FTS34/35
Thermal Air Velocity Transmitter(Duct / Remote)



| Features |

- Linear adjustment function
- Switch for physical quantity : [m/s]、[ft/s]、[km/h]、[mph]、[knot]
- Option RS-485 Communication Interface, Modbus RTU protocol
- Configuration measuring range, analog output, station number by dip switch & RS-485
- Off SET function by bottom or RS-485
- Programmable softeware ： DATA LOGGER, record, and chart analysis

| Applications |

Monitor gas and flow for industrial process / HVAC / Building / Factory / Clean room / Hospital / Semiconductor / Electronics / Paper / Environment / Food / Pharmaceutical / Biotechnology industry

Air Velocity-FTS34/35

www.eyc-tech.com

| Specification |

Input

Sensor type	Thermal mass flow sensor
Measuring range	2 m/s ; 10 m/s ; 20 m/s ; 40 m/s
Min. Measuring range	0.1 m/s

Output

Output	4 ... 20 mA / 0 ... 10 V / RS-485
Signal connection	3-wire
Load resistance	Current output : ≦500 Ω, Voltage output : ≧10 KΩ
Response time	t90≦3 sec
Installation angle effect	＜3% measuring value (when the angle＜10°)
Display type	LCD Module with black light
Display range	Upon request, one decimal place
Height of character	5.56 mm

Accuracy(at +25°C)

Accuracy (Including hysteresis,	0 ... 2 m/s：±(1% of mv+0.1 m/s)
non-linearity and repeatability)	0 ... 10 m/s：±(1% of mv+0.15 m/s)
	0 ... 20 m/s：±(1% of mv+0.4 m/s)
	0 ... 40 m/s：±(1% of mv+0.6 m/s)
Temp. influence	0.25% / °C
Uncertainty of factory calibration	±1%

Environment

Measuring medium	Air
Measuring Temp.	0 ... 50°C
Operating Temp.	0 ... 50°C
Operating humidity	95%RH(Non-condensing)
Storage Temp.	-20 ... +60°C

Electrical

Power supply	DC 8 ... 35 V & AC 12 ... 30 V
Current consumption	DC 8 V : 300 mA / 24 V : 100 mA
	AC 12V : 350 mA / 24V : 180 mA
Overvoltage protection	DC : ＜45 V / AC : ＜40 V
Electrical connection	RS-485 or analog : M type (M12 - 4 PIN connector)
	N type (M12 plastic cable gland)
	RS-485 + analog : M type (M12 - 5 PIN connector)
	N type (M16 plastic cable gland)
	*M type with 2 m cable

Installation

Installation	Duct / Remote
Way to fix	Flange

Protection

IP rating	IP54
Electrical protection	■ Reverse polarity ■ Over-voltage
	■ Short circuit

Certification

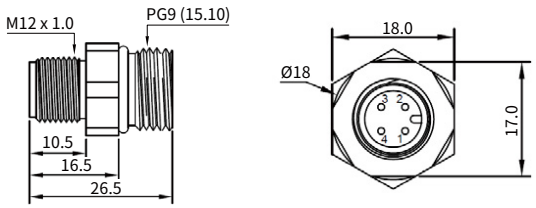
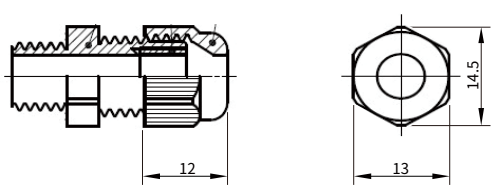
Certification	CE

Material

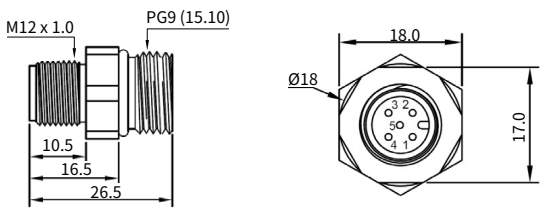
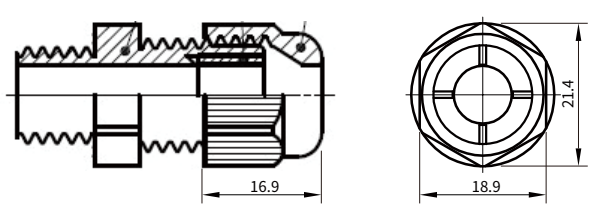
Housing / Probe	PC fire-proof(UL94V-2) / PC fire-proof
Probe head	PC with glass fiber
Remote probe cable	PVC (Remote FTS35)
Weight	FTS34 : 147 g / FTS35 : 200 g

| Electric Connector | Unit : mm

RS-485 or Analog

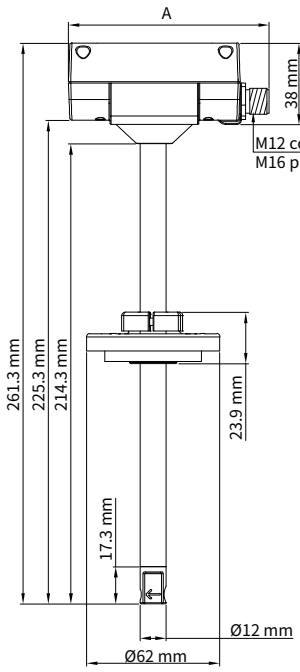
M type (M12 - 4 PIN connector)	N type (M12 plastic cable gland)
	

RS-485 + Analog

M type (M12 - 5 PIN connector)	N type (M16 plastic cable gland)
	

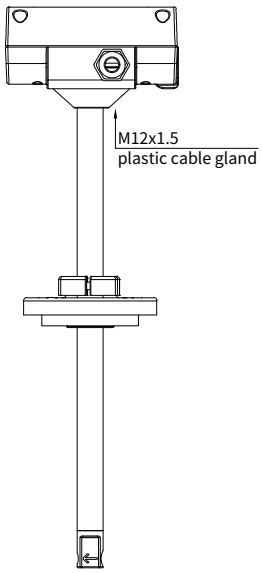
| Dimension |

FTS34 (Duct type)



plastic

	A
M12 connector	93.5 mm
M16 plastic cable gland	108 mm

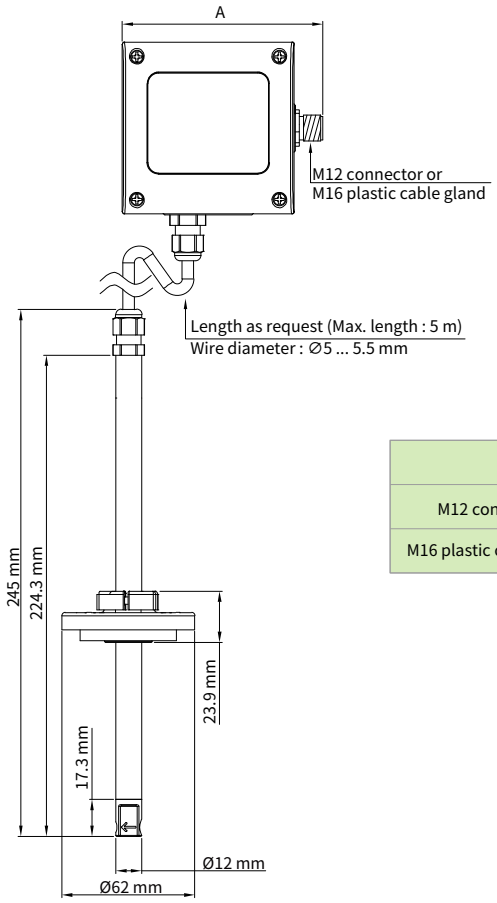


RS-485 or analog : M type (M12 - 4 PIN connector)

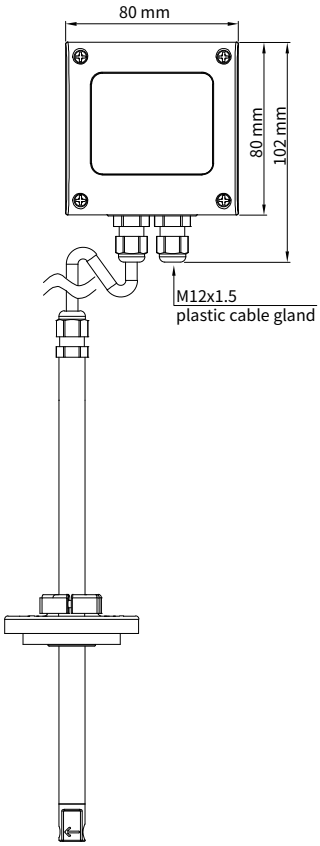
RS-485 + analog : M type (M12 - 5 PIN connector) / N type (M16 plastic cable gland)

RS-485 or analog : N type (M12 plastic cable gland)

FTS35 (Remote type)



	A
M12 connector	93.5 mm
M16 plastic cable gland	108 mm

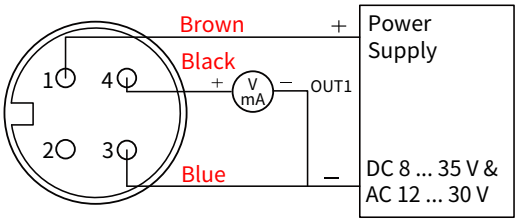


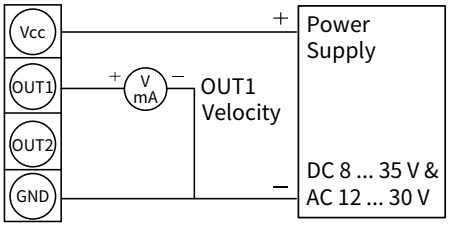
RS-485 or analog : M type (M12 - 4 PIN connector)

RS-485 + analog : M type (M12 - 5 PIN connector) / N type (M16 plastic cable gland)

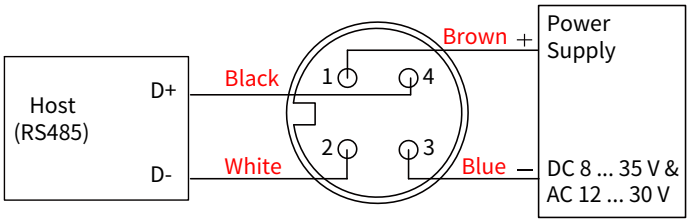
RS-485 or analog : N type (M12 plastic cable gland)

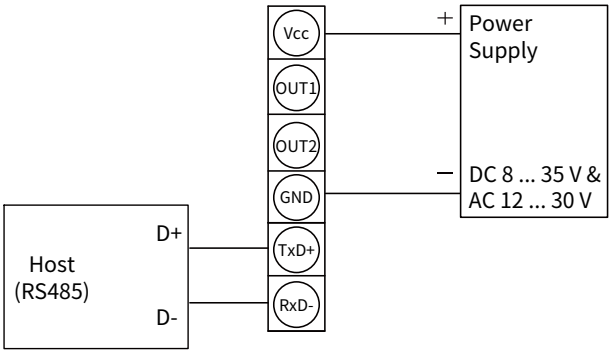
| Analog Diagram |



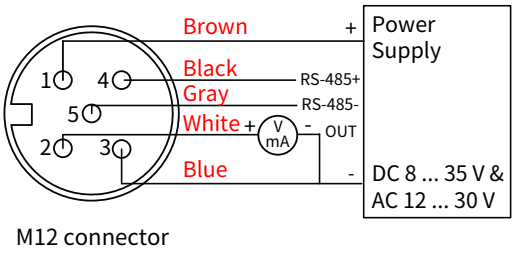


| RS-485 Diagram |

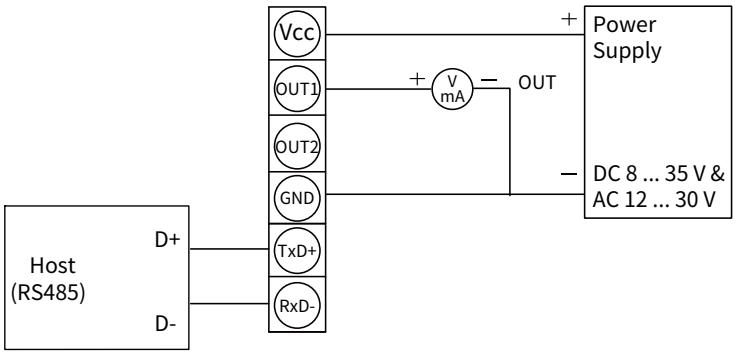




| Analog + RS-485 Diagram |

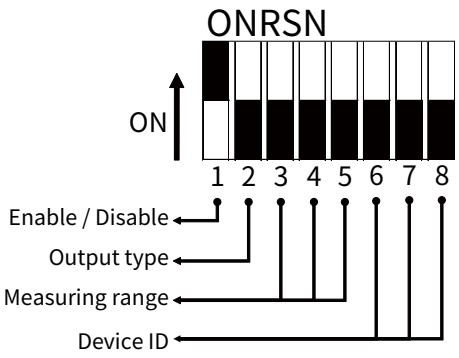


M12 connector



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

| DIP Switch |



For FTS34 / 35 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 8 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	■	■

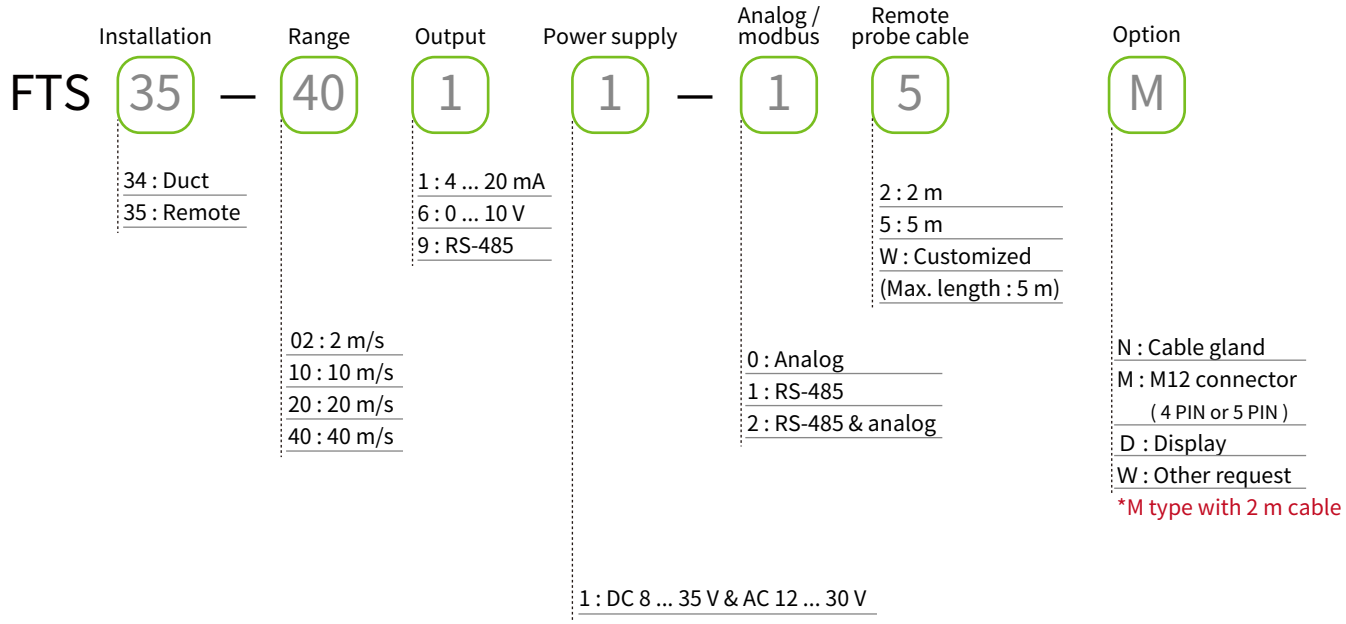
3. Setting the output measuring range :
Set the maximum value for analog output (The output physical type must be "Air Flow Velocity") ※Only switch wide to small range

DIP Switch 3	DIP Switch 3	DIP Switch 5	Range (m/s)
■	■	■	1
■	■	■	2
■	■	■	5
■	■	■	10
■	■	■	15
■	■	■	20
■	■	■	40
■	■	■	N/A

4.Setting the device ID :
Set the slave device ID for modbus RTU.

DIP Switch 6	DIP Switch 7	DIP Switch 8	Device ID
■	■	■	1
■	■	■	2
■	■	■	3
■	■	■	4
■	■	■	5
■	■	■	6
■	■	■	7
■	■	■	8

| Ordering Guide |



*Recommended best-selling

Product ordering number	Product Specifications
FTS34-2011-2M	Duct type, 0 ... 20 m/s, 4 ... 20mA + RS-485, M12
FTS34-4011-2M	Duct type, 0 ... 40 m/s, 4 ... 20mA + RS-485, M12

| 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