

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.

WAFS 1101 Series

1.5m/s low limit of measurement

High temperature resistance

New-generation Steam Vortex Flow Meter

Product Overview

The WAFS 1101 vortex flow meter is based on the Karman vortex principle to measure gas, steam, or liquid volume flow. It is widely used for industrial measurement because of its anti-pollution ability, simplified structure, and high reliability.

WAFS 1101 integrated temperature and pressure sensor automatically calculates the mass flow of the medium through the international standard density compensation algorithm.

Due to the built-in ultra-high sensitivity dual vortex sensor, the flowmeter can simultaneously detect the flow signal and interference signal, through the algorithm can automatically identify the flow signal and vibration, electromagnetic disturbance signal.

In comparison to the traditional vortex flow meter, the newly developed DSA (Digital Spectrum Analysis) technology greatly improves the low limit of measurement, turndown ratio, anti-vibration, and anti-disturbance performance of flow meters, providing users with high accuracy and long-term stability.

Explosion-proof structure design, applicable to harsh environments:

Explosion-proof class: Ex db IIC T6 Gb / Ex tb IIIC T80°C Db

Protection code: IP67



Product Advantages



High Sensitivity

The low measuring limit of gas flow rate can reach 1.5 m/s



Wide Measuring Range

The turndown range ratio is 1:53, which exceeds the traditional vortex flow meters



The Explosion-proof Certification

Ex db IIC T6 Gb
Ex tb IIIC T80°C Db



Protection Code IP67



Anti-vibration

ultrasensitive dual vortex sensor for simultaneous detection of flow and vibration.

- Wide measuring range, the low measuring limit can reach 1.5m/s (Actual Flow)
- Suitable for measuring dirty and wet compressed air, oxygen, natural gas and other industrial gases, steam, and etc
- Ultrasensitive dual vortex sensor, provides a wider range ratio
- The explosion-proof certification: Ex db IIC T6 Gb / Ex tb IIIC T80°C Db
Protection code: IP67
- Combining with DSA (Digital full spectrum analysis technology), the flowmeter can accurately identify flow, vibration, and electromagnetic disturbance signals, greatly improving the anti-vibration ability of the flowmeter
- Integrates pressure and temperature sensors to monitor online gas pressure and temperature
- No moving parts, low pressure drop
- Standard Modbus RTU (RS485) interface, 4 to 20 mA current and pulse output
- Bluetooth function for wireless flowmeter configuration and data transmission
- The capacitive touch 2.0" IPS LCD with an ultra-wide viewing angle, user-friendly and multi-functional HMI
- The fully welded structure has better corrosion and high pressure and temperature resistance

TECHNICAL DATA

Measuring Medium

- Medium: Gas / Steam / Liquid

Flow

- Measuring Range:
 - 1.5 m/s – 80 m/s (Gas/Steam)
 - 0.15 m/s – 8 m/s (Liquid)
- Accuracy: Class 1.0
- Repeatability: $\pm 0.2\%$ RD
- Reference Condition: 20°C, 1 bar(a) - ISO 1217 (Configurable)

Pressure

- Measuring Range: 0 ... 1.7 MPa (6.3 MPa Option)
- Accuracy: $\pm 0.5\%$ FS

Temperature

- Measuring Range:
 - -40 ... +280°C (Mid temperature)
 - -40 ... +350°C (High temperature)
- Accuracy: $\pm 0.5^\circ\text{C}$ ($\pm 1.0\%$ FS @ $> 100^\circ\text{C}$)

Power

- Power: 18 ... 30 VDC 10W @ 24VDC

Display

- Display: 2.0" IPS LCD with capacitive touch
- Operating Environment
- Environment Temperature: -40 ... +85°C
- Environment Humidity: 0 ... 95% RH

Output

- 4-20 mA Output (Standard): Flow rate / Temperature / Pressure
- Frequency Output (Standard): Actual flow rate
- Pulse (Standard): Consumption / Alarm
- Digital Output (Standard): Modbus RTU (RS485)
- Wireless Communication: Bluetooth, Lora (Option)
- Connector: Wiring terminal

Explosion-proof Class & Protection Code

- Explosion-proof Class: Ex db IIC T6 Gb / Ex tb IIIC T80°C Db
- Protection Code: IP67

Other

- Process Connection: Wafer type / Flange-type
- Product Material:
 - Main Body: 304 / 316L
 - Vortex Sensor: 316L
 - Meter Housing: Aluminum / Stainless steel
- EMC: Compliant with IEC 61326-1

MEASURING RANGE

Inch	DN	ID (mm)	Flow Velocity (m/s)	Flow Rate (m ³ /h)	Mass Flow Rate (kg/h)
1/2	15	15	5.5 ... 80	3.5 ... 90.9	16.1 ... 233.6
3/4	20	20	5.0 ... 80	5.7 ... 90.4	26.2 ... 414.9
1	25	25	4.0 ... 80	7.1 ... 141.3	32.6 ... 648.4
1 1/4	32	32	3.0 ... 80	8.7 ... 231.5	39.9 ... 1062.4
1 1/2	40	40	2.0 ... 80	9.0 ... 361.7	41.3 ... 1659.9
2	50	50	1.5 ... 80	10.6 ... 565.2	48.6 ... 2593.8
2 1/2	65	65	1.5 ... 80	17.9 ... 955.2	82.1 ... 4383.5
3	80	80	1.5 ... 80	27.1 ... 1446.9	124.4 ... 6640.0
4	100	100	1.5 ... 80	42.4 ... 2260.8	194.6 ... 10375.1
5	125	125	1.5 ... 80	66.2 ... 3535.2	303.8 ... 16211.1
6	150	150	1.5 ... 80	95.4 ... 5088.6	437.8 ... 23344.0
8	200	200	1.5 ... 80	169.6 ... 9043.2	773.8 ... 41500.4
10	250	250	1.5 ... 80	265.1 ... 14130.0	1216.6 ... 64844.3
12	300	300	1.5 ... 80	381.7 ... 20347.2	1751.7 ... 93375.8



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

MEASURE – MANAGE – SAVE – SUSTAIN



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