3-D Ultrasonic Anemometer
MODEL：SAT－600

To measure wind velocity and direction at the fast response!

Observation purpose

◆ For environmental monitoring

◆ To the low layer weather and
　a local meteorological observation

◆ To the atmospheric diffusion observation

◆ To the operations administrator
　　　　　　　　　of transportation

Features

◆ Adopting a new sensor, improved environmental resistance performance.

◆ 3-D measurement of horizontal and vertical wind speed(blowing up and down) is possible.

◆ Measurement from 0 m/s to 60 m/s with high response and linearity.

◆ Without moving part, free from damage under the strong wind condition.

Measurement method	: Time sharing transmission/reception switching type ultrasonic pulse emission
Processing method	: Ultrasonic propagation reciprocal difference method
Measuring range	: 0 – 60 m/s (wind velocity) (Selectable from any of 1, 2, 5, 10, 15, 20, 30, 40, 50, 60m/s) 0 – 540° (wind direction)
Accuracy	: ±(3% of Reading value＋0.05m/s) (wind velocity) ±3° (wind direction)
Output resolution	: 0.01m/s (wind velocity) 0.1° (wind direction)
Sampling rate	: 4 times／sec. (Option: 10 times/sec. or 20 times/sec.)
Digital output	: RS-422(can output any element signal)
Analog output	: 0 - 20mA or 4 – 20mA (4CH) (Select any output signal by 4 elements)
Output signal	: Momentary wind velocity(Ui), Momentary wind direction(θi) Momentary vertical wind velocity(Wi) Momentary wind velocity(Xi,Yi) Vector averaged wind velocity(Um) Vector averaged wind direction(θm) Averaged vertical wind velocity(Wm) Scalar average wind velocity(Us) Average wind velocity(Xm,Ym) Average wind velocity of 3sec movement(U3) Option (Sonic virtual temperature (T) *1)

*1: Available only for 10times/sec. or 20 times/sec. selected

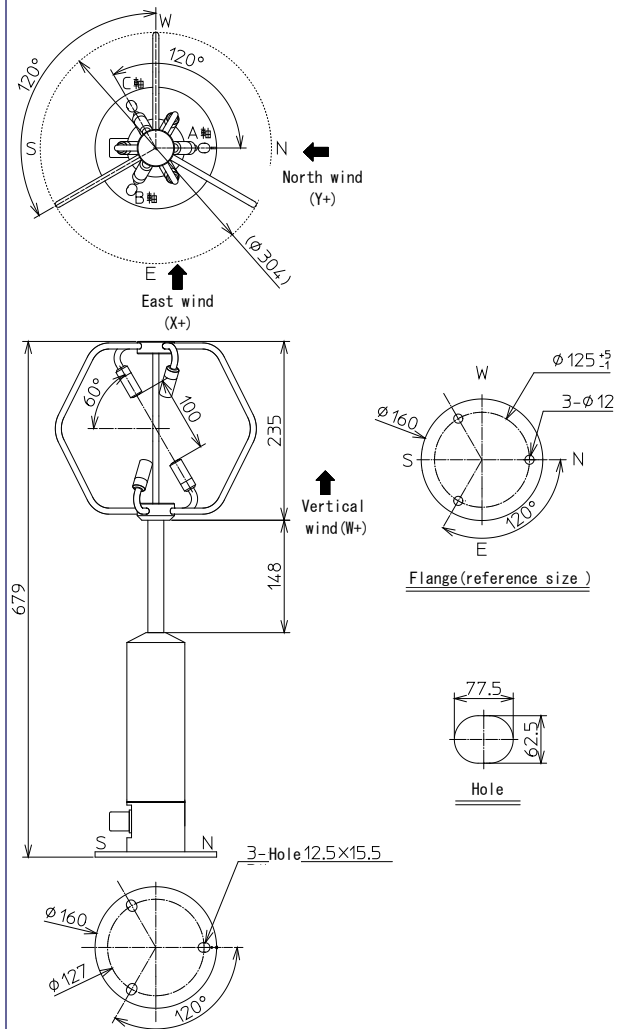|	
Averaging time	: 1 – 15 min. (can be set at every minute)
Protection circuit	: Overcurrent protection, Surge protection
Main material	: Stainless
Painted color	: Silver (equivalent to Munsell N8)
Temperature	: −20 ～ +50℃
Humidity	: 10 ～ 95%RH
Power supply	: DC24V 4W
Weight	: Approx. 4.5kg

[Digital output details]

Communication speed／1200, 2400, 4800, 9600, 19200bps

Data length／8bit, Parity／None, Stop bit／1bit

Output format／ASCII

Elements／Element of wind speed is output in CSV format.

[Option] Heater (Specifications: DC24V 60W with 50m cable)

Configuration items

・SAT anemometer/SAT-600　　　　　　　　: 1unit

・Accessory/Display & setting software : 1set

・Connection cable/JCS-20S (20m)　　　　: 1pc.

・Option unit

　Power supply signal converter　　／SAT-PJBA

　Surge protection device (Outdoor) ／SAT-SPS

　Surge protection device (Indoor) ／SAT-SPM

Dimensions

⚠ **CAUTION FOR SAFETY : Please read surely INSTRUCTION MANUAL before operating**

●Specification is subject to change without prior notice for improvement.

ⓢ SONIC CORPORATION