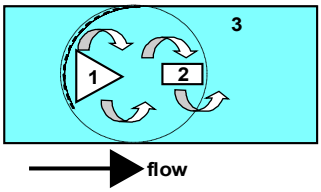
GENERAL CHARACTERISTICS

A narrow, triangular body (1) that goes through the entire cross-section of the meter tube creates a vortex when a flow is present (Kármán's vortex effect). The frequency of the vortex is proportional to flow and is detected by a piezo sensor (2) lying behind the triangular body. The entire unit, vortex body, and detector as designed as a module (3). They are inserted into the tube. The meter tube and the entire measuring unit can thus be separated from each other extremely quickly.



- high accuracy
- large overload security
- no moving parts
- fast installation and removal by clamp attachment
- modular construction with the most versatile connection systems

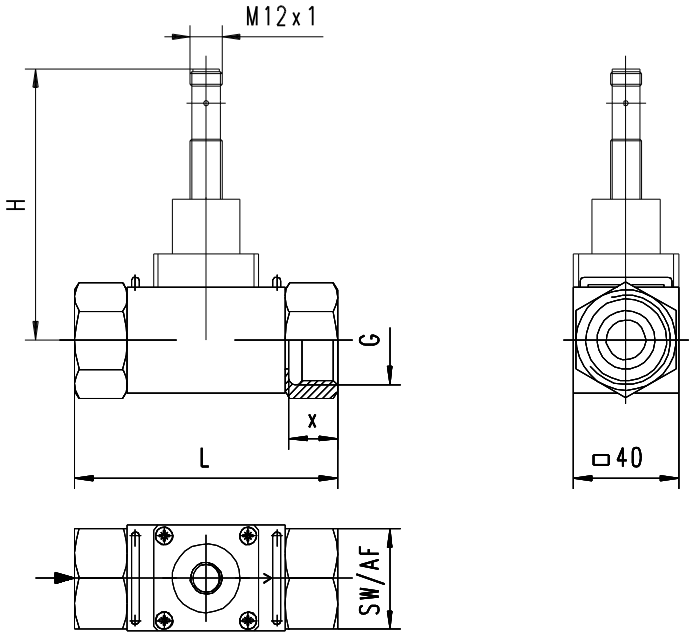
Female thread G1/4 to G1 brass/stainless steel/plastic

CF-025GMM135UIS

TECHNICAL DATA

G	Type	PN bar	Qmax. recom. l/min H_2O	range l/min H_2O	H mm	L mm	X mm	SW mm
G 1/4	CF-008GM.	10	15	1.0 - 15 l/min	114	88	12.5	38
G 3/8	CF-010GM.	10	30	2.5 - 30 l/min	114	88	12.5	38
G 1/2	CF-015GM.	10	50	4.5 - 50 l/min	114	92	14.5	38
G 3/4	CF-020GM.	10	85	6.0 - 85 l/min	114	96	16.5	38
G 1	CF-025GM.	10	135	8.5 - 135 l/min	114	100	18.5	38

tolerance	±2% of measured value
media temperature	5..80°C
storage temperature	-25..80°C
cavitation	not with $P_{withdrawal}$ / $P_{difference}$ 5.5
average pressure loss	0.1 bar at Qmax.



OPERATION

The vortex flowmeter requires a feed distance of 5 - 10xD to achieve its nominal precision. If deposits are feared, the sensor should not be installed with the electronics pointing downward. Please observe that the sensor is installed in the direction of the flow arrow. For possible cleaning of the sensor, loosen the clamps and remove the device (in the process, the line should be depressurized. Make sure that the vortex does not expose the oscillating body to impacts (the spraying unit contains a very sensitive ceramic piezo transducer that can break).

MATERIALS

housing	brass nickel plated, s.s.1.4571 or POM GF
connectors	brass nickel plated, s.s.1.4571 or POM
detector	ETFE PA6T6I 40%GF
seal	EPDM

ELECTRICAL DATA

supply voltage	10..30 V DC
connection	for locking plug M12x1, 4-pole
short-circuit proff	yes
reverse polarity proff	yes
protection class	IP 67

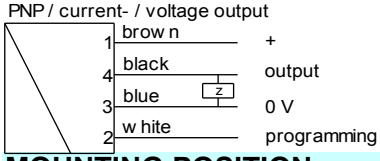
current - / voltage output

idle current	100 mA
output	current 4..20 mA
	voltage 0..10V

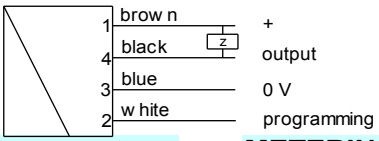
frequency output / programmable switch

idle current	< 20 mA (without load)
output	PNP and NPN
	10..2000 Hz

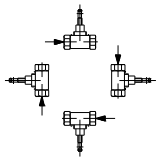
PNP / current- / voltage output



NPN



MOUNTING POSITION



METERING SUBSTANCES

water

oil

At a viscosity of >1mm²/s (water), the response threshold rises since the vortex forms at a higher flow speed.

NOMENCLATURE

For combinations see table "technical data".

CF-	006	G	M	M	007	E	U	S		basic type / specification
	008								●	nominal diameter DN 008
	010								●	nominal diameter DN 010
	015								●	nominal diameter DN 015
	020								●	nominal diameter DN 020
	025								●	nominal diameter DN 025
		G							●	female thread
		A							❍	male thread
		T							❍	nozzle
			M						●	connection material brass Ms 58 nickel plated
			K						❍	connection material stainless steel 1.4571
			P						❍	connection material POM
				M					●	housing material brass Ms 58 nickel plated
				K					●	housing material stainless steel 1.4571
				P					❍	housing material POM
					015				●	range 1.0 - 15 l/min
					030				●	range 2.5 - 30 l/min
					050				●	range 4.5 - 50 l/min
					085				●	range 6.0 - 85 l/min
					135				●	range 8.5 - 135 l/min
						E			●	seal EPDM
						V			❍	seal Viton
							U		●	voltage output 0..10V
							I		●	current output 4..20mA
							F		●	frequency output
							S		●	programmable switch (push pull PNP and NPN)
							E		●	ouput at suburb electronics (e.g. omni-CF)
								S	●	connection at locking plugs M12x1, 4-pole

COMBINATIONS

omni-CF
local electronic unit,
2xNPN and PNP switch
4(0)..20mA output
graphical LCD display with flashing LED program ring

Flex-CF
switching and frequency exit
0..10V or 4..20mA
pnp, npn

All technical changes reserved

●BASIC Standard ❍BASIC Programme option ❑VARIO Special option ⊕ PLUS Accessories ✕not recommendable