PROGRAMMABLE DIGITAL CONVERTER
CNL48, CNL48/1

- ***All process and temperature inputs***
  (Volt, mV, mA, power supply sensor, potentiometer)
  (thermocouple, PT100, ...)
- ***CNL48:*** *Relay output*
- ***CNL48/1:*** *Sensor power supply, potentiometer reference*
- ***CNL48/F:*** *Frequency output (integration)*
- ***Fully configurable***
- ***Fully insulated***

CNL48 is a universal digital convert for analog, temperature and process inputs with an analog output and a alarm relay in a standard version.

FUNCTIONALITY:

Measures:
- temperature, linearized thermocouples with internal or external cold junction compensation, Pt100 with line length compensation,
- process, mA, mV, V, Ohms, sensor power supply.

Calculation functions:
- square root extraction,
- measure range conversion,
- special linearization on 26 points max,

Outputs:
- 1 analog output in mA or V, with output type, scale, security value, response time and limitation choice.
- 1 configurable relay in sensor breaking detection and/or threshold detection with direction, threshold, hysteresis, security and delay choice.

Auxiliary(CNL48/1) not relay :
- sensor power supply 20 Vdc smoothed - 25 mA,
- potentiometer reference 100 mVdc.

General characteristics:
- wall and symmetrical DIN rail mounting,
- screw-terminals connection,
- 1500 V galvanic insulation supply / input / output / relay,
- saving of the configuration parameters in EEPROM, safety of data holding > 10 years,
- noise immunity, programmable filtering of the measure,
- freely adjustable measure offset,
- watchdog supervising program process,
- regeneration of internal parameters on each measure,
- stability with ambient temperature variation.

CONFIGURATION:

The device can interact via the serial RS232 link with any system emulating a terminal. Ex: Windows HyperTerminal. Free supply of RS232 cable on single request.

Warning: the RS232 link is not insulated from analog output. Check if there is no hazardous potential on output before any configuration.

Through the terminal, the user will be able to:
- visualize measure,
- set offset,
- configurate device:
  input, outputs,
  range, specials functions...
  relays,

Version and order code :

CNL48:	universal input, 1 analog output, 1 relay.
CNL48/1:	universal input, 1 analog output, sensor power supply, potentiometer reference.
CNL48/F:	universal input, frequency output 10 Hz maxi, integrating function, output type 0 / 10 V or on dry contact off potential.
Note:	Options can not be held concurrently !

90 days accuracy (20 °C +/- 2 °C) *DATA SHEET CAN BE DOWNLOADED ON* ***WWW.LOREME.FR*** **TECHNICAL SPECIFICATIONS**

INPUT

TYPE	RANGE	ACCURACY
Low level voltage	-10 to 110 mV	+/- 20 µV
High level voltage	-1 to 11 V	+/- 2 mV
external attenuator		
Current	0 to 20 mA	+/- 2 µA
5 Ohms external shunt		
Resistance	0 to 350 Ohms	+/- 0.1 Ohms
Pt100	-200 / 600 °C	+/- 0.3 °C
Tc B	200 / 1800 °C	+/- 2 °C
Tc E	-250 / 1000 °C	+/- 0.3 °C
Tc J	-200 / 600 °C	+/- 0.4 °C
Tc K	-200 / 1350 °C	+/- 0.5 °C
Tc R	0 / 1750 °C	+/- 1.5 °C
Tc S	0 / 1600 °C	+/- 1.5 °C
Tc T	-250 / 400 °C	+/- 0.4 °C
T° compensation	-10 / 60 °C	+/- 0.3 °C

other couples on request

Impedance	> 4 MOhms
Sampling rate	10 / second
Potentiometer reference	100 mV
Sensor power supply	19 V (smoothed)
for power supply voltage rating	

ANALOG OUTPUT

TYPE	RANGE	ACCURACY
Current	0 to 20 mA	+/- 10 µA
Load	750 Ohms	
Voltage	0 to 10 V	+/- 5 mV
500 Ohms external shunt		
Response time	300 ms to 60 s	

RELAY

Insulated reverser contact	1500 V
Commutation power	5 A / 250 V

POWER SUPPLY

(to specify at the order)

230 / 115 Vac commutable 50-60 Hz, +/- 10 % 2.3 VA
20 to 70 Vac / Vdc , 2.3VA
20 to 70 Vac / Vdc , 2.3VA
9 to 30 Vdc, 2.3W

RECOMMENDED OPERATING CONDITIONS

Operating temperature	-10 to 60 °C
Storage temperature	-20 to +85 °C
Influence temperature	< 0.005 %/°C (% of full scale)
Relative humidity	85 % (not condensed)
Weight	334 g
Protection	IP20
Dielectric strength	1500 Veff continuous
Pwr.Supply / Inputs / Outputs / Relays	

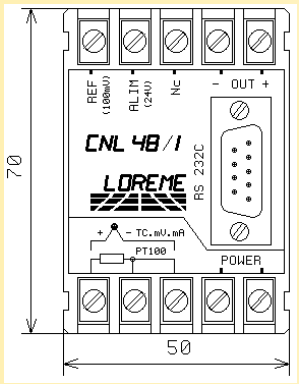
Electromagnetic compatibility

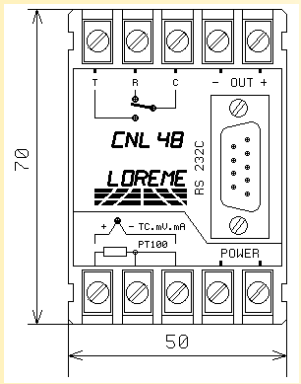
Generic standards: **NFEN50081-2 / NFEN50082-2**

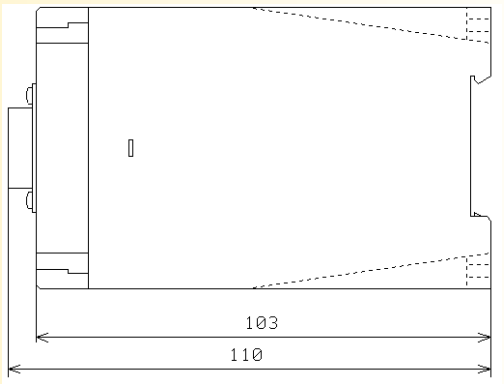
CE

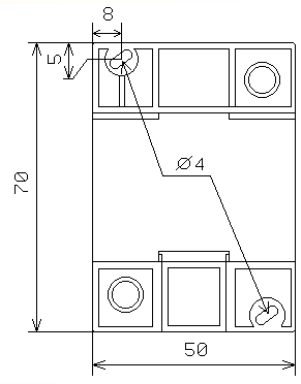
EN55011	meet	group 1 / class A			
EN61000-4-2	no influence	B	**ENV50140**	< +/- 5 %	A
EN61000-4-4	< +/- 5 %	B	**ENV50141**	< +/- 10 %	A
EN61000-4-5	< +/- 5 %	B	**ENV50204**	no influence	A
EN61000-4-8	no influence	A			
EN61000-4-11	< +/- 5 %	B	DBT	**73/23/CEE**	

WIRING AND OUTLINE DIMENSIONS:









DRILLING SIZE
FOR WALL MOUNTING