

SensyMaster FMT

Compressed air measurement in industrial environments



Compressed air measurement in industrial environments with SensyMaster FMT

Measurement made easy

The Challenge

In industrial plants with a pipe network of compressed air and gas going to individual users in the plant, the compressed air must be measured with sufficient accuracy in a wide flow range.

- Leak detection within this pipe network is the challenge to save gas and energy and at least variable and fixed costs by reduced compressor capacity.
- Billing of different production areas on diverse cost centers is often an issue.

The ABB Solution

ABB offers a gas measurement device which is ideally suited to measure compressed air under difficult conditions. The large measuring range with a very high level of accuracy in the lower flow velocity range makes the SensyMaster from ABB an ideal device to also determine leakages.

Advantages of principal

The measuring method of the SensyMaster flowmeter series is based on the hot-film anemometer principle. They offer a high quality and cost-effective solution for precise and dynamic direct mass flow measurements of gases in low and medium pressure conditions.

- Direct mass flow measurement - no compensation of temperature and pressure required
- Low pressure drop - no additional energy losses
- Best accuracy and shortest response time - close control of the process

Thermal sensor elements

SensyMaster provide a sensor element protection frame to conditions the flow for:

- Best response time and repeatability due to thin platinum sensor element
- Self-cleaning effect of the sensor element for longer maintenance cycles
- Long term stability without drift

And mechanical protection to:

- Prevent damage by particulate material
- Extend meter lifetime and maintenance cycles

Improved performance

The SensyMaster provides unique measurement performance in terms of:

- Best accuracy Up to $\pm 0.6\%$ Qm $\pm 0.05\%$ Qmax for air
- Fast response time of 0.5sec/63% to detect flow change quickly and reliably

Measurement Made Easy

ABB provide common instrument family e.g., EMF, Coriolis, thermal mass flow, laser level and analytic products. We provide:

- Common EasySetup for fast commissioning
- Capacitive buttons for through the glass operation
- Intuitive Operation: Softkey functionality supports user friendly operation and makes configuration as simple as possible.

Easy operation

SensyMaster provides

- Through-the-glass operation
- Intuitive menu handling
- EasySetup assistant
- Clear text error messages
- Data plausibility checks

Reduces training and commissioning time.

Repeatable installation

ABB flanged pipe components ensure exact and repeatable installation position by Center Pin.

- Quick and exact insertion of sensor safe time
- Best measurement performance, wrong installed sensor lead in higher inaccuracy
- Higher repeatability

Verification and diagnosis

SensyMaster provides diagnosis, verification and Sensor check for

- Detection of damages or coating
- Determine the right maintenance intervals
- Guided verification with clear statement pass/failed report

Extended re-calibration intervals.

Easy transmitter exchange

All data is securely stored permanently in the SensorApplicationMemory storage that's installed within the sensor

- Easy and comfortable Plug & Play electronics replacement if required

Continuous support

Factory after sales support with

- Checklists for commissioning and trouble shooting
- Videos (Tutorials) via QR codes
- Error code identification

<https://my-measurement-assistant.abb.com/>



Measurement Assistant



EasySetup

ABB Measurement & Analytics

For your local ABB contact, visit:
www.abb.com/contacts

For more product information, visit:
www.abb.com/measurement

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.

©ABB 2023. All rights reserved.