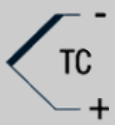
- ***Process input version***
  Input: 0..10 Volts ; 0...4...20 mA,
  Sensor power supply
- ***Temperature input version***
  PT100 ; PT1000; Ni100; Ni1000; …
  Thermocouple : J,K,T
- ***Size 72 x 36 mm***
  Low depth
- ***Size 72 x 72 mm***
  Double panel meter version 94000D
- ***1000 pts LED display***
  Available in red, green, yellow, blue
- ***Relay output option :*** *94000/R*
- ***4..20mA analog output option :*** *94000/S*
- ***RS485 Modbus link option:*** *94000/CM*



The 94000 is a digital indicator designed for low-cost or small size applications. The relay option allows to use it like a thermostat or like a safety relay. The analog output or RS485 Modbus communication link allows a copy of measure information (only on PT100 or PT1000 input version)

DESCRIPTION:

Process input version:
(The measure scale and display ranges are programmable)
- Current : 0...4....20mA (+ sensor power supply of 22V-30mA)
- Voltage : 0....10V

Temperature input version:
- Pt 100, Pt1000, Ni100, Ni120, Ni1000, 2 or 3 wires mounting
- Thermocouple : J,K,T

(the sensor type must be defined. Other sensor on request)
Measure range : -99°C / +999 °C (depend on sensor type)
resolution: 0.1 °C for -9.9°C to +99,9 °C and 1°C for 100°C to 999°C
- Sensor breaking or over range detection
(display: LO, HI or Err).

Front face :
- Measure display : 3 digits (1100 pts), 14,2 mm 7 segments LED
- 2 push buttons (on demand place behind the removable front panel) allow the full configuration of the device: input type (mA, V), display range and decimal point position, threshold, output range.

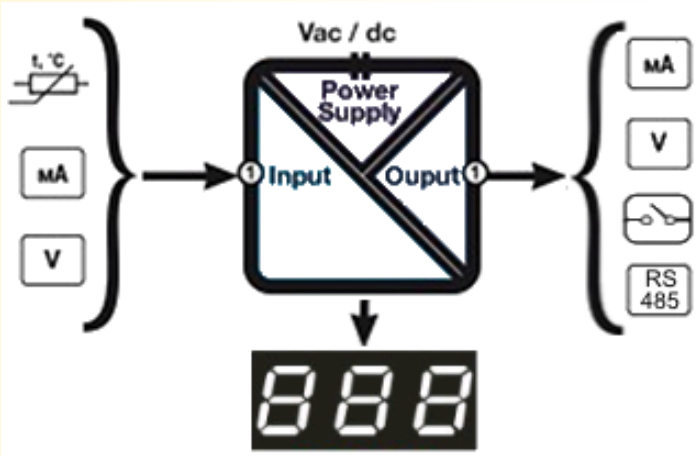
Option:
Relay (94000/R)**:**
- 1 changeover contact, free potential, usable in alarm or ON/OFF regulation, thermostat,…)
- Threshold, direction settable with push buttons on front face.

Analog output (94000/S)**:**
- 1 not isolated analog output. 4..20mA current. available only for Pt100 version (temperature range programmable).

Communication (94000/CM)**:**
- RS485 link, Modbus RTU (9600 / 19200bps)

Feature:
- DIN panel case: 72 x 36 (standard),
- 1.5mm² screw terminal blocks,
- Conformal coating.
- Protection rating IP54 (front face), IP65 in option

Synoptic:



Version and order code:

94000mAV	panel meter, mA and Volt inputs
94000mAV/R	panel meter, mA, Volt inputs, relay output
94000PT	panel meter, PT100 input
94000PT/R	panel meter, PT100 input, relay output
94000PT/S	panel meter, PT100 input, 4-20mA analogical output
94000PT/CM	panel meter, PT100 input, RS485 MODBUS RTU link
94000Tc/R	panel meter, thermocouple (J,K,T) input, relay output
option - **D**	double panel meter, case size 72 x 72mm
option - **L**	panel meter, without accessible buttons (IP65)

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

INPUT

TYPE	RANGE	ACCURACY
PT100 (2 or 3 wires)	-99 / +650 °C	+/- 0.3 °C
Measure current	< 500 uA	
PT1000 (2 or 3 wires)	-99 / +650 °C	+/- 0.3 °C
Volts	0...10Vdc	+/- 0.25 %
mA	0...4...20mAdc	+/- 0.25 %
(Sensor power supply : 21 V regulated +/- 5% 30 mA)		
Tc J	- 99….600 °C	+/- 0.4 °C
Tc K	- 99….1000 °C	+/- 0.4 °C
Tc T	- 99….400 °C	+/- 0.7 °C
Cold junction compensation	-20 to 85 °C	+/- 0.3 °C
Input impedance:	> 1 Mohms	
Sensor breaking current detection	0.25 uA	

RELAY

1 isolated changeover contact	1500Vac
Breaking capacity	1A / 250 V
Switching life	5.10^7 @100 mA, 1.10^6 @1 A

Analog output

Current	4….20mA	+/-10uA
Max load	0……350 ohms	

Communication

RS485 Half Duplex	9600 / 19200 bps	Modbus RTU

POWER SUPPLY

Universal not polarised available in 3 versions
20Vac.....70Vac/dc; 85Vac..... 265Vac/dc; 11Vdc..... 30Vdc.
consumption < 2 VA

ENVIRONMENT

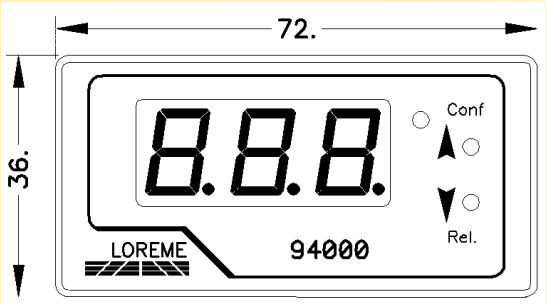
Operating Temperature	-20 to 60°C
Storage Temperature	-40 to +85 °C
Thermal drift (% of the full scale)	< 0.02% / °C
Humidity :	85 % (not condensed)
Protection rating:	IP54 (without buttons)
Dielectric strength:	2500Vac (power / input/ relay)
Weight :	150 g
MTBF (MIL HDBK 217F)	> 3 000 000 Hrs @ 25°C
Lifetime	> 170 000 Hrs @ 30°C

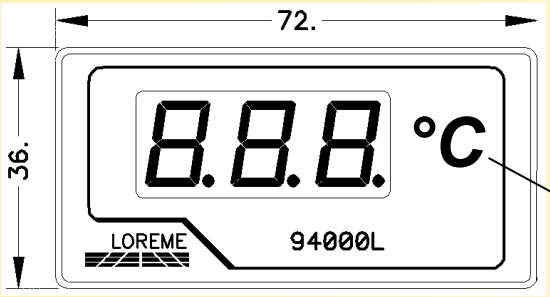
Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE

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*
EN 61000-4-3 RF	*EN 61000-4-9 pulse MF*	
EN 61000-4-4 EFT	*EN 61000-4-11 AC dips*	*group 1*
EN 61000-4-5 CWG	*EN 61000-4-12 ring wave*	*class A*
EN 61000-4-6 RF	*EN 61000-4-29 DC dips*	

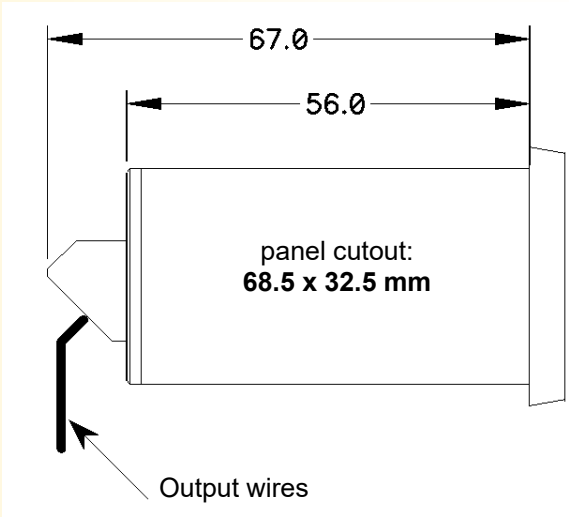
CE

WIRING AND OUTLINE DIMENSIONS:

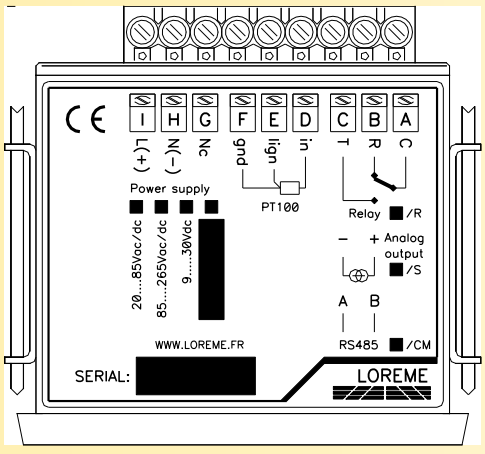




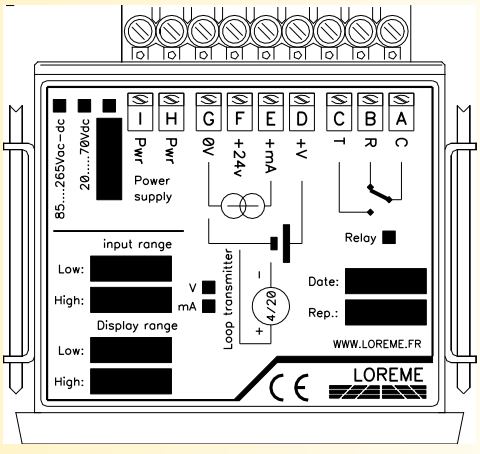
Serigraphy of unit must be specified at order



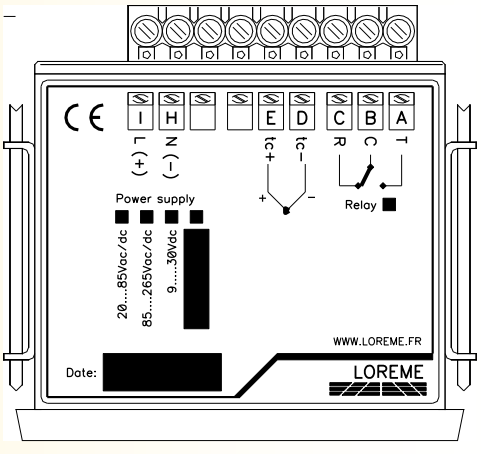
Settings available under the front face.



PT100, PT1000 input version



4..20mA / 0...10V input version



Thermocouple input version

LOREME 12, rue des Potiers d'Etain - 57071 Metz ☎ 03.87.76.32.51 - www.loreme.fr - Email: Commercial@Loreme.fr - Technique@Loreme.fr