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AIR VELOCITY TRANSMITTER
ST81

Product manual:

Note important:

- The parameters involved are all measured under laboratory conditions, such as in the special environment, the parameters will cause deviation and error.
- This series of products can be customized, special requirements.
- Accessory selection depends on the actual configuration.
- To ensure safety and avoid loss. Power off during installation.

Version Number: A1.0

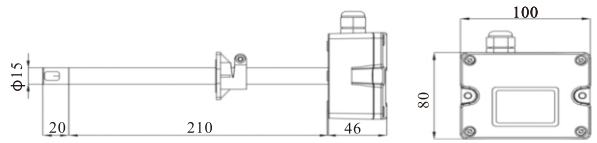
Model

Product Name	Output	Installation method	Display
ST81	V1	1	D
	VI=0~10VDC/4~20mA RS=RS485/Modbus	1=Duct Type Air Velocity Transmitter 2=Split Type Wind Speed Transmitter	D=with display N=without display

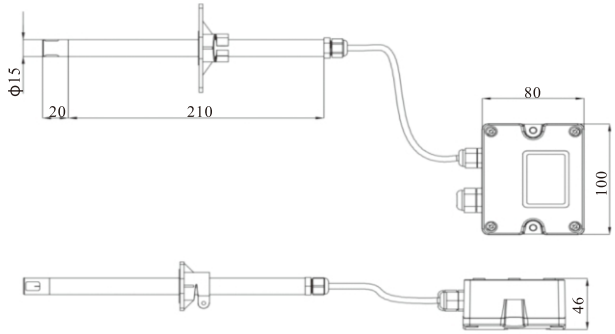
Parameters

Working voltage	24VAC/DC+20%
Range	0-10m/s,0-15m/s,0-20m/s,-30m/s optional
Accuracy	±(0.2m/s+3%of mv)(20℃,45%RH and 1013hPa
Resolution	0.01m/s
Output mode	RS485/Modbus,0~10VDC/4~20mA(3-wire)optional
Output load	≤500Q(Current mode),≥2KΩ(Voltage type)
Working temperature	-10~ 60°C
Storage temperature	-20~80°C
Probe length	210mm(optional)
Display	Optional LCD display with unit display and back light
Protection	Ip65,IP20(Probe)
Sheathing matenial	PC,PA6(Probe)
Electromagnetic Compatibili	EN 61326-1

Dimensions in mm

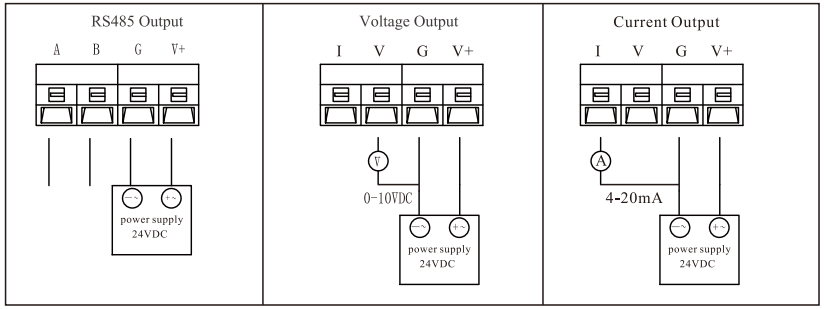


DUCT TYPE



SPLIT TYPE

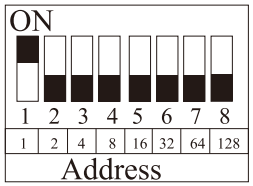
Wiring Instructions



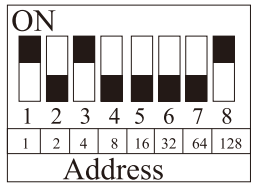
Dip Switches And Ranges

●DIP SWITCH SETTINGS (RS485 VERSION ONLY)

The 8-digit DIP switch sets the slave address, the address can be set to 1-255, the factory default setting is 01,
the setting method is as follows: dial to ON for 1, vice versa for 0, 1~8 digits on the dial panel represent low to high.



Default address 01,---0x01 (hex)0000 0001(binary)



The address is 1+4+128=1330x85(hex) 10000 101(binary)

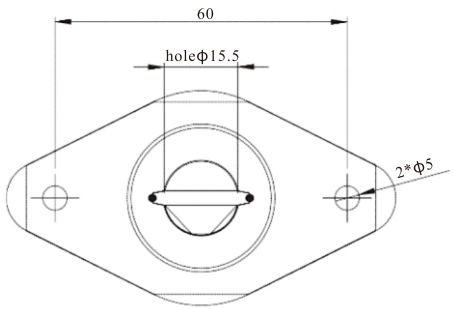
Note 1:
In order to prevent product damage, it is recommended to adjust the DIP switch in the event of a power failure,
and after changing the address using the DIP switch, it must be powered on again for the change to take effect.

Note 2:
The address set by the DIP switch has the highest priority when modifying the slave address online,
all DIP switches mustbe set to 0 to modify successfully, if necessary, the DIP switch is preferred to modify the address.

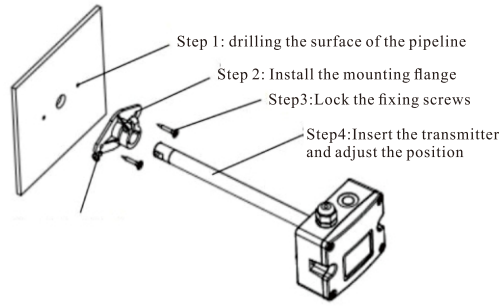
●RANGE SELECTION(ANALOG OUTPUT VERSION ONLY)

Analog output products can be ranged by means of jumper caps.

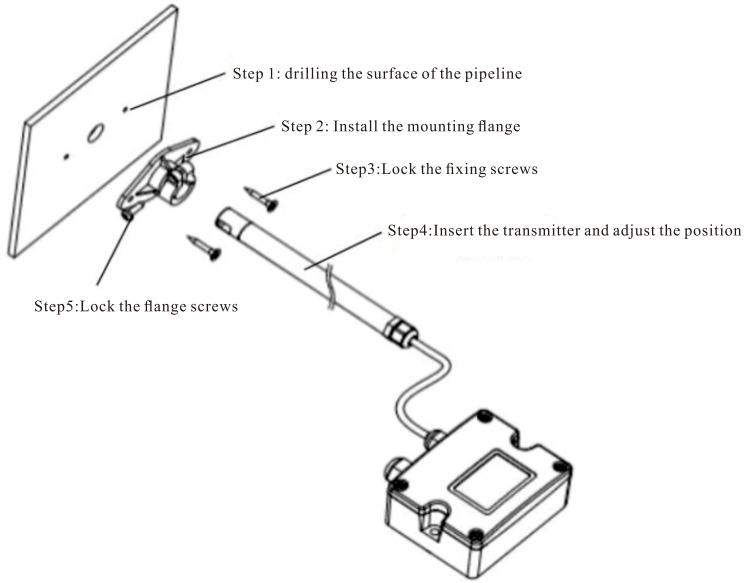
Installation



Mounting Flange Size



ST81-1 Installation Diagram



ST81-2 Installation Diagram

1.ST81 recommends that flange accessories beused for installation,and the insertion depth can be adjusted.Fix the mounting flange on the air duct with two screws, and the screws on the flange can lock the inserted probe. The opening of the duct is 15.5mm. After the probe is installed, the duct should be sealed to avoid air leakage.

2.When installing the air duct, pay special attention to the fact that the air inlet is consistent with the wind speed flow inside the duct, and the sensor is parallel to the wind speed flow.

3. Open the upper cover, connect the power wires and signal wires into the bottom box through the waterproof connector, complete the wiring according to the wiring diagram, and install the upper cover back as it is.
Pay attention to the sealing between waterproof joint and bottom box (with sealing ring) and the sealing between upper cover and bottom box (with sealing ring),so that the overall protection level can reach Ip65.

4. Do not touch or rub the sensor probe, and do not use any mechanical tools to clean it.