

WIND DATA & TECHNICAL SPECIFICATION

DATA HEADING	UNIT	EXPLANATION
Reference	-	Numerical reference of each record
Time and date	-	In text format, to the nearest second
Timestamp	Seconds	Time and date of the reading as numerical value in seconds
Horizontal wind speed	Metres per second	Horizontal wind speed measured by ZephIR
Vertical wind speed	Metres per second	Vertical wind speed measured by ZephIR
Horizontal wind direction	Degrees	Horizontal wind direction measured by ZephIR
Horizontal min / max	Metres per second	Minimum / maximum horizontal wind speeds measured by ZephIR
TI	-	Turbulence Intensity
Generator	Volts	External supply voltage, if present
Upper temp / lower temp	Degrees Celsius	Pod temperature
Pod humidity	Percent	Internal ZephIR humidity
GPS	Decimal Degrees	GPS location (lat and long)
ZephIR bearing	Degrees	Direction of the ZephIR wrt True North
Tilt	Degrees	Pitch and roll away from vertical
Air Temp.	Degrees Celsius	Ambient temperature
Pressure	Millibar / Hectopascals	Ambient pressure
Humidity	Percent	Ambient humidity
MET wind speed	Metres per second	Horizontal wind speed measured by the MET station
MET direction	Degrees	Wind direction measurement by the MET station
Raining	-	Rain sensor detects rain

PERFORMANCE	ZephIR
Range (min.)	10 metres
Range (max.)	200 metres
Probe length @ 10 m	± 0.07 metres
Probe length @ 100 m	± 7.70 metres
Heights measured	10 (user-configurable)
Sampling rate	50Hz
Averaging period	user configurable (1 second as standard)
Scanning cone angle	30° (other angles available)
Speed accuracy variation*	< 0.5%
Speed range	< 1 m/s to 70 m/s
Direction accuracy variation*	< 0.5°

OPERATIONS	ZephIR
Temp range (min.)	-40°C
Temp range (max.)	+50°C
Power consumption	69 Watts**
Power input	12 V
Weight (excluding flight casing)	55 kg
Service interval	24 months

DATA	ZephIR
10 minute averaging	90Kb / day
1 second data	3MB / day
On board storage	36 months
Data transfer	LAN; MODBUS; WiFi; Global SIM; Iridium Sat Comms
Timestamp / Location	GPS

SAFETY	ZephIR
Laser classification	Class 1
Eye safety standard	IEC 60825-1
IP Rating	IP67
Compliance	Full CE accreditation

* As measured against a calibrated moving target.

** In off-grid, DC power situations, excluding any convertor losses and in standard climates. Always refer to manufacturers guidelines on power before specifying 3rd party power solutions. Alternatively use the ZephIR **POWER** Support Package.