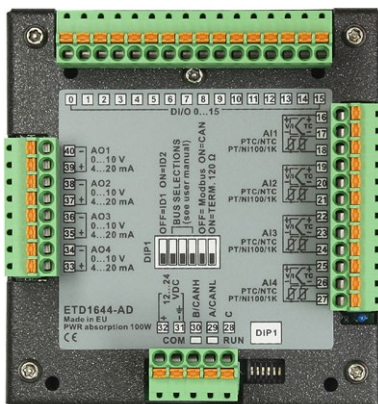


ETD1644-AD

I/O module - Modulo I/O



3 Model identification

ETD1644-AD	Power supply 24 VDC $\pm 15\%$
	16 digital I/O
	4 analogue input
	4 analogue output
	RS485 serial port with Modbus RTU slave protocol
	CAN port with CanOpen protocol

4 Technical data

4.1 Main features

Operating temperature	Temperature: 0-45°C; Humidity 35..95 RH%
Dimensions	87 x 93 x 35 mm
Material	Box: steel 10/10, Ral 7016;
Protection	IP20 (contentitore and terminal blocks)
Weight	Approx. 200 g

4.2 Hardware features

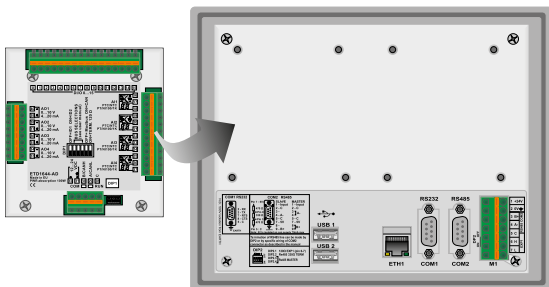
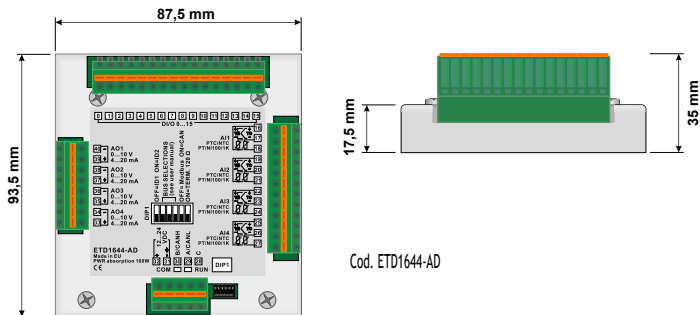
Power supply	12..24 VDC $\pm 15\%$	Consumption: 100 W max
Analogue input	4: AI1..4 Configurable via software. Input: Thermocouple type K, S, R, J, T, E, N, B. Automatic compensation of cold junction from 0..50°C. Thermoresistance: PT100, PT500, PT1000, Ni100, PTC1K, NTC10K (β 3435K).	Tolerance (25 °C) +/-0.3% ± 1 digit (su F.s.) for thermocouple, thermoresistance and V / mA. Cold junction accuracy 0.1 °C/°C
	Input V/I: 0-1V, 0-5V, 0-10 V, 0-20 o 4-20 mA, 0-60 mV.	Impedence: 0-10 V: Ri>110 k Ω 0-20 mA: Ri<50 Ω 4-20 mA: Ri<50 Ω 0-60 mV: Ri>500 k Ω
	Pot. input: Configurable 1..150k Ω	
	Up to 16 selectable as 24VDC static outputs (up to 700mA per output and maximum 3A total for all outputs*)	
Digital input / output	Up to 4 mono / bidirectional encoders overlapped on 12 PNP inputs (32bit, up to 80Khz, counting mode x1 for the mono-directional meters and x2 for the encoders)	
Encoder inputs / Counters		

Analogue output	4 0..10V o 4..20 mA.	0..10V
	Configurable via software	16000 points, $\pm 0.3\%$ su F.S.
		4..20 mA
		15000 points, $\pm 0.3\%$ su F.S.

■ **Caution!** 24VDC power supply line must be protected by a 5A fuse.

■ **Warning!** * up to 700mA per output and maximum 3A total for all outputs.

5 Dimensions and Installation

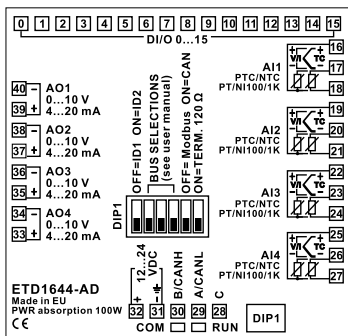


6 Electrical wirings

This device has been designed and manufactured in conformity to Low Voltage Directive 2006/95/EC, 2014/35/EU (LVD) and EMC Directive 2004/108/EC, 2014/30/EU (EMC). For installation in industrial environments please observe following safety guidelines:

- Separate control line from power wires.
 - Avoid proximity of remote control switches, electromagnetic contactors, powerful engines and use specific filters.
 - Avoid proximity of power groups, especially those with phase control.
 - It is strongly recommended to install adequate mains filter on power supply of the machine where the controller is installed, particularly if supplied 230 VAC.
- The controller is designed and conceived to be incorporated into other machines, therefore CE marking on the controller does not exempt the manufacturer of machines from safety and conformity requirements applying to the machine itself.

6.1 Wiring diagram



ETD1644-AD

6.1.a Power Supply



Power supply 12..24 VDC $\pm 15\%$ – 100 VA max (all outputs active)