

Vortex customer specific design
for the measurement of hot water



Vortex Flow meter Series VTX 2 DN15

Conceived as a static alternative to OC5 oval wheel meters for liquids with low viscosities:

- extremely robust and resistant against overloading
- excellent metrological capabilities
- outstanding compensation of line vibrations
- insensitive against pulsations, pressure spikes and temperature shocks
- special design includes inlet and outlet runs
- with smart electronics

Measuring principle

This flow meter uses the Karmann vortices street effect. A delta shaped bluff body generates vortices that alternatively create pressure pulses at a given frequency. These alternating pressure variations are detected by mean of a specific and patented piezo electric sensor and the corresponding frequency which is proportional to the flow rate in the meter is processed by a microprocessor controlled electronic transmitter. Actual flow or totalised volume can be displayed on the local indicator. A 4-20 mA and/or a pulse output is delivered to the enduser for further integration in DCS or PLC systems or other kind of applications.

Our vortex meter design features unique characteristics providing decisive advantages to our customers:

- unbeatable accuracy originating from decades of experience in the field of fiscal metering with vortex meters
- unique ability to compensate for line vibrations due to a single patented sensor design that fits on all sizes
- unique overloading capability
- high dynamic range
- rugged design
- fulfill latest technical requirements like ATEX, PED, FDT1.2 etc...
- high flexibility in length, materials etc...



Technical data

Accuracy	Gas / Steam : $\pm 0,9$ % o. r. *) Liquids : $\pm 0,6$ % o. r. *)
Reproductibility	$\pm 0,15$ % o. r.
Process temp.	-40°C to +270 °C
Operatingtemp.	-40°C to +70 °C
Process connection	Sandwich: DN 15 with 1" male thread Length: 168 mm
Electr. connection	Supply 14 - 30 VDC 2 - wire technique, 4-20 mA, HART or pulse output (without HART) and Namur – pulse output scalable
Material	Sensor: 1.4404 Housing: 1.4404 Seals: Viton, Graphit Electronic housing: cast aluminium
EX - protection	EEx ia IIC T6 acc. to ATEX 100a (EEx d in preparation)
EC-conformity	acc. to EMC directive 89/336/EWG DIN EN 61000-6-2 / DIN EN 61000-6-3 and NAMUR NE 21

Measuring range

DN	Gas / Steam [m³/h]		Liquids [m³/h]	
mm	min	max	min	max
15	2	25	0,4	8

Advantages

- same process connection as the Series OC5 oval wheel meters
- suitable for hot demi water
- inlet and outlet section integrated in design
- easy to clean
- fully stainless steel design

*) under reference conditions