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sensor solutions

High Precision Flow Turbine Meter

FLT series

- Calibrated frequency output (TTL)
- Operating pressure up to 500 bar
- Identification memory

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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 epeatability. The turbine speed is detected with no drag to the rotor and converted into a common TTL frequency output. A dynamically integrated temperature sensor in the pickoff measures the media temperature. Turbine parameters and calibration data are stored in an integrated memory.

The FLT series is designed for operating pressures of up to 500 bar. In combination with the intelligent flow computers of the VCA and VCA-T series, self-parametrizing flow measurement systems are created, operating with linearity correction and viscosity independence.

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 a +20 °C
500 bar max.

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

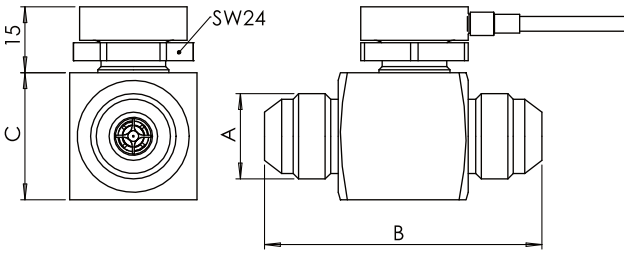
Degree of protection
IP67

EMV
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	Measuring range (liters/minute) min.	max.	Nominal	Ermeto (EO) cutting ring DIN 3861 A	B	C	EO	AN-thread - 37° Flared ISO 8434-2 A	B	C
FLT2-8	0,06	5	3/8"	M18×1,5	55	28,4	10-S	AN8 / ¾" -16UNJF	62	28,4
FLT4-8	0,1	10	1/2"	M18×1,5	55	28,4	10-S	AN8 / ¾" -16UNJF	62	28,4
FLT6-8	0,2	20	1/2"	M20×1,5	55	28,4	12-S	AN8 / ¾" -16UNJF	62	28,4
FLT8-8	0,3	30	1/2"	M22×1,5	55	28,4	14-S	AN8 / ¾" -16UNJF	62	28,4
FLT-10	0,6	60	5/8"	M24×1,5	62	32	20-S	AN10 / 7/8" -14UNJF	69	32
FLT-12	1	100	3/4"	M30×2,0	75	37	20-S	AN12 / 1-1/16" -12UNJ	83	37
FLT-16	2	250	1"	M36×2,0	85	41	28-L	AN16 / 1-5/16" -12UNJ	91	41
FLT-20	3	350	1 1/4"	M52×2,0	100	48	38-S	AN20 / 1-5/8" -12UNJ	103	48
FLT-24	5	550	1 1/2"	–	–	–	–	AN24 / 1-7/8" -12UNJ	117	57
FLT-32	9	1.200	2"	–	–	–	–	AN32 / 2-1/2" -12UNJ	154	70

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