



FDM06S

Differential Pressure Type Air Flow Transmitter



| Features |

- Adopting the differential pressure principle for air flow measurement
- Enable bi-direction air flow measurement
- Measures differential pressure, pressure, and temperature simultaneously
- Special diversion design reduces the impact of air flow turbulence
- Calculate medium density and mass flow rate
- Rugged and durable design for high temperature and high-pressure environment

| Applications |

Air compressor system / Industrial process / Exhaust system

| Specification |

Input

Sensor type	Differential pressure sensor
Measuring range	Standard version : $\pm (0.8 \dots 40 \text{ m/s})$ High-pressure version : $\pm (10 \dots 200 \text{ m/s})$
Installation angle effect	$< 3\%$ of the measured value (When the installation angle $< 10^\circ$)

Output

Output	4 ... 20 mA + RS-485 0 ... 10 V + RS-485 Frequency (0 ... 100 Hz) + RS-485 Pulse (Option) + RS-485
Preset output	Out1 : Air velocity
Signal connection	3-wire
Warm-up time	$< 60 \text{ sec}$
Response time	$t_{90} < 5 \text{ sec}$
Load resistance	Current output : $\leq 500 \Omega$ Voltage output : $\geq 10 \text{ K}\Omega$

Accuracy

Accuracy	$\pm 1.5\%$ F.S. (Option $\pm 1\%$ F.S.)
Temp. influence	$0.05\% / ^\circ\text{C}$

Electrical

Power supply	DC 24 V $\pm 10\%$
Current consumption	$< 0.1 \text{ A}$
Overvoltage protection	DC : $< 30 \text{ V}$
Electrical connections	M12 connector

Environmental

Measuring medium	Air
Operating Temp.	-20 ... $+60^\circ\text{C}$ (Display) -20 ... $+80^\circ\text{C}$ (No display)
Operating Humid.	0 ... 95%RH(Non-condensing)
Probe operating Temp.	100°C (Optional 200°C)
Storage Temp.	-20 ... $+80^\circ\text{C}$
Storage Humid.	0 ... 95%RH(Non-condensing)
Probe pressure	Standard version : 2 bar High-pressure version : 10 bar

Installation

Duct type	3/4" PT movable thread
Flange pipe type	2" ... 6"
Inline type	2"

Certification

Certification	CE
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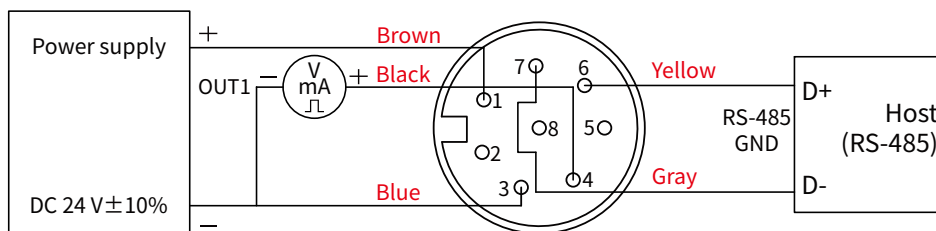
Protection

IP rating	IP65 (Body) / IP20 (Probe head)
Electrical protection	<input checked="" type="checkbox"/> Reverse polarity <input checked="" type="checkbox"/> Over-voltage <input checked="" type="checkbox"/> Short-circuit

Material

Display	PC with glass fiber
Housing	SUS304
Probe	SUS304
Probe head	SUS304
Weight (without cable)	575 g (Display, probe length 180 mm) 692 g (Display, probe length 330 mm) 602 g (No display, probe length 180 mm) 719 g (No display, probe length 330 mm)

| Diagram |



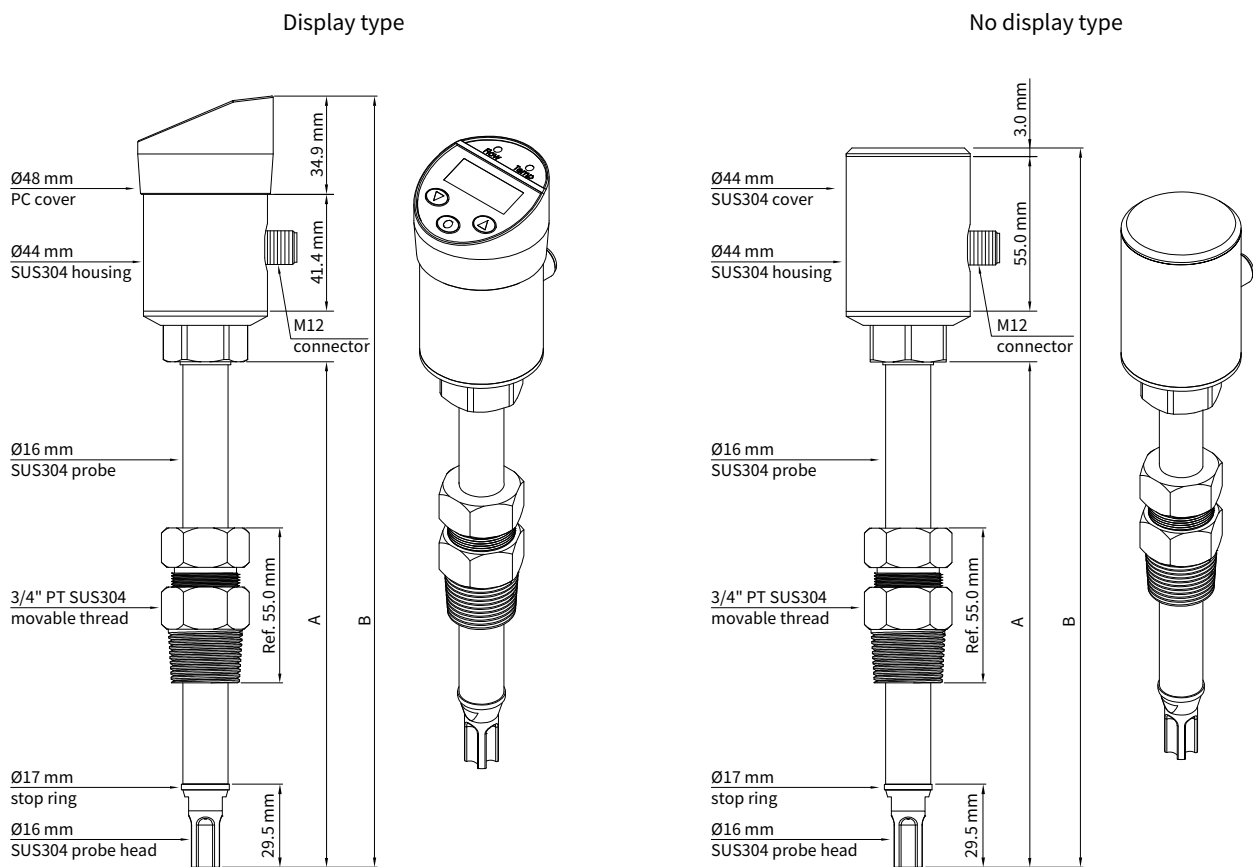
*Please make sure the product and the device which connect with RS-485 are on common ground, avoid damaged product.

| Wind Tunnel Calibration System |



The wind tunnel calibration system provides a stable and standardized environment for calibration, is not affected by external factors, and has an automated detection system to greatly improve calibration accuracy and reliability. It follows the operating standards of ISO/IEC 17025 and a calibration report can be purchased separately.

| Dimension | Unit : mm



	Display type	
A Probe length	180 mm	330 mm
B Product length	273.9 mm	423.8 mm

	No display type	
A Probe length	180 mm	330 mm
B Product length	255.5 mm	405.5 mm

| Diameter Coefficient Table |

Diameter	Diameter Coefficient PF	
	Standard version : $\pm (0.8 \dots 40 \text{ m/s})$	High-pressure version : $\pm (10 \dots 200 \text{ m/s})$
DN100	0.727	0.840
DN150	0.780	0.840
DN200 or more	0.816	0.843

| Ordering Guide |

FDM06S — **04** — **2** — **1** — **3** — **D**

Range

Standard version
04 : $\pm 40 \text{ m/s}$

High-pressure version
20 : $\pm 200 \text{ m/s}$

Output

2 : 4 ... 20 mA + RS-485
3 : 0 ... 10 V + RS-485
4 : Frequency + RS-485
5 : Pulse (Option) + RS-485

Probe length

Duct type
1 : 180 mm
2 : 330 mm
W : Customization

Flange pipe type & Inline type
N : Not applicable

Installation

3 : Duct type (3/4"PT movable thread)
4 : Flange pipe type (2" ... 6")(Customization)
5 : Inline type (2")(Customization)

Display

N : Without display
D : Display

*The default output is unidirectional and in the positive direction.

| Additional Option Test Report |

For more detailed information please contact us.

■ ILAC / TAF certification (ISO/ IEC 17025)

YUDEN-TECH CO.,LTD. Calibration Laboratory - (ILAC / TAF) Test report.
(TAF accreditation : 3032, complying with ISO / IEC 17025) TAF has mutual recognition arrangement with ILAC MRA

Project	Measurand level or range
Air velocity transmitter	0.2 m/s... 60 m/s

■ ISO 9001

Project	Measurand level or range
Air velocity / Air volume	Air velocity : $\leq 120 \text{ m/s}$
	Air volume : $0.5 \text{ m}^3/\text{h} \dots 1000 \text{ m}^3/\text{h}$