eyc FTE120-I
Inline Type Air Flow Transmitter

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| Features |

- Optional multiple output : 4 … 20 mA / 0 … 10 V / RS-485 / Frequency / Pulse (Option)
- Accuracy : ±2% F.S. , Operating pressure : Max. 10 bar
- Calibrated by sonic nozzles calibration system
- Multiple diameter (DN10 / DN15 / DN20 / DN25), easy installation
- Polycarbonate housing, aluminum alloy pipe
- RS-485 programmable software : Data logger / Charts

| Applications |

Pneumatic system / Compressed air system / Industrial machinery equipment
Pipeline air flow monitoring

| Specification |

Input

Sensor type	Thermal mass flow sensor
Measuring range*	DN10 : 0 ... 150 l/min
	DN15 : 0 ... 500 l/min
	DN20 : 0 ... 1000 l/min
	DN25 : 0 ... 1500 l/min
Minimum measuring range	5 l/min

*The measurement range is defined at the standard condition(1013 mbar, 20°C). This product is also calibrated at this condition.

Output

Signal	4 ... 20 mA / 0 ... 10 V / RS-485
	Frequency (0 ... 100 Hz)
	Pulse (1 ... 100 l/pulse, option)
Accuracy	±2% F.S.
Temp. influence	0.2% / °C
Response time	t90≦5 sec
Load resistance	Current output : ≦ 500 Ω
	Voltage output : ≧ 100 KΩ
Warm-up time	< 2 min.

Environmental

Medium	Air
Housing operating Temp. / Humid.	0 ... 50°C / 0 ... 95%RH(Non-condensing)
Medium operating Temp. / Humid.	0 ... 50°C / 0 ... 95%RH(Non-condensing)
Storage Temp.	-20 ... +60°C
Operating pressure	10 bar

Electrical

Power supply	DC 24 V ±10%
Current consumption	100 mA
Overvoltage protection	DC : < 40 V
Electrical connections	PVC cable (1 m)

Installation

Inline type	DN10 - G1/4"
	DN15 - G1/2"
	DN20 - G3/4"
	DN25 - G1"

Protection

IP rating	IP 65 (Housing) / IP20 (Probe)
Electrical protection	■ Reverse polarity
	■ Over-voltage
	■ Short-circuit

Certification

Certification	CE

Material

Housing	PC
Pipe	Aluminum alloy
Weight	DN10 : 160 g
	DN15 : 400 g
	DN20 : 465 g
	DN25 : 520 g

| Connection Diagram |

FTE120-I — Brown +, Black + (V mA), Blue − → DC 24 V ±10%
Yellow +, Gray − → RS-485
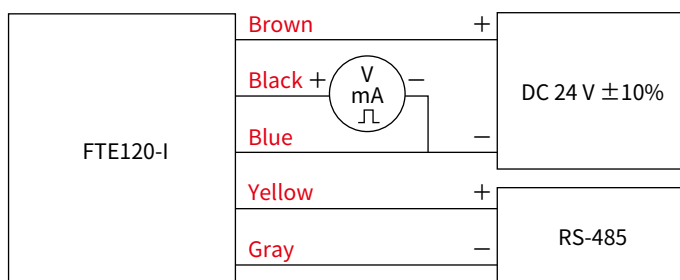
*Please make sure the product and the device which connect with RS-485 are on common ground, avoid damaged product.

| Calibration System |

According to ISO 9300 Critical Flow Venturi Nozzle Flow Measurement Sonic speed V=331.6+0.6T(m/s)
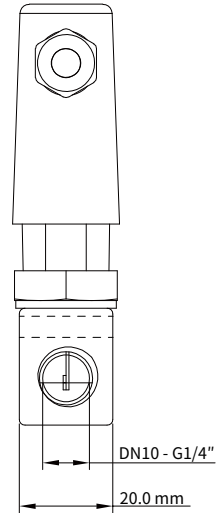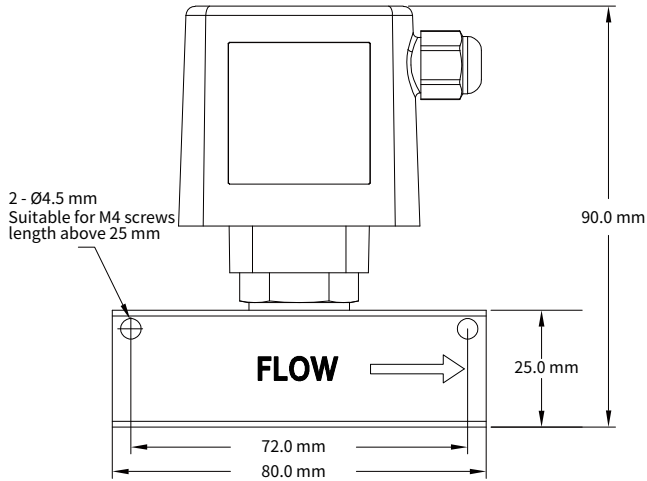
Air volume standard calibration system
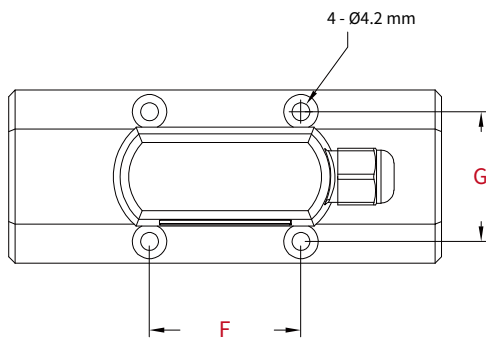Air volume : 0.5 m³/h ... 1000 m³/h

Referring to ISO 9300 "Flow Measurement of Critical Flow Venturi Nozzles", this device is a standard flow device combination consisting of multiple venturi nozzles according to the maximum and minimum flow ranges that need to be calibrated.

Air flow / Air velocity-FTE120-I

| Dimension |

■ DN10 (1/4")

2 - Ø4.5 mm
Suitable for M4 screws
length above 25 mm

FLOW

90.0 mm

25.0 mm

72.0 mm
80.0 mm

DN10 - G1/4"

20.0 mm

■ DN15 (1/2")、DN20 (3/4")、DN25 (1")

4 - Ø4.2 mm

G

F

	DN15 (1/2")	DN20 (3/4")	DN25 (1")
A	105.0 mm	110.0 mm	115.0 mm
B	40.0 mm	45.0 mm	50.0 mm
C	DN15 - G1/2"	DN20 - G3/4"	DN25 - G1"
D	40.0 mm	45.0 mm	50.0 mm
E	Suitable for M4 screws length above 45 mm	Suitable for M4 screws length above 50 mm	Suitable for M4 screws length above 55 mm
F	35.0 mm	50.0 mm	50.0 mm
G	30.0 mm	37.0 mm	40.0 mm

FLOW

A

B

100.0 mm

E

C

D
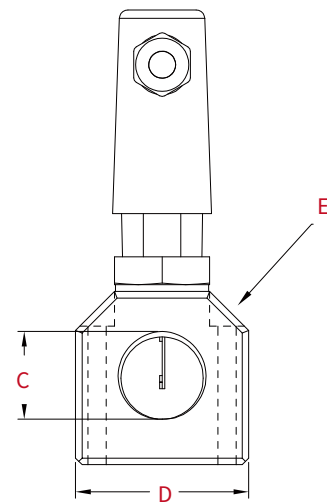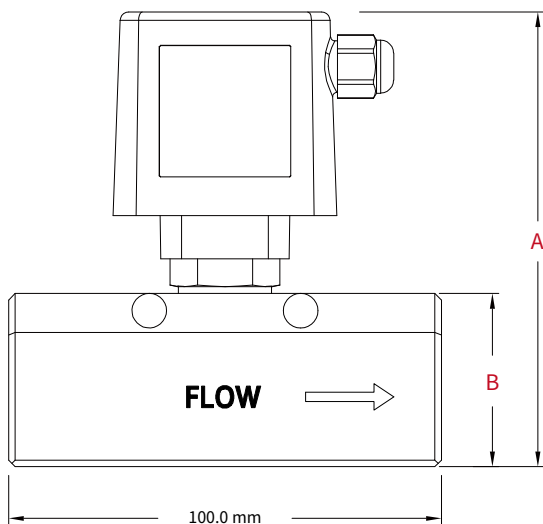
| Air Pipes Installation |

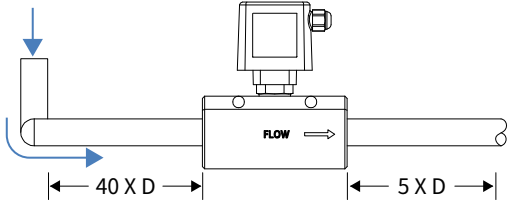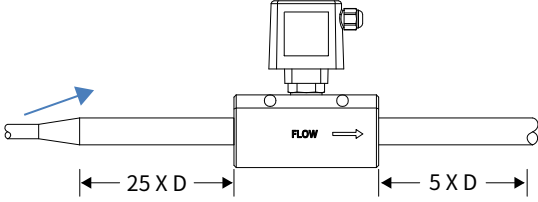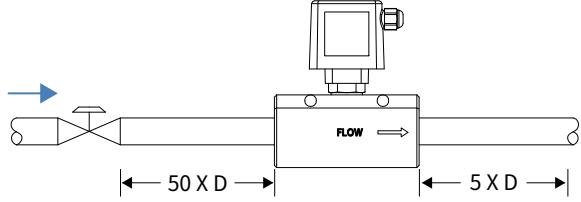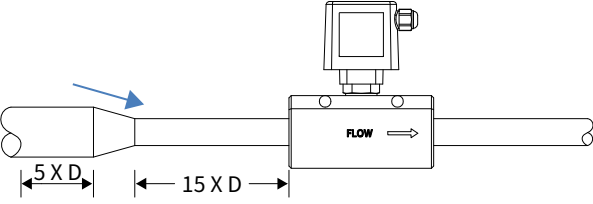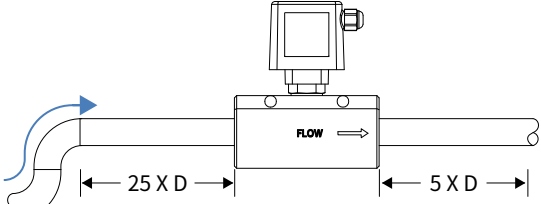■ It can be connected to air pipes through commercially available quick-connect adapters.
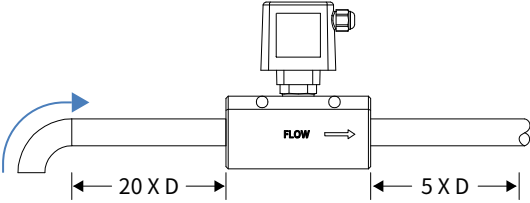
The common thread sizes for adapters are G1/4" and G1/2", and the common pipe diameters for connections are Ø 4 ... 16 mm.

■ To ensure a stable flow profile inside transmitter, it is necessary to keep a straight pipe section during installation.

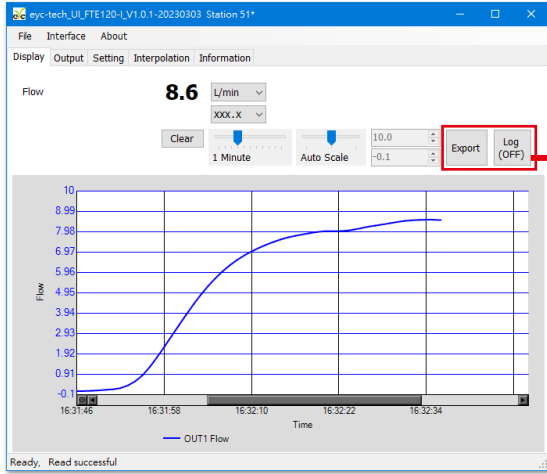The length of the straight pipe section can be referred to the "Installation Instructions" below.

FLOW

Quick-connect adapter
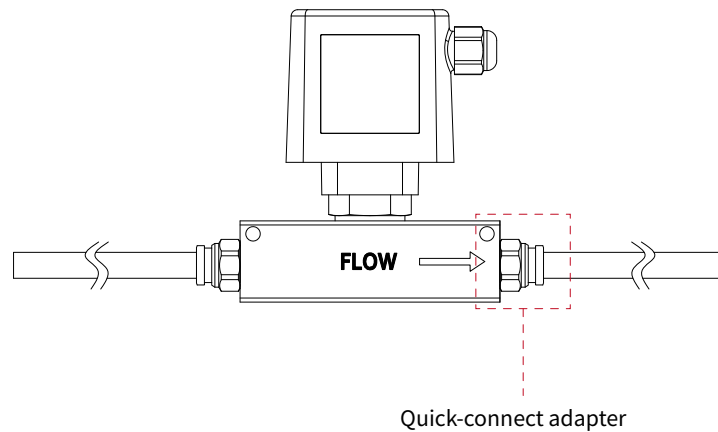
| Installation Instructions |

90° pipe (Air passes through the pipe turn)	Continuous 90° pipes in different horizontal planes (Vertical gas flow and through curved pipes)
FLOW 20 X D — 5 X D	FLOW 40 X D — 5 X D
Tube expanding state (Gas flow becomes large from small)	**Control valve status (Switch switching / Air flow adjustment)**
FLOW 25 X D — 5 X D	FLOW 50 X D — 5 X D
Shrinking tube state (Air flow from large to small)	**The gas flows continuously through the 90° bend in the same horizontal plane**
FLOW 5 X D — 15 X D	FLOW 25 X D — 5 X D

| With RS-485 Software |

■ Data logger and Charts

Charts

■ Offset adjustment

■ Adjustable range

| Ordering Guide |

FTE120 — I —

Range

2

Output

1

1 : 150 l/min, DN10-G1/4"
2 : 500 l/min, DN15-G1/2"
3 : 1000 l/min, DN20-G3/4"
4 : 1500 l/min, DN25-G1"

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

I : Inline type

| Additional Option Test Report | For more detailed information please contact us.

■ISO 9001

Project	Measurand level or range
Air volume	Air volume : ≦ 0 ... 1000 m³/h