



METEOROLOGICAL MODULES

ED-420 3 Channel DAQ Module

FEATURES

- PT100-Sensor Bridge and Analogue Voltage Input.
- Counter Input.
- 15 Samples pr. Second.
- Calculated Average Value, for Channel 1 and 2, using an User Specified number of Seconds. (1 to 600 Seconds)
- User Defined Names and Units for each Channel.
- Gain and Offset can be altered for each Channel.
- RS-232 ACSI-Text Output.
- Wide Supply Range: 7-12 VDC.
- Text Instruction Set for easy set-up by PC.
- Programmable "Low Power"-mode to reduce power consumption.
- Easy connection and mounting.
- IP67 Housing.

APPLICATIONS

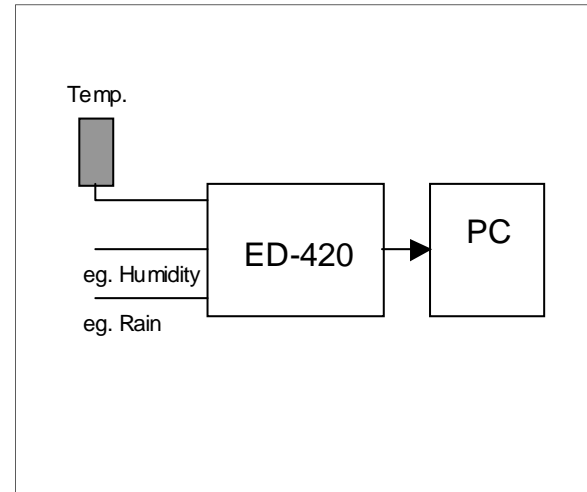
- Supervision Applications.
- Temperature Measurement for Public Service Systems.
- Small Display and Monitoring Systems.

TECHNICAL DESCRIPTION:

The ED-420 3 Channel Data Acquisition Module is a compact and versatile Data Logger.

The Module have one channel dedicated for PT100-Sensor Bridge Measurement. This channel features a special Signal Condition Algorithm for precise interpretation of the Platinum Sensor.

A second Channel is available for General Voltage Differential Measurement.



The Module is equipped with a Counter Input for Pulse Measurement or Switch Monitoring. The Module are able to collect Data from the two Analogue Channels, 1 and 2, 15 times pr Second.

Each Second these 15 Samples are computed and stored. Due to the configuration of the Module, computed Data are stored over a period of time.

When this period expires, the Module calculates the Average Values for Channel 1 and 2 for the elapsed period and presents these computed values and the Module resumes Data Acquisition for a new period.

This Data can also be easily read manually by sending a special command to the Module. Automatic presentation of Data can be disabled, then Data is only presented when polling the Module.

All Data Channels have there own Coefficients for Gain and Offset.

These Values can easily be altered by the Serial Communication Interface.

The ED-420 Module also features individual Channel Names and Channel Units.

TECHNICAL SPECIFICATIONS FOR ED-420.

Communication Protocol :

ASCII, 8 bit, 1 Stop Bit, No Parity.
Baud rate: 19200 Bit/Sec

Input Signal :

Channel 1: *PT100*

Range: -40 to +60 °C

Resolution: 0.1 °C

Linearity: ±0.5 °C

Channel 2: *Analogue Voltage*

Range: 0 to 5 V Differential

Resolution: 1024 Bit.

Linearity: ±1 LSB

Channel 3: *Digital Counter*

Resolution: 1 Pulse.

Maximum Count: 65535 Pulses.

0 - 5 V or ≤1KΩ Switch 0 to 16 Hz.

Electrical Connections (Internal Connector)

Terminal 1:	Supply Common.
Terminal 2:	Supply 7-12 VDC
Terminal 3:	Sensor Supply Common
Terminal 4:	Sensor Supply Out
Terminal 5:	PT100 Bridge Positive
Terminal 6:	PT100 Input Positive
Terminal 7:	PT100 Input Negative
Terminal 8:	PT100 Bridge Negative
Terminal 9:	Analogue Input Positive
Terminal 10:	Analogue Input Negative
Terminal 11:	Analogue Common
Terminal 12:	Counter Input
Terminal 13:	Counter Common
Terminal 14:	Com. Transmitter
Terminal 15:	Com. Common
Terminal 16:	Com. Receiver

Power Supply :

7 - 12 VDC

Min. 20 mA (Low Power Mode)

Typ. 25 mA. (Low Power Mode)

Max. 55 mA. (Normal Mode)

Maintenance

None.

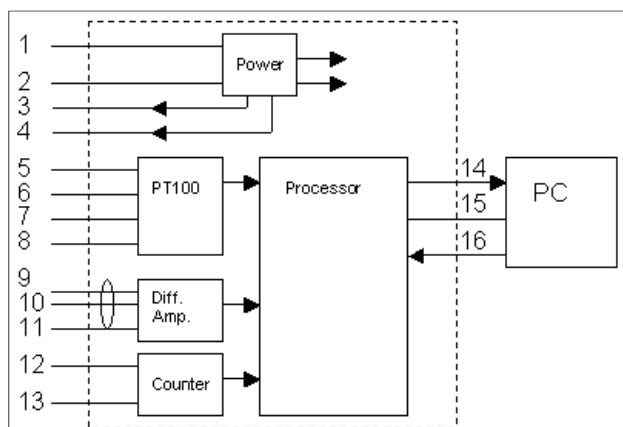
Operating Temperature :

0 to +60°C

Mechanical Specifications :

Height	80 mm.
Width	120 mm.
Depth	58 mm.
Weight	250 g.

Schematic View :



EU Declaration of Conformity :

EN61000-6-3 Emission.
EN61000-6-2 Immunity.

Warranty :

One Year against faulty materials
or workmanship.

Serial no.: _____

Options: _____

Date: _____

Sign: _____