

KV-5020 Marine Wind Vane/Anemometer

Features

- Built-in NMEA output indispensable for ocean going vessels.
- Stepping motor-driven pointers that are resistant to vibration and offer fairly accurate indication.
- LED illumination with dimmer for long life.
- Digital indicator accommodates signals of your choice (optional).
- Simplified vessel speed/course signal transmitter (optional) can be installed (using GPS / magnetometric sensor).
- Additional indicators can also be installed.

VDR
capable

Product overview

The KV-5020 marine wind vane/anemometer sends both wind direction and speed signals simultaneously from the transmitter for remote observation.

The transmitter is a windmill type and is used in combination with the wind speed/direction indicator. The indicator, which has an analogue face, receives and processes the transmitter signals to drive the pointers.

Wind speed/direction transmitter



Optional equipment

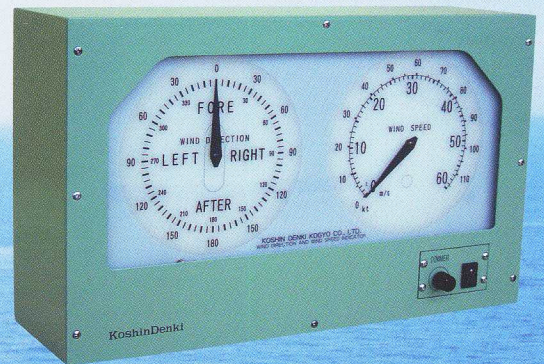
KV-5025 true wind speed/direction indicator



Remote dimmer switch



Simplified vessel speed/course signal transmitter



Wind speed/direction indicator



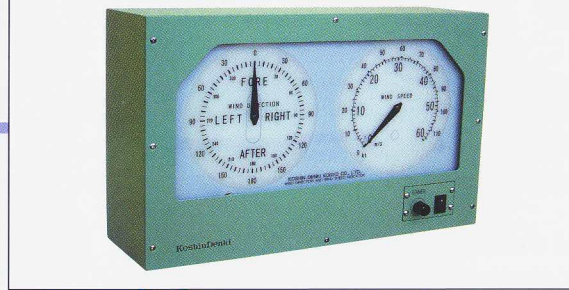
Configuration/Block diagram

Wind speed/direction transmitter



6-wire signal line

Wind speed/direction indicator



Serial current-loop signal input→

Serial current-loop signal output←

RS-232 or RS-422 signal output←

Power source
87 - 264 VAC, 47 - 440Hz

Specifications/Ratings

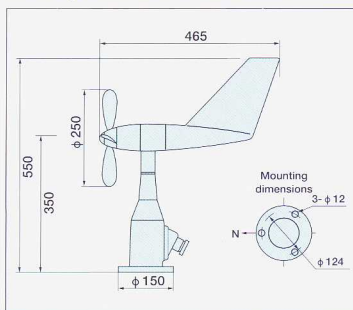
Wind speed/direction transmitter

Type	Propeller
Wind speed detection	Optical pulse; Brushless
Wind direction detection	8-bit optical encoder; Serial signal output
Start wind speed	2m/s or less
Wind speed resistance	90m/s (in wind tunnel tests)
Measurement range	Wind speed: 2 - 60 m/s
Wind direction	All directions
Measurement accuracy	Wind speed: 10m/s or less: Within +/-0.5m/s 10m/s or more: Within +/-5% Wind direction: Within +/-5°
Cable	6-core shielded cable
Cable connection method	Via terminal
Weight	Approx. 2.5kg
Coating color	Munsell 2.5G7/2 Semi-glossy
Working temperature range	-20 to +50°C

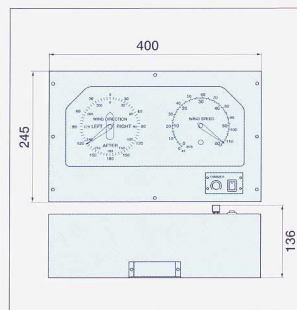
Wind speed/direction indicator

Measurement range	All directions (0 - 360°)
Wind speed	0 - 60 m/s or 0 - 115 kt
Indicator type	Relative wind direction (instantaneous) : Indicating range: 0 - 360° Relative wind speed (instantaneous) : Indicating range: 270° (60m/s) kt or m/s
Computation type	CPU vector operation Data sampling rate: 0.25sec. (for both wind speed and direction) Data processing: instantaneous, second smoothing
Input signal	Dedicated wind speed/direction signals (6-wire) Wind direction: 256-segment, 8-bit gray code serial signal Wind speed: 24 pulses / rev. Serial current loop
Output signal	RS-232 or RS-422 Serial current loop
Pointer driver	Wind speed and direction pointers directly driven by stepping motors. 0.9° / step (corresponding to 0.2m/s wind speed)
Response time	2.4sec. per 180° (corresponding to 40m/s wind speed)
Lighting	LED (with dimmer)
Power source	87 - 264 VAC, 47 - 440 Hz
Coating color	Munsell 2.5G7/2 semi-gloss
Weight	Approx. 7.5kg
Outer dimensions	400 (W) x 245 (H) x 120 (D)
Ambient conditions	Working temperature range: -10 to +50°C Working humidity range: 20 - 95% (no condensation)

Wind speed/direction transmitter



Wind speed/direction indicator



Optional equipment

- Remote dimmer switch
- KV-5025 true wind speed/direction indicator
- Simplified vessel speed/course signal transmitter

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