

WAFS-106 INSERTION TYPE THERMAL MASS FLOW SENSOR

**WISEAIR<sup>®</sup> 4.0**  
MEASURE TO MANAGE

**2025**

**Smart Measurement Solutions  
for Compressed Air and Gases**

**WISEAIR TECHNOLOGIES INDIA LLP**

[www.wiseair.in](http://www.wiseair.in)



## About Us

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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-106** INSERTION TYPE THERMAL MASS FLOW SENSOR

## Technical Data Sheet

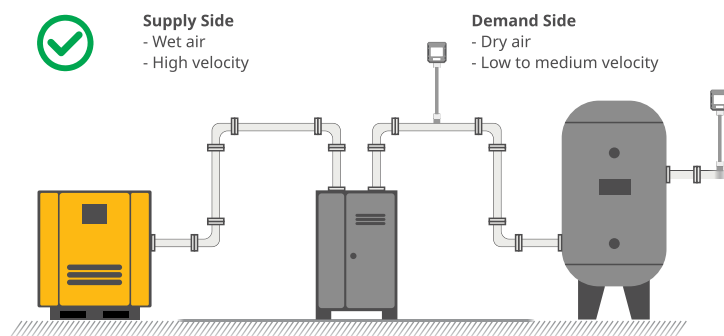
Measuring Range	
Flow Range	0(0.1) ... 250 Nm/s
Accuracy	±(1% reading + 0.3% Full Scale)
Sample Rate	Sample Rate
Reference Cond	20°C, 1 bar(a) - ISO 1217 (Programmable)
Processed Medium (Gas Type)	Compressed Air, Argon (Ar), Carbon Dioxide (CO <sub>2</sub> ), Helium (He), Hydrogen (H <sub>2</sub> ), Natural Gas (Ng), Nitrogen (N <sub>2</sub> ), Nitrous Oxide (N <sub>2</sub> O), Oxygen(O <sub>2</sub> ) 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	0...5.0 MPa (>1.6 MPa need Installation Device)
Others	
Process Conn	G1/2" (ISO 228-1)
EMC	According to IEC 61326-1



### SPECIALLY DESIGNED WITH PATENTED ANTI CONDENSATION TECHNOLOGY

- ▶ 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 2.8" Ultra-Wide Viewing Angle LCD with Capacitive Touch.
- ▶ No Moving Parts, Low Pressure Drop.
- ▶ Optional Data Logging, 10,000,000 Recording Points.
- ▶ With Bluetooth Function for Wireless Sensor Configuration and Data Transmission.
- ▶ Standard RS485 Modbus RTU Interface and 4-20mA current / pulse Output.
- ▶ Suitable for DN20 to DN1000, can be Installed Online through 1/2" Ball Valve under Pressure.

## Correct Installation



Ordering Code

Flow Range

Pipe Size		Flow Range (cfm)		
DN	ID(mm)	Min Flow (cfm)	Std. Range Max Flow (cfm)	High Range Max Flow (cfm)
20	20	0.06	79	166
25	25	0.12	124	260
32	32	0.18	204	425
40	40	0.29	319	666
50	50	0.41	499	1040
65	65	0.71	843	1757
80	80	1.06	1278	2662
100	100	1.65	1996	4160
125	125	2.59	3120	6499
150	150	3.77	4493	9360
200	200	6.65	7986	16639
250	250	10.42	12479	25999
300	300	14.95	17970	37439

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

▶ WAFS106 - A

Thermal Mass Flow Sensor Insertion Type 250mmShaft, measuring range 0..250 Nm/s, 2.8" display with Capacitive Touch Panel

▶ WAFS106 - B

Thermal Mass Flow Sensor Insertion Type 400mmShaft, measuring range 0..250 Nm/s, 2.8" display with Capacitive Touch Panel

▶ WAFS106 - AH

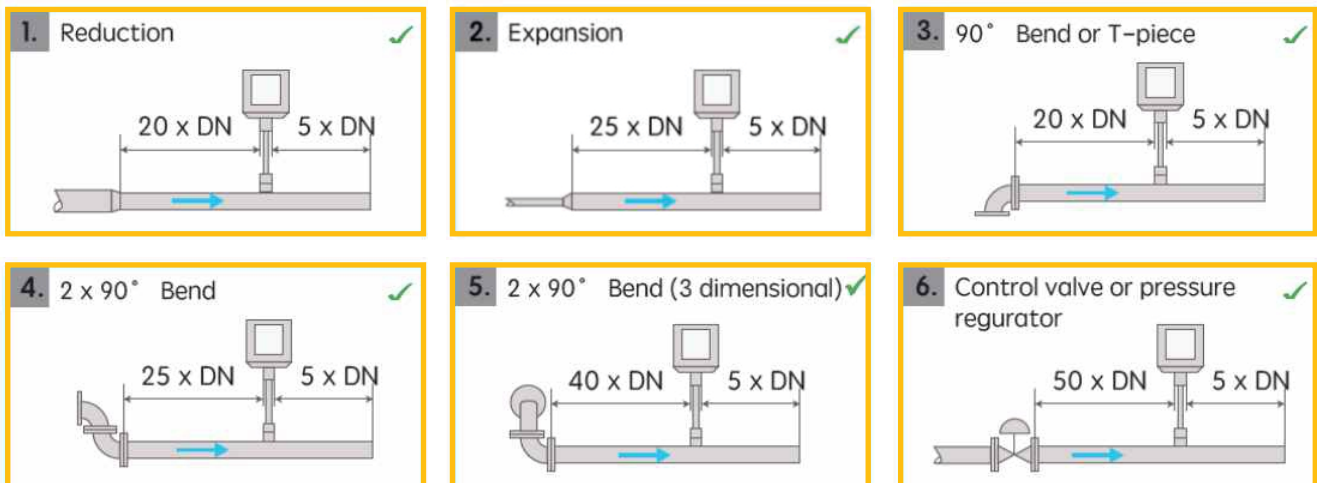
Thermal Mass Flow Sensor, Insertion Type 250mmShaft with in-Built Data Logger, 2.5 Inch LCD Display, 0.1...250 Nm/s Measuring Range

▶ WAFS106 - BH

Thermal Mass Flow Sensor, Insertion Type 400mmShaft with in-Built Data Logger, 2.5 Inch LCD Display, 0.1...250 Nm/s Measuring Range

Correct Installation

DN = Pipe Diameter





For More Info  
**SCAN HERE**







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

**MEASURE – MANAGE – SAVE – SUSTAIN**



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