VortexMaster FSV400
Vortex flowmeter

Reliable measurement of liquids, gases and steam in volume, mass or energy units

Measurement made easy

Key features and benefits

**ABB common look and feel**
Cost savings through reduction of commissioning times and long employee familiarization periods by means of a standardized, cross-product line operating concept. The proven Easy Set-up function enables user-friendly and simple configuration of the measuring device. Using TTG (Through-The-Glass) keypad technology, local parameterization can be performed directly when the housing is closed, even in potentially explosive atmospheres.

**Automated zero point adjustment**
Fast and easy commissioning, even when there is potential for interference, through zero point adjustment at the touch of a button. There is no service requirement if significant vibrations occur.

**Drift-free sensor for high long-term stability**
The proven sensor design ensures maximum measuring accuracy over a long period of time so that recalibration can be largely avoided.

**Integrated online self-verification**
The integrated, continuous online self-diagnosis allows the maintenance intervals to be extended during operation. The entire measuring system, from the transmitter to the Piezo sensor, is checked without removing the measuring device and without interrupting the process. This increases the operational security and availability of the system. Status messages are compliant with NAMUR recommendation NE107.

**Internal temperature compensation for reduction of external measuring components**
The optional integrated Pt100 can replace external temperature sensors plus the associated installation requirements. These can be retrofitted without changing or converting the sensor.
Reduction of investment by integrated flow computer functions
Internal mass and energy calculation for steam and condensate remove the need for expensive, separate measuring computers, parameterization and installation in many applications. External pressure, temperature, density or concentration signals can be directly received and processed to calculate any required compensation. This allows for the direct mass and energy calculation for steam and water according to IAPWS-IF97 and the natural gas calculation according to AGA/GERG standards.

Robust wafer design
The robust wafer type design with an installation length of 65 mm (2.56 inch) enables simple, direct replacement of orifice plates to reduce the measuring error from approx. 2 % of full scale to 0.65 ... 1 % of the measured value.

SensorMemory technology
The proven SensorMemory technology simplifies the replacement of components, as details of devices as well as application data are stored in the sensor and transmitter. It is not necessary to re-enter the data.

Simplified spare parts management
By using standardized electronic components and Piezo sensors for VortexMaster and SwirlMaster in all nominal diameters and applications, storage costs can be significantly reduced. The Piezo sensor can simply be replaced without the need for recalibration.

Up to four internal totalizers for highest transparency
Depending on the operation mode up to four internal totalizers are available for Volume, Standard-Volume, Mass and Energy.

Global approvals for explosion protection
Approvals have been granted for all common requirements in this field.

Contact us

ABB Limited
Process Automation
Howard Road, St. Neots
Cambridgeshire, PE19 8EU
UK
Tel: +44 (0)870 600 6122
Fax: +44 (0)1480 213 339
Mail: enquiries.mp.uk@gb.abb.com

ABB Inc.
Process Automation
125 E. County Line Road
Warminster, PA 18974
USA
Tel: +1 215 674 6000
Fax: +1 215 674 7183

ABB Automation Products GmbH
Process Automation
Dransfelder Str. 2
37079 Goettingen
Germany
Tel: +49 551 905-0
Fax: +49 551 905-777

www.abb.com/flow

Note
We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents - in whole or in parts – is forbidden without prior written consent of ABB.

Copyright© 2016 ABB
All rights reserved