



Measurement made easy

# VortexMaster FSV430/450

## Vortex goes high tech

Power and productivity  
for a better world™



# VortexMaster FSV430/450

## Measurement made easy

### The most important data at a glance

Accuracy for liquids	± 0.65% of rate
Accuracy for gases and steam	± 0.9% of rate
Process connection/meter sizes	
Flange-mount design	DN15 (1/2") – DN300 (12")
Wafer type design	DN25 (1") – DN150 (6")
Media temperature	-55 to +400 °C (-67 to +750 °F)
Media viscosity	max. 7.5 cP
Required straight pipe runs (minimum sections, depending on the installation)	
Upstream section	15 x DN
Downstream section	5 x DN
Ex approvals	IECEX, ATEX, NEPSI 0/1/2/ Zone 20/21/22 approvals
	cFMus Class 1 Div. 1 and Zone 0/1
Communication	HART
Outputs	4...20 mA pulse output, frequency output
Input from field (optional)	Pressure, temperature, methane content, density



# VortexMaster FSV430/450

## Reliability with high tech

### Reliable, maintenance-free flow measurement with new hi-tech transmitter

The robust vortex flowmeters FSV400 provide reliable measurement of liquid, gas and steam and are available in flange-mount and wafer-type designs.

- Digital signal processing for volume flow, totalization and pulse outputs leads to high reliability and flexibility
- Direct mass flow or standard flow measurement without additional flow computer
- Hot pluggable display unit with through the glass (TTG) operation
- Integrated 4...20 mA and HART interface for pressure, gas content, temperature or medium density input
- Latest hazardous approvals incl. Zone 0 / Zone 20 approvals



# VortexMaster FSV430/450 Hi-tech transmitter

## Vortex goes high tech

### Intuitive operation

- "Easy Set-up" function for comfortable and easy configuration
- Clear text display for intuitive operation
- Meter set-up through the glass with closed cover
- Meter diagnostics with clear help texts in the display
- Auto-Zero function for noisy applications
- Common usage philosophy with ABB's flow meters and other 2-wire measurement products from ABB



# VortexMaster FSV430/450

## Graduated offering

Volume-, mass- or energy measurement,  
for every application the right meter

### **VortexMaster FSV430**

The standard vortex meter with optional digital outputs, graphical display and excellent vibration immunity for your application. Available with integral or remote transmitter with up to 30 m signal cable.

### **VortexMaster FSV450**

The advanced vortex transmitter offers additionally an analog input for your ambitious mass or energy flow application. Available with integral or remote transmitter with up to 30 m signal cable can it make expensive flow coputers dispensable.



# VortexMaster FSV430/450

## For versatile applications

The functional design makes VortexMaster FSV400 adaptable to all processes and conditions

- Modern and fast digital signal processing with excellent vibration compensation and meter diagnostics reliable flow measurement
- Integrated flow computer functionality for
  - direct mass flow of saturated and overheated steam
  - direct energy flow calculation for steam
  - energy calculation in heating/cooling circuits
  - net methane measurement and totalization
  - natural gas calculation according to AGA or SGERG standards



# VortexMaster FSV430/450

## Maintenance free and robust

With no moving parts, VortexMaster is nearly wear-free and an ideal replacement for mechanical meters

As the sensor is placed behind the bluff body, no particle build-up or deposits affect the measurement. Due to its high measuring dynamic and accuracy and its low installation cost the wafer-type design with an insertion length of 65 mm (DINversion) is the perfect alternative to orifice plate flowmeters.

### Your benefits

- High process reliability through robust design
- Simple, cost-saving installation



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#### **Note:**

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