FTS140
Hot Wire Air Velocity Transmitter

Using mass flow principle , a better choice for HVAC engineering

| Features |

- Hot wire mass flow transmitter
- IP rating：IP54
- Linear adjustment function
- Switching analog output by dip switch
- The housing and probe material are PC fire-proof

| Introduction |

FTS140 hot wire air velocity transmitter, using mass flow measuring principle, stable electrical bridge with good accuracy, simple structure, stable performance and low flow sensitivity.

It is suitable for use in HVAC air conditioning environment measurement, optimization and adjustment of system performance, ventilation control.

Duct type, easy installation, suitable is used extensively in environmental engineering projects, as facility and factory maintenance.

| Applications |

Monitoring air and flow for industrial process / HVAC / Building / Factory

| Specification |

Input

Sensor	Hot wire mass flow transmitter
Measuring range	0 ... 20 m/s
Minimum measuring range	0.2 m/s
Installation angle effect	(When the installation angle＜10°)
	±3%F.S.(Nonlinear error, Hysteresis

Output

Signal	4 ... 20 mA / DC 0 ... 10 V
Signal connection	3-wire
Load resistance	Current output：≦500 Ω
	Voltage output：≧10 KΩ
Reaction time	t90≦5 sec(τ：90%)

Accuracy

Accuracy	±3%F.S.
Temp. influence	0.3% / °C

Environmental

Medium & Temp.	Air；0 ... 50°C
Body operating Temp.	0 ... 50°C
Body operating Humid.	95%RH(Non-condensing)
Storage Temp.	-20 ... +60°C

Electrical

Power supply	DC 24 V & AC 12 ... 30 V
Current consumption	DC 24 V：120 mA /
	AC 12 V：350 mA /
	AC 24 V：180 mA
Overvoltage protection	DC：＜40 V；AC：＜40 V
Electrical connections	Terminal

Installation & Protection

Installation	Duct type / Flange type
IP rating	IP54
Electrical protection	■ Polarity protection ■ Over-voltage
	■ Short-circuit

Certification

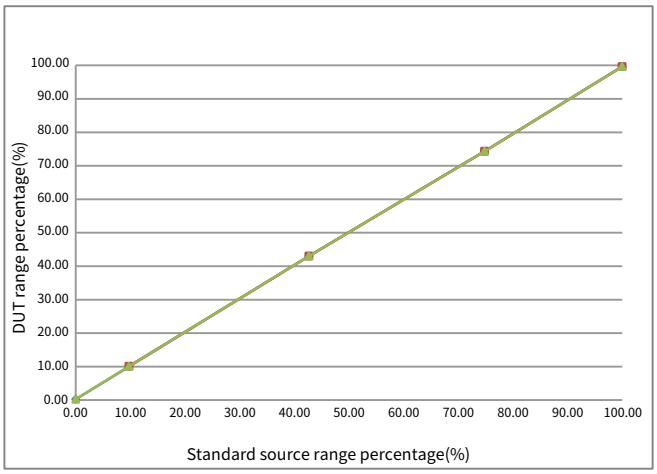
Certification	CE

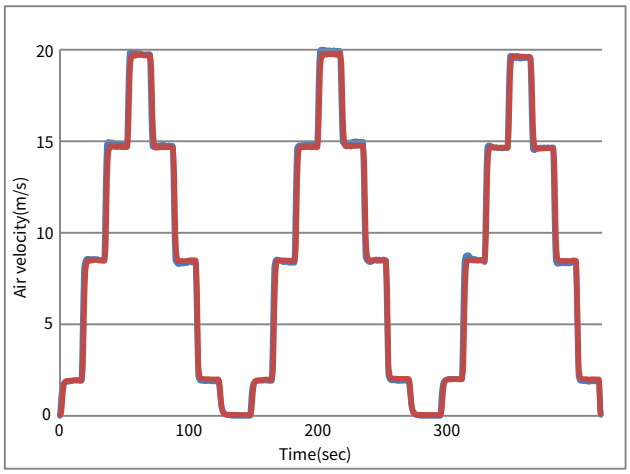
Material

Housing / Probe	PC fire-proof(UL94V-2) / PC fire-proof
Probe head / Wire	PC
Weight	~150 g

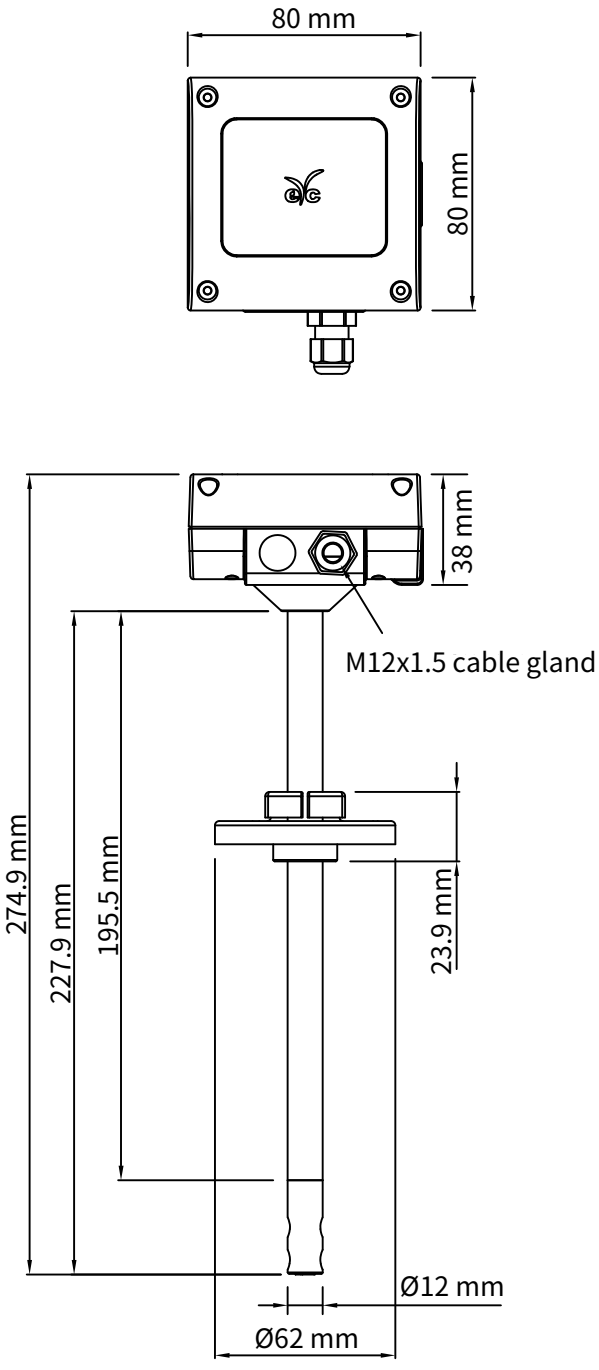
*Please make sure the product and the device which connect with RS-485 are on common ground, avoid damaged product.

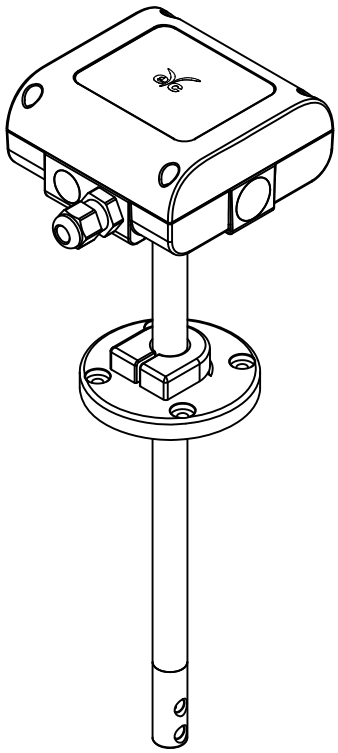
| 3-Cycle curve |



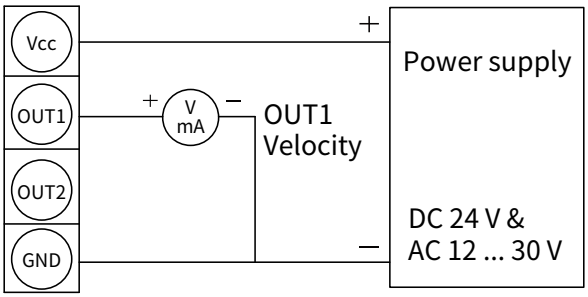


| Dimension |


80 mm
80 mm
38 mm
M12x1.5 cable gland
274.9 mm
227.9 mm
195.5 mm
23.9 mm
Ø12 mm
Ø62 mm

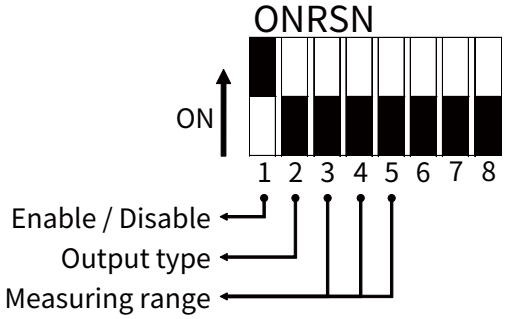


| Connection Diagram |



4P Terminal

| DIP Switch |



For FTS140 products, the setting status of DIP switch will be read by software while power on, and this reading action will not happen later on. Thus in order to read the DIP switch status again by software, the user must to reboot again if re-setting the DIP switch.
The function of DIP Switch_2 to 5 only be effective while setting the DIP Switch_1 as "On".

1. DIP switch active / deactivate：
Set the DIP switch as On/ Off

STATUS	ON	OFF
DIP Switch 1	▮□	□▮

2. The type for analog output：
Analog output type for Out1 & Out2

STATUS	0 ... 10 V	4 ... 20 mA
DIP Switch 2	▮□	□▮

3. Setting the output measuring range：
Set the maximum value for analog output
(The output physical type must be "Air Flow Velocity")

DIP Switch 3	DIP Switch 4	DIP Switch 5	Rang (m/s)
▮□	□▮	▮□	20

| Ordering Guide |

	Installation		Measuring range		Output		Power		Electrical connector / Option
FTS	140	—	20		1		1	—	N
	Duct		20 m/s		1：4 ... 20 mA 6：0 ... 10 V		DC 24 V & AC 12 ... 30 V		Plastic cable gland

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

■ILAC / TAF

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 ：≦ 120 m/s
	Air volume：0.5 m^3/h ... 1000 m^3/h