

PLE500-8AD

PL500 expansion module
Modulo espansione per PL500



3 Technical Data

3.1 General Features

Operating temperature	Temperature: 0-45°C - Humidity 35..95 RH%
Container	DIN43880, 18 x 90 x 64 mm
Box	Box and front panel: PC UL94V0 self-extinguishing
Sealing	IP20 (box and terminals)
Weight	Approx. 30 g

3.2 Hardware Features

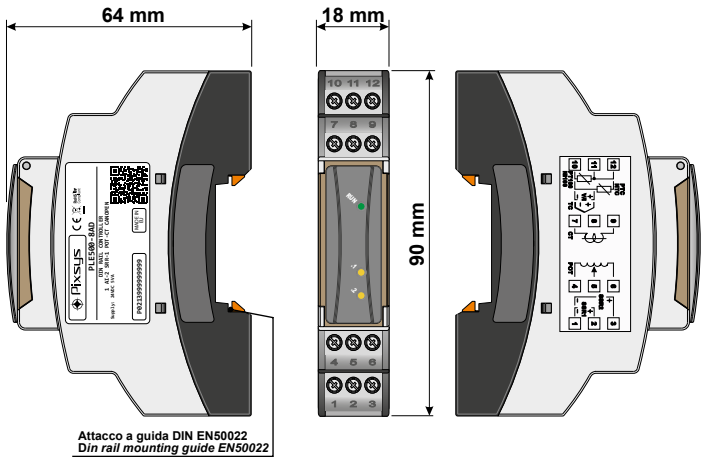
Power-supply	12/24 VDC $\pm 15\%$	Consumption: 3 VA Max.
Analogue input	<p>1: AI1 Configurable via software. Input: Thermocouple type K, S, R, J, T, E, N, B. Automatic compensation of cold junction from 0..50 °C. Thermoresistances: PT100, PT500, PT1000, Ni100, PTC1K, NTC10K (β 3435K). Input V/I: 0-10 V, 0-20 o 4-20 mA, 0-60 mV. Input Pot: Configurable 1..150kΩ 1: C.T.: 50 mA AC 50/60 Hz</p>	<p>Tolleranza (25 °C) $\pm 0.3\% \pm 1$ digit (su F.s.) per termocoppia, termoresistenza e V / mA. Precisione giunto freddo 0.1 °C/°C</p> <p>Impedence: 0-10 V: Ri>110 kΩ 0-20 mA: Ri<50 Ω 4-20 mA: Ri<50 Ω 0-60 mV: Ri>500 kΩ</p> <p>C.T.: 4096 points / 100 μs</p>
Logic outputs	<p>2 SSR. Configurable as command or alarm output.</p>	12/24VDC (Power supply) $\pm 15\%$ / 50mA

3.3 Software features

Regulation algorithms	ON-OFF with hysteresis. P, PI, PID, PD with proportional time
Proportional band	0..999°C o °F
Integral time	0,0..999,9 s (0 excludes)
Derivative time	0,0..999,9 s (0 excludes)
Controller functions	Manual or automatic Tuning, selectable alarm, Start/Stop, "expansion" function.

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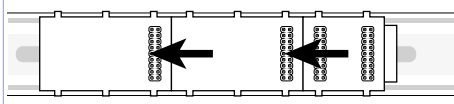
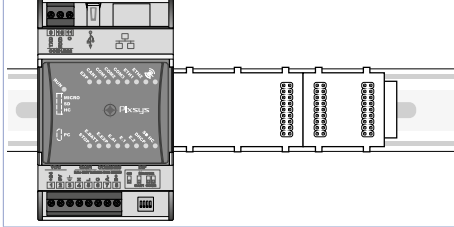
Dimensions and Installation

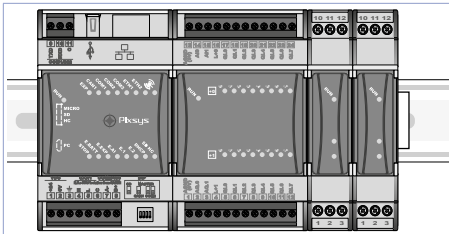


4.1

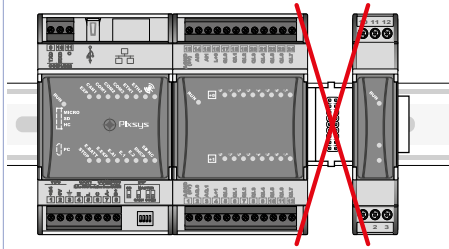
Mounting sequence of the PL500 and of the PLE500 expansion modules

The PL500 with the relevant I/O modules requires mounting and connection via the specific bus lodged in the hollow of the DIN rail. **The I/O modules (series PLE500-xAD) will be automatically numbered at each power-on, assigning the number 1 to the first I/O module connected to the right of the PL500, the number 2 to the following one and so on, always moving towards the right side.** The position of the various modules shall thus reflect the sequence set in the LogicLab project in the definition of the PLCEXP network. For the numbering procedure to work correctly, it is not permitted to remove devices from the network by releasing them from their own bus and leaving some empty modules (bus slots) between one module and another. All connection/disconnection operations must be carried out with power off.

	Couple all the buses by pushing them towards the DIN rail, making sure that the male connection faces left and the female one faces right.
	Couple the buses together by sliding them along the DIN rail.
	Insert the various modules in the slots of the buses starting from the PL500 and continuing to the right with the I/O modules.



Proceed with mounting all the modules according to the requested order until the plc is completely formed.



It is not possible to leave free slots in the bus between one module and another.

5 Electric connections

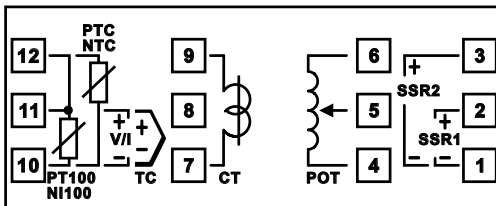
This instrument was designed and built in compliance with the Low Voltage Directives 2006/95/CE, 2014/35/EU (LVD) and Electromagnetic compatibility 2004/108/EC and 2014/30/EU (EMC). For installation in industrial environments it is a good rule to follow the precautions below:

- Distinguish the power supply line from the power lines.
- Avoid the proximity with contactor units, electromagnetic contactors, high power motors and use filters in any event.
- Avoid the proximity with power units, particularly with phase control.
- The use of network filters is recommended on the power supply of the machine in which the instrument will be installed, particular in case of 230 VAC power supply.

The instrument is devised to be assembled with other machines. Therefore, the EC marking of the instrument does not exempt the manufacturer of the system from the safety and conformity obligations imposed for the machine as a whole.

- Wiring of pins use crimped tube terminals or flexible/rigid copper wire with diameter 0.25 to 1.5 mm² (min. AWG28, max. AWG16, operating temperature: min. 70°C). Cable stripping lenght 7 to 8 mm.

5.1 Wiring diagram



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