



DMX 16

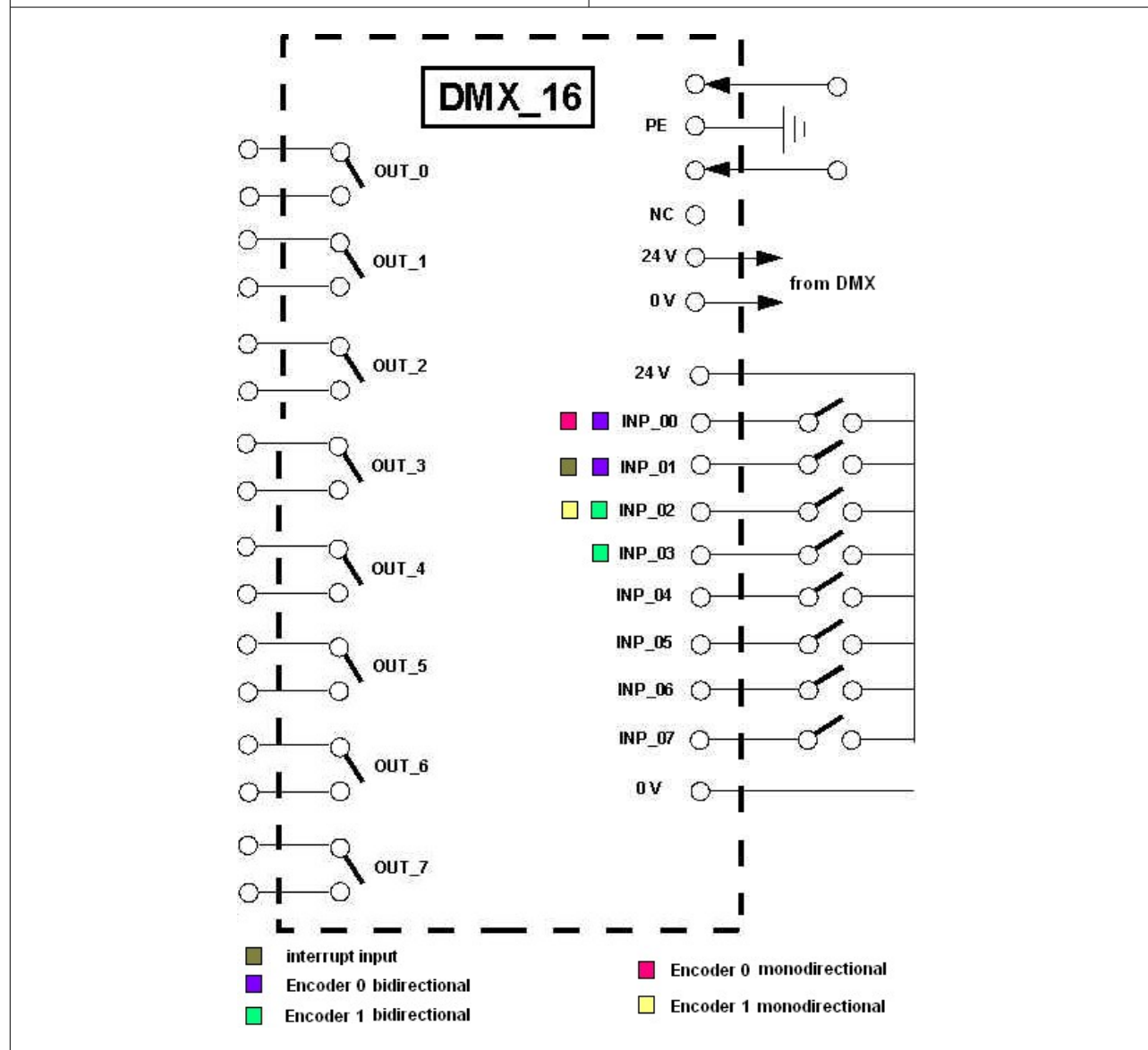


Operator panel with integrated PLC

- Fixing system on din rail
- High speed (2msec. standard cycle time)
 - Contact programming with Ladder language
- Function for Recipe management , P.I.D. Regulator , Print etc ...

ELECTRIC CHARACTERISTICS	
Power supply voltage	Min 20 Vcc ; Max 26 Vcc Min 15 Vac ; Max 21 Vac
Current Consumption	Under 50mA without loads
Microprocessor	Hitachi H8S/2145B @ 20MHz
Program Memory	64 KB
Pages Memory	64 KB
E ² PROM	64 KB
Cycle Time	Programmable (minimum 1 msec.)

Digital Inputs	8 digital inputs PNP 24 Volts of which 4 fast input (1KHz for encoder reading) with programmable anti-noise filter (value 1..16)
Analog Inputs	No analogic inputs
Digital Outputs	8 relay outputs 24V or 12V , 2A for any common
Analog Outputs	No analog outputs
Plugged RAM	79 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)

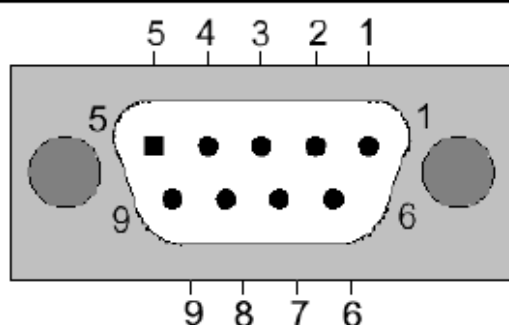


Serial Lines

2 serial lines (COM 0 , COM 1) .

COM 0 : 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) .

COM 1 : It could be used in RS232 or RS485 mode and it's use like COM0 , besides for upload applications or operative system .



COM 1

RS232	RS485
2 RX	1 TRX+
3 TX	6 TRX-
5 GND	

Jumpers

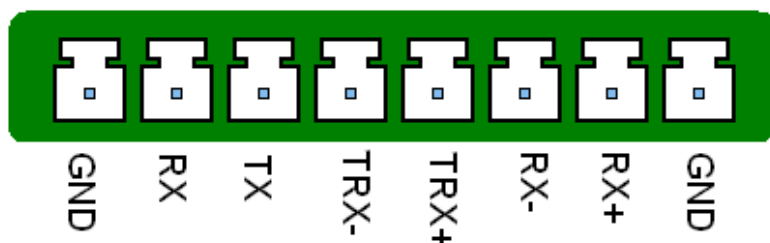
COM 0

RS422	☐
RS485	☐
RS232	☐

COM1

RS485	☐
RS232	☐

COM 0

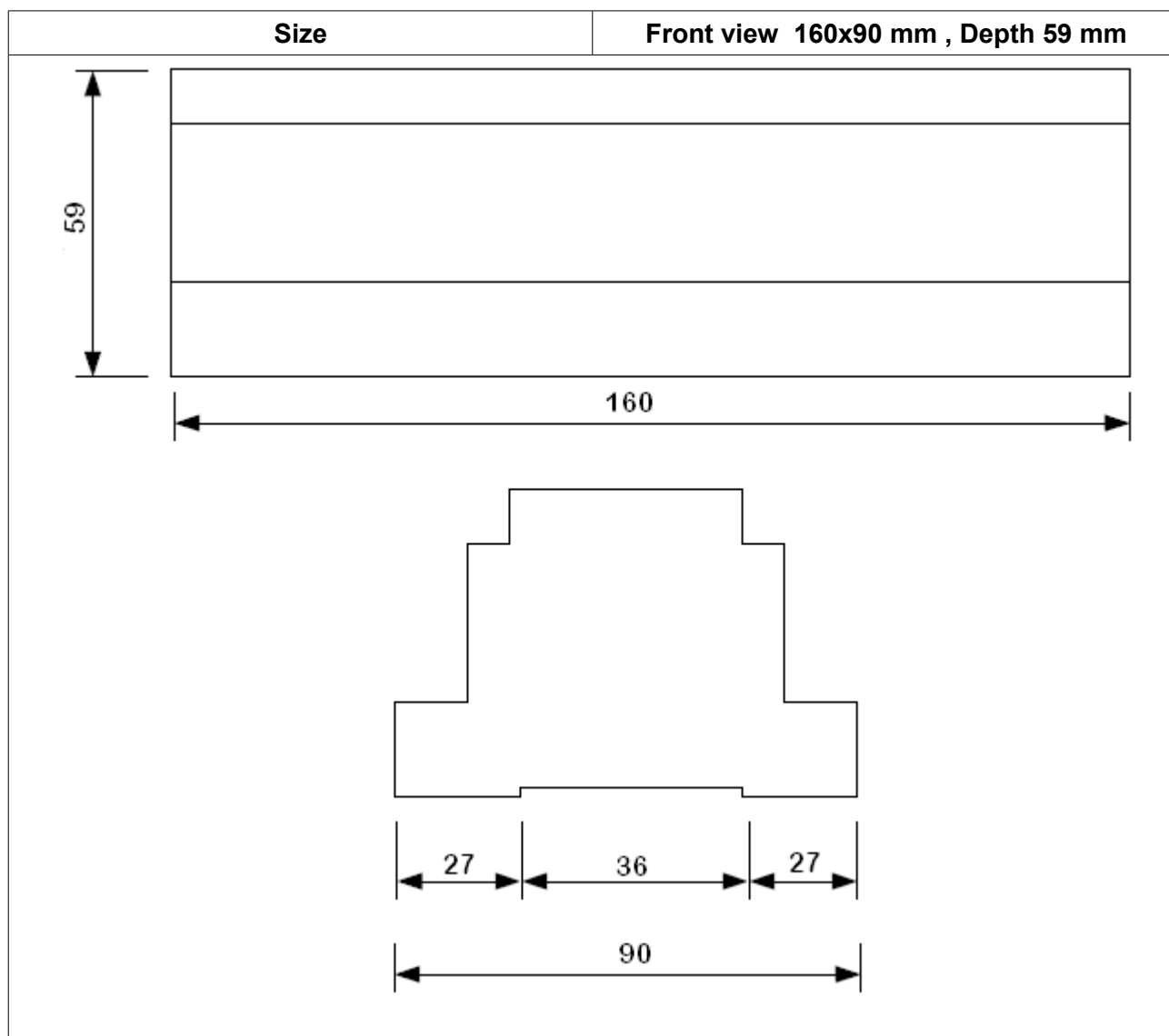


COM 0

RS232	RS422	RS485
2 RX	7 RX+	5 TRX+
3 TX	6 RX-	4 TRX-
1 GND	5 TX+	
	4 TX-	
	8 GND	

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	On din rail
Weight	450 gr
Keyboard	4 dedicated buttons
Display	Alphanumeric display 16 characters on 2 rows , backlight LED





SOFTWARE CHARACTERISTICS	
Programming Languages	AWL / Ladder
Timers	64 timers with 16 bits and resolution 1/100 sec . 32 configurable timers one by one like excitation delay or disexcitation delay and 32 only excitation timers . 8 timers free running with 1 msec resolution enabled one by one with system flag .
Counters	32 counters with 16 bits configurable one by one like incremental or decremental .
Data Memory	2048
Developed Functions	- 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)	•



DMX 19



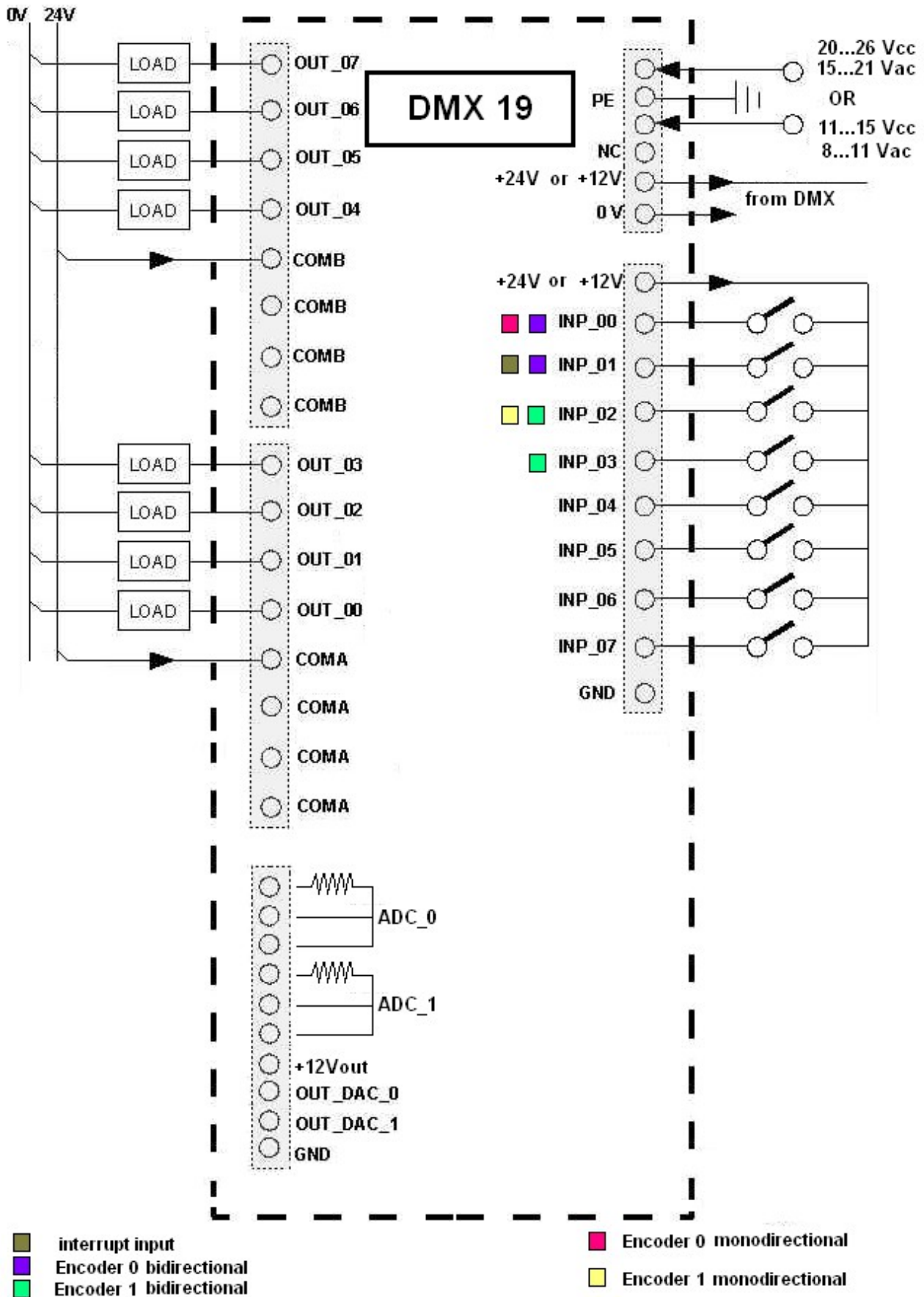
Operator panel with integrated PLC

- Fixing system on din rail
- High speed (2msec. standard cycle time)
- Contact programming with Ladder language
- Function for Recipe management , P.I.D. Regulator , Print etc ...

ELECTRIC CHARACTERISTICS	
Power supply voltage	Min 20 Vcc ; Max 26 Vcc Min 15 Vac ; Max 21 Vac or Min 11 Vcc ; Max 15 Vcc Min 8 Vac ; Max 11 Vac
Current Consumption	Under 200mA without loads
Microprocessor	Hitachi H8S/2145B @ 20MHz
Program Memory	64 KB
Pages Memory	64 KB
E ² PROM	64 KB
Cycle Time	Programmable (minimum 1 msec.)



Digital Inputs	8 digital inputs PNP at 24 or 12 Volts of which 4 fast input (1KHz for encoder reading) with programmable anti-noise filter (value 1..16)
Analog Inputs	2 analogic inputs with 10 bit resolution for voltage, current, PT100 or NTC probe
Digital Outputs	8 relay outputs at 220V , 6A for any common
Analog Outputs	2 analog outputs 0...10V 8 bits resolution
Plugged RAM	79 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)



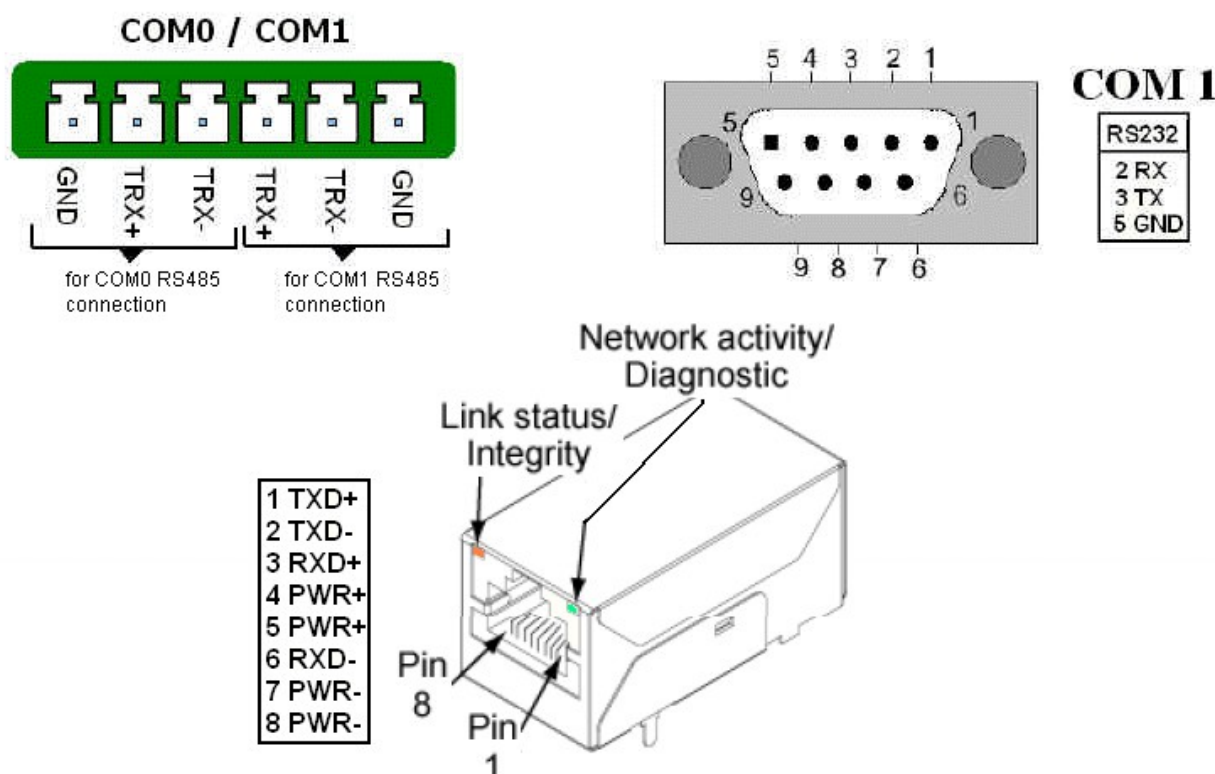
Serial Lines

2 serial lines (COM 0 e COM 1) with the possibility of replace COM 1 with Ethernet.

COM 0 : It could be used only in RS485 mode with many different standard communication protocols for connect other devices (I/O expansions , termoregulators , inverters or network connection) .

COM 1 : It could be used in RS232, RS485 mode or like Ethernet port if it is on board and it's used like COM0 , besides for upload applications or operative system .

NB: COM0 operate only in RS485, and it is on the green 6 poles terminal box. COM1 might be used in RS232 or RS485. The COM1 RS232 is on the D-sub 9 poles connector like in picture; the COM1 RS485 is on the green 6 poles terminal box.



MECHANICS CHARACTERISTICS

Temperature Range

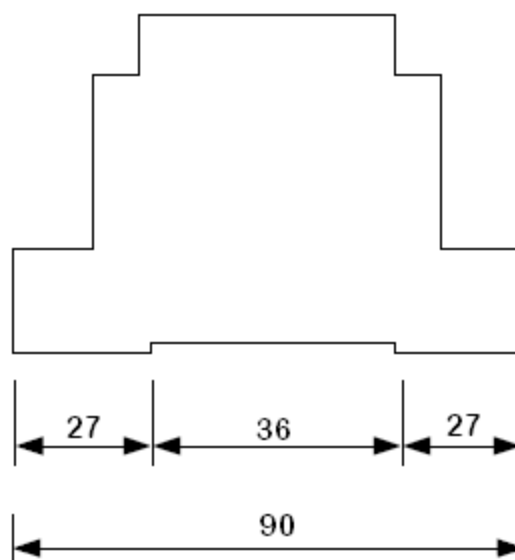
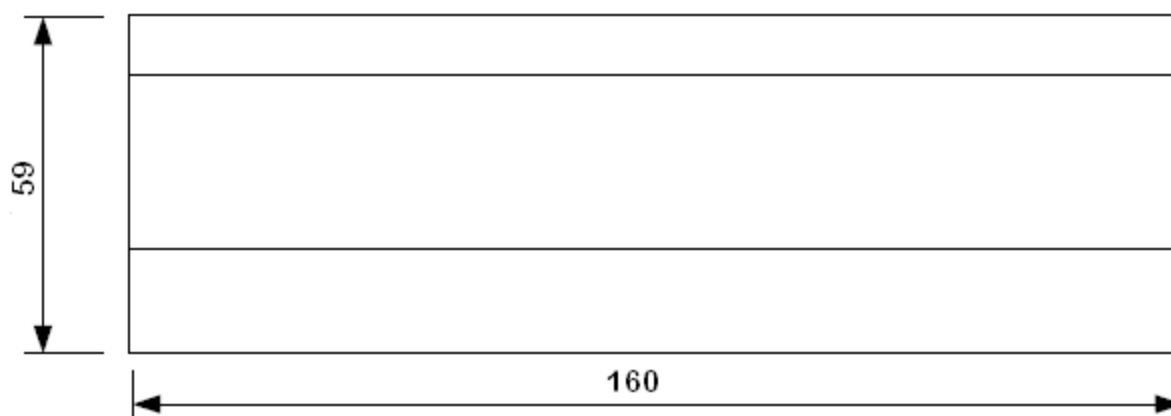
from -10 °C to +70 °C

Humidity Range

from 10 to 90% (non-condensing)



Operating Atmosphere	Without corrosive gas
Noise Immunity	According to rules in force
Fixing System	On din rail
Weight	450 gr
Keyboard	4 dedicated buttons
Display	Alphanumeric display 16 characters on 2 rows , backlight LED
Size	Front view 160x90 mm , Depth 59 mm





SOFTWARE CHARACTERISTICS	
Programming Languages	AWL / Ladder
Timers	64 timers with 16 bits and resolution 1/100 sec . 32 configurable timers one by one like excitation delay or disexcitation delay and 32 only excitation timers . 8 timers free running with 1 msec resolution enabled one by one with system flag .
Counters	32 counters with 16 bits configurable one by one like incremental or decremental .
Data Memory	2048
Developed Functions	- 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)	●

DMX 20



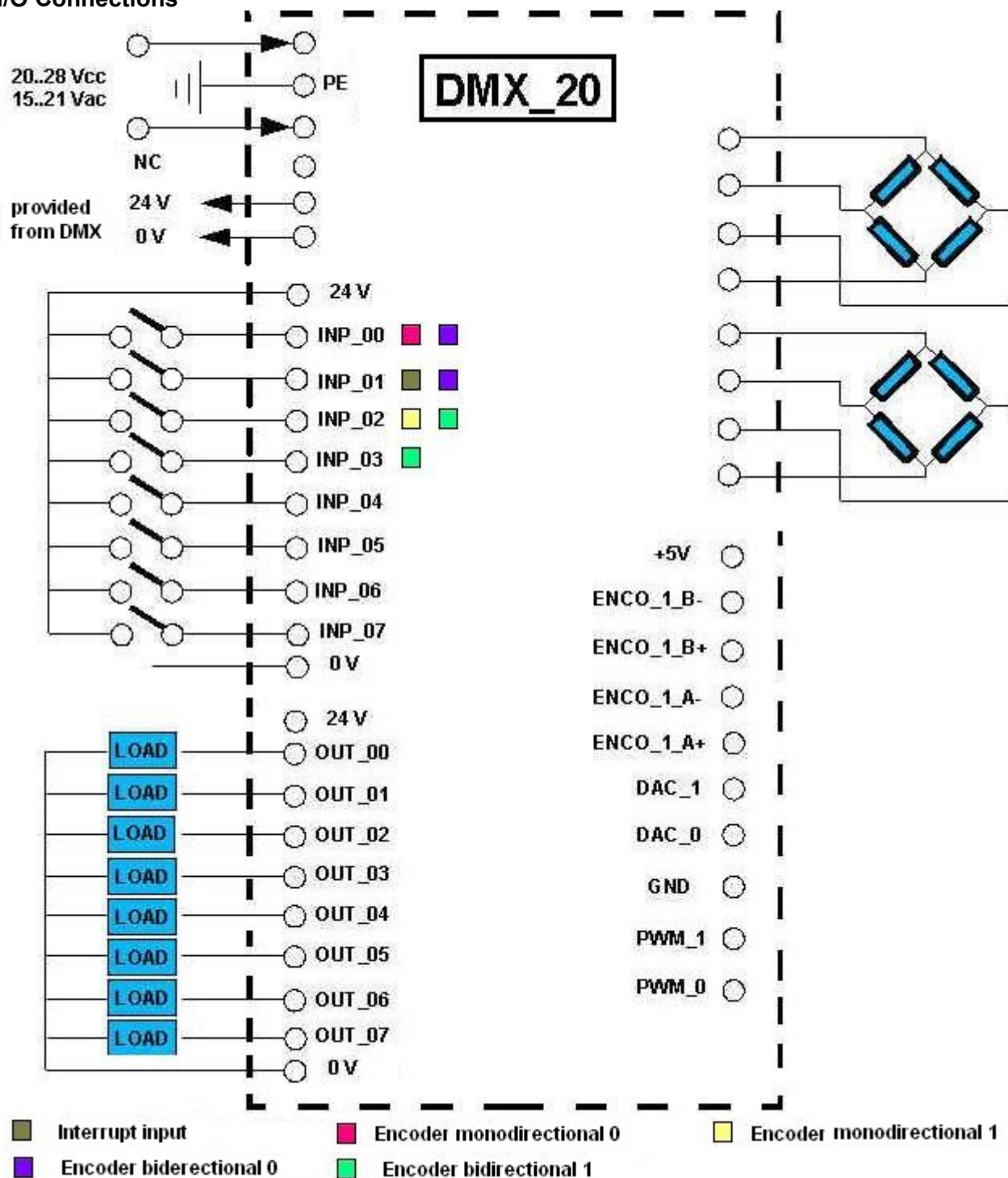
Operator panel with integrated PLC

- Fixing system on din rail
- High speed (2msec. standard cycle time)
- Contact programming with Ladder language
- Function for Recipe management , P.I.D. Regulator , Print etc ...
- Two Load Cell analog inputs (16 bits)

ELECTRIC CHARACTERISTICS	
Power supply voltage	Min 20Vcc ; Max 26 Vcc Min 15 Vac ; Max 21 Vac
Current Consumption	Under 50mA without loads
Microprocessor	Hitachi H8S/2145B @ 20MHz
Program Memory	64 KB
Pages Memory	64 KB
E ² PROM	64 KB
Cycle Time	Programmable (minimum 1 msec.)
Digital Inputs	8 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	2 analog inputs for load cell 2/3 mV/V with 16 bits resolution [0..65535] .
Digital Outputs	8 PNP relay 24V or 220V
Analog Outputs	2 analog outputs 0...10V with 8 bits resolution [0...255]

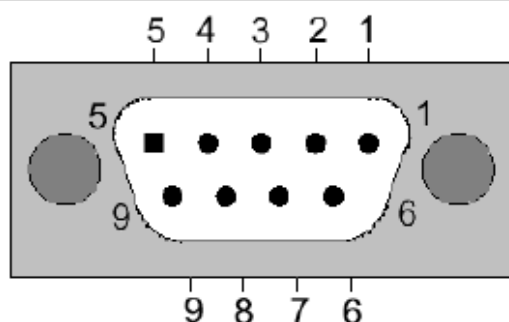
ELECTRIC CHARACTERISTICS

I/O Connections



ELECTRIC CHARACTERISTICS	
Plugged RAM	79 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)
Serial Lines	2 serial lines (COM 0 , COM 1) . <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) . <u>COM 1</u> : It could be used in RS232 or RS 485 mode and it's use like COM0 , besides for upload applications or operative system .

ELECTRIC CHARACTERISTICS



COM 1

RS232	RS485
2 RX	1 TRX+
3 TX	6 TRX-
5 GND	

Jumpers

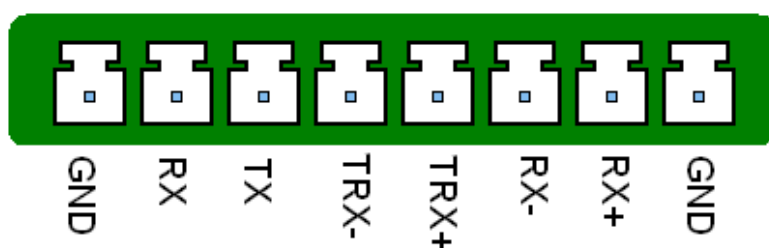
COM 0

RS232	☐
RS485	☐
RS422	☐

COM1

RS232	☐
ETH	☐

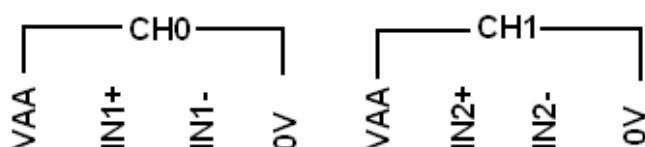
COM 0



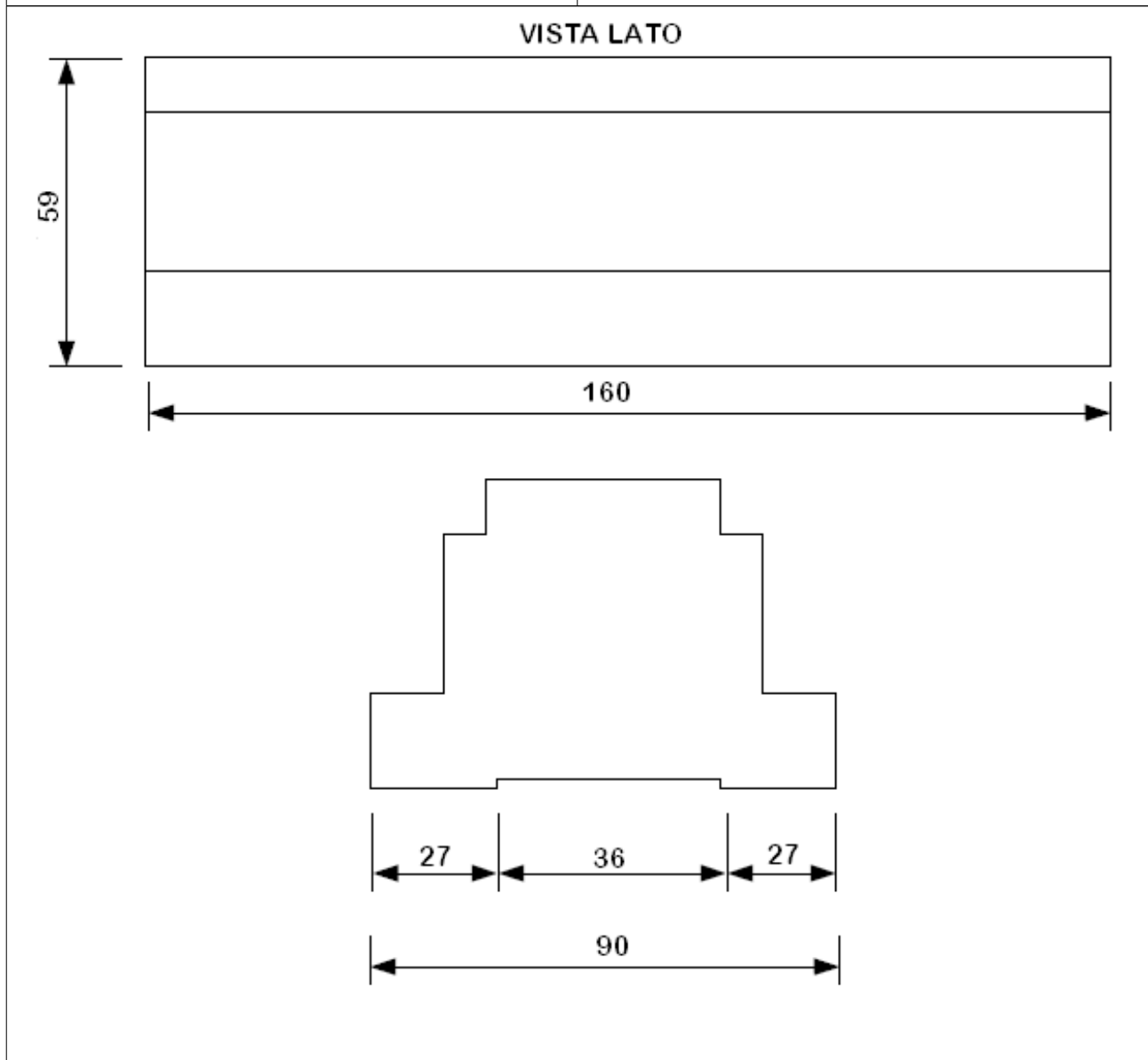
COM 0

RS232	RS422	RS485
2 RX	7 RX+	5 TRX+
3 TX	6 RX-	4 TRX-
1 GND	5 TX+	
	4 TX-	
	8 GND	

PWM 0
PWM 1
GND
DAC 0
DAC 1
ENCO A+
ENCO A-
ENCO B+
ENCO B-
+5V



MECHANICS CHARACTERISTICS	
Humidity Range	from 10 to 90% (non-condensing)
Temperature Range	from -10 °C to +70 °C
Operating Atmosphere	Without corrosive gas
Noise Immunity	According to rules in force
Fixing System	On din rail
Weight	450 g
Keyboard	4 dedicated buttons .
Display	Alphanumeric display 16 characters on 2 rows , backlight LED.
Size	Front view 160x90 mm , Depth 59 mm



SOFTWARE CHARACTERISTICS	
Programming Languages	AWL / Ladder
Timers	64 timers with 16 bits and resolution 1/100 sec . 32 configurable timers one by one like excitation delay or disexcitation delay and 32 only excitation timers . 8 timers free running with 1 msec resolution enabled one by one with system flag .
Counters	32 counters with 16 bits configurable one by one like incremental or decremental .
Data Memory	2048
Developed Functions	• Week Programming • Recipe Management • Forwarding/Reception SMS Messages • Encoders Management • P.I.D. Temperature's Regulator
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)	•



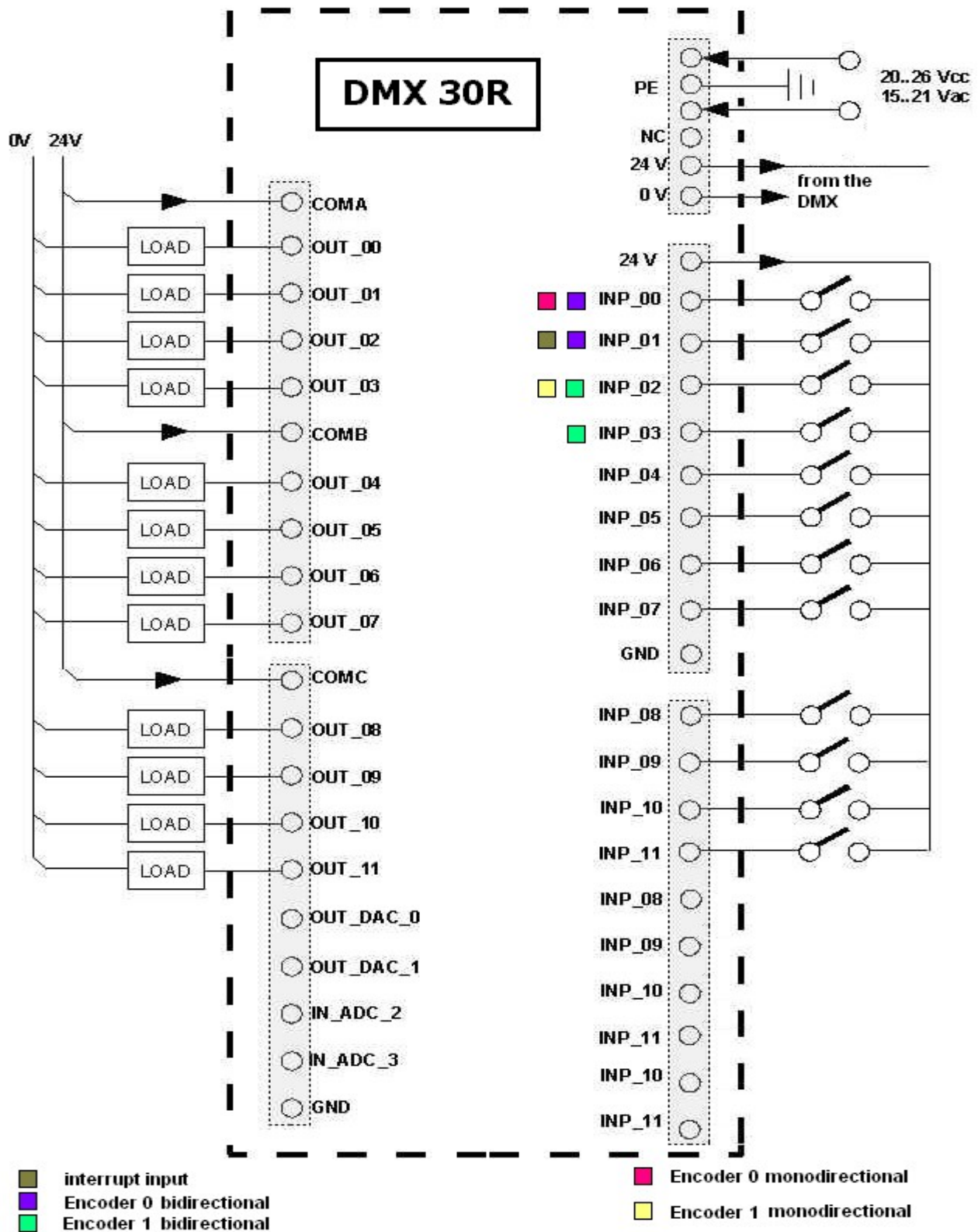
DMX 30

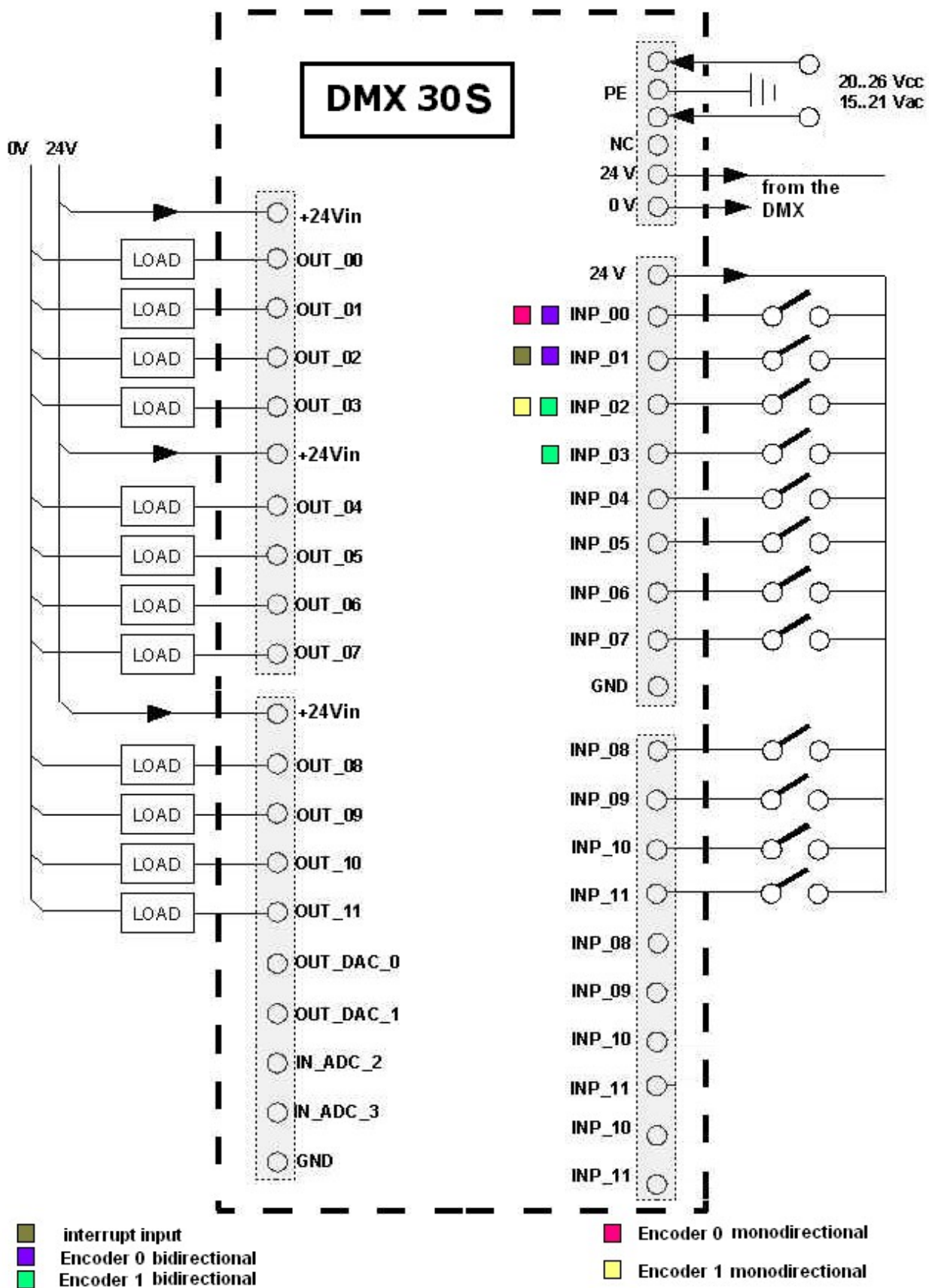


PLC visualizzato per montaggio a quadro

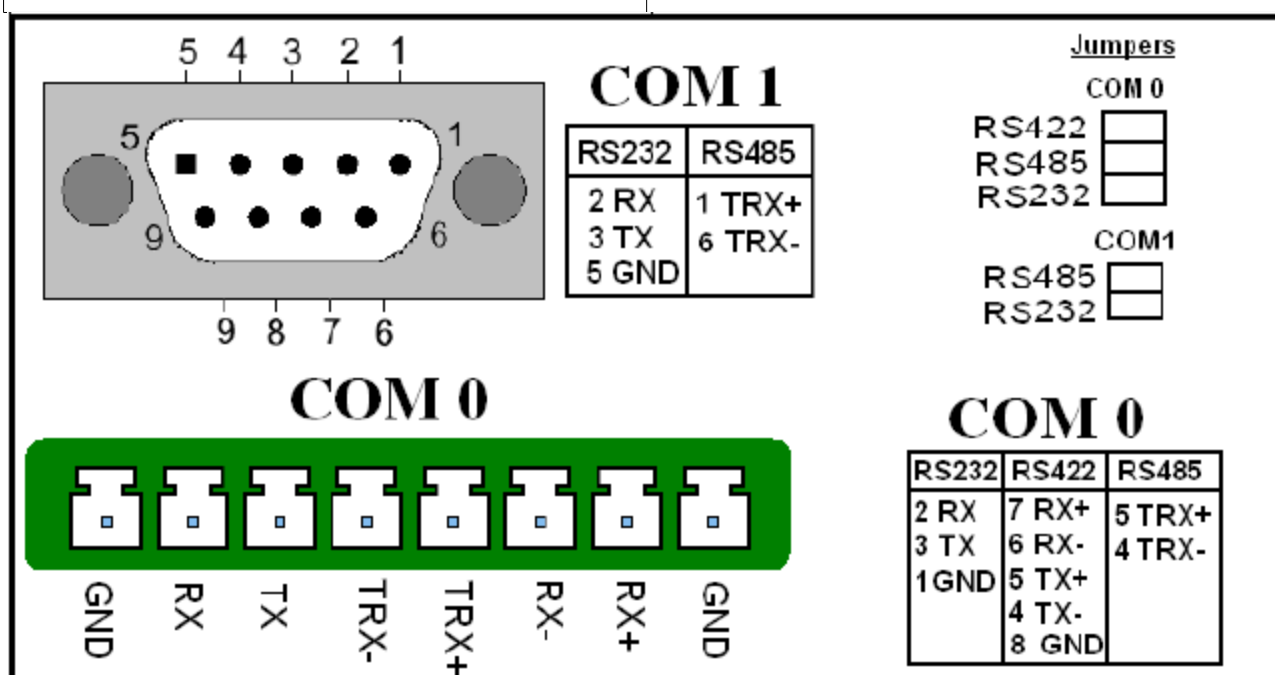
- Fixing system on din rail
- High speed (2msec. standard cycle time)
- Contact programming with Ladder language
- Function for Recipe management , P.I.D. Regulator , Print etc ...

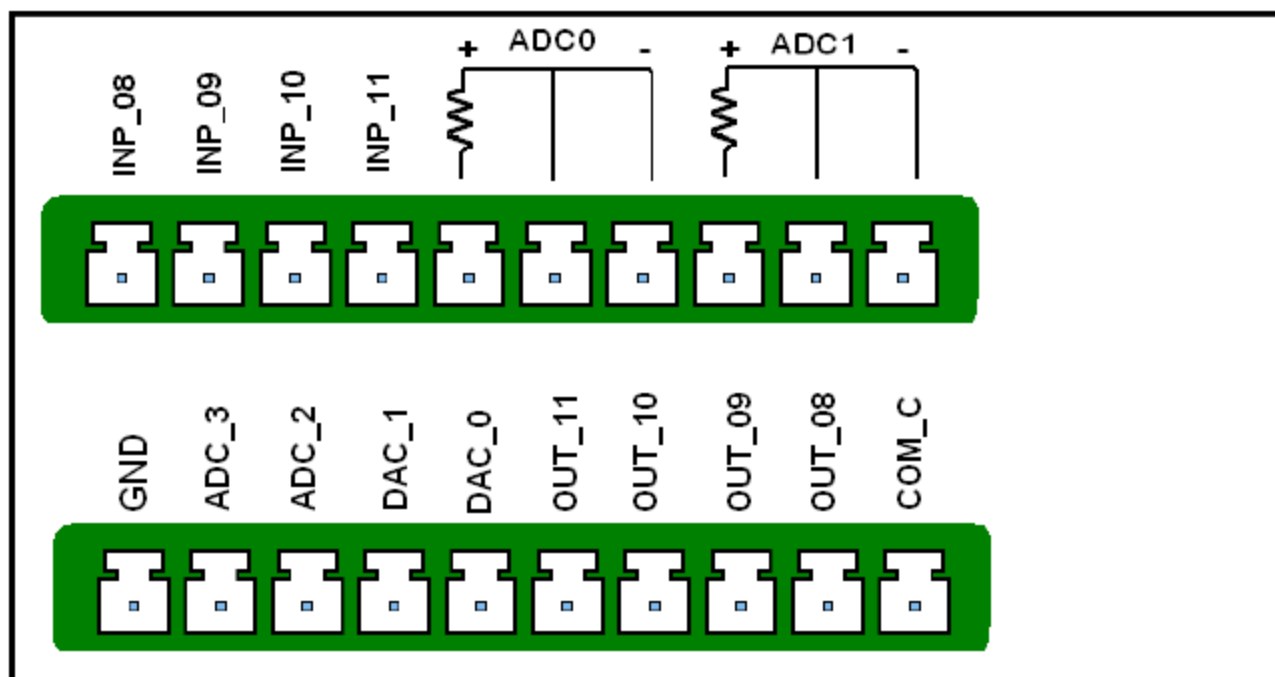
ELECTRIC CHARACTERISTICS	
Power supply voltage	Min 20Vcc ; Max 26 Vcc Min 15 Vac ; Max 21 Vac
Current Consumption	Under 200 mA without loads
Microprocessor	Hitachi H8S/2145B @ 20MHz
Program Memory	64 KB
Pages Memory	64 KB
E ² PROM	64 KB
Cycle Time	Programmable (minimum 1 msec.)
Digital Inputs	12 digital inputs PNP at 24 Volts of which 4 fast input (1KHz for encoder reading) with programmable anti-noise filter (value 1..16)





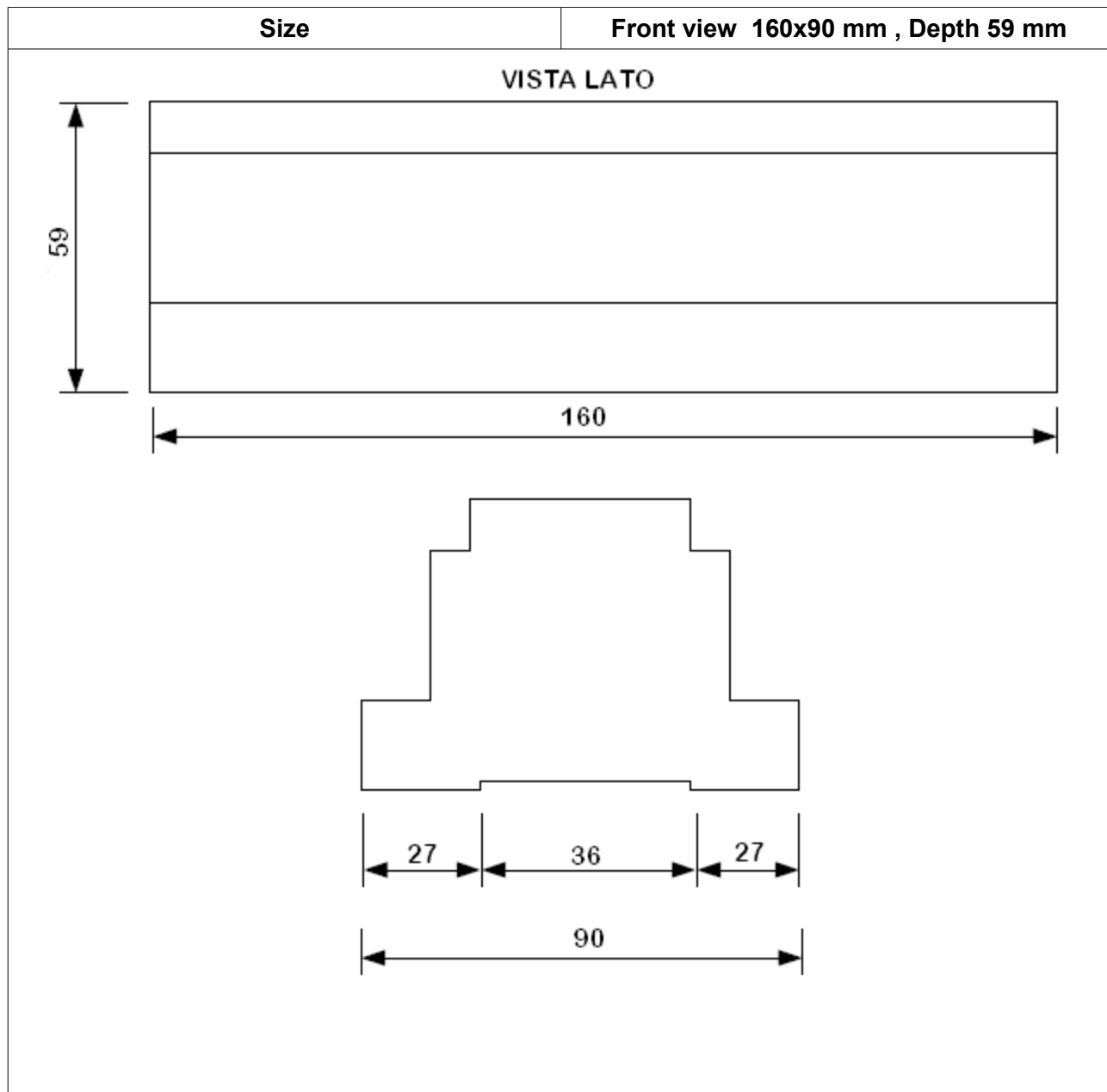
Analog Inputs	4 analogic inputs with 10 bit resolution [0...1023] , 2 for PT100 , termocouple , voltage or current and 2 only for current or voltage .
Digital Outputs	12 PNP static outputs 24V and 500mA or 12 PNP relay 24V
Analog Outputs	2 analog outputs 0...10V 8 bits resolution [0...255]
Plugged RAM	79 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)
Current analog input Impedance	250 Ω
Voltage analog input Impedance	10 K Ω
Serial Lines	2 serial lines (COM 0 e COM 1) COM 0 : It could be used in RS232, RS422 RS485 with many different standard communication protocols for connect other devices (I/O expansions , termoregulators , inverters or network connection) . COM 1 : It could be used in RS232 or RS485 mode and it's use like COM0 , besides for upload applications or operative system .





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	On din rail
Weight	450 gr
Keyboard	4 dedicated buttons
Display	Alphanumeric display 16 characters on 2 rows , backlight LED





SOFTWARE CHARACTERISTICS	
Programming Languages	AWL / Ladder
Timers	64 timers with 16 bits and resolution 1/100 sec . 32 configurable timers one by one like excitation delay or disexcitation delay and 32 only excitation timers . 8 timers free running with 1 msec resolution enabled one by one with system flag .
Counters	32 counters with 16 bits configurable one by one like incremental or decremental .
Data Memory	2048
Developed Functions	• Week Programming • Recipe Management • Forwarding/Reception SMS Messages • Encoders Management • P.I.D. Temperature's Regulator
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)	•



DMX 32



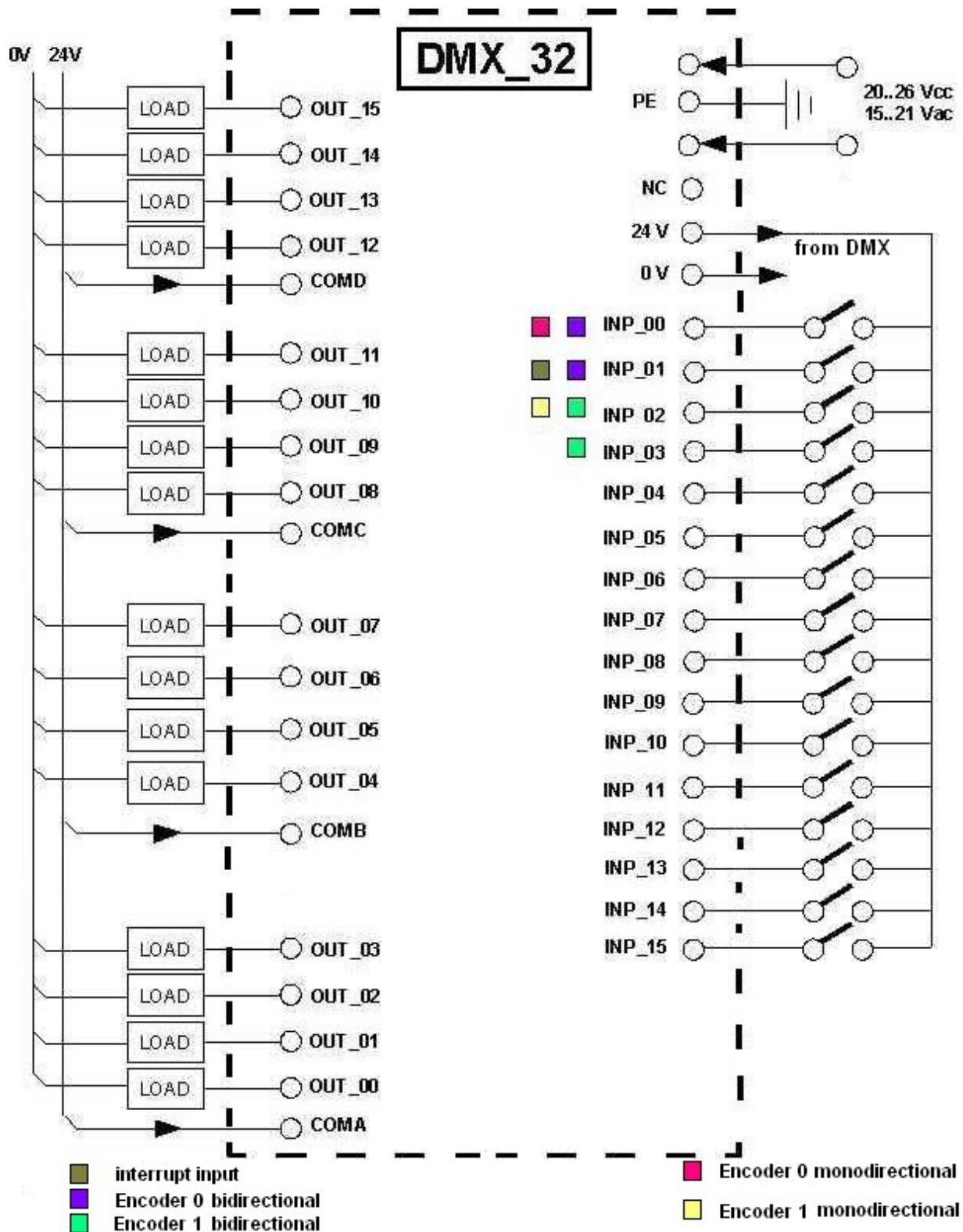
Operator panel with integrated PLC

- Fixing system on din rail
- High speed (2msec. standard cycle time)
- Contact programming with Ladder language
- Function for Recipe management , P.I.D. Regulator , Print etc ...

ELECTRIC CHARACTERISTICS	
Power supply voltage	Min 20 Vcc ; Max 26 Vcc Min 15 Vac ; Max 21 Vac
Current Consumption	Under 50mA without loads
Microprocessor	Hitachi H8S/2145B @ 20MHz
Program Memory	64 KB
Pages Memory	64 KB
E ² PROM	64 KB
Cycle Time	Programmable (minimum 1 msec.)



Digital Inputs	16 digital inputs PNP 24 Volts of which 4 fast input (2KHz for encoder reading) with programmable anti-noise filter (value 1..16)
Analog Inputs	No analogic inputs
Digital Outputs	16 relay outputs 24V , 5A for any common
Analog Outputs	No analog outputs
Plugged RAM	79 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)

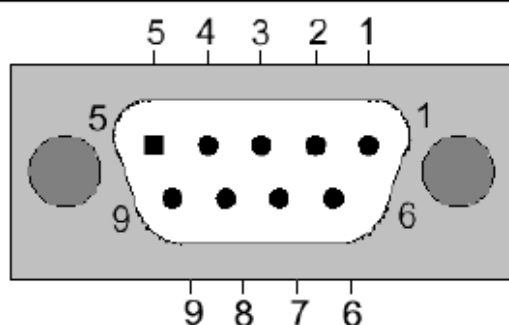


Serial Lines

2 serial lines (COM 0 e COM 1) with the possibility of replace COM 1 with Ethernet.

COM 0 : It could be used in RS232, RS485 or RS422 mode with many different standard communication protocols for connect other devices (I/O expansions , termoregulators , inverters or network connection) .

COM 1 : It could be used in RS232, RS485 mode and it's used like COM0 , besides for upload applications or operative system .



COM 1

RS232	RS485
2 RX	1 TRX+
3 TX	6 TRX-
5 GND	

Jumpers

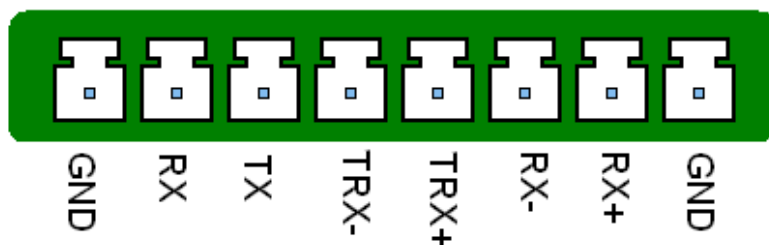
COM 0

RS422	☐
RS485	☐
RS232	☐

COM1

RS485	☐
RS232	☐

COM 0

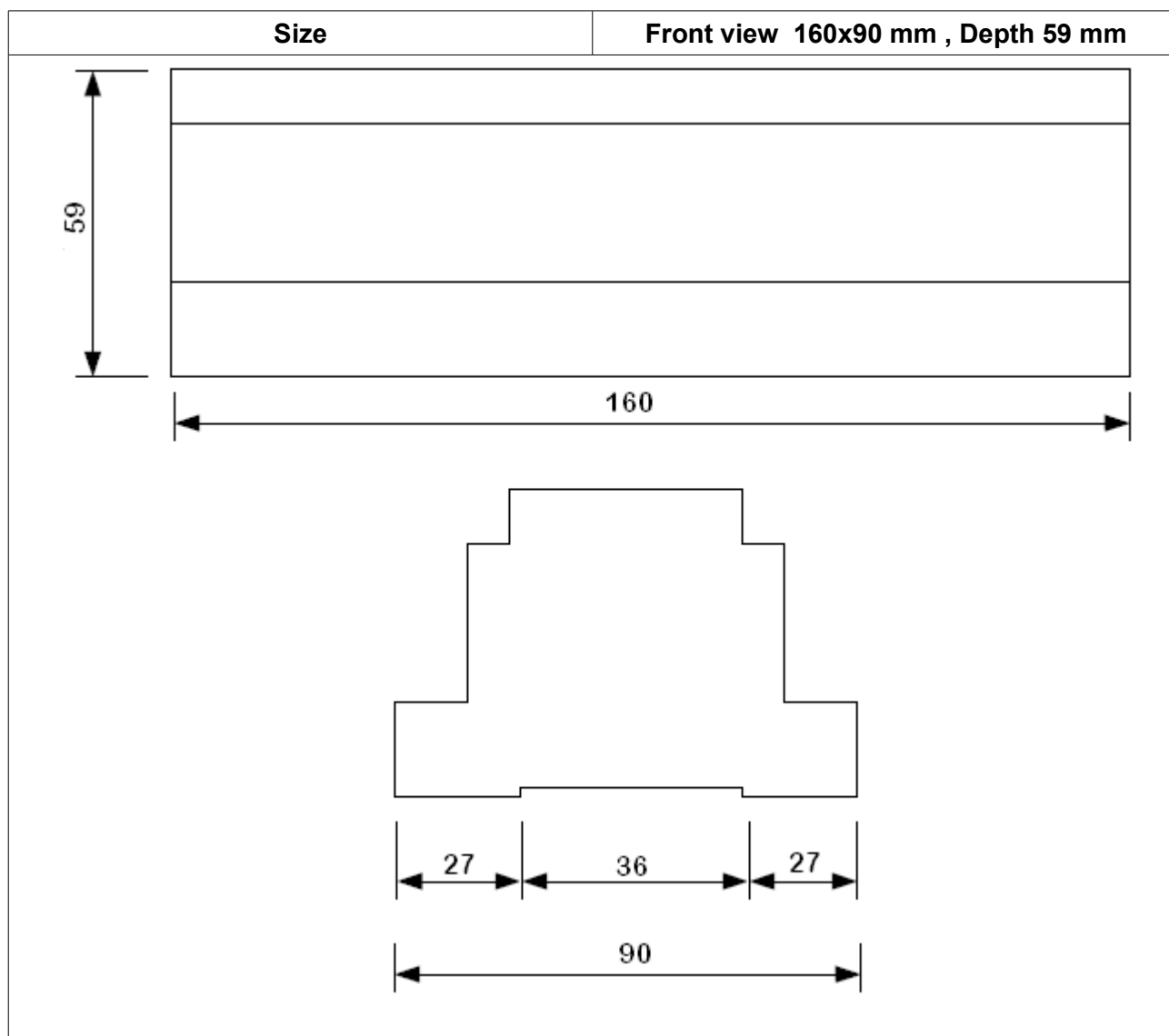


COM 0

RS232	RS422	RS485
2 RX	7 RX+	5 TRX+
3 TX	6 RX-	4 TRX-
1 GND	5 TX+	
	4 TX-	
	8 GND	

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	On din rail
Weight	450 gr
Keyboard	4 dedicated buttons
Display	Alphanumeric display 16 characters on 2 rows , backlight LED





SOFTWARE CHARACTERISTICS	
Programming Languages	AWL / Ladder
Timers	64 timers with 16 bits and resolution 1/100 sec . 32 configurable timers one by one like excitation delay or disexcitation delay and 32 only excitation timers . 8 timers free running with 1 msec resolution enabled one by one with system flag .
Counters	32 counters with 16 bits configurable one by one like incremental or decremental .
Data Memory	2048
Developed Functions	- 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)	●