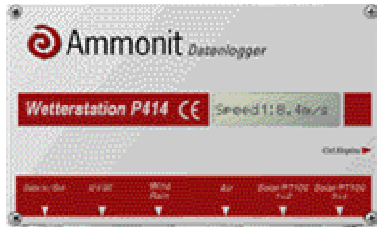


# Weather Station P414



## Data Collection - data interface - supply - installation and maintenance - Technical Data

Order. P3414

- Meteorological data logger
- Collection of detailed measurements
- Direct connection of Pyranometern
- Weatherproof, low power consumption
- Serial port for PC / laptop, phone, GSM

## Data Collection

The **weather station** is a **P414** for meteorological data acquisition developed data loggers. It covers all relevant data for a detailed weather observation: wind speed (in 3 heights), wind direction, air temperature / humidity and pressure, and rainfall. Four specific inputs allow connection of Pyranometern or PT100 temperature without pre-amplifier, and two more analog channels may provide additional voltage signals can be connected.

The logger collects the data in configurable intervals, with several evaluation available. The storage capacity enables automatic, unattended operation over months and years. All measurement data will be issued as text files, so that commercial programs (such as Excel) analysis can be used.

In addition to the series calculates the meteorological station also statistics, as for simple energy calculations. This facilitates a rapid evaluation and assessment of individual energy wind power plants with the free "ALWIN" program.

## Data interface

The weather station has an RS-232 serial interface. The delivery is the "CALLaLOG" program (Windows 9x + +). This software allows easy programming of the device and an automatic transfer of data.

Each logger can be equipped with a fixed or GSM modem. The GSM system is the perfect solution if no telephone connection is available, and the SMS functions allow easy control of the system via mobile phone.

## Supply

The data logger with lithium batteries. The connection of an external supply is possible and necessary for some sensors. An available as an accessory small solar system is sufficient, the whole measuring system, including sensors and GSM system.

## Sensors

As measured value donors are energy efficient and accurate sensors. The anemometers, there are different types and we recommend that the technical data to accurately compare and wind energy forecasts used to calibrate individual donors.

## Installation and maintenance

All data loggers are the permanent and automatic external use. When installing a remote monitoring and the supply of a small solar system is limited to maintaining the necessary control of the connected sensors.

Key to the trouble-free operation is the careful assembly. The logger should - even though weather - in a locked and well-grounded metal cabinet in order to better weather against vandalism but also to be protected. Ammonite offers such cabinets with different options. For the self-assembly, all the accessories also available as individual parts.

It is also important that all sensor cable is firmly affixed on the mast and not damaged which, of the moisture from the cable to the cabinet or in the logger can penetrate.

## Technical Data

### Technical Data

Type	P 3414 - Weather Station P414
<b>Le Eingangskan &amp;uml;</b>	3 x wind speed 1 x wind direction 1 x air temperature 1 x humidity 1 x Barometer 1 x rainfall 4 x solar radiation / PT100 2 x 0 - 1.2 V voltage analog
<b>Go &amp;uml; Use</b> -- Protection -- Dimensions -- Weight -- Connectors	IP65, connectors IP67 H120 x B200 mm x T90 about 1.2 kg (including batteries) Circular connectors bolted, Binder Series 723
<b>Supply</b> -- Operating battery -- Backup battery -- External -- Power Consumption	2 x lithium battery Li-SOC12 / 3.6 V Type D, ca.16, 5 Ah 1 x lithium battery Li-SOC12. / 3.6 V design C, about 7.2 Ah Connects to 12 VDC (9 .. max. 18 V), is plug <1 mA (standby), 20 mA (measurement), 45 mA (RS232 active)
<b>Temperature</b> -- Operation -- Storage -- Display function	-- 30 ... + 70 ° C -- 40 ... + 70 ° C -- 10 ... + 50 ° C
<b>Memory</b>	Buffered RAM, 1 Mbyte
<b>Clock</b>	Buffered real-time clock, precision -10 .. +50 ° C: <100 ppm
<b>Switched</b>	Massebezogener Open Collector, 12 VDC, 20 mA

<b>Series</b> -- Measuring interval -- Storage interval -- Organization -- Features	1 ... 60 seconds 1 ... 9999 measurement intervals in daily blocks unterteilter storage ring Central, maximum, minimum, standard deviation
<b>Statistics</b> -- Measuring interval -- Storage interval -- Organization -- Evaluations	1 or 10 minutes 1 .. 99 days, according to a monthly calendar Statistics blocks unterteilter storage ring 30 classes of 1 m / s wind speed distributions (2 heights) 36-sectors with individual wind rose Distributions (anemometer 1) 24-hour daily course 2 slowdown analysis with configurable limits
<b>Delivery</b>	Manual, batteries, desiccant, PC cable, display magnet, 3-POL. Male (ext. supply), software CALLaLOG98 ".
<b>Recommended sensors</b> -- Wind speed -- Wind direction -- Temperature -- Temperature / humidity -- Barometer -- Precipitation -- Solar radiation	P6121, P6140, P6171, P6160 (with adapter P9112) P6240, P6245, P6220 P6471, P6470 P6831, P6830 P6520, P6542 P6720, P6721 P6302, P6303, P6304
<b>Matching accessories</b> -- Cabinets / Options -- Own Assembly	P9101, P9100.06, P9110.xx, P9112 P8922, P9260, P9121, P9122, P9103, P8707 (8) .02, P6010