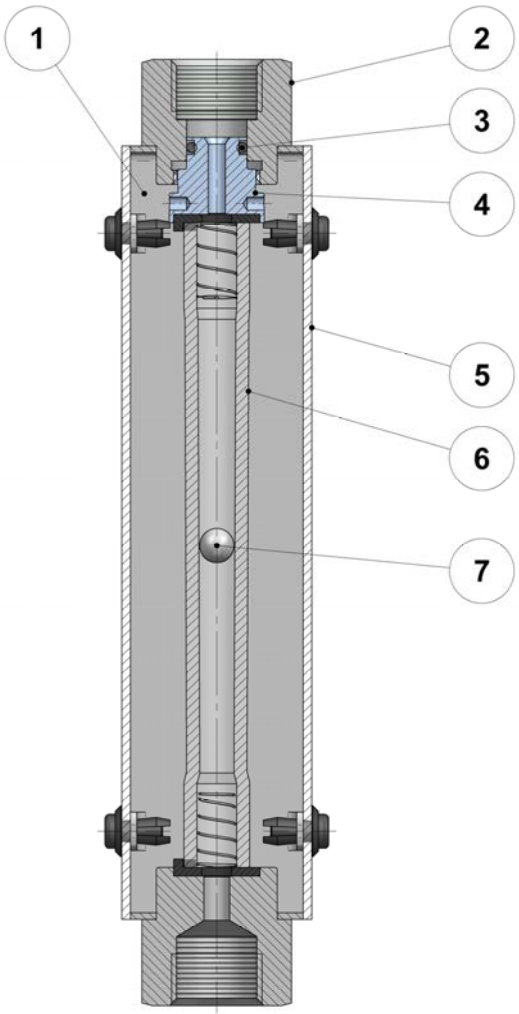
Operation

- Vertical with upwards flow

Float types

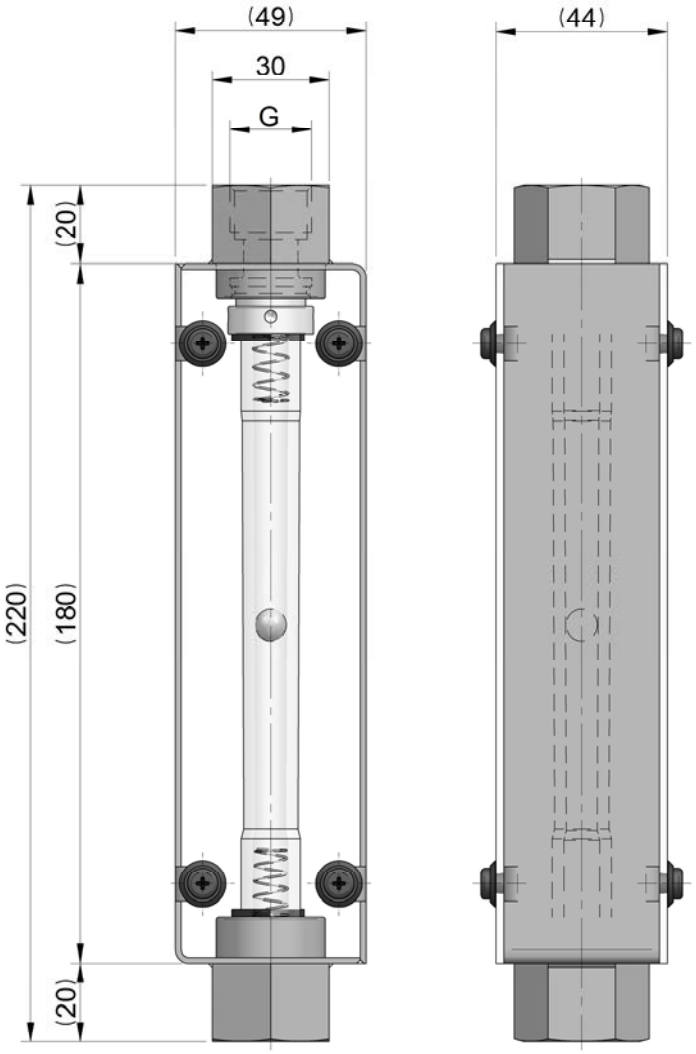


Materials



Nº	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) /

Dimensions



All dimensions in mm (±1,5 / 2 mm)

G = ¼" o ½" BSP / NPT

Flow ranges

Model N°	Tube length (mm)	Flow scales, ECG type float						ΔP mbar
		l/h water		Nl/h air 1.013 bar abs 20°C				
		EN 1.4404 (AISI 316L)	GLASS	EN 1.4404 (AISI 316L)	GLASS	PLASTIC	CERAMIC	
C210/0001		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	150	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

PRESENCE IN MORE THAN 50 COUNTRIES ALL OVER THE WORLD

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