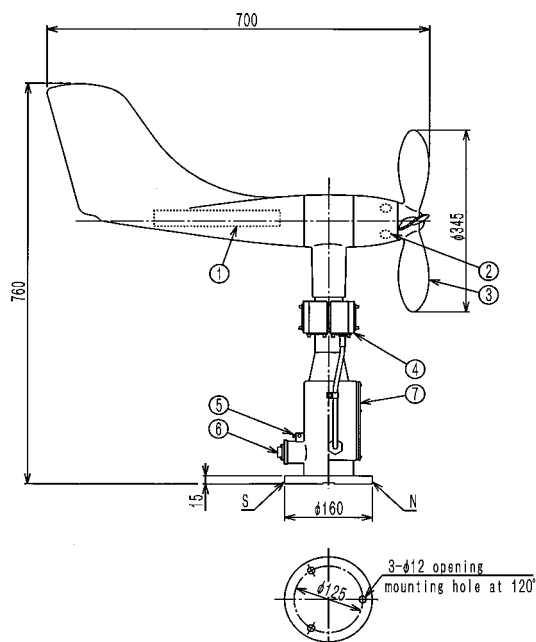


## KWDH-1 Heated Propeller-type Wind Speed/Direction Sensor

The KWDH propeller-type wind speed and direction sensor uses an AC generator to create the signal output from the propeller, and either a synchro motor or a potentiometer for the vane signal output. Ceramic heater modules provided on the main body prevent freezing up of the rotors and other parts during harsh winter conditions. Once a heater reaches a given temperature, current supply is controlled to maintain a stable warmth.



- ① Vane heater
- ② Front heaters
- ③ Propeller/polycarbonate resin
- ④ Stand heaters
- ⑤ Screw for terminal ground
- ⑥ 10-pole waterproof connector
- ⑦ Terminal box connector

### SPECIFICATIONS

|   |  |
|---|--|
| <b>Model</b>                            | W500   |
| <b>Speed component</b>                  |  |
| <b>Sensor</b>                           | Propeller-type 4-pole AC generator   |
| <b>Output (no-load)</b>                 | 45 V $\pm$ 1 V AC with winds of 60 m/s<br>Output impedance of approx. 500 $\Omega$ |
| <b>Direction component</b>              |  |
| <b>Sensor</b>                           | Vane: Synchro motor or dual potentiometer  |
| <b>Startup threshold</b>                | <1.9 m/s   |
| <b>Measurement range</b>                |  |
| <b>Speed</b>                            | 2-60 m/s (up to 90 m/s possible)   |
| <b>Direction</b>                        | 360°   |
| <b>Accuracy</b>                         |  |
| <b>Speed</b>                            | $\pm$ 0.5 m/s @ winds $\leq$ 10 m/s<br>$\pm$ 5% @ winds >10 m/s                    |
| <b>Direction</b>                        | $\pm$ 5°   |
| <b>Weatherability</b>                   | Winds $\geq$ 90 m/s  |
| <b>Weight</b>                           | Approx. 8 kg   |
| <b>Heater modules</b>                   |  |
| <b>Total capacity</b>                   | Approx. 457 W  |
| <b>Power source</b>                     | Approx. 100 V AC   |
| <b>Front heaters (behind propeller)</b> |  |
| Heater type:                            | Ceramic heater   |
| Capacity:                               | Approx. 70 W $\times$ 4 modules  |
| Max. temp.:                             | Approx. 260°C (Curie point)  |
| <b>Vane heater</b>                      |  |
| Heater type:                            | Ceramic film heater  |
| Capacity:                               | Approx. 37 W   |
| Max. temp.:                             | Approx. 80°C   |
| <b>Stand heaters</b>                    |  |
| Heater type:                            | Ceramic heater   |
| Capacity:                               | Approx. 70 W $\times$ 2 modules  |
| Max. temp.:                             | Approx. 260°C (Curie point)  |



**KOMATSU FACTORY CO.,LTD.**

WEATHER INSTRUMENTS FABRICATION

1-12-13 Higashiyama Meguro-ku Tokyo 153-0043 Japan

TEL : 03-3719-7131

FAX : 03-3719-7134

e-mail : [info@komatsums.co.jp](mailto:info@komatsums.co.jp)