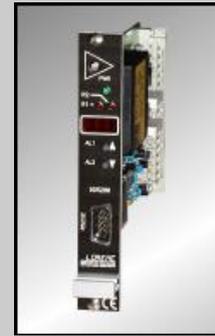


- **Universal:** more than 10 types of input (temperature and process)
- **Calculator:** calcul operation on 2 channels
- **Wide range of power supplies**
- **95B200:** DIN rail case
- **95R200:** rack card
- **95(R,B)200/C:** RS485 modbus link
- **95(R,B)200/S:** 1 analog output
- **95(R,B)200/A:** 4 digits display
- **95B200/S2:** 2 analog outputs (box version)



95R200



95B200

The 95(R,B)200 is an up-market converter mainly intended for applications requiring a very high accuracy while allowing the treatment of a wide range of signals.

FUNCTIONALITY:

Measures:

- thermocouples (type: B, E, J, K, R, S, T), cold junction compensation (internal, external or deported), 2-,3- or 4-wires Pt 100, Pt 1000, line length compensation,
- mA, sensor pwr.supply, mV, V, resistance variation,
- strain gauge, potentiometer,
- frequency, counting (no saved).

Calculation functions:

Converter mode:

- measure range,
- square root,
- special linearization on 18 pts,

Calculator mode:

- 2 configurable mV inputs, non insulated,
- 1 measure range on each input,
- 2 coefficients Ax+B on each input,
- 1 operation between the 2 inputs: +, -, *, /,
- 1 range for the analog output.

Outputs:

The 95(R,B)200 has two configurable relays :

- sensor breaking detection,
- threshold detection (alarm), direction, threshold, hysteresis,
- positive or negative security, delay.

The device is equipped with one slot that can receive either:

- one configurable analog output (insulated or not):
 - current or voltage output type,
 - output scale,
 - security value,
 - response time, limitation.
- one configurable RS485 MODBUS / JBUS digital link:
 - address, 1 to 255,
 - transmission speed, 600 to 38400 bauds,
 - parity even, odd, without,
 - data format in 32 bits floating IEEE,
 - measure reading, configuration reading and writing (input).

Display:

The device has a display allowing to visualize the measure:

- 10 000 points resolution,
- automatic or manual positioning of the decimal point,
- sensor breaking indication, alarm lights.
- adjustment of the alarm thresholds with push buttons,
- possibility to lock the adjustment in RS 232 configuration.

GENERAL CHARACTERISTICS:

General points:

- power supply 230/115 Vac commutable, 3 VA, on request 24/48 Vcc,
- plug-in connector, connection with screw-terminals,
- Europe format card 100x160 width 4TE, 20 mm, 95R200.
- galvanic insulated input / output / power supply / relay,
- saving of the configuration parameters in EEPROM, safety of data holding > 10 years,
- noise immunity and programmable filtering of the measure,
- watchdog supervising the program process,
- regeneration of internal parameters on each measure,
- neutralization of surrounding effects thanks to acquisition circuit self zero.

DIALOGUE - CONFIGURATION:

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

Warning: the RS232 link is not insulated from input measures. Check if there is no dangerous potential on inputs before any configuration.

Through the terminal, the user will be able to:

- visualize the measure,
- shift the measure,
- configurate the device.

Version and order code:

95(B,R)200/C: universal input, calculator mode, configurable MODBUS RS485 link, box or rack version.

95(B,R)200/S: universal input, calculator mode, 1 configurable analog output, case or rack version.

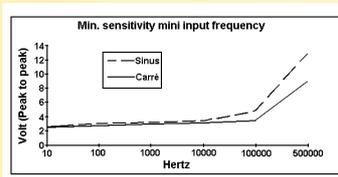
95(B,R)200/A: universal input, calculator mode, display pack, box or rack version.

95B200/S2: universal input, calculator mode, 2 insulated configurable analog output with a same configuration, case version.

Note: Only /A option can be held concurrently with /C or /S option. The others options can not be held concurrently.

INPUT (Resolution >16 bits)

TYPE	RANGE	ACCURACY
Low levels voltage on 8 calibers	from +/- 8 mV to +/- 1024 mV	+/- 10 µV +/- 100 µV
input impedance	22 MΩ	
High levels voltage on 8 calibers	from +/- 1.6 V to +/- 205 V	+/- 10 mV +/- 100 mV
input impedance	1 MΩ	
Current on 8 calibers	from +/- 0.8 mA to +/- 22 mA	+/- 2 µA +/- 10 µA
Input impedance	50Ω	
Resistance 2, 3 wires on 5 calibers	from 0 / 160 Ω to 0 / 2560 Ω	+/- 0.1 Ω +/- 0.5 Ω
Resistance 4 wires on 5 calibers	from 0 / 160 Ω to 0 / 2560 Ω	+/- 0.03 Ω +/- 0.5 Ω
measure current	0.4 mA	
Count	up to 10000 pts (no saved) min. pulse 5 ms, positiv and negativ, detecting for +5V and for -5V.	
Frequency on 2 calibre	1 / 35 000 Hz	+/- 0.01 %
measure range	35 kHz / 500 kHz	+/- 0.028 %
input impedance	3 to 50V~ p.t.p.	measured value
	100 kΩ	



PT1000 (2,3 or 4 wires)	-200 / 540 °C	+/- 0.5 °C
PT100 (2,3 or 4 wires)	-200 / 600 °C	+/- 0.3 or 0.1 °C
Tc B	200 / 1800 °C	+/- 2 °C
Tc E	-250 / 1000 °C	+/- 0.25 °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
Zone of thermocouple compensation	-10 / 60 °C	
Other couples on request		

Sensor power supply: 28 V (smoothed)
for power supply voltage rating
Strain gauge power supply, 2.5 V (regulated)
Potentiometer reference:

RELAY

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

OUTPUT (resolution 12 bits)

TYPE	RANGE	ACCURACY
Current	0 ... 4 ... 20 mA	+/- 10 µA
Max. load:	1250 ohms	
Voltage	0 / 10 V	+/- 5 mV
On external shunt of	500 Ohms	
Programmable response time	from 200 ms to 60 s,	
Noise	< 30 mV (p.t.p.) max. on load of 500 ohms.	

POWER SUPPLY

(to specify a the order)

230 / 115 Vac commutable, 50-60 Hz, +/- 10 %, 3.2 VA
20 to 70 Vac / Vdc, 3.2 VA, (only box version)
80 to 265 Vac / Vdc, 3.2 VA, (only box version)
(protected for reverse polarity)

RECOMMENDED OPERATING CONDITIONS

Temperature operating	-10 to 60 °C
stocking	-20 to 85 °C
influence(% of the full scale)	00.005 % of the caliber
Relative humidity:	85 % (not condensed)
Dielectric strength:	1500 Veff (power 115 / 230 Vac)
(Input/pwr.supply/Output)	1000 Veff (power 24 / 48 Vdc)
MTBF:	450.000 hours
Weight:	~450 g.
Tightness	IP20

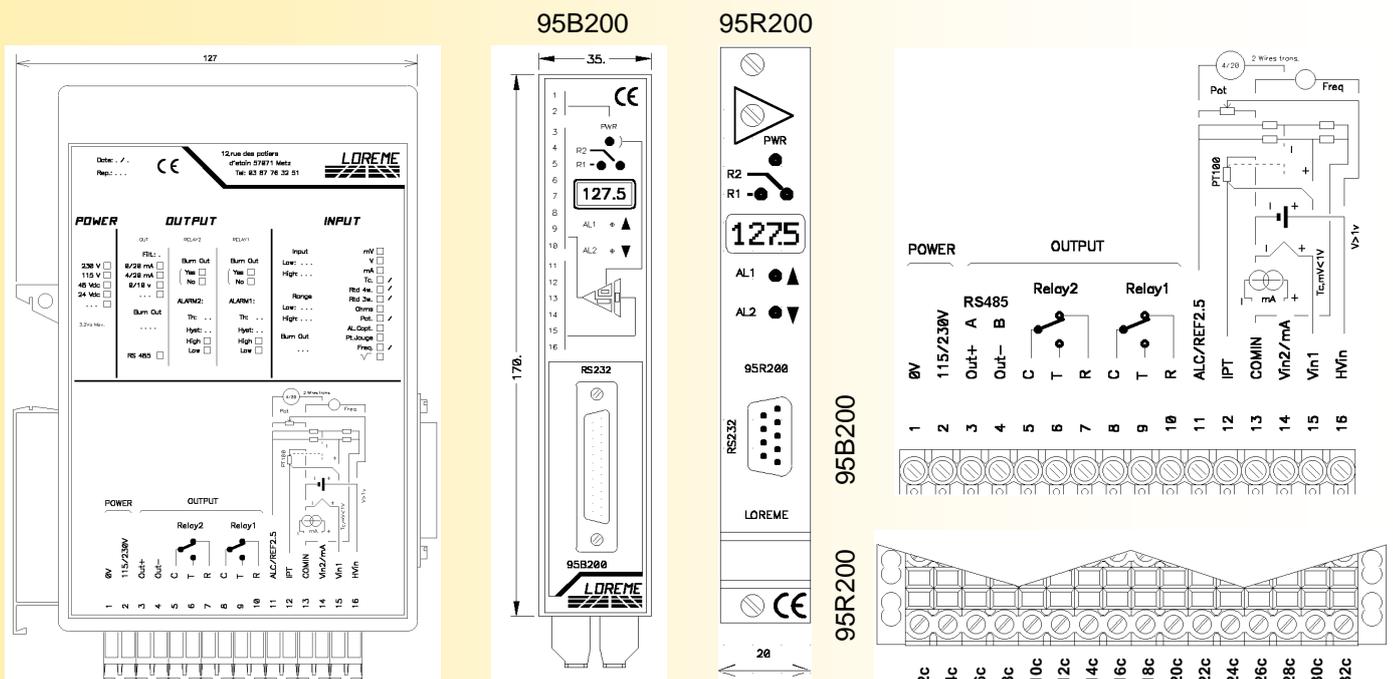
Electromagnetic compatibility

Generic standards: NFEN50081-2 / NFEN50082-2



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:



In order to secure their technical features, we recommend a spacing of at least 5 mm between each one of our devices.