

Acquisition Board PC 10 U

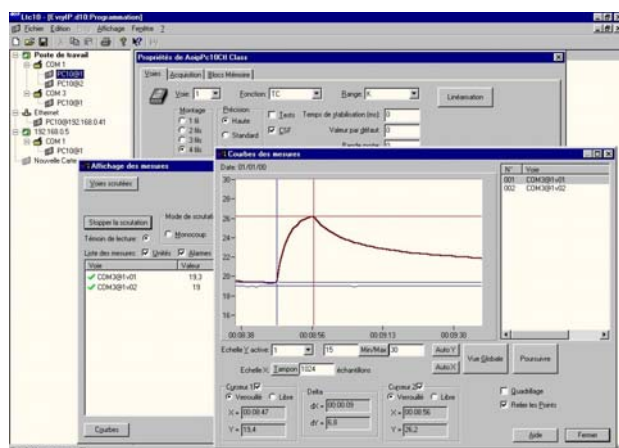
Stand alone Module for Networks (Modbus, Ethernet, TCP/IP...), the PC 10 U is dedicated for measurement, monitoring and storage of digital and analogue signals issued from electrical and physical sensors.

The configuration and the use of the PC 10 U are performed via two easy and user-friendly software, compliant to the latest Norms and Market's requirements (Cartography, Validation, FDA...). The configuration and data processing software LTC10 and the real time monitoring software LW1.

An automated management of the memory and of the e-mail sending enable to the PC10 to perform the monitoring and the supervision of parameters such as temperature, voltage, current and resistance. Combining accuracy and easy to use, the PC10U is a real alternative to PC boards and acquisitions units.



- 10 to 30 Universal Inputs
- 2 relay outputs
- Removable screwing connector
- Modbus, Ethernet TCP/IP interfaces
- Memory of 100 000 measurements
- Sending e-mails on alarms events
- Configuration and data processing software : LTC10
- Real time monitoring software : LW1, VISULOG



Specifications

General specifications

	PC 10 U
Dimensions	330 x 170 x 38 mm
Weight	950 g
Power supply	9 - 48 V (via an adapter)
Communication interface	RS232, RS485, Ethernet
Operating conditions	-10 to 50°C, 10 to 80% HR non-condensing
Exploitation Software	LTC10
Real time monitoring Software	LW1, VISULOG

Delivered in standard with

The Module is supplied with a power supply adapter, a removable terminal block, a network link cable and the LTC10 configuration and data processing software.

The Real time monitoring software, sensors and calibration certificate: on request.

Measurement speed

Accuracy	Scanning speed	Display capacity
High	14 meas./sec	700 000 cts
Medium	100 meas./sec	70 000 cts
Low	250 meas./sec	7 000 cts

PC 10 U

DC Voltage

Range	Uncertainty					
	High		Medium		Low	
	90 days	1 year	90 days	1 year	90 days	1 year
50 mV	0,010% + 5μV	0,02% + 7μV	0,050% + 20μV	0,10% + 22μV	0,10% + 40μV	0,2% + 45μV
500 mV	0,010% + 5μV	0,02% + 7μV	0,050% + 20μV	0,10% + 22μV	0,10% + 200μV	0,2% + 205μV
5 V	0,010% + 0,5mV	0,02% + 0,7mV	0,050% + 2mV	0,10% + 7mV	0,10% + 10mV	0,2% + 15mV
50 V	0,010% + 0,5mV	0,02% + 0,7mV	0,050% + 2mV	0,10% + 7mV	0,10% + 20mV	0,2% + 25mV
100 V	0,010% + 5mV	0,02% + 7mV	0,050% + 20mV	0,10% + 22mV	0,10% + 200mV	0,2% + 205mV

Maximum voltage between channels: 150 V- or ~.

Temperature coefficient : (0,001%)/°C for 0 to 35 °C and (0,002%)/°C for 35 to 50 °C.

DC Current

Range	Uncertainty					
	High		Medium		Low	
	90 days	1 year	90 days	1 year	90 days	1 year
20 mA	0,010% + 10μV	0,02% + 20μV	0,050% + 40μV	0,10% + 60μV	0,10% + 20μV	0,2% + 40μV

A shunt of 50 Ω, 0,1% per channel is necessary.

Resistance (4wires)

Range	Uncertainty					
	Haute		Medium		Low	
	90 days	1 year	90 days	1 year	90 days	1 year
100 Ω	0,020% + 5 mΩ	0,040% + 7 mΩ	0,05% + 50 mΩ	0,07% + 70 mΩ	0,20% + 500 mΩ	0,4% + 700 mΩ
1 KΩ	0,020% + 50 mΩ	0,040% + 70 mΩ	0,05% + 500 mΩ	0,07% + 700 mΩ	0,20% + 2 Ω	0,4% + 5 Ω
3 KΩ	0,020% + 500 mΩ	0,040% + 700 mΩ	0,05% + 5 Ω	0,07% + 7 Ω	0,20% + 5 Ω	0,4% + 7 Ω
100 KΩ	0,020% + 5 Ω	0,040% + 7 Ω	0,05% + 50 Ω	0,07% + 70 Ω	0,20% + 200 Ω	0,4% + 500 Ω
200 KΩ	1 % + 10 Ω	2 % + 50 mΩ	2 % + 100 Ω	4 % + 200 Ω	4 % + 1 KΩ	5 % + 1,5 KΩ

Add to the above values 5 mΩ for a 3 wires configuration and 50mΩ 2 wires configuration.

RTD's (Measurements in 3 or 4 wires)

Range	Uncertainty					
	High		Medium		Low	
	90 days	1 year	90 days	1 year	90 days	1 year
Pt 100	0,02% + 0,01°C	0,04% + 0,02°C	0,05% + 0,1°C	0,07% + 0,2°C	0,2% + 1°C	0,40 % + 1°C
Pt 1000	0,02% + 0,2°C	0,04% + 0,4°C	0,05% + 0,5°C	0,07% + 1°C	0,2% + 1°C	0,40 % + 1°C
Ni 100	0,02% + 0,01°C	0,04% + 0,02°C	0,05% + 0,1°C	0,07% + 0,2°C	0,2% + 1°C	0,40 % + 1°C
Cu 10	0,02% + 0,1°C	0,04% + 0,4°C	0,05% + 0,5°C	0,07% + 1°C	0,2% + 1°C	0,40 % + 1°C

Other sensors : Refer to the manual

Thermocouples

Sensor	Measurement range	Resolution	High Uncertainty	
			90 days	1 year
K	-250°C -200°C	0,5	0,01% Rdg+ 0,5°C	0,02% Rdg+ 1°C
	-200°C -120°C	0,2	0,01% Rdg+ 0,2°C	0,02% Rdg+ 0,2°C
	-120°C 1300°C	0,1	0,01% Rdg+ 0,1°C	0,02% Rdg+ 0,1°C
T	-250°C -200°C	0,5	0,01% Rdg+ 0,5°C	0,02% Rdg+ 1°C
	-200°C -100°C	0,2	0,01% Rdg+ 0,3°C	0,02% Rdg+ 0,3°C
	-100°C 400°C	0,1	0,01% Rdg+ 0,2°C	0,02% Rdg+ 0,2°C
J	-210°C -120°C	0,2	0,01% Rdg+ 0,5°C	0,02% Rdg+ 0,7°C
	-120°C 1100°C	0,1	0,01% Rdg+ 0,1°C	0,02% Rdg+ 0,1°C
S	-50°C 550°C	1	0,01% Rdg+ 1°C	0,2% Rdg+ 1°C
	550°C 1768°C	0,5	0,01% Rdg+ 0,5°C	0,2% Rdg+ 0,5°C

Other sensors : Refer to the manual

With the built-in RJC, add to the above uncertainty ± 0,5°C for measurements for the medium uncertainties and add ± 1°C for measurements for low

Ordering Reference

Acquisition Module 10 to 30 channels Universal I/O: PC10U-G0 or PC10U-U0



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