Measurement made easy

SwirlMaster FSS430/FSS450
The flowmeter with a twist
### SwirlMaster FSS430/450

**Measurement made easy**

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ABB’s robust swirl flowmeters are designed for reliable measurement of liquid, gas and steam in volume, mass or energy units.

- Digital signal processing for volume flow, totalization and pulse outputs leads to high reliability and flexibility
- Direct mass/energy 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
- Low upstream and downstream requirements enable flexible installation without use of a flow straightener
SwirlMaster FSS430/450
Easy to operate

Simplified handling and commissioning

**Intuitive user interface**
- Easy set up even without manual
- 4 button operation, optionally through the glass with closed cover
- Well proven menu structure, common philosophy with other ABB instruments
- Sensor memory allows the exchange of electronics without recalibration or manual set up
- Meter diagnostics with clear help texts in the display
- Auto-Zero function for simplified start up even in noisy applications
SwirlMaster FSS430/450
Easy to install

Lowest up- and downstream requirements enable many applications

**Immune to turbulence**
Allows installation:
- Without additional flow straightener
- Without pipe reduction
- Within 3D upstream/1D downstream down to no upstream/downstream
- Within 5 diameters behind from upstream control valve
SwirlMaster FSS430/450
Excellent measuring performance

Broad range of uses due to advanced electronics

Highly advanced electronics providing:
- Integral vibration cancellation
- Wide flow range up to 50:1 flow turn down
- Highest accuracy in liquid, gas and steam measurement
- Shortest response time (200 ms)
- Enhanced diagnostic functions for sensor supervision and temperature monitoring
- Special operation modes for steam energy flow with or without condensate backflow
- Gas engine for natural gas measurement according to AGA/GERG standards
SwirlMaster FSS430/450
Enhanced flow calculation capability

Integral mass and energy computation

Flow calculation
- Optional input modes for connection of remote transmitters (pressure, temperature, density, gas analyzer)
- HART or analogue
- No external flow computer needed

SwirlMaster FSS430
The standard design with excellent vibration cancellation and analogue output with HART communication. Optionally available with HMI and digital outputs. Available with integral or remote transmitter with up to 30 m (98 ft.) cable length.

SwirlMaster FSS450
The advanced swirl transmitter with additional analogue input for mass or energy flow measurement. Available with integral or remote transmitter with up to 30 m (98 ft.) cable length. Using optional inputs discrete flow computers are not longer needed in many applications.
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Note:
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