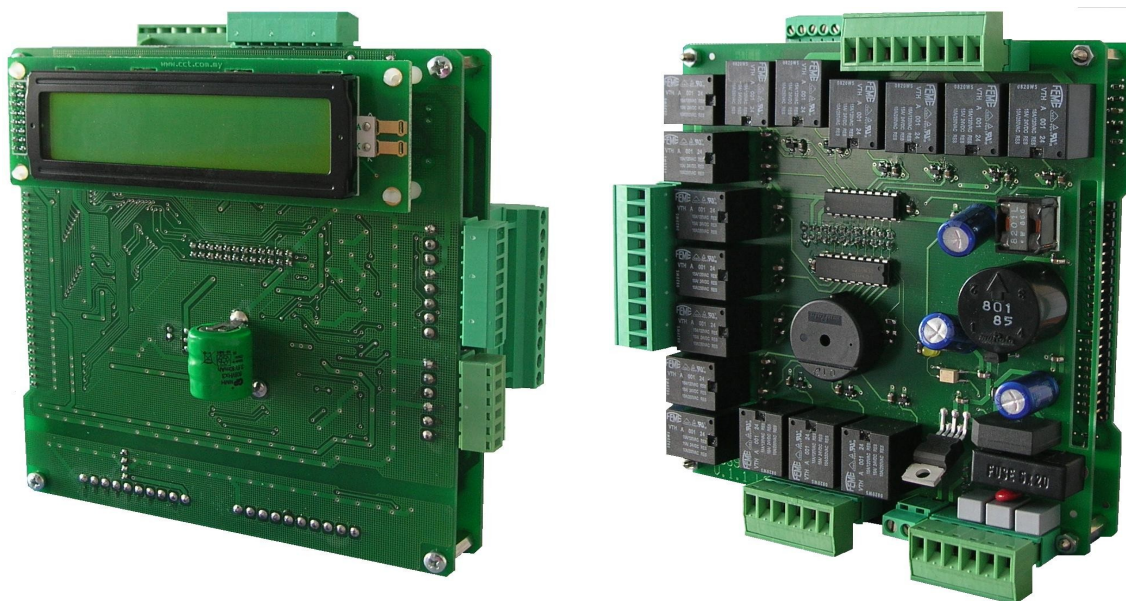




KS 414



Operator panel with integrated PLC

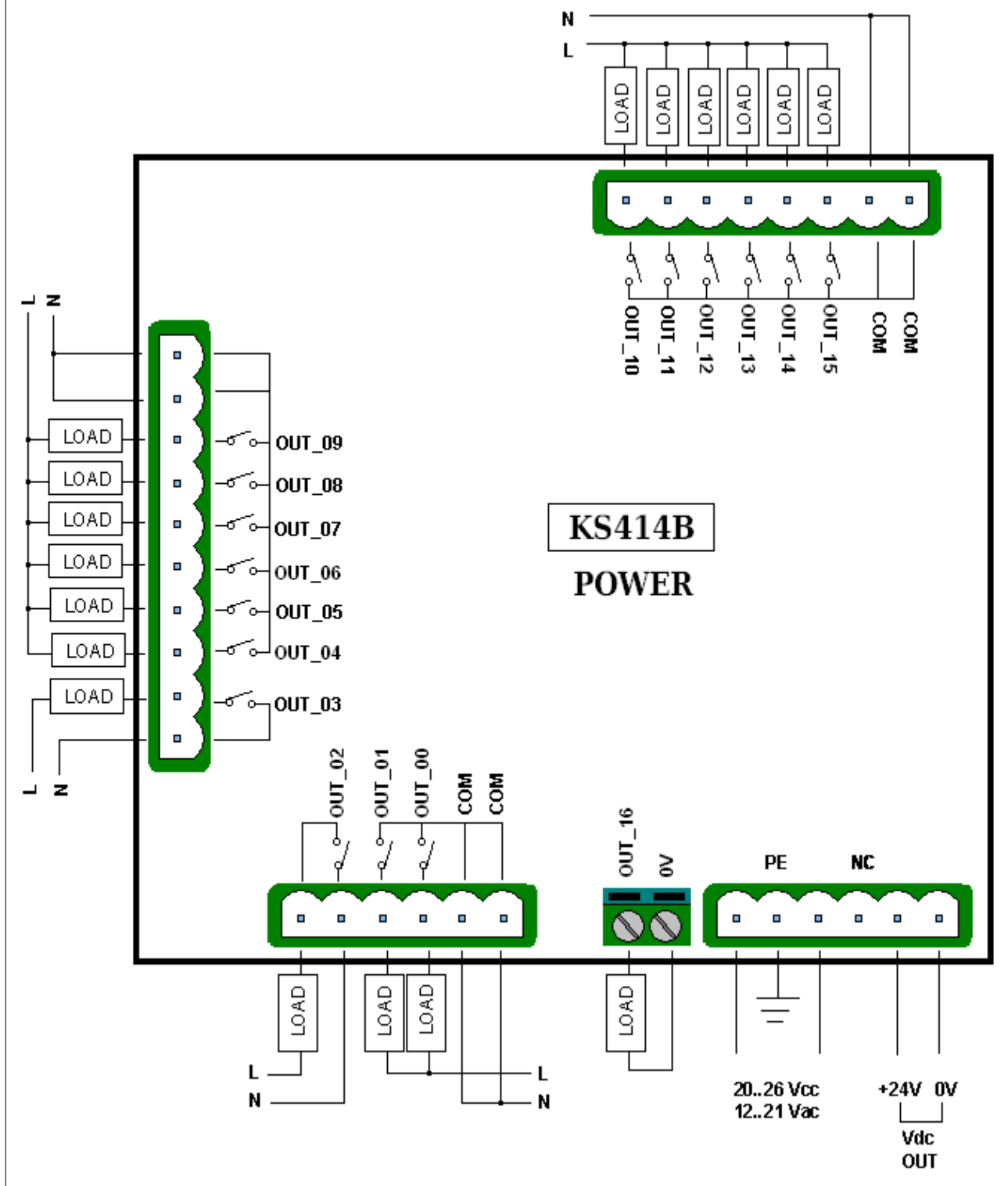
- Alphanumeric LCD 20 x 2
- Customizable keyboard
- Contact programming with Ladder language
- Function for Recipe management, P.I.D. Regulator, Print etc ...

ELECTRIC CHARACTERISTICS

Power supply voltage	Min 20Vdc ; Max 28 Vdc Min 14 Vac ; Max 20 Vac
Current Consumption	Under 200mA without loads
Microprocessor	Hitachi H8/2145 @ 20MHz
Program Memory	64 KB
Pages Memory	64 KB
E ² PROM	64 KB
Cycle Time	Programmable (min 5 msec.)
Digital Inputs	16 digital inputs PNP 24 Volts of which 4 fast input (10KHz for encoder reading) with programmable anti-noise filter (value 1..16)

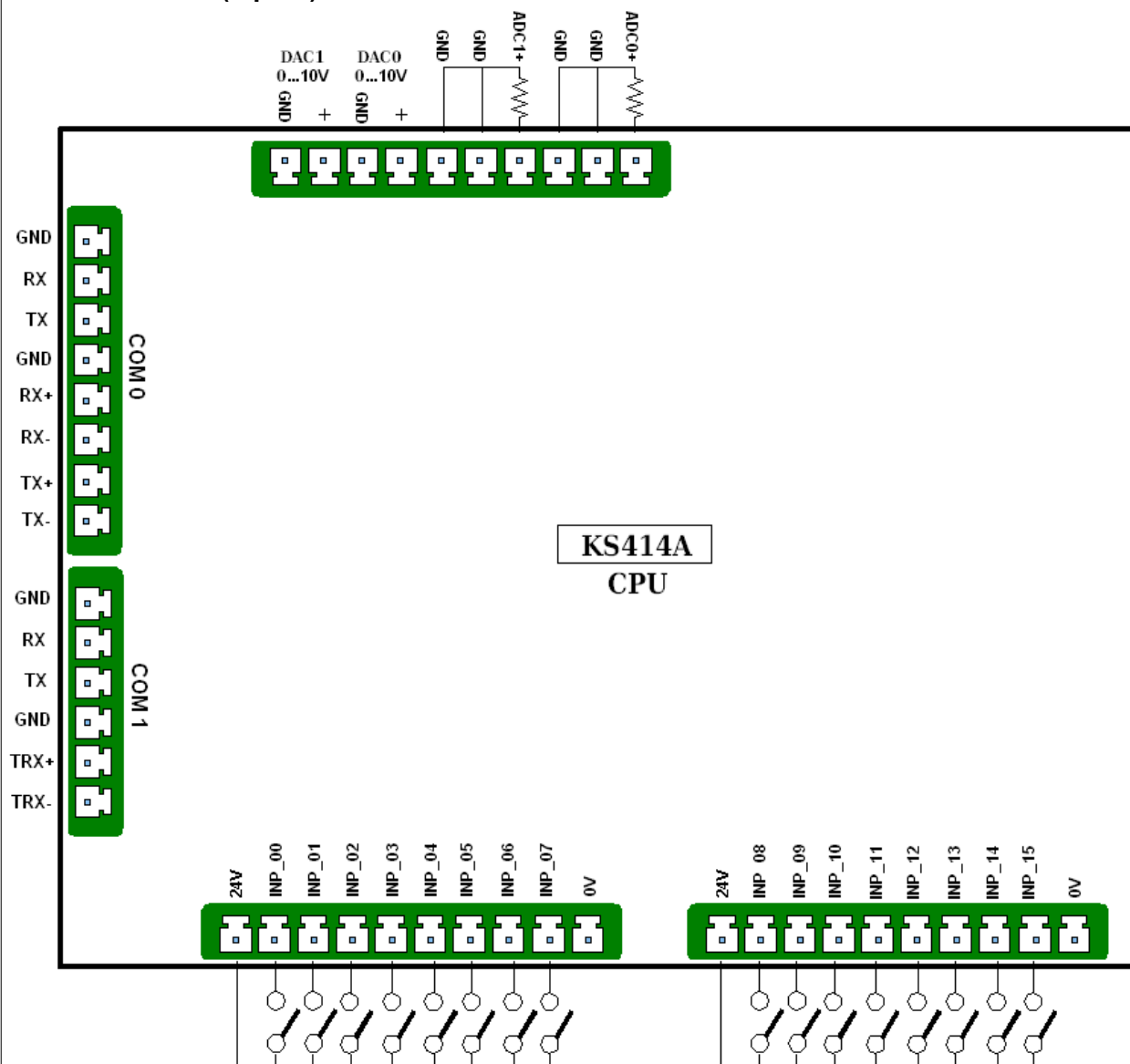


Connections I/O (Outputs)





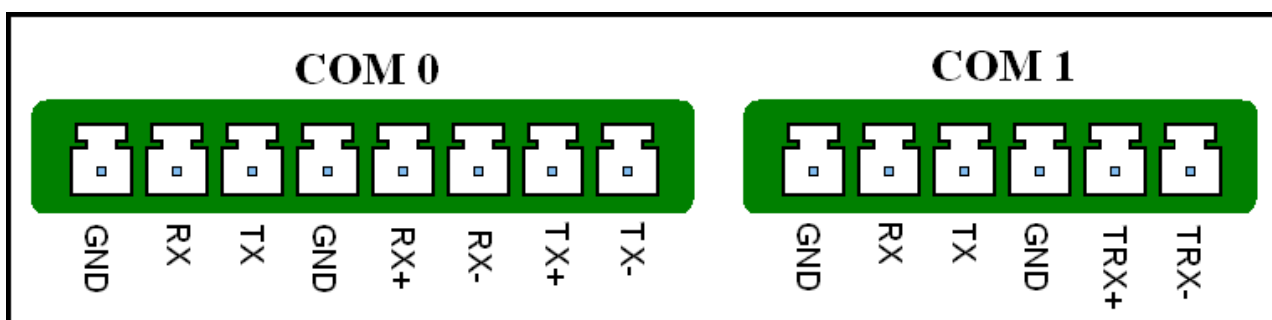
Connections I/O (Inputs)



Analog Inputs	2 analogic inputs with 10 bit resolution [0...1023] For PT100, termocouple, voltage or current
Digital Outputs	16 relay outputs at 250V and 6A. One static output at 500mA
Analog Outputs	2 analog outputs 0...10V
Buffered RAM	96 words any 100 msec automatically copied into buffered RAM (for a term of 1 year)
RTC	Extern real time clock with buffered calendar and clock with rechargeable battery. (for a term of 1 year)



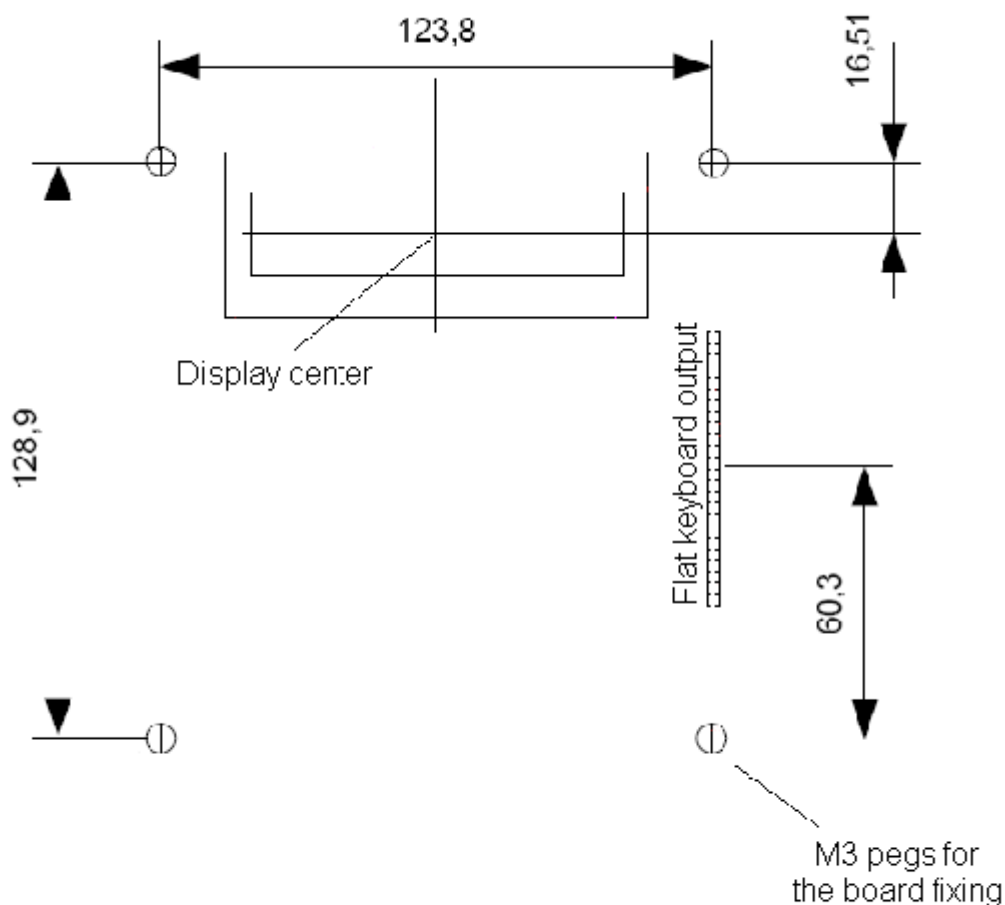
Communication Ports	<p>2 serial lines (COM 0 , COM 1) .</p> <p><u>COM 0</u> : It could be used in RS232, RS485 or RS422 with many different standard communication protocols for connect other devices (I/O expansions, termoregulators, inverters or network connection) .</p> <p><u>COM 1</u> : It could be used in RS232 or RS485 mode and it's use like COM0, besides for upload applications or operative system .</p>
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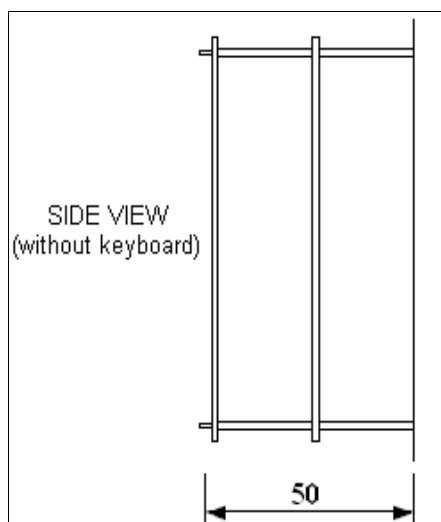
MECHANICS CHARACTERISTICS	
Temperature Range	from -10 °C to +70 °C
Humidity Range	from 10 to 90% (non-condensing)
Operating Atmosphere	Without corrosive gas
Noise Immunity	According to rules in force
Fixing System	Four M4 pegs
Weight	700 gr (without keyboard)
Keyboard	Membrane keyboard on anodized aluminium font part. Customizable keyboard with max 20 buttons and 14 leds . Minimum size 170x170.
Display	Alphanumeric display 20 characters on 2 rows , backlight LED
Size	Front view (without keyboard) 133x137 mm, Depth 50 mm

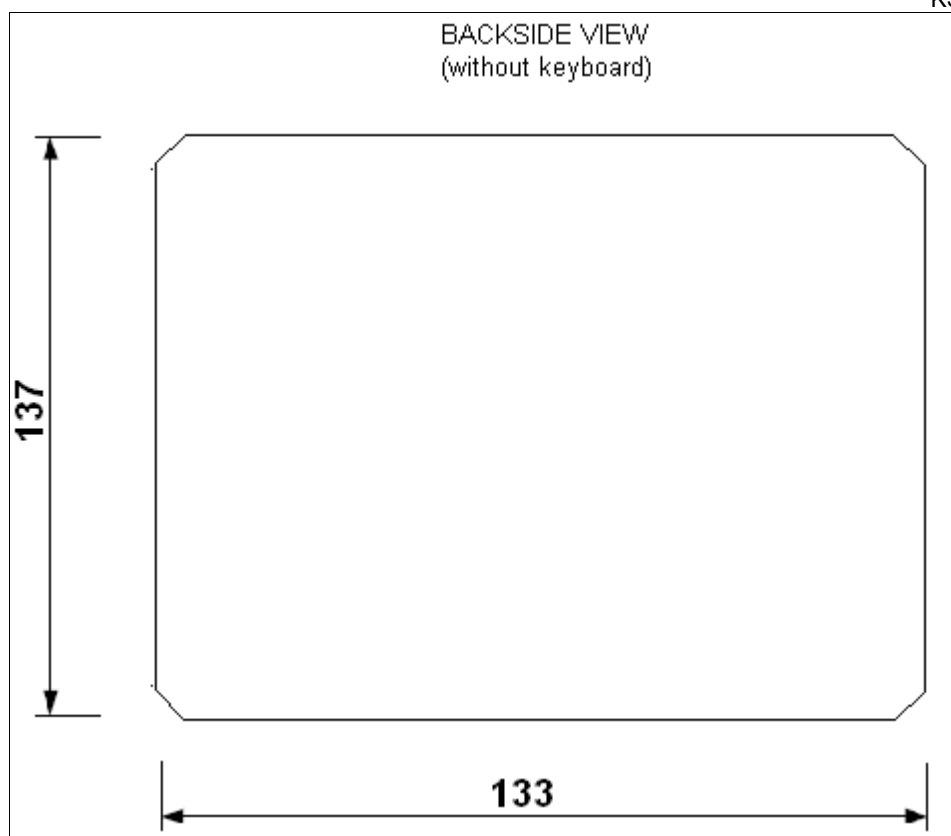


Backside view of the basic elements keyboard's support



NOTE: The mechanic display's hole must be at least 105x45.
 The transparent window must be 80x17.
 The keyboard's flat must exit from the left side, looking the keyboard front view. In the above drawing the support is seen from behind





SOFTWARE CHARACTERISTICS

SOFTWARE CHARACTERISTICS	
Programming Languages	AWL / Ladder
Timers	256 timers with 16 bits and resolution 1/100 sec. Configurables one by one like excitation delay or disexcitation delay
Counters	256 counters with 16 bits configurable one by one like incremental or decremental .
Data Memory	2048
Developed Functions	<ul style="list-style-type: none"> - Week Programming - Recipe Management - Encoders Management - P.I.D. Temperature's Regulator - Forwarding/Reception SMS Messages
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)	●