

## Digital thermo air velocity transmitter



## Application

1. Monitor Temperature and Humidity for industrial process
2. Compressed air consumption measurement
3. HVAC, building, factory, Clean room, hospital
4. Semiconductor, electronics, paper, iron and steel , food, Pharmaceutical, biotechnology industry

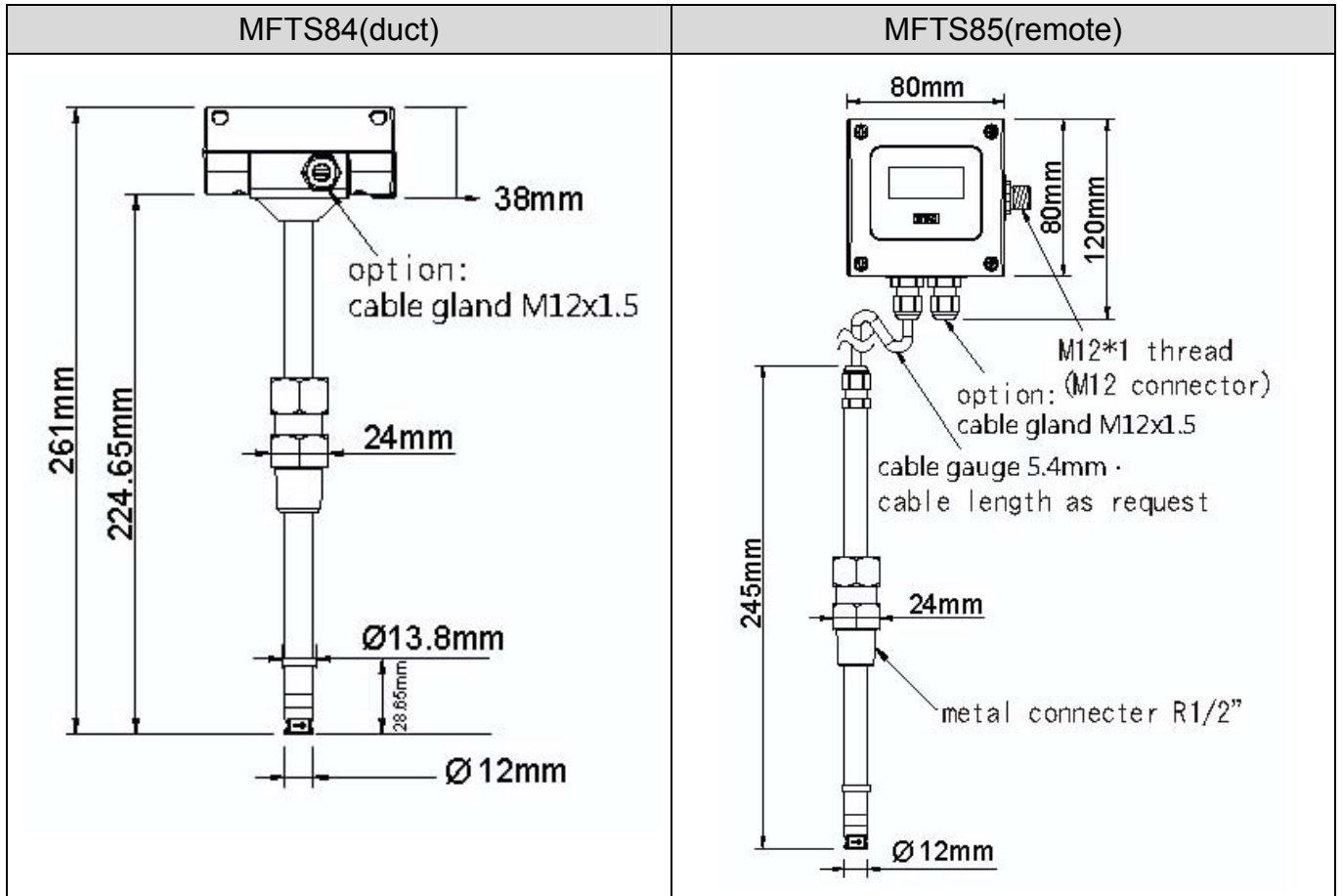
## Features

1. Capable of temperature compensation and linear adjustment
2. Double line character : air velocity & temperature
3. Switch for physical quantity : [m/s] 、 [ft/s] 、 [km/h] 、 [mph] 、 [knot]
4. RS-485 Communication Interface, MODBUS RTU protocol
5. Configuration measuring range/analog output/ station number by dip switch & RS-485
6. Programmable software : DATA LOGGER, record, and chart analysis

# Standard Specification

<b>INPUT</b>	
Input Type of Air Velocity	1m/sec, 2 m/sec, 5m/sec, 10 m/sec, 20 m/sec, 40 m/sec, 60m/sec.
Input Type of Temperature	PT 1000, 0~80°C
<b>OUTPUT</b>	
Output / Signal Connection	0~20mA, 4~20 mA, 0~1V, 0~5V, 0~10 V / 3-wire
accuracy (at 25°C ; 45% ; 1013 mbar)	air velocity : ± 3% F.S. ; temp.: ±0.3°C
Display type	LCD Module with back light
Display range	upon request, one decimal place
Height of character	5.56mm
Load resistance (current output)	≤ 500Ω
Load resistance (voltage output)	≥ 10KΩ
Response time	reach 90% of ultimate value within 3 sec.
Angular dependence	< 3% of measuring value (when the angle <10°)
<b>ENVIRONMENT</b>	
Media measured	Air
Media temperature	0~80°C
Working temperature	0~50°C
Working humidity	95 %RH(non-cond.)
Storage temperature	-20 ~ +60°C
Bearable pressure for probe	10 bar
<b>ELECTRICAL REGULATION</b>	
Power supply	8~35VDC/12V~30VAC
Current consumption	DC 8V : 300mA , 24V : 100mA AC 12V : 350mA , 24V : 180mA
Oversvoltage protection	DC : <45V, AC : <40V
Electrical connection	M12 connector
Way to fix	1/2 PT outside thread
Protection degree	IP 65
Electrical protection	over-voltage / polarity
Certification	CE
Housing	PC fire-proof
Probe	SUS304
Cable	PTFE (MFTS85)
Option	SUS Fitting thread / SUS Flange type
Weight	MFTS84: 380g / display type : 404g; / MFTS85: 391g / display type : 415g

# External Dimension

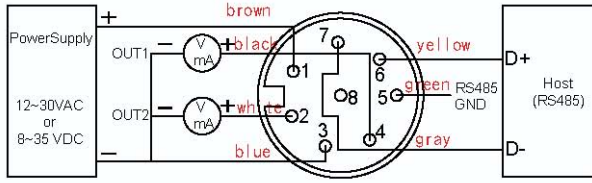


# Order information

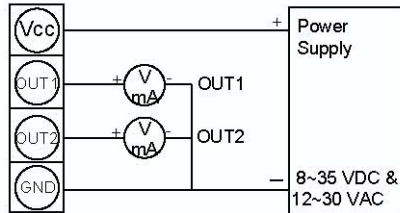
MFTS **84** - **40** **1** **1** - **1** **N**  
**A** **B** **C** **D** **E** **F**

(A) Installation	(B) Range	(C) Output	(D) Power Supply	(E) Modbus	(F) Option
84 : duct	01 : 1 m/s	1 : 4~20mA	1 : 8~35VDC&	0 : non	N : non
85 : remote	02 : 2 m/s	2 : 0~20mA	12~30VAC	1 : RS-485	M : 4P M12 connector
	05 : 5 m/s	6 : 0~10V			Q : 8P M12 connector
	10 : 10 m/s	7 : 0~5V			2 : 2 m cable(MFTS85)
	20 : 20 m/s	8 : 0~1V			5 : 5 m cable (MFTS85)
	40 : 40 m/s				D : display
	60 : 60 m/s				

# Diagram

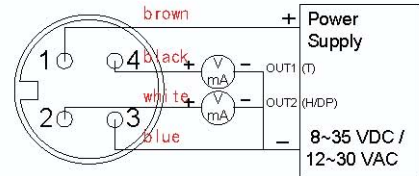


8P (Analogue + RS485) M12 Connector



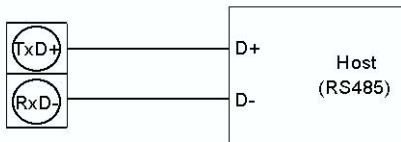
4P terminal

Analogue Output

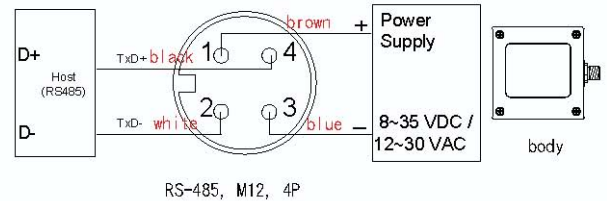


M12 connector

M12 Connector-Analogue Output



RS485 Signal connector



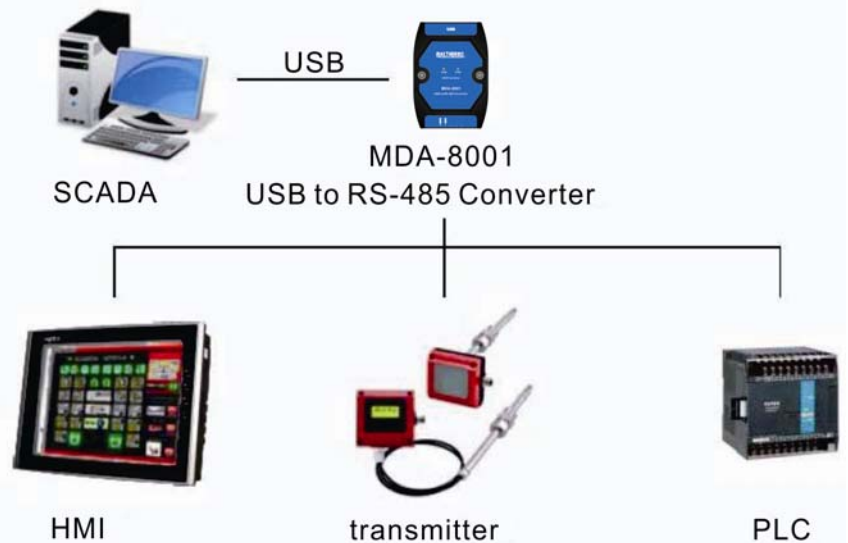
RS-485, M12, 4P

※ FOR RS-485 CONNECTION ONLY

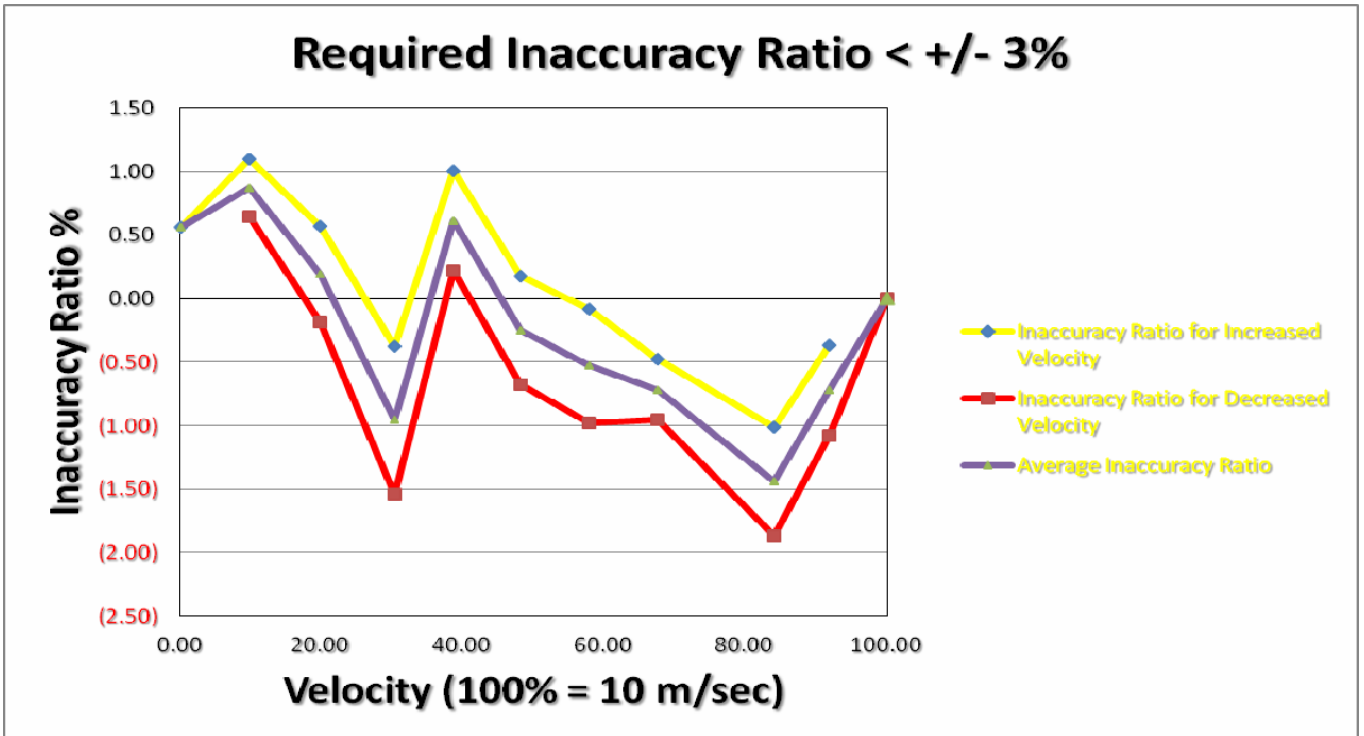
# USB to Isolated RS485 Application

※ Device :

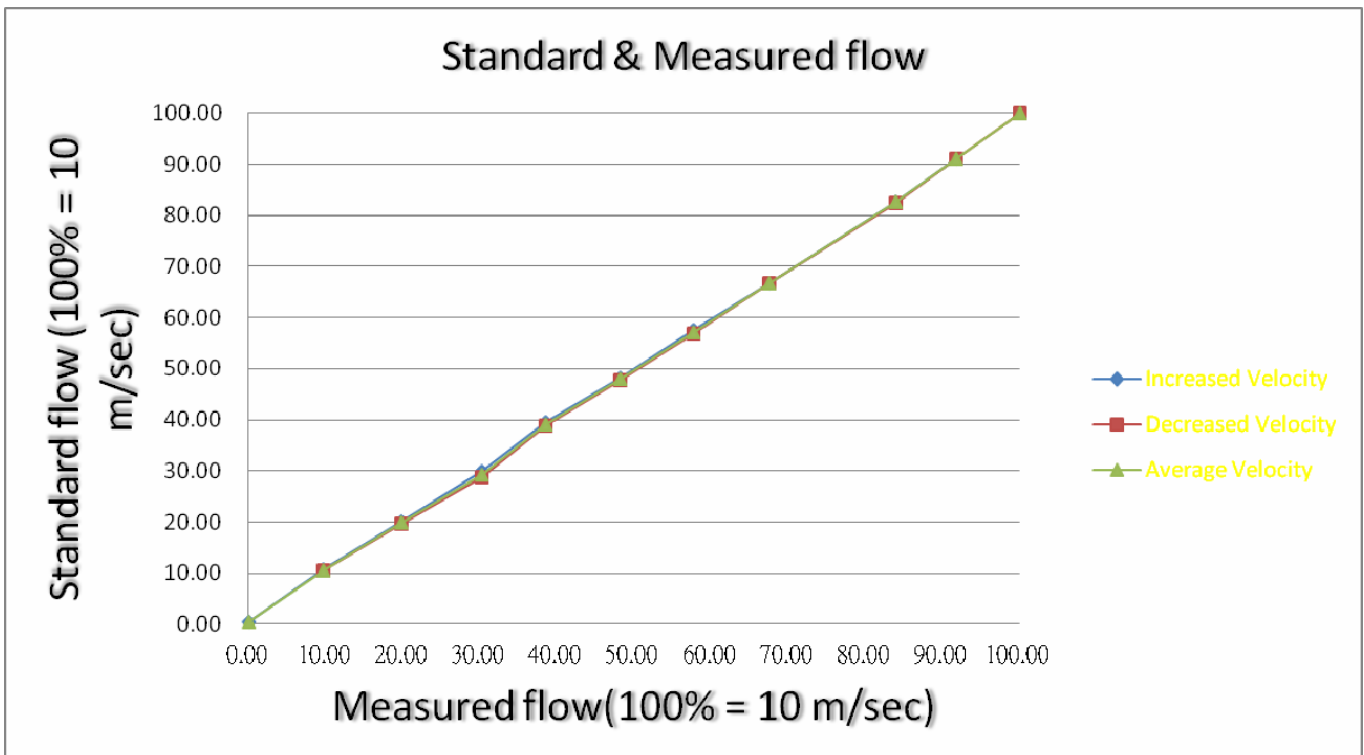
1. PC
2. USB to RS-485 Converter
3. Power supply
4. MFTS84/85



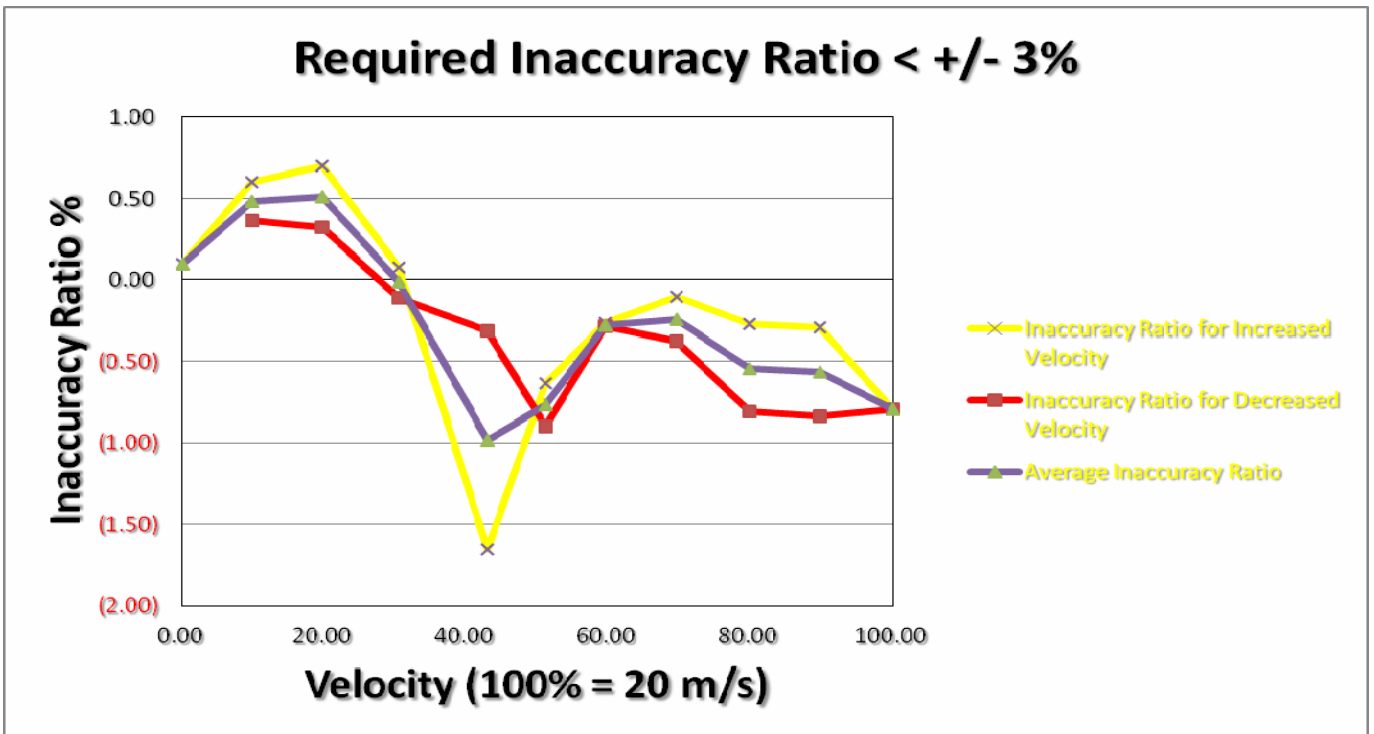
# Statistics for Inaccuracy Ratio (10 m/sec)



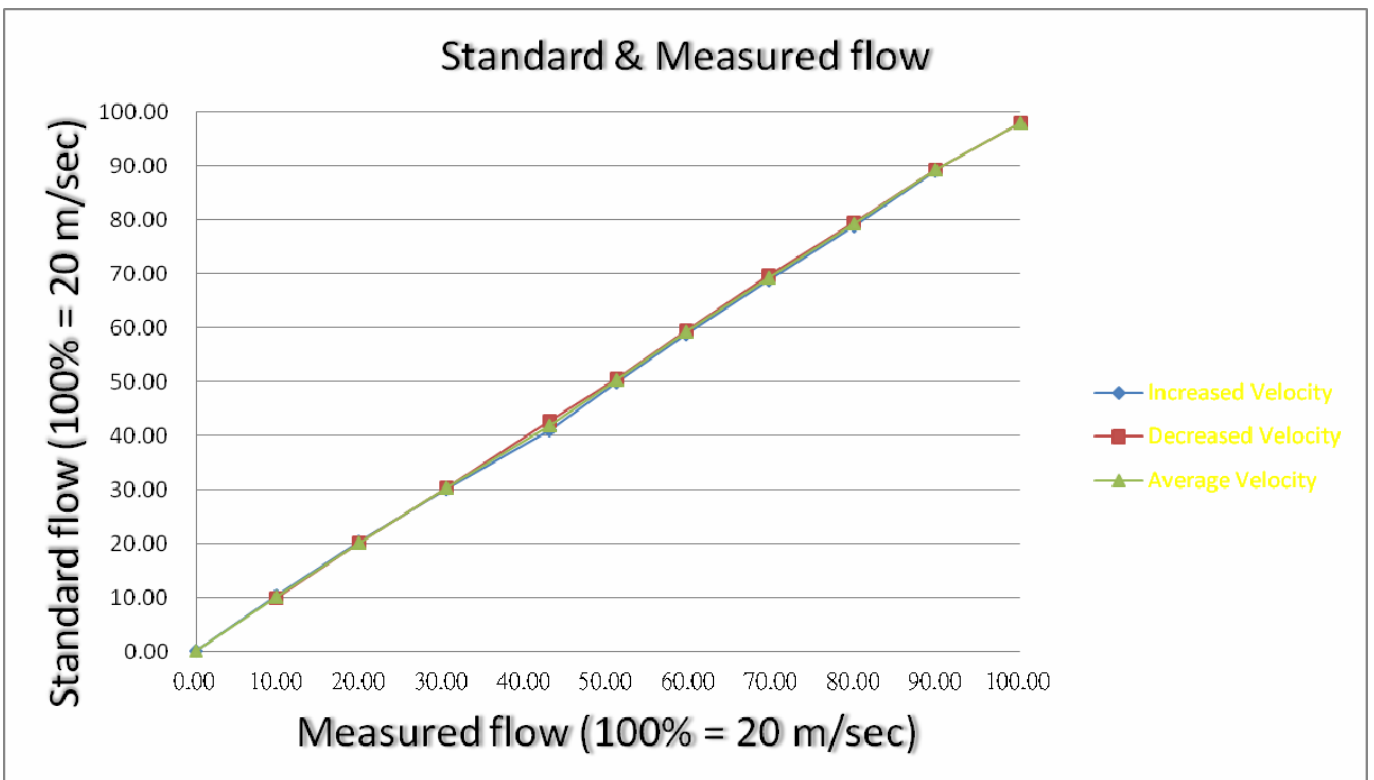
# Measurement & Comparison (10 m/sec)



# Statistics for Inaccuracy Ratio (20 m/sec)



# Measurement & Comparison (20 m/sec)



# Contact

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