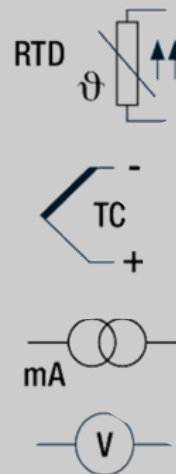


**Small panel meter PT100, Thermocouple, 4-20mA, 0-10V**  
**Panel mount Thermostat**  
 type: 94000



- **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 9400D
- **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**
- **Option : SIL2 According to IEC 61508**



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:**  
 (measure 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 from -9.9°C to +99,9 °C  
 resolution 1°C from 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.

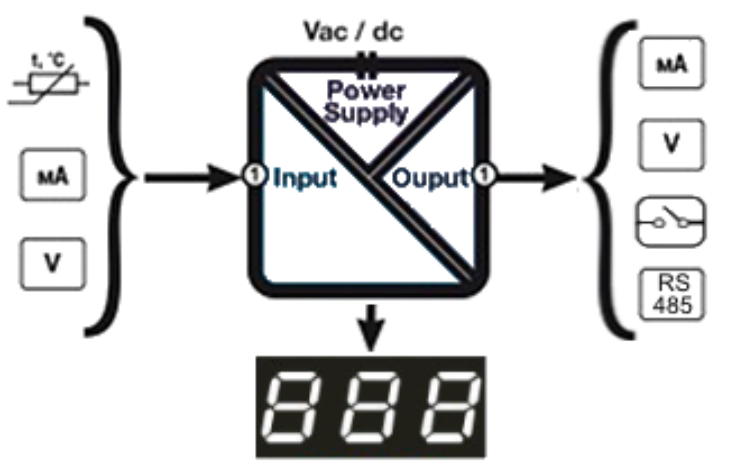
**Option:**  
**Relay (94000/R):**  
 - 1 changeover contact, free potential, usable in alarm or ON/OFF regulation, thermostat,...)  
 - Threshold, direction settable with push buttons on front face.

**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),  
 - 1.5mm<sup>2</sup> screw terminal blocks,  
 - Conformal coating.  
 - Protection rating IP54 (front face), IP65 in option

**Operational safety data :**  
 component type B , HFT = 0  
 $\lambda$ f = 247 fit (1/MTBF)  
 DC = 89.1 % (diagnostic coverage)  
 SFF = 90.9 % (probability of failure fraction)  
 PFH = 27 fit (probability of failure per hour)



Version and order code:		<a href="#">Request a quote</a>
<b>94000L</b>	3 digits display (IP65) without accessible settings	
<b>94000</b>	3 digits display with accessible settings	
<b>option /SIL2</b>	SIL2 version according to IEC61508	
<b>94000D</b>	double panel meter 2x3 digits display with accessible settings (2 inputs version. size 72x72mm)	
<b>94000/R</b>	Relay option. Available for any version	
<b>94000/S</b>	Output option 4-20mA (PT100 or PT1000 versions only)	
<b>94000/CM</b>	RS485 MODBUS RTU option Available in PT100 or PT1000 models only	

**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 <sup>7</sup> @100 mA, 1.10 <sup>6</sup> @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**

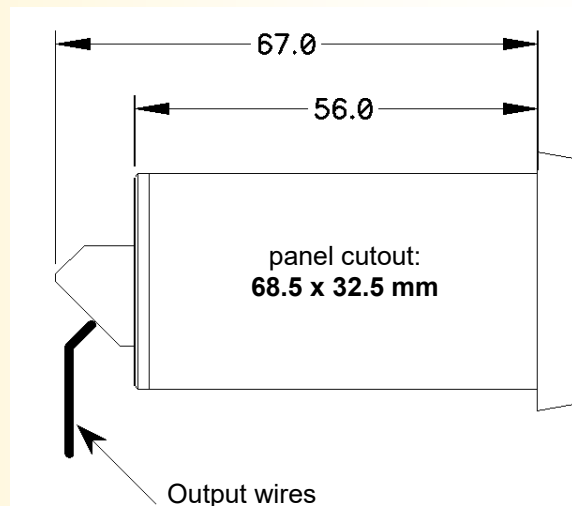
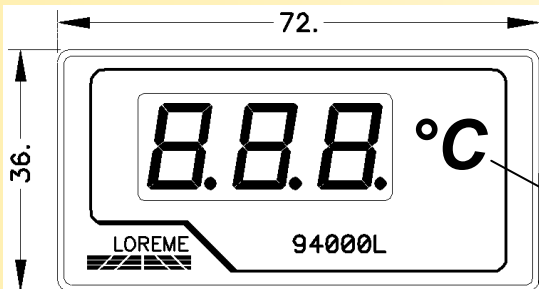
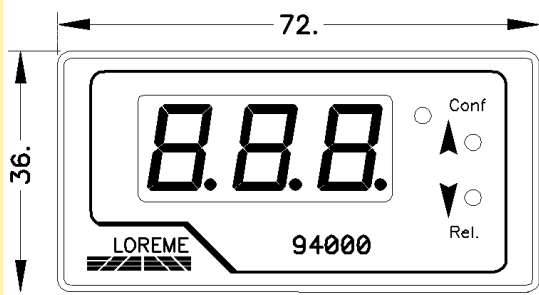
Operating Temperature	-20 to 60°C
Storage Temperature	-40 to +85 °C
Thermal drift (% of the full scale)	< 0.02% / °C
Humidity :	85 % (not condensed)
Protection rating:	IP54 (without buttons)
Dielectric strength:	2500Vac (power / input/ relay)
Weight :	150 g
MTBF (MIL HDBK 217F)	> 3 000 000 Hrs @ 25°C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

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

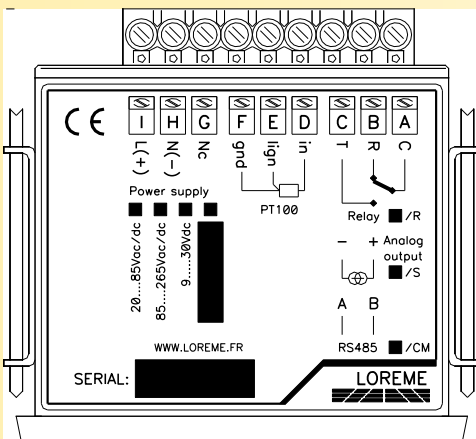
Immunity standard for industrial environments EN 61000-6-2		Emission standard for industrial environments EN 61000-6-4
EN 61000-4-2 ESD	EN 61000-4-8 AC MF	EN 55011 group 1 class A
EN 61000-4-3 RF	EN 61000-4-9 pulse MF	
EN 61000-4-4 EFT	EN 61000-4-11 AC dips	
EN 61000-4-5 CWG	EN 61000-4-12 ring wave	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



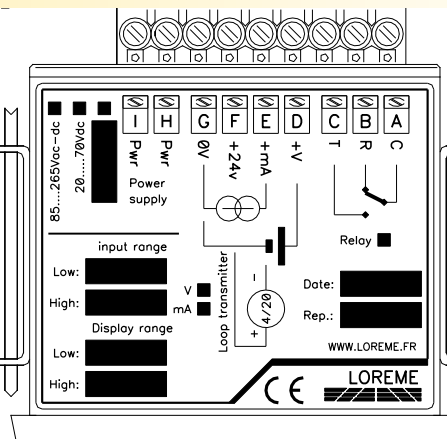
**WIRING AND OUTLINE DIMENSIONS:**



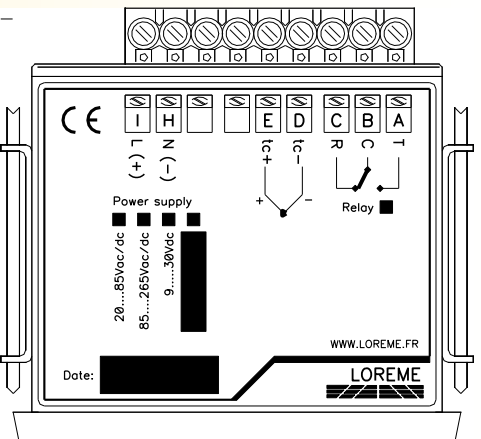
Settings available under the front face.



PT100, PT1000 input version



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



Thermocouple input version