WAFS-107 INLINE TYPE THERMAL MASS FLOW SENSOR

WISE AIR 4.0®

MEASURE TO MANAGE

2025

# Smart Measurement Solutions for Compressed Air and Gases


**WISEAIR TECHNOLOGIES INDIA LLP**

www.wiseair.in

# About Us

Our Vision At WiseAir Technologies is to Offer Our Customers With Innovative and Advanced Measurement Solutions for Compressed Air and Gases at Affordable Costs. With Over 22 Years Experience in The Field of Compressed Air Management, We Have Developed Products that are More Accurate, Smart, Reliable, State-Of-The-Art and Easy to Use. We Aim to Transform The Traditional Manufacturing and Industrial Practices With Our Latest Smart Technologies. Hence We Primarily Focus On Offering Products Which Use Large-Scale Machine To Machine Communication (M2M) and Industrial Internet of Things (IIoT) To Provide Increased Automation, Improved Communication, Self Monitoring To Analyze and Diagnose Issues Without The Need For Human Intervention. Our “WA“ Range of Smart IIOT Sensors, Can Be Easily Networked Together With Manufacturing And Energy Management Softwares. This Connectivity Allows For Seamless Data Collection, Exchange and Analysis To Potentially Facilitate Improvements In Productivity And Efficiency Resulting In Huge Economic Benefits.

# Our Network

Our Smart Sensors are Developed with Design and Technology Support from Our Partners Across North America, Europe and Asia. With Our Strong Network of Partners, we offer Seamless and Best-in-Class Service to Our Customers.

### Artificial Intelligence & Machine Learning Software

Our software are programmed to analysis and self Diagnose the Measured Datas

### Smart IIOT Sensors

For measurement of Flow, Power, Dew Point and Pressure

### Product Experts

Product Specialists with Decades of Experience in Compressed Air Measurement and Management

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# INTRODUCING THE WAFS-107
# INLINE TYPE THERMAL MASS FLOW SENSOR


## FULL DIGITAL SIGNAL PROCESSING FOR HIGHER PRECISION AND BETTER STABILITY

## Technical Data Sheet

| Measuring Range | |
|---|---|
| Flow Range | 0(0.1) ... 250 Nm/s |
| Accuracy | ±(1% reading + 0.3% Full Scale) |
| Sample Rate | Sample Rate |
| Reference Cond | 20°C, 1 bar(a) - ISO 1217 (Programmable) |
| Processed Medium (Gas Type) | Compressed Air, Argon (Ar), Carbon Dioxide ($CO_2$), Helium (He), Hydrogen ($H_2$), Natural Gas (Ng), Nitrogen ($N_2$), Nitrous Oxide ($N_20$), Oxygen($O_2$) For use in other gases, Specify gas Composition |

| Communication Output | |
|---|---|
| Analog (Standard) | 4...20 mA (Isolated) / Pulse Output |
| Digital (Standard) | RS485, MODBUS RTU Protocol |
| Wireless | Bluetooth (Standard), Lora (Option) |
| Connector | 2 x 5 - pin M12, Female |

| Power Supply | |
|---|---|
| Input | 18 to 30V / 5W |

| Display / Data Logger | |
|---|---|
| Display | 1.5" LCD with Capacitive Touch Panel |
| Data Logger | 10,000,000 Samples |

| Operating Environment | |
|---|---|
| Op. Temp | -30 ... +70 °C |
| Medium Temp | -40 ... 150 °C |
| Op. Pressure | 1.6 MPa (Option:4.0 MPa) |

| Others | |
|---|---|
| Process Conn | G1/2" (ISO 228-1) |
| EMC | According to IEC 61326-1 |

- Thermal Mass Flow, Independent of Temperature and Pressure Change, Integrated Temperature Measurement.
- Ultra-Wide 1:2500 Turndown Ratio, Measurement Range from 0.1 Nm/s to 250 Nm/s.
- Full Electrical Isolation thoroughly Filter out Disturbance2.8" Ultra-Wide Viewing Angle LCD with Capacitive Touch.
- Optional Data Logging, 10,000,000 Recording Points.
- With Bluetooth Function for Wireless Sensor Configuration and Data Transmission.
- Pipe Size : DN15, DN20, DN32, DN40, DN50, DN65, DN80Connection : R Thread, Flange EN1092-1 , ANSI/B16.5 Measures Standard Flow, Mass Flow, Consumption and Temperature.
- No Moving Parts, Stable Signal, Vibration Proof, High Reliability, Long-Term Measurement Accuracy.
- Full Digital Signal Processing instead of Traditional Analog Bridge Design, making the Flow Meter more Accurate and Capable of Wider Measuring Range
- Standard RS485 Modbus RTU Interface and4-20mA current / pulse Output.

## Flow Range

| Pipe Size | | Flow Range (cfm) | |
|---|---|---|---|
| DN | ID(mm) | Min Flow (cfm) | Max Flow (cfm) |
| 15 | 15 | 0.04 | 45 |
| 20 | 20 | 0.06 | 79 |
| 25 | 25 | 0.12 | 125 |
| 32 | 32 | 0.18 | 204 |
| 40 | 40 | 0.29 | 319 |
| 50 | 50 | 0.41 | 499 |
| 65 | 65 | 0.71 | 843 |
| 80 | 80 | 1.06 | 1278 |

## Applications

- Compressed Air Consumption Measurement.
- Gas Consumption Measurement of a Single Machine / Plant.
- Thermal Mass Flow meters are Widely used in Industrial Processes, Chemical, Petrochemical, Power Engineering, etc.
- Determination of Gas Leakage / Leakage Rate.
- Process Gas Measurement, such as Nitrogen, Carbon Dioxide, Oxygen, etc

## Ordering Code

- **WAFS 107 - A**

  Thermal Mass Flow Sensor Inline Type 0 - 16 Bar (g), 2.8" IPS Wide Viewing Angle LCD with Capacitive Touch Panel, R Thread, DN 15, 1/2"

- **WAFS 107 - B**

  Thermal Mass Flow Sensor Inline Type 0 - 16 Bar (g), 2.8" IPS Wide Viewing Angle LCD with Capacitive Touch Panel, R Thread, DN 20, 3/4"

- **WAFS 107 - C**

  Thermal Mass Flow Sensor Inline Type 0 - 16 Bar (g), 2.8" IPS Wide Viewing Angle LCD with Capacitive Touch Panel, R Thread, DN 25, 1"

- **WAFS 107 - D**

  Thermal Mass Flow Sensor Inline Type 0 - 16 Bar (g), 2.8" IPS Wide Viewing Angle LCD with Capacitive Touch Panel, R Thread, DN 32, 1/4"

- **WAFS 107 - E**

  Thermal Mass Flow Sensor Inline Type 0 - 16 Bar (g), 2.8" IPS Wide Viewing Angle LCD with Capacitive Touch Panel, R Thread, DN 40, 1/2"

- **WAFS 107 - F**

  Thermal Mass Flow Sensor Inline Type 0 - 16 Bar (g), 2.8" IPS Wide Viewing Angle LCD with Capacitive Touch Panel, R Thread, DN 50, 2"

For More Info
**SCAN HERE**

## UNDERSTAND COMPRESSED AIR SYSTEM DYNAMIC WITH OUR ADVANCED MEASUREMENT SOLUTIONS

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