



TSP 350



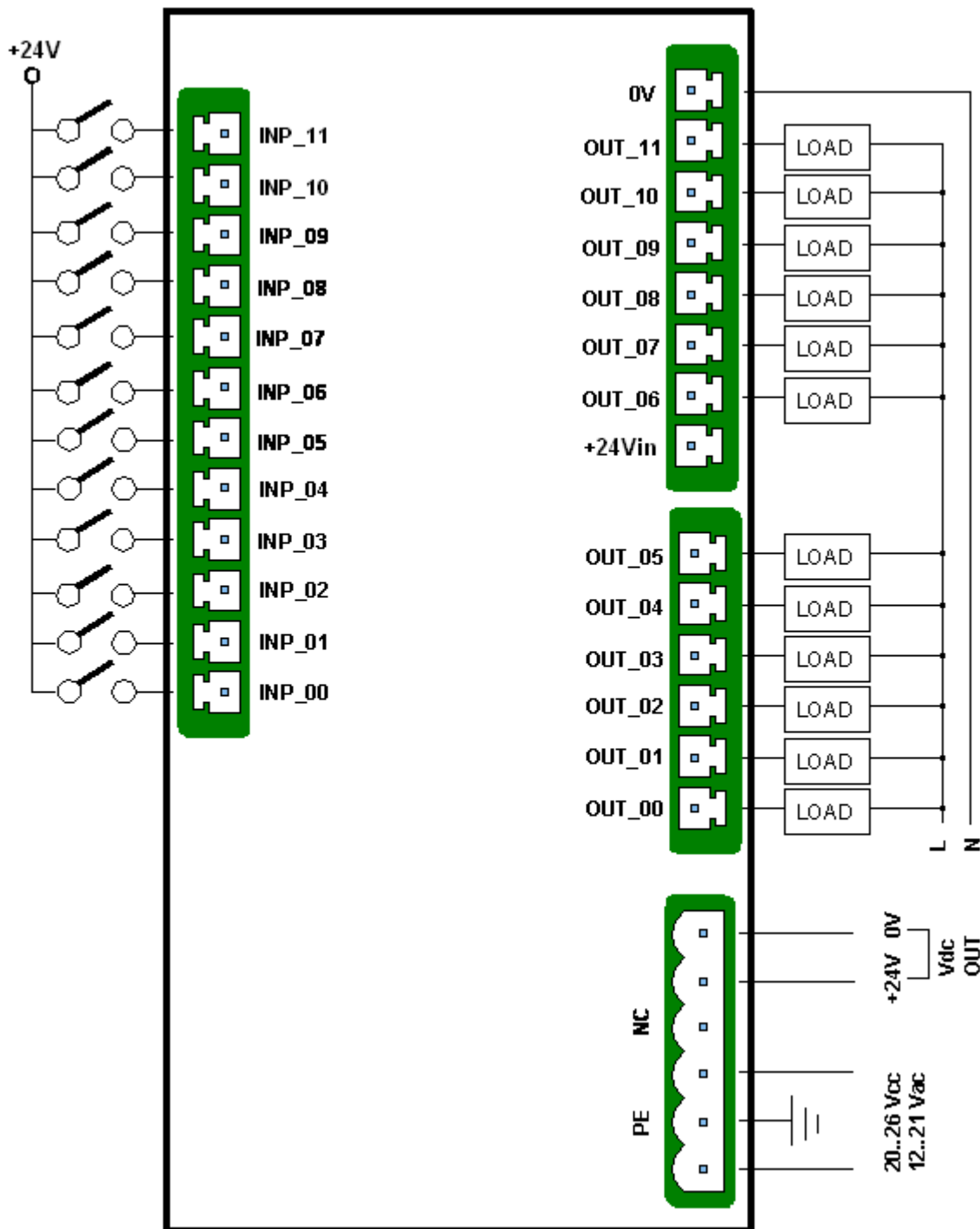
Operator panel 256 colours with integrated PLC

- Graphic LCD 320 x 240 256 colours
- Open Master communication protocol
- Contact programming with Ladder language
- Function for Recipe management , P.I.D. Regulator, etc ...

| ELECTRIC CHARACTERISTICS | |
|--------------------------|--|
| Power supply voltage | Min 20Vcc ; Max 26 Vcc Min 15 Vac ; Max 21 Vac |
| Current Consumption | under 600mA without loads |
| Microprocessor | Fujitsu MB91467 @ 100MHz |
| Program Memory | 128 KB |
| Pages Memory | 128 KB |
| E ² PROM | 64 KB |
| Cycle Time | Programmabile (min 5 msec.) |
| Digital Inputs | 12 digital inputs PNP at 24 Volts with programmable anti-noise filter (4 fast inputs for encoder connection untill 10KHz) |

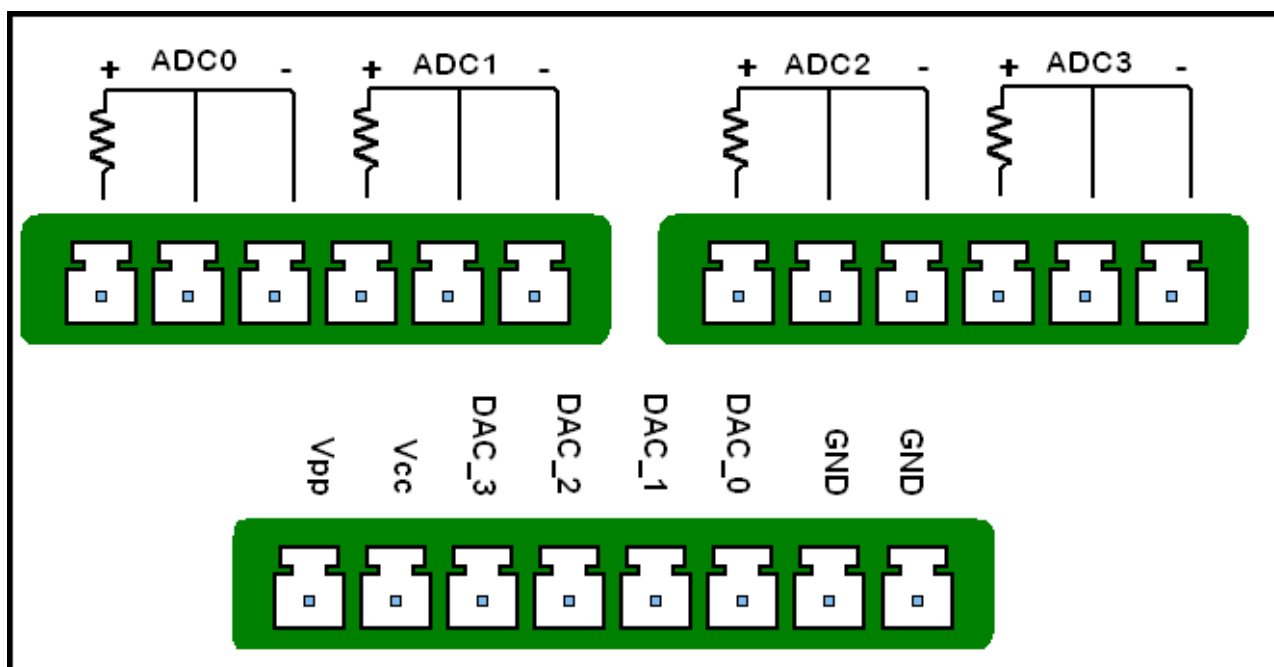


I/O Connections





| | |
|------------------------|--|
| Analog Inputs | 4 configurable analog inputs for voltage, current , PT100 or TMC a 10 bits |
| Digital Outputs | 12 static outputs PNP 24V at 500mA |
| Analog Outputs | 2 analog outputs 0/10 V at 8 bits and 2 analog outputs -10/+10 V at 12 bits |
| 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

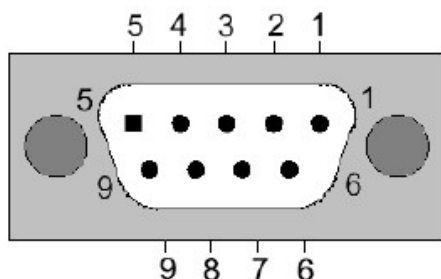
3 serial lines (COM 0, COM 1, COM 2) and a CAN port

COM 0 : Available only in RS232 mode , in alternative to this can be used the USB slave port . This port might support many different communication protocols . It's used also for upload the application program or the operative system .

COM 1 : Used in RS485 or 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) .

COM 2 : Used only in RS485 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) .

COM 0

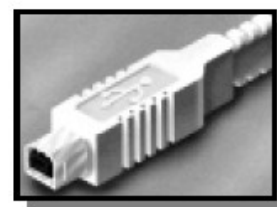
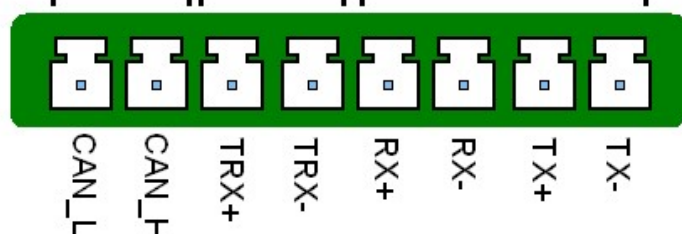


- 1: Vcc
- 2: RX
- 3: TX
- 5: GND
- 8: CTS



USB - slave : used in alternative to COM0 , it use Kernel protocol

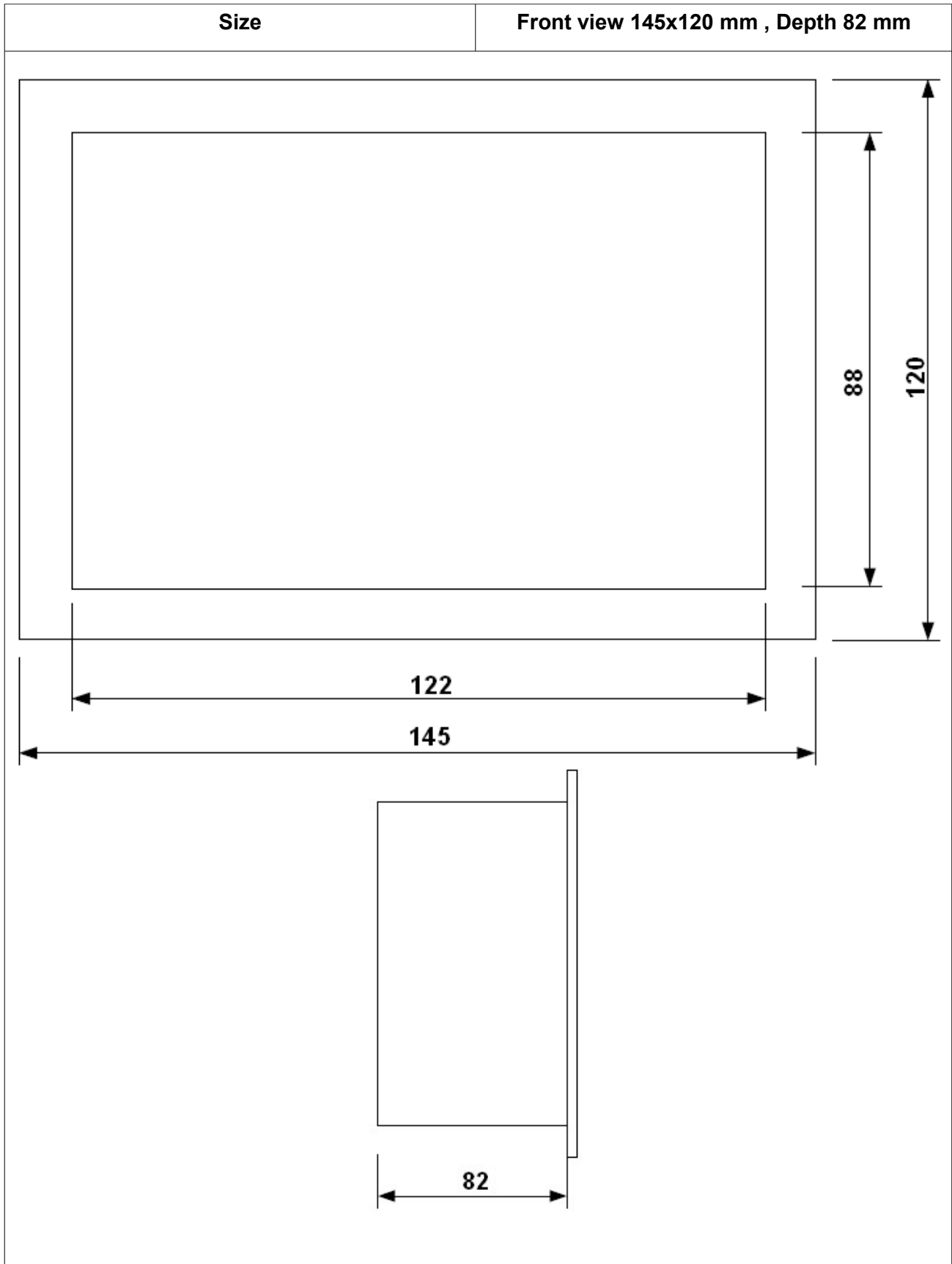
CAN COM 2 COM 1



connector for USB - slave



| 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 | Fixing brackets |
| Weight | 760 gr |
| Keyboard | Resistive touch screen |
| Display | Graphic display 320X240 at 256 colours, backlight. 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 - 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) | ● |