



Description

This sensor is designed for the acquisition and electronic transmission of wind direction data. It is suitable for applications in the field of meteorology and environmental monitoring, e. g. for automatic weather stations, at airports, on research vessels, at industrial sites, for mobile measuring systems etc. Thanks to various simultaneously usable outputs there is a wide range of measuring tasks.

The sensor comprises a wind vane system which is continuously kept parallel to the local wind direction through the occurring wind pressure.

The serial data output (TTL) corresponds an RS 232 structure, with 600 Bd, 8 bit, 1 start bit, 2 stop bit, no parity bit. For further data processing (averaging etc.), refer to datalogger COMBILOG, type FT1022; catalog group 1.

Technical Data

Measuring range:	360°
Max. load:	60 m/s
Threshold at 90 initial deflection:	0.2 m/s
Damping ratio at $v = 3$ m/s and initial deflection = 15°	0.57
Electronics Power supply:	FT4122.0000: 10...30 VDC; < 5 mA at 12 V FT4122.1000: 10...30 VDC; 35...75 mA at 12 V
heating:	10...30 VDC; approx. 7 Watt
Output:	digital: serial 8 bit Gray code, RS 232 compatible, 600Bd, 8 data bit, 1 start bit, 2 stop bit, no parity, TTL level

FT4122 Wind Direction Sensor

additional, with version 4122.1000:	3 phase signal for direct connection of analog instruments
Resolution / Accuracy	± 2.5°
Admissible load:	approx. 400 Ω
Heating system:	Thermostat controlled 7 W max
Operating temp.:	-35...+ 80 °C
Protection class	IP 65, when operated upright
Housing material	Polycarbonate, black
Connection:	12 p. connector, water and dust proof acc. to IP 67
Dimensions:	
Total height:	approx. 436 mm
Max. turning radius:	350 mm
Max. housing Ø:	80 mm
Pivot:	Ø 34 x 40 mm
Weight:	approx. 0.9 kg
Measuring cable:	LiY(C)Y 0.25 mm ² (not included)

Ordering Code

Wind direction sensor, 8 bit Gray Code with serial output, TTL level; with built-in heating	FT4122.0000
Wind direction sensor, 8 bit Gray Code with serial output, TTL level; analog outputs 0...20 mA, 4...20 mA as well as 3 phase signal for direct connection of analog instruments, with built-in heating	FT4122.1000

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