DDM
sensor solutions

High Precision Flow Turbine Meter

VCT Series

- Calibrated frequency output (TTL)
- Temperature probe media exposed
- Identification memory

DDM
sensor solutions

Functional description

The VCT rotor geometry is further optmized and supported by a high-performance hybrid ball bearing. Those improvements resulting in a wide turndown and excellent repeatability. The turbine speed is detected with no drag to the rotor and converted into a common TTL frequency output. A miniaturized media exposed probe take accurate dynamic readings of process media temperature. VCT defaults and calibration data are stored within an integrated data memory. Combined with the smart flow computer VCA or VCA-T series a plug and play flow measuring systems is operating at high accuracy and independent from fluid viscosity.

Flow ranges and process connections
see table

Output signal flow
Frequency 2 kHz (TTL) max

Metrological properties Flow
(at viscosity 1 mm²/s, app.)
Repeatability ± 0.025 % of reading
Response time 2 ms app.

Metrological properties Temperature
Isolated thermocouple T-type (DIN EN 60584 class 2)

Supply voltage
9 to 32 V DC reverse polarity protected

Power consumption
≤ 8 mA

Material wetted parts
stainless steel and ceramic

Operating temperature range
Process media – 40 °C to +150 °C
Ambient – 40 °C to +125 °C

Process pressure at +20°C
25 bar max., others on request

Electrical connection
high temperature shielded cable, length 50 cm
with push-pull connector size 0

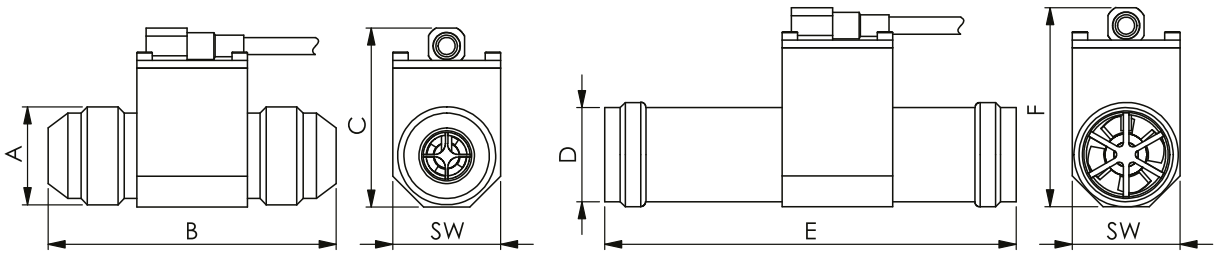
Degree of protection
IP67

EMC
EN 55011
EN 61000-4-2 to EN 61000-4-6

Calibration certificate
included

Accessories
high temperature shielded cable, length 5 m to connect VCT turbine meter with VCA or VCA-T flow computer, other accessories see separate data sheet

Dimensions (mm)



Type	Inner-Ø	Range		AN-thread				Hose Barb				SW	Filter
VCT	[mm]	min. [Lit./Min.]	max. [Lit./Min.]	A	B [mm]	C [mm]	mass [g]	D [mm]	E [mm]	F [mm]	mass [g]	[mm]	[µm]
0005	6,8	0,05	5	AN8	56	35	140	9,8	56	29,9	85	21	10
0010	6,8	0,1	10	AN8	56	35	140	9,8	56	29,9	85	21	10
0020	7,9	0,2	20	AN8	56	35	140	12,0	56	31,6	100	21	10
0030	9,9	0,3	30	AN8	56	35	140	13,0	56	33,0	105	21	10
0060	12,3	0,6	60	AN10	69	38	190	15,4	69	35,5	130	21	10
0100	15,5	1,0	100	AN12	80	43	280	18,3	80	39,0	140	21	10
0250	21,4	2,0	250					25,0	96	45,0	210	27	20
0350	27,4	3,0	350					32,0	108	48,5	260	32	20

DDM GmbH & Co. KG » Marie-Curie-Str. 8 » 36039 Fulda, Germany » Phone +49 661 967962-0 / Fax -20 » info@ddm-sensors.de » www.ddm-sensors.de