

iSpin Sensor v2.0 Data Sheet

iSpin Sensor is specially designed for installation on the wind turbine spinner. The measured signals are transferred to the wind turbine controller in the nacelle, over the wind turbine's slip ring system. iSpin Sensor has both an Ethernet based LAN port and a serial RS422 communication interface.



Technical data iSpin Sensor

Measurement data	
Wind speed measurement	0.00 – 40.00 m/s
Yaw misalignment measurement	±180.0 °
Inclination angle measurement	±90.0 °
Inflow azimuth angle measurement	±180.0 °
Air temperature measurement	-30.0 – 60.0 °C
Rotor position measurement	±180.0 °
Angular rotor speed measurement	0.0 - 250.0 °/sec
Accelerometer measurement	± 9.82 m/s ²
Measurement duration (complete cycle)	0.010 s
Sampling frequency	0.10 – 10 Hz
Internal sample rate (F)	10 – 20 Hz
No of samples for averaging (Nave)	1,000 – 3,000
Averaging time (T = Nave / F)	1 – 150 s

Performance characteristics	
Wind speed measurement	Resolution: 0,025m/s
Yaw error measurement	Resolution: 1°
Inflow inclination angle measurement	Resolution: 1°
Air temperature measurement	Resolution: 1k
Measurement duration (complete cycle)	0,010 s

External communication	
Serial	RS422, 57,600 bps
LAN	10 Mbps

Rated operational supply

Main circuit	24 VDC \pm 10%
Power consumption	5 W normal operation, 75 W heating engaged

Conditions during transport, storage & installation

Maximum ambient temperature	70 °C
Minimum ambient temperature	-40 °C

Operational conditions

Maximum ambient temperature	60 °C
Minimum ambient temperature	-30 °C
Maximum relative air humidity	99% @ 25 °C
Maximum installation height above sea level	2,500 m

Enclosure

Measurement (H x W x D)	170 x 220 x 130 mm
IP value	IP 67
Weight approx.	10 kg



Please feel free to contact us today if you are interested in learning more about the iSpin technology and how ROMO Wind can make wind turbines more efficient.



ROMO WIND

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