



FS4000, FV4000
Precise and cost-effective
vortex and swirl
flow measurement

Power and productivity
for a better world™



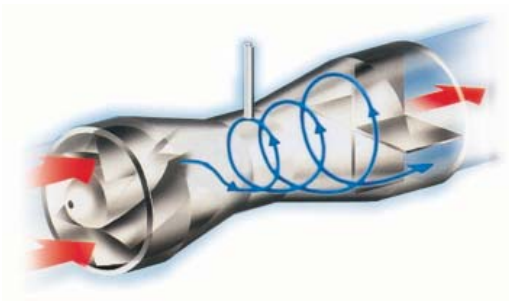
Swirl flowmeter FS4000



Important information at a glance

Accuracy for liquids	$\pm 0.5\%$ of rate
Accuracy for gases and steam	$\pm 0.5\%$ of rate
Process connection/meter sizes	
Flange design	DN 15 (1/2") – DN 400 (16")
Media temperature	-55 °C to +280 °C (-67 °F to 536 °F)
Media viscosity	max. 30 cP
Required straight pipe runs	
Upstream section	3x DN
Downstream section	1x DN

Flow profile in the swirl flowmeter



Swirl flowmeter FS4000

Extremely dynamic flow measurement with high accuracy

ABB uses robust design techniques for its unique swirl flowmeters FS4000 to provide high performance and reliable measurement of liquid, gas and steam. The swirl flowmeters use a specific frequency measurement principle which provides high accuracy of 0.5% and low flow measurement capability. Additionally, ABB's swirl flowmeters help you save up to 80% installation space, because only shortest upstream and downstream sections are required. By offering large measuring spans, even small flow amounts during low consumption periods can be measured. Both high accuracy and low flow measurement capability help you save energy and natural resources and drive your processes to higher efficiency levels.

Your benefits

- Simple, compact in-line installation, -reduced piping
- Direct steam mass flow measurement with integrated temperature compensation
- Higher accuracy
- Wider flow range
- Increased plant availability, no wear, no maintenance

Space saving swirl meters in a steam application



Vortex flowmeter FV4000

Reliable, maintenance-free flow measurement

The robust vortex flowmeters FV4000 provide reliable measurement of liquid, gas and steam and are available in flange-mount and wafer-type designs. As the sensor is placed in the path of the fluid, 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 (DIN-version) is the perfect alternative to orifice plate flowmeters.

Your benefits

- High process reliability through robust design
- Simple, cost-saving installation
- Precise saturated steam mass flow measurement with integrated temperature sensor



Vortex flowmeter FV4000



Important information at a glance

Accuracy for liquids	$\pm 0.75\%$ of rate
Accuracy for gases and steam	$\pm 1\%$ of rate
Process connection/meter sizes	
Flange-mount design	DN 15 (1/2") – DN 300 (12")
Wafer type design	DN 25 (1") – DN 150 (6")
Media temperature	-55 °C to + 400 °C (-67 °F to 750 °F)
Media viscosity	max. 7.5 cP
Required straight pipe runs (minimum sections, depending on the installation)	
Upstream section	15x DN
Downstream section	5x DN

Flow profile in the vortex flowmeter



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Note:

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