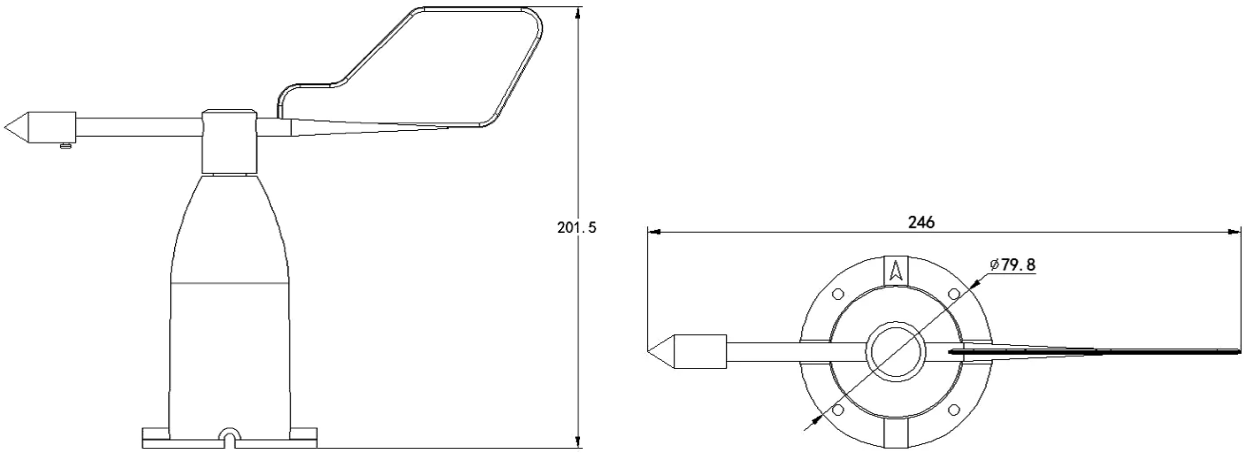
Wind Direction Sensor Manual

CWT-SWD-A-360-A (analog type)

Basic parameters

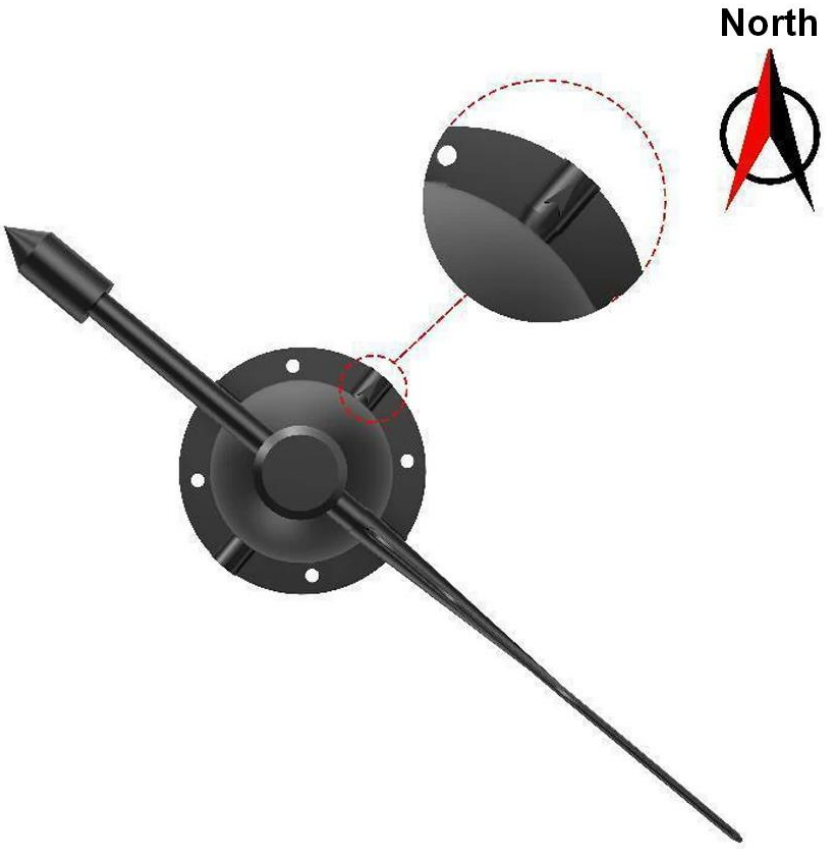
Power supply	DC10-30V
Power consumption	≤0.2W
Measuring range	360-degree wind direction
Accuracy	±1°
Response time	≤0.8s
Working environment	-20~60℃ / 0~80%RH
output	4-20mA/0-5V/0-10V

Size



Unit: mm

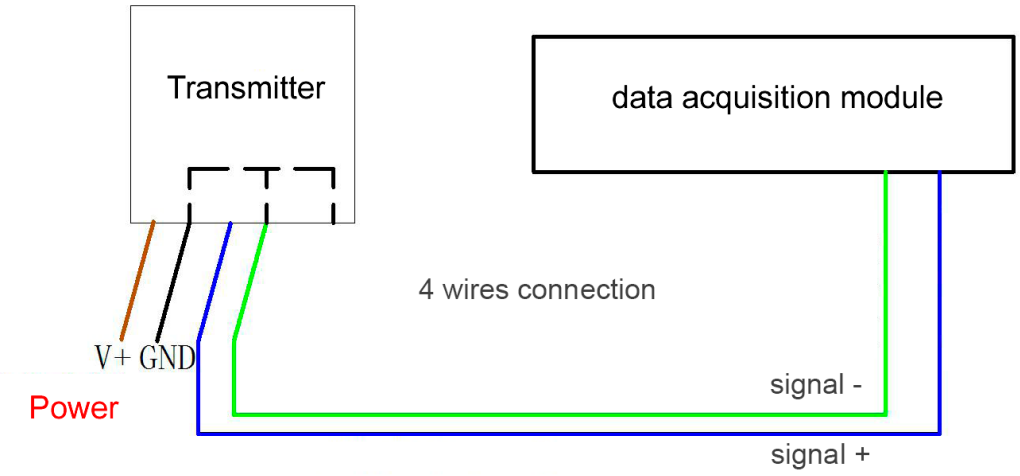
Installation

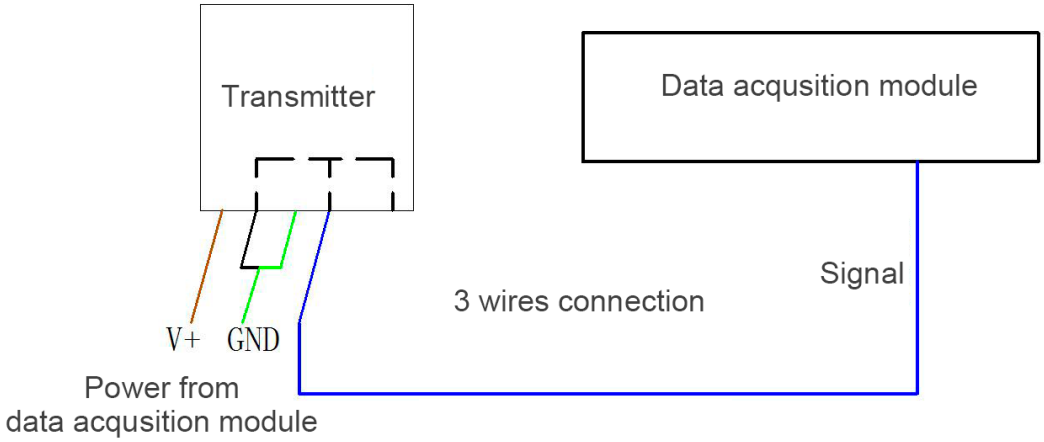


Wiring

Cable color	Description
Brown	Power + (DC10-30V)
black	Power -
Blue	Singal output +
Green (or yellow)	Singal output -

Connection diagram





Calculation

4-20mA Output		0-10V Output		0-5V Output	
output value	Corresponding Angle value	Output value	Corresponding Angle value	Output value	Corresponding Angle value
≈4mA	0°	≈0V	0°	≈0	0°
≈20mA	359.9°	≈10V	359.9°	≈5V	359.9°

Current (4-20mA) output type:

measuring value= ((Angle max- Angle min)/16) *(output value-4)

for example, output value is 12mA.

measuring value= ((360-0)/16) *(12-4) = 180°

Voltage (0-5V/0-10V) output type:

measuring value= ((Angle Max-Angle min)/(Vmax-Vmin)) *output value

for example, transmitter measuring range: 0-360°, voltage type: 0-10V, output value is 5V.

measuring value=((360-0)°/(10-0))*5 =180