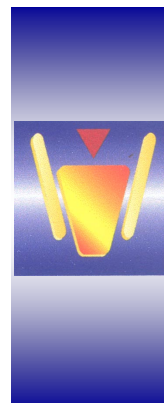


BGF Flowmeter with ES

- The solution for horizontal flow
- Simple and robust construction with a high operational reliability



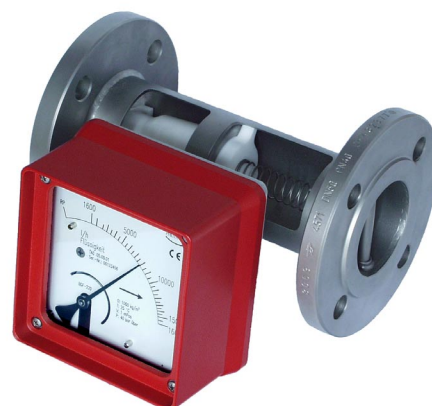
Sensors



Measuring principle

Depending on the way the unit is mounted, the fluid will flow from top to bottom or from left to right or from right to left through the meter tube of the flowmeter. An annular gap is produced between the cone-shaped magnet system and the meter ring in case of flows other than zero. The position of the magnet system depends on the resulting force of all forces acting upon it. These forces comprise the flow force, a spring force acting opposite to the flow force, and the buoyancy and weight force significant for the measurements in case of vertical installation.

Each position of the magnet holder corresponds to a flow value measured during calibration, which is transferred to a scale. The BGF flowmeter consists of a meter tube with connections, a meter ring, and a conical magnet holder. By means of a magnet, the position of the magnet system is transferred to an encapsulated follow magnet, which has been fitted to a pointer axle. The position of a second annular follow magnet fitted on the pointer axle is transferred to the scale by means of the pointer. This value is recorded and evaluated by the ES converter.



Technical data

Error in meas.	+/-2.5 % of upper range value (local)
Operating temperature	+/-0.2 % of upper range value (analog output) BGF-120, -220, -173 and -273: -20°C to +125°C Special: BGF-220: -50°C to +300°C
Ambient temp.	-40°C to +70°C
Process conn.	DN 15 to DN 100 in compliance with DIN 2501
Electrical conn.	Power supply 14-30 V DC 2-wire technique, 4-20 mA, HART
Materials	BGF-120: Flanges, fitting, spring: 1.4571, Magnet system: PP or PTFE BGF-170: Flanges and fitting 1.4571, Lining: PTFE, Spring: HC4
Safety class	EEx ia IIC T6 certification: DMT 00 ATEX E075
EU declaration conformity	EN61000-6-2 1999 EN50081-1 EN55011: 1998+A1:1999 group 1, class B NAMUR NE21

Measuring ranges

Nominal size DN	Minimum and maximum measuring ranges possible	
	Water l/h 20°C	Air Nm³/h 20°C, 101 mbar
15	5 – 50	0.46 – 4.6
	60 – 600	1.7 – 17
25	100 – 1 000	2.8 – 28
	600 – 6 000	17 – 170
40	400 – 4 000	11 – 110
	1 000 – 10 000	28 – 280
50	400 – 4 000	11 – 110
	4 000 – 40 000	110 – 1 100
80	1 600 – 16 000	45 – 450
	6 000 – 60 000	170 – 1 700
100	4 000 – 40 000	110 – 1 100
	10 000 – 100 000	280 – 2 800

Please contact us if you are interested in the measuring ranges for other media and materials.

