

FMT400 ABB Flow Meter Thermal Mass Flowmeter SensyMaster

Our Product Introduction

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Basic Information

- Brand Name: ABB
- Model Number: FMT400



Product Specification

- Accuracy: High
- Communication Protocol: HART, PROFIBUS, FOUNDATION Fieldbus
- Fluid: Gas, Liquid
- Installation Type: In-line, Insertion
- Material: Stainless Steel, Alloy Steel, Titanium
- Measuring Principle: Differential Pressure
- Output Signal: 4-20mA
- Pressure Range: 0-100Bar
- Process Connection: Flange, Thread, Sanitary
- Product Name: ABB Flow Measurement Products
- Product Type: Flow Measurement
- Range: Wide
- Temperature Range: 0-150
- Warranty: 1 Years
- Highlight: **FMT400 ABB Flow Meter,**



More Images



Product Description

Thermal mass flowmeter SensyMaster FMT400

The SensyMaster FMT430 offers a high quality and cost effective solution for precise and dynamic direct mass flow measurements of gases in low and medium pressure conditions to meet the needs of all industrial standard applications.

The FMT450 adds high accuracy and extended functionality for advanced industrial applications.

SensyMaster's concept comprises high grade thermal sensor elements with superior long-term stability, the common ABB look and feel with ABB specific menu structures and through-the-glass-operation and the ABB platform based electronics with comprehensive signal evaluation capabilities for a high degree of performance and reliability. The software offers the ApplicationSelector that allows to change application parameters and create new applications on site and VeriMass the fingerprint based thermal sensor element verification function.

Both integral and remote mount design is available with or without local display and HART communication supporting the modular I/O and the SmartSensor concept. Both models offer easy to understand diagnostic messages for improved operator efficiency.

The SensyMaster FMT430 is ideally suited for all industrial standard applications, the FMT450 for advanced industrial application.

Overview

Precise and dynamic direct mass flow measurement of gases for industrial standard applications.

- High-grade thermal sensor elements
- superior long-term stability

Our Product Introduction

- effective sensor element protection frame with flow conditioning properties
- SmartSensor solution
- Meter intelligence located at the sensor
- all digital solution
- reduced wiring costs with industry standard connection cables
- long cable distances are possible
- SensorApplicationMemory
- Plug and play electronics replacement
- Redundant data storage for maximum data security
- ABB common electronic concept
- Through-the-glass operation
- Modular I/O Concept
- Multiple 32-bit processor structure
- full digital heating circuit control
- dynamic temperature compensation
- ApplicationSelector
- Adaption of the characteristic application parameters on site
- choice between up to two applications (FMT430)
- choice between up to eight applications (FMT450)
- setup new applications without the need for recalibration (FMT450)
- VeriMass onboard verification and diagnostics
- Fingerprint based SensorCheck to verify the integrity of the thermal sensor elements
- continuous health check of the meter
- parameter plausibility check

Data

General specifications:

Measuring media

- Air, Nitrogen, Oxygen, Carbon dioxide, Methane, Hydrogen, Natural Gas, Biogas, Helium, Argon, Propane, Ethane, Ethene, Butane, Ammonia, more gas types on request

FMT430 measuring accuracy for air under reference conditions

- $\pm 1.2\%$ of rate within 10 ... 100 % of measuring range
- $\pm 0.12\%$ full scale within 1 ... 10 % of the measuring range

FMT450 measuring accuracy for air under reference conditions

- $\pm 0.6\%$ of rate $\pm 0.05\%$ full scale

FMT450 measuring accuracy for gases under reference conditions

- with optional process gas calibration
- $\pm 1.6\%$ of rate $\pm 0.1\%$ full scale

Integral and remote mount transmitter design

- single and dual compartment transmitter housing options

Measuring medium temperature

- -25 ... 150 °C (-13 ... 302 °F)

Ambient temperature

- -20 ... 70 °C (-4 ... 158 °F)
- optional -40 ... 70 °C (-40 ... 158 °F)
- optional -50 ... 70 °C (-58 ... 158 °F)

Supply Voltage

- 100 ... 240 V AC (-15 / +10 %)
- 24 V DC $\pm 20\%$

Process adaption via pipe components in different designs

- partial measuring sections (DN 25 ... DN 100)
- wafer design pipe components (DN 40 ... DN 200)
- Weld-on adapters (DN 100 ... DN 3000)

FMT450 added functionality

- high accuracy calibration
- process gas calibration
- extended Measuring range
- high medium temperature up to 300 °C (572 °F)
- filling application software
- ApplicationSelector with up to 8 applications
- ...with up to 4 customer set applications
- ...with selectable gas type
- ...with selectable pipe inner diameter