

Weather Station

PRMET-100DTMP

PREDE



[General]

This weather station is compatible with the Compact weather station with wind Speed, wind direction, temperature, humidity, and barometric pressure sensors. Analog and pulse sensors also can be added to this system.

Each sensor is compact and easy to install.

The data logger supports USB memory, that has 18-bit resolution, extensive communication functions, and a built-in display.

The data logger uses a USB memory for easy data retrieval.

- 2 to 6ch (minus common) pulse 4ch, digital input
- Memory capacity: 128MB
- Automatic FTP transfer
- Pre-heating, Averaging, and scaling function

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[Data Logger Specification]

Supported Ranges	Voltage($\pm 30\text{mV}/\pm 300\text{mV}/\pm 3\text{V}/\pm 30\text{V}$) Current ($\pm 0.3\text{mA}/\pm 3\text{mA}/\pm 30\text{mA}$) Resistance (10Ω to $10\text{K}\Omega$) Thermocouple(B,C,D,E,G,J,K,N,R,S,T) Resistance Thermometer (Pt,Ni,Cu) Pulse (10kHz or less)
Analogue Input	2 to 6ch (common to minus inputs)
Pulse Input	4ch
Digital Input	SDI-12, RS-232C
Calculation Function	In between the intervals: Totalized value, Maximum value, Minimum value, and Averaged value
Other Standard Functions	Pre-heat timer function: Turns power on before measurement time for sensors that require power supply. Scaling function: Conversion formulas can be set and converted to physical units, etc.
Number of data	10 million data (Maximum)
Maximum sampling Speed	25 Hz (depends on number of channels and internal calculations)
Display function	LCD 16-digit x 2 line, with Back light.
Memory	128MB
Other Memory function	USB memory
Interface	Ethernet, RS-232C
Operating Power Supply	External power supply of 10 to 30VDC, 6W max (12VDC / 500mA max)
Sensor power supply	12VDC, 150mA max.
Operating Temperature	-45 to +70 degC
Dimensions	180 (W) x 138 (D) x 65 (H) mm (Excluding protruding parts)

[Sensor Specification]

Wind Speed	
Range	0 to 60m/s
Accuracy	12m/s
Resolution	0.01m/s
Starting threshold	0.01m/s
Units of measurement	m/s, knots, mph, kph, ft/min
Wind Direction	
Range	0 to 359°
Accuracy	12m/s +/-3°
Resolution	1°
Starting threshold	0.01m/s
Units of measurement	degrees
Air Temperature	
Range	-35 to +70°C
Accuracy	0.2°C (-35 to +70°C)
Resolution	0.1°C
Units of measurement	°C, ° F
Relative Humidity	
Range	0-100%RH
Accuracy	1.5%RH@25°C(0-80%RH) Typical 2% (-35 to +75°C, 0-100%RH)
Resolution	1%RH
Units of measurement	%RH
Barometric Pressure	
Range	300-1100 hPa
Accuracy	+/-0.5hPa@0 to 50°C
Resolution	0.1 hPa
Units of measurement	hPa, mbar, mmHg, inHg
Additional Inputs	
Contact closure	For tipping bucket rain gauge
Pt100 temp probe	4 wire Pt100 conforms to IEC 60751
Analogue 1	0-5V or 4-20mA loop or self-powered
Analogue 2	
NOTE: 5V power is available on additional sensor	

Outputs	
Digital comms modes	RS232, RS422, RS485(2 wire pt to pt) MODBUS SDI-12
Protocols	ASCII, MODBUS (RTU and ASCII) NMEA0183 SDI-12 v1.3
Data output rates	1 measurement per second 1 measurement per 2 seconds 1 measurement per 4 seconds Polled
Power Supply	
Input voltage	5-30VDC
Current @ 12VDC	<70mA @ 12VDC
Connectivity	
Connectors	M12 8-way connectors on all inputs and outputs.
Mechanical	
Bracket and Hub Box	Stainless steel 316 construction
Anemometer	UV Stabilized polycarbonate
Installation Fittings	Fit to 30 to 58mm pole or mast
Weight	3.0kg
Environmental & Regulatory	
Protection class	Hub Box and pressure sensor: IP66 & IP67 Temperature & Humidity Sensor: IP66 Wind Sensor: IP66
EMC	EN61326:2013
Operating temp.	-35 to +70°C
Storage temp.	-40 to +70°C
Regional markings	CE, UKCA, FCC Part 15
RoHS compliant	Yes
Origin	UK (United Kingdom)

Specifications are subject to change without notice.

Other applicable sensors

Pyranometer, UV radiometer, Lux sensor, Rain gauge, Net Radiometer, Albedo meter etc.

2m pole with tripod

Solar Panel and battery

PRMET-100DTMP: Solar Panel 30W, Battery 30Ah

PRMET-100DTMP/AC: AC Power (AC adaptor included)