

Adcon RA440 – Technical Specification

Power Supply internal 6.2V battery, charged by solar panel or mains adaptor

Battery type Panasonic High-Temperature Industrial Grade NiMH battery, 3100mAh

Approvals FCC, R&TTE, CE, Industry Canada, Radio Australia

Mechanics

Case Aluminum, powder coated

Protection type IP-67

Dimensions & weight 160 x 60 x 80 mm (6.3 x 2.4 x 3.1 inch)
1200g (2.5 lb)

Connectors for sensors and power Made in Germany by Binder
IP-67 protection class
Sockets: brass, nickel plated
Socket contacts: gold plated
Protective caps
4 x M9 female 7-pin
1 x M9 female 5-pin

Antenna connector TNC with external seal, water tight , Made in Germany

Mounting Mast mounting bracket

Operating temperature -20°C - +75°C

Logger

Input Channels 60 total

Analog Inputs 12 x 0 - 1V / 2.5V DC
(3 of these inputs can be configured for a range of 0 - 150mV DC low temp.drift)

Digital Inputs 40 x SDI-12 values

Counter Inputs 2 + 2
I/O A + I/O D: for standard reed switches; electronical signal debouncing, e.g. for rain gauges; max. pulses per second: 30
I/O B + I/O C: for hi-speed pulses, e.g. wind speed sensors or flow meters; max. pulses per second: 500

TTL Inputs / Outputs 4 x TTL compatible status ports (input) or Switch (output) , user selectable
(2 of which with 5V, 2 with 3.3V)

Resolution on analog ports 16-Bit

Sensor Power Supply User selectable:
- Unregulated battery Voltage 5.5V - 7.5V
- Stabilized Voltage: setable from 3.3V-7.5V

Memory 256KB for up to 80.000 readings (depending on types of sensors attached) Example: ETo station, 15-minute values: 28 days

Special Logger Functions - Configurable

Wind Gust Monitoring	Port C + Adcon Wind Sensor: 4 x samples per second, 3-second average; Date/Time of top speed stored
Wind Vector Monitoring	Port C + Adcon Wind Sensor: Direction is measured at time of speed reading; direction is weighed by speed and stored as vector
Rain Intensity Monitoring	Port D + Pulse Rain Gauge (max. resolution is 1 second) Date / Time of every single pulse stored; if required up to 3 additional analog values and 2 counters can be stored, e.g. wind speed & direction plus temperature
Pressure Hammer Detection	Port C + Adcon Manometer Probe: permanently powered sensor measures 4 x per second for pressure hammers with a 3-sec. average
Low Voltage Amplifier	Port B: allows usage of sensors with mV output signals to be attached directly
Asynchronous sampling	To reduce interference caused by synchronously sampling all ports they can be turned on and off sequentially
Event Monitor	In order to detect status changes on a digital input the station can sample each digital port with a time resolution of 1 second; date and time of every single status change are logged. Application: error monitoring on equipment, intrusion detection, pump operation, etc.
Data Transmission	
Frequency range	900 & 1800 MHz (Europe) and 850 & 1900 MHz (Americas)
Modem	Motorola G24L
SIM Card	small footprint
Security	SIM cards are PIN code protected!
Connection types	GSM: CSD Circuit Switched Data GPRS
GPRS Connect Frequency	User selectable: - permanent connection - connect from 1 x per minute to 1 x per day
Antenna	Omni directional