

Remote acquisition unit with isolated inputs for Temperature or process

CML105

LOREME

• 8 isolated analog inputs, temperature and process

CML105T mV, thermocouple, PT100

CML105P 4-20 mA and 0-10V

Individual configuration of each input.

2 alarm thresholds per input.

• Communication :

Modbus RTU RS485

Modbus TCP (Ethernet), 6 simultaneously connections

Embedded Web Server

SNMP



• Application :

Acquisition interface,
protection relay



The CML105 is a multichannel acquisition unit for application requiring a high level of functional safety. The full isolation of the product ensures total independence of each measurement channel.

Measure inputs:

(All the inputs are isolated from each other)

CML105t : thermocouples , Pt100 , mV, resistance.

CML105p : 4 - 20 mA and 0 - 10V.

Special inputs on request:

CTN, CTP, NI100, CU10, PT1000, potentiometer, 0...100V,

Front face :

- LCD display with 2 lines of 16 characters (back-lighted).
- Three push buttons to configure the product.
(choice of input type, thresholds setting, communication, display).

Alarms :

The device have 2 configurable alarms per measure channel.
(parameters: Threshold, direction, hysteresis, delay, sensor breaking detection.)

These alarms respectively control two relays,
common to all channels.

Each relay can be setting for positive or negative security (NO/NC).

Communication:

Sending back of the measurements may be performed in option by several communication protocol:

- RS485 : Modbus
- Ethernet : Modbus TCP, SNMP

Special functions:

- Selection of the scanning sequence by individual enabling or disabling channels.
- Differential alarm for monitoring temperature difference.

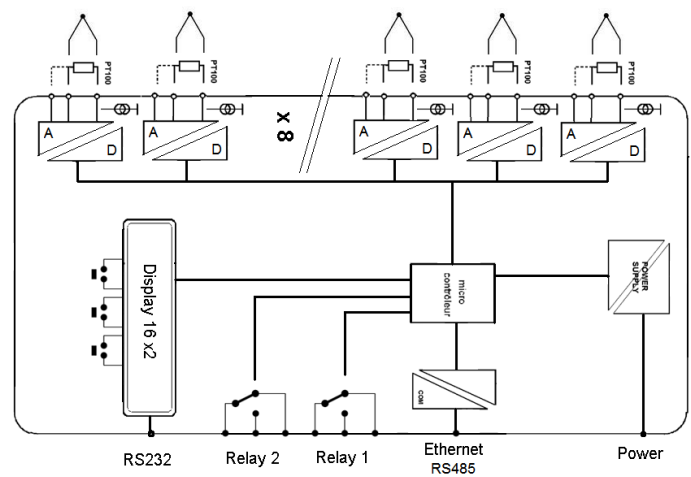
Features:

- Mounting on DIN rail (symmetrical).
- Connection on spring terminals (max section 1.5 mm ²).
- Conformal coating.
- Protection rating: IP20.

Configuration / update:

The device can be configured via the front panel or via the serial RS232 link. USB to 3 points plug cable supplied separately.
Firmware update is also possible via this serial link.

Synoptic:



Version and order code:

CML105T: 8 Temperature inputs « Tc, 3-wire PT100 »

CML105P: 8 Process inputs « mA , Volt »

OPTION :

-pt4f: measurement board with 4-wire PT100 inputs

/R: 2 alarms relays. Common to all measures channels

/CM RS485 MODBUS / JBUS link

/CMTCP Ethernet MODBUS TCP link

/SNMP Ethernet SNMP protocol link

INPUT

TYPE	RANGE	ACCURACY
Version : CML105T (Temperature)		
Voltage	0 / 120 mV	+/- 20 µV
Input impedance	> 4 MOhms	
Resistance	0 / 380 ohms	+/- 0.2 Ohms
Pt100 2 or 3 wires	-200 / 600 °C	+/- 0.3 °C
Pt100 4 wires	-200 / 600 °C	+/- 0.1 °C
Tc B	200 / 1800 °C	+/- 3 °C
Tc E	-250 / 1000 °C	+/- 0.5 °C
Tc J	-200 / 700 °C	+/- 0.7 °C
Tc K	-200 / 1350 °C	+/- 0.8 °C
Tc R	0 / 1750 °C	+/- 3 °C
Tc S	0 / 1600 °C	+/- 3 °C
Tc T	-250 / 400 °C	+/- 0.7 °C
Compensation T°	-10 / 60 °C	+/- 0.2 °C
Other couples on request.		

Version : CML105P (process)

Voltage	0 / 10 V	+/- 5 mV
Input impedance	250 kOhms	
Current	0 / 20 mA	+/- 10 µA
Current	4 / 20 mA	+/- 10 µA
Input impedance	5 Ohms	

Scanning time (measure of all channels) 1000 ms

RELAYS

Resistive breaking capacity 1 A / 250 Vac

POWER SUPPLY (to be define at order)

11.....30 Vdc or 20....265 Vac-dc, 4 VA

COMMUNICATION

Modbus RTU over RS485 (9600, 19200 bauds).

Connection: 2 wires screw terminal.

Modbus TCP/ SNMP over Ethernet 10/100 T base (RJ 45 connection).

ENVIRONMENT

Operating temperature	-10 to 70 °C
Storage temperature	-20 to 85 °C
Effect	< 0.01 % / °C
Relative humidity	85 % not condensed
Weight	~500 g
Protection rating	IP20 as standard
Dielectric strength:	
Input/Relay/Power Supply/Communication:	1500 Vrms continuously
input / input	: 500 Vrms continuously

MTBF (MIL HDBK 217F) > 4 000 000 Hrs @ 25°C

Life time > 200 000 Hrs @ 30°C

Electromagnetic compatibility 2004/108/CE / Low Voltage Directive 2006/95/EC

Immunity standard for industrial environments EN 61000-6-2		Emission standard for industrial environments EN 61000-6-4
EN 61000-4-2 ESD	EN 61000-4-8 AC MF	EN 55011 group 1 class A
EN 61000-4-3 RF	EN 61000-4-9 pulse MF	
EN 61000-4-4 EFT	EN 61000-4-11 AC dips	
EN 61000-4-5 CWG	EN 61000-4-12 ring wave	
EN 61000-4-6 RF	EN 61000-4-29 DC dips	



WIRING AND OUTLINE DIMENSIONS:

