



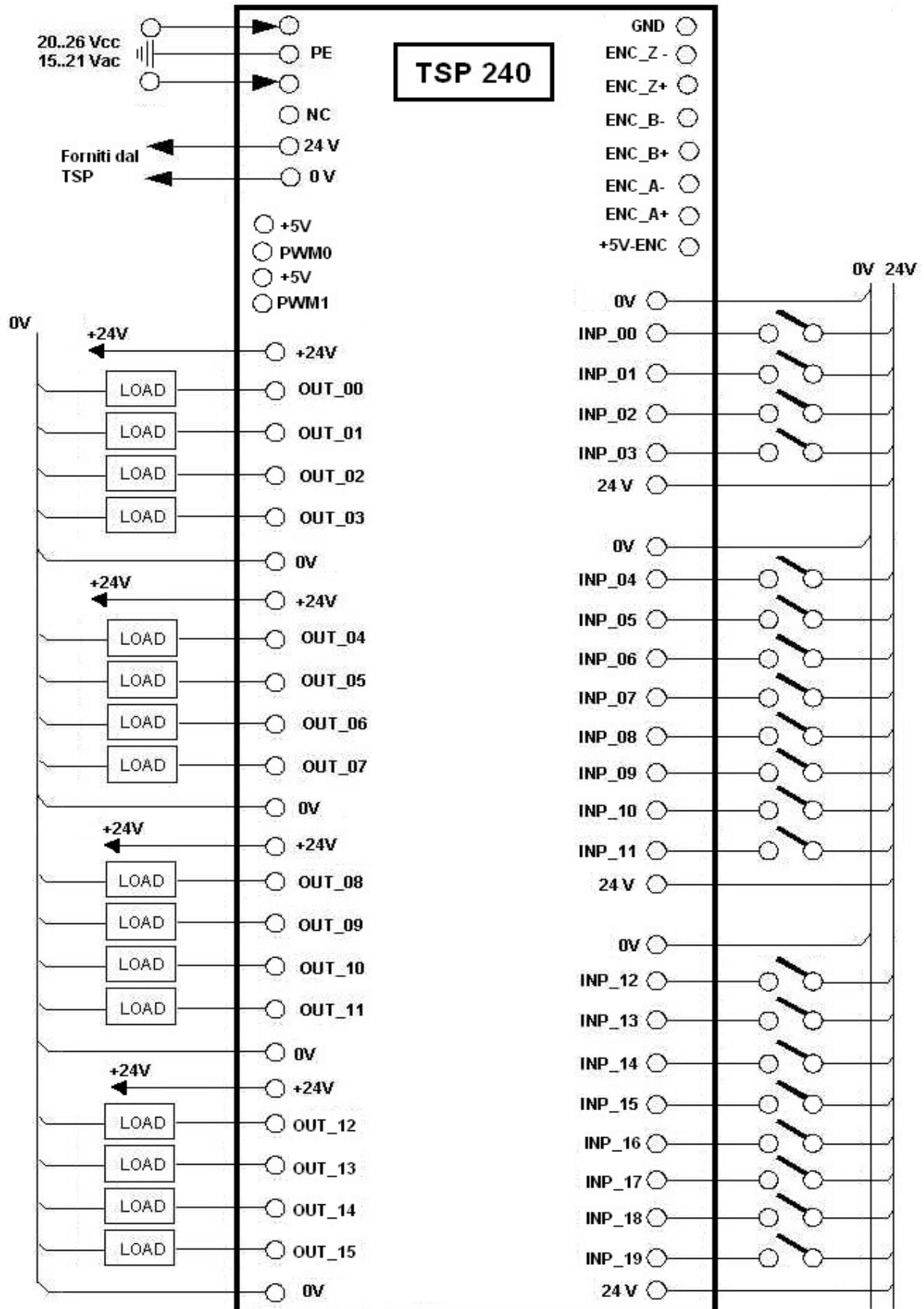
TSP 240



Operator panel with integrated PLC

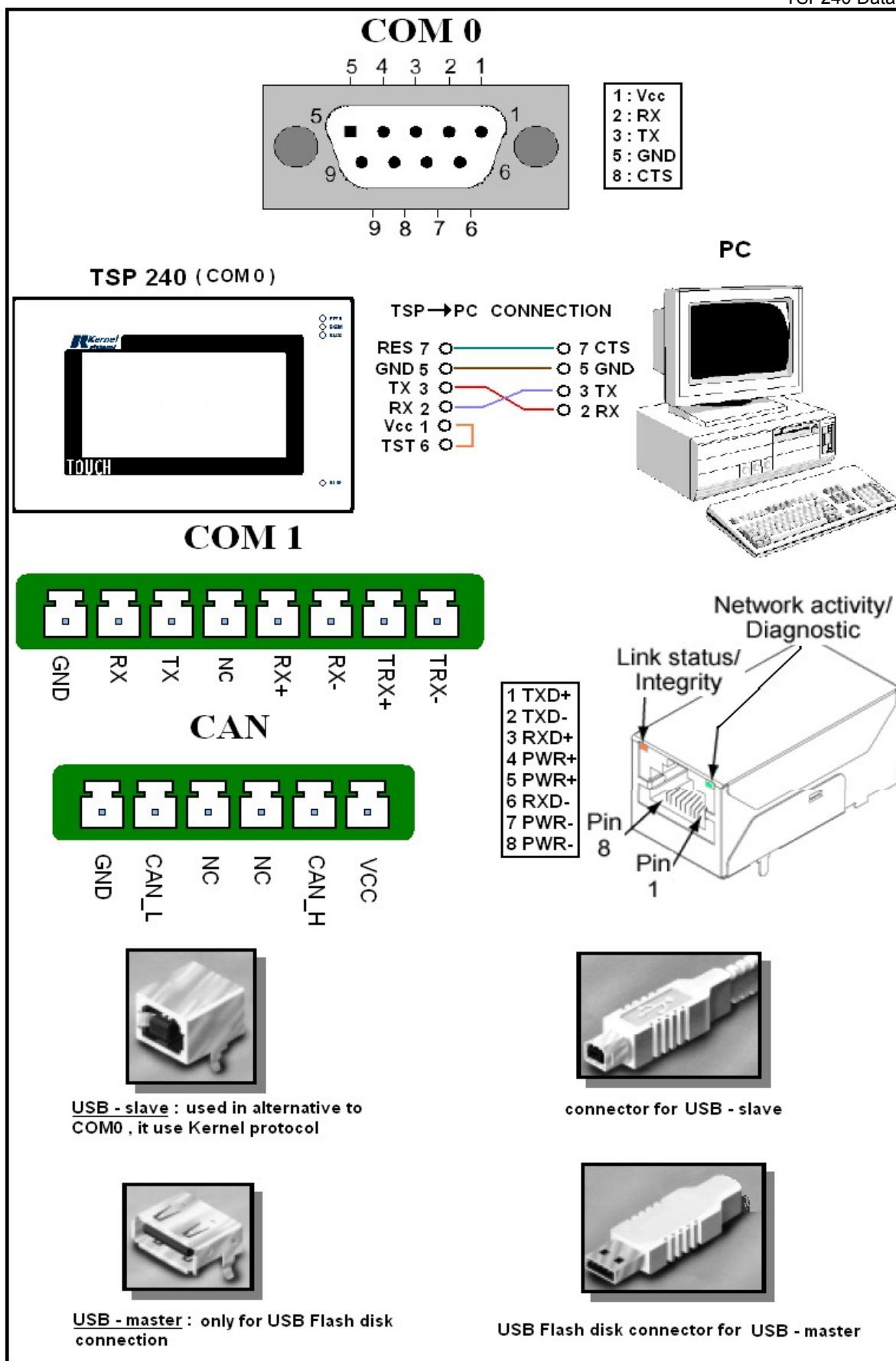
- Graphic LCD 240x320
- CAN Open Master communication protocol
- Contact programming with Ladder language
- Master USB port and slave USB port
- Touch Screen

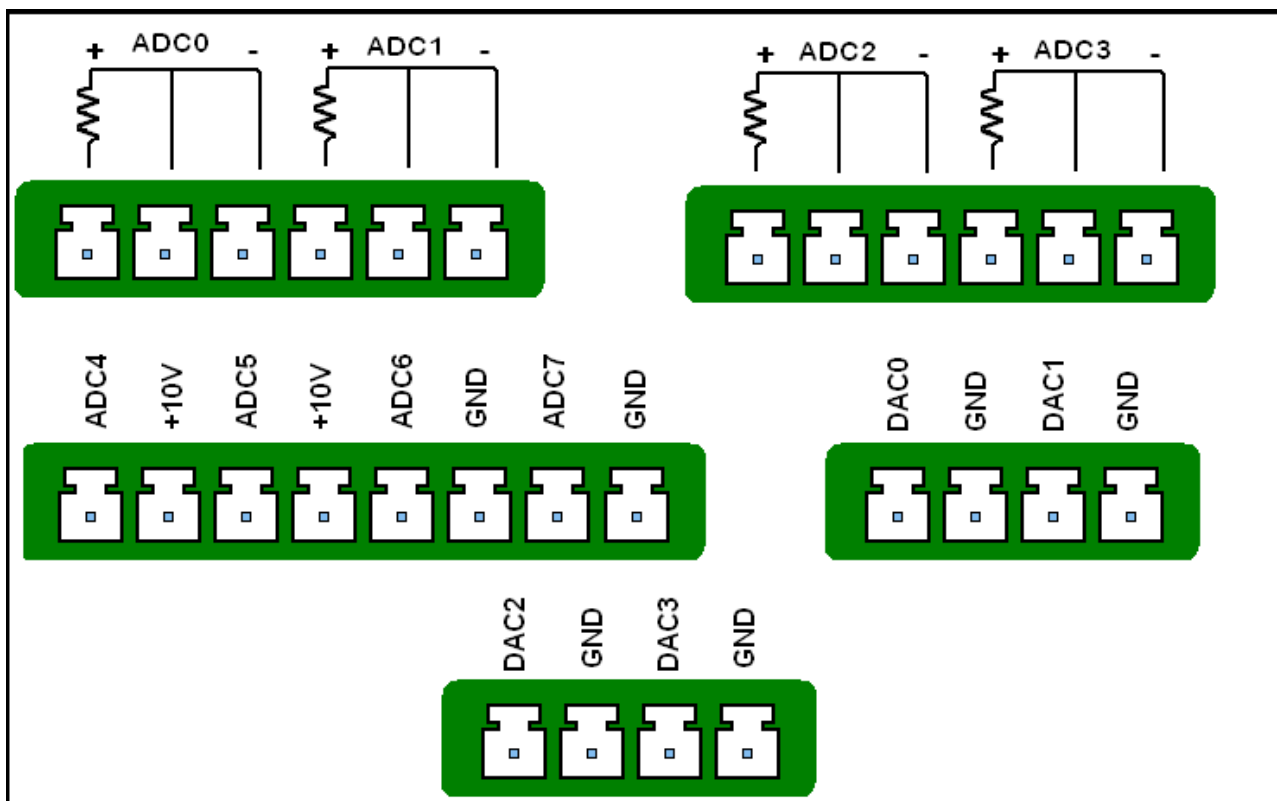
ELECTRIC CHARACTERISTICS	
Power supply voltage	Min 20Vcc ; Max 26 Vcc Min 15 Vac ; Max 21 Vac
Current Consumption	Under 500 mA without loads
Microprocessor	Fujitsu MB91467 @ 4MHz
Program Memory	256 KB
Pages Memory	500 KB
E²PROM	64 KB
Cycle Time	Programmable (minimum 1 msec.)
Analog Inputs	20 digital inputs PNP at 24 Volts of which 4 fast input (2KHz for encoder reading) with programmable anti-noise filter (value 0..255)



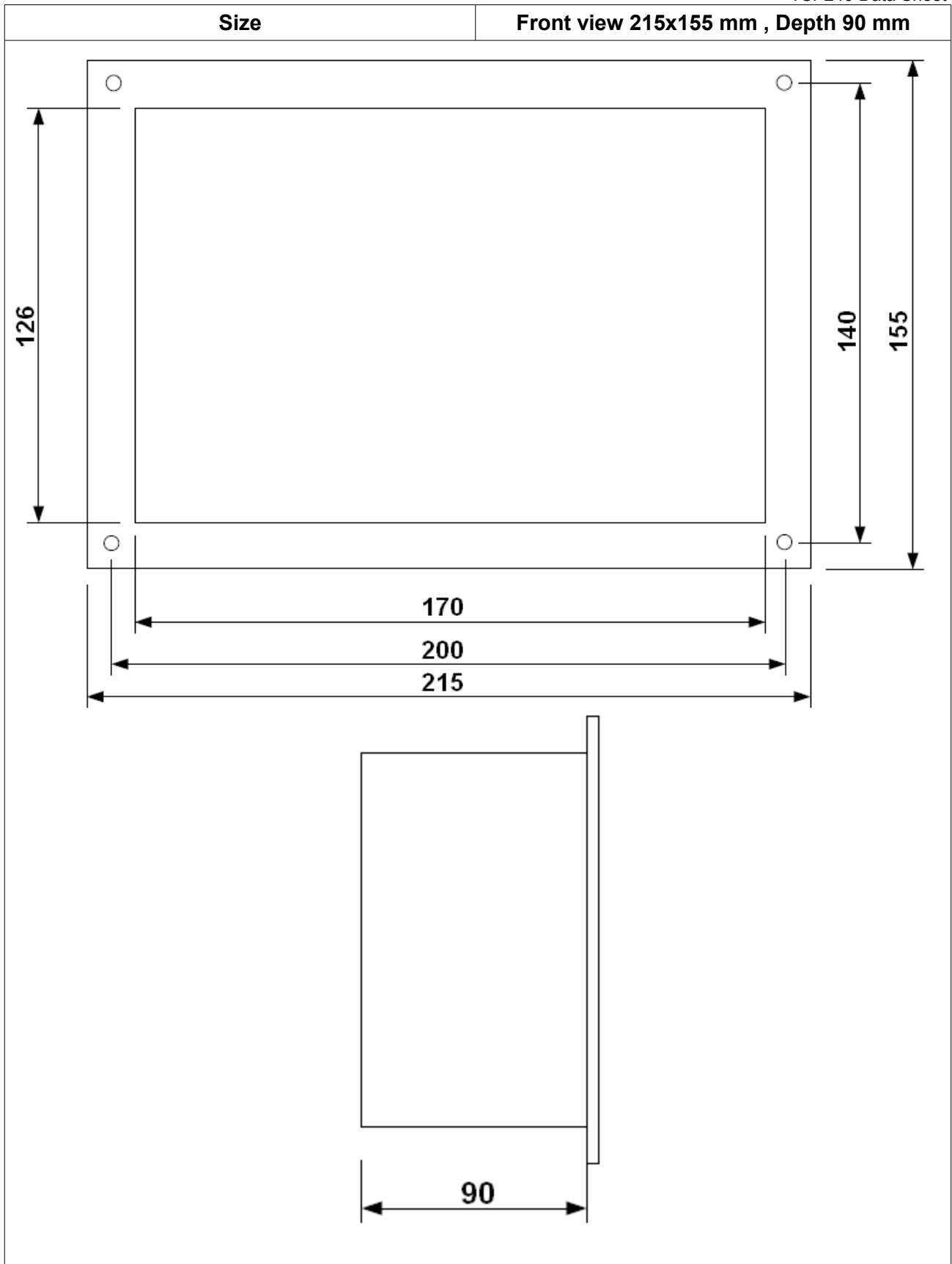


Analog Inputs	8 analogic inputs with 10 bit resolution [0...1023] . 4 ADC configurables for PT100 , termocouple , voltage or current and 4 ADC configurables only for voltage or current.
Digital Outputs	16 outputs PNP 24 V at 500 mA
Analog Outputs	4 analogic outputs -10...+10V with 12 bits [0...4095] resolution
Plugged RAM	96 words any 100 msec automatically copy into plugged RAM (for a term of 1 year)
RTC	Extern real time clock with plugged calendar and clock with rechargeable battery . (for a term of 1 year)
Communication Ports	<p>2 serial lines (COM 0 , COM 1) , 1 CAN port , 1 USB slave port , 1 USB master port , 1 Ethernet port .</p> <p><u>COM 0</u> : Available only in RS232 mode , in alternative to this can be used the USB salve port . This port might support many different communication protocols . It's used also for upload the application program or the operative system .</p> <p><u>COM 1</u> : Used in RS232 , RS485 o RS422 mode , might support many different communication protocols and it's normally used like interface with other devices (I/O expansions , termoregulators , inverters or for network connection) .</p> <p><u>CAN</u> : with CAN-OPEN protocol</p> <p><u>USB master</u> : only for USB keys reading .</p> <p><u>USB slave</u> : Used in alternative to COM1 , it use only the Kernel protocol . It's used also for upload the application program or the operative system .</p> <p><u>Ethernet</u> : only if requested .</p>





MECHANICS CHARACTERISTICS	
Temperature Range	from -10 °C to +70 °C
Humidity Range	from 10 to 90% (non-condensing)
Operating Atmosphere	Without corrosive gas
Noise Immunity	According to rules in force
Fixing System	Four M4 pegs
Weight	1,1 Kg
Keyboard	Touch screen with high resolution .
Display	Monochromatic graphic display 240x320 (40 characters on 30 rows) backlight LED. 4 signalling LEDs.





SOFTWARE CHARACTERISTICS	
Programming Languages	AWL / Ladder
Timers	256 timers at 16 bit with 1/100 sec resolution. Timers are configurables like excitation delay or disexcitation delay.
Counters	256 counters at 16 bit configurables like increase or decrease.
Data Memory	12288
Developed Functions	<ul style="list-style-type: none"> - Week programming - Recipes management - CAN Open protocol management - Encoders management - P.I.D. regulation
Memory area check in real time mode on data table (Debug)	●
Ladder's subroutines Import/Export	●
Contact and variable check in real time mode on ladder (Debug Online)	●