WAFS-105 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

INTRODUCING THE WAFS-105
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
Connector	2 x 5 - pin M12, Female
Power Supply	
Input	18 to 30V / 5W
Display	
Display	1.5" LCD with Capacitive Touch Panel
Operating Environment	
Op. Temp	-30 ... +70 °C
Medium Temp	-40 ... 150 °C
Op. Pressure	1.6 MPa (Option:4.0 MPa)
Others	
Casing	Aluminium
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 Disturbance 1.5" Ultra-Wide Viewing Angle LCD with Capacitive Touch.
- Standard Rs485 Modbus RTU Interface and 4-20mA Current / Pulse Output.
- Pipe Size : DN15, DN20, DN32, DN40, DN50, DN65, DN80 Connection : 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.

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

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

Ordering Code

- **WAFS 105 - A**

  Thermal Mass Flow Sensor Inline Type 0 - 16 Bar (g),measuring range 0 ..250 Nm/s, 1.5" display withCapacitive Touch Panel, R Thread, DN 15, 1/2"

- **WAFS 105 - B**

  Thermal Mass Flow Sensor Inline Type 0 - 16 Bar (g),measuring range 0 ..250 Nm/s, 1.5" display withCapacitive Touch Panel, R Thread, DN 20, 3/4"

- **WAFS 105 - C**

  Thermal Mass Flow Sensor Inline Type 0 - 16 Bar (g),measuring range 0 ..250 Nm/s, 1.5" display withCapacitive Touch Panel, R Thread, DN 25, 1"

- **WAFS 105 - D**

  Thermal Mass Flow Sensor Inline Type 0 - 16 Bar (g),measuring range 0 ..250 Nm/s, 1.5" display withCapacitive Touch Panel, R Thread, DN 32, 1/4"

- **WAFS 105 - E**

  Thermal Mass Flow Sensor Inline Type 0 - 16 Bar (g),measuring range 0 ..250 Nm/s, 1.5" display withCapacitive Touch Panel, R Thread, DN 40, 1/2"

- **WAFS 105 - F**

  Thermal Mass Flow Sensor Inline Type 0 - 16 Bar (g),measuring range 0 ..250 Nm/s, 1.5" display withCapacitive Touch Panel, R Thread, DN 50, 2"

For More Info
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UNDERSTAND COMPRESSED AIR SYSTEM DYNAMIC WITH OUR ADVANCED MEASUREMENT SOLUTIONS

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