

Caution



- The product/system described in this documentation may be operated only by personnel qualified for the specific task in accordance with the relevant documentation.
- Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.



- Inspect wiring of equipment before each use. Replace damaged or frayed electrical cords immediately. Use a reliable power supply.
- Minimize the potential for dust, metallic particles, water or any chemical spills on or near the equipment.
- DO NOT disassemble or modify any part of the equipment.
- DO NOT use and/or install the equipment in places with the following conditions:
 - Humidity or temperature out of the specified range
 - vibration or shock
 - dust or corrosive gas or liquid
- DO NOT touch the cords, terminals or any electric part when the equipment power is on. Wait at least one minute after the power off to assure that all capacitors are discharged.

Hardware Parameters

Analog Inputs	Inputs count	2		
	Measuring type	<ul style="list-style-type: none"> Linear DC: +/- 16 mV, +/- 32 mV, +/- 64mV, +/- 128 mV, +/- 256 mV, +/- 512 mV, +/- 1024 mV, +/- 2048 mV RTD: <ul style="list-style-type: none"> PT100 (-200 ~ 850 °C), PT1000 (-200 ~ 600 °C) Resistance (0 ~ 3600 Ω) Thermocouple: <ul style="list-style-type: none"> K (-270 ~ 1372 °C), J (-210 ~ 1102 °C), R (-50 ~ 1768 °C), T (-270 ~ 400 °C), N (-270 ~ 1300 °C), E (-270 ~ 830 °C), B (100 ~ 1820 °C), S (-50 ~ 1760 °C), C (0 ~ 2310 °C) 		
		Destruction limit (Voltage)	3.3 V	
		Sampling rate	150 ms (Resistive sensors: 300 ms)	
		Resolution	16 bit	
		Measuring principle	Sigma-Delta	
		Analog Outputs	Outputs count	2
			Measuring type	Linear DC: 0 to 10 V, 0 to 24 mA
			Min Load impedance (Voltage)	2 kΩ
			Max Load impedance (Current)	300 Ω
Rated supply voltage			24 V	
Supply voltage range	15 to 40 V			
Resolution	12 bit			
Hardware interrupt	Yes. Under flow, Over flow			
Ambient Conditions	Storage temperature	-15 to 75 °C		
	Operating temperature	0 to 55 °C		
	Relative humidity	Max 90 %, No Condensation		
Miscellaneous	Weight	Approx. 90 g		
	Cold junction compensation	Yes		
	Cold junction error	+/- 0.5 °C		

For more details download digital version of this technical sheet from INTELART's website www.intelart.it/catalog

Stop action

Each output channel has a property named "StopAction" which determines the act of channel when PLC state changes to stop mode.

Smoothing

When you install an input analog signal board, a property named "Smoothing" will be appeared in properties window in order to enable some filtering and signal conditioning options.

Address Space

The value of input channels and output channels and some configurations will be accessible via an address space. There are bunch of predefined mapped tags in order to read or write a value in the address space. The following table illustrates the type and purpose of each mapped tag.

Category	Name	Data Type	Address	Function
Input Space (I)				
Analog Inputs	AI00	REAL	%ID0	Gets the value of channel 0 value
	AI01	REAL	%ID4	Gets the value of channel 1 value
Output Space (Q)				
Analog Outputs	AQ00	REAL	%QD0	Sets the value of channel 0 value
	AQ01	REAL	%QD4	Sets the value of channel 1 value

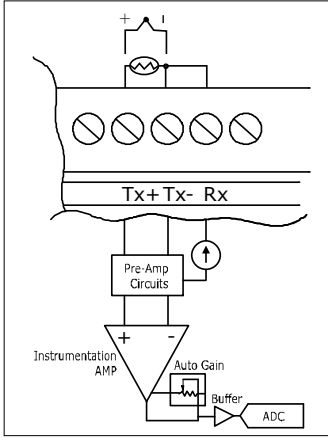
Diagnostic

All input and output channels has a LED indicating the status of that channel. The following table explains the states of each relevant LED.

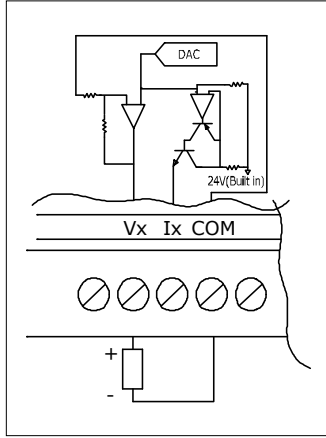
LED	Indicating	Solution
	Power missing or hardware failure.	Check the main power supply Verify that the module is installed correctly
	The module is configured and is in RUN mode.	--
	Indicates an error (Out of range error, configuration error etc.)	Verify that the module is installed correctly Ensure that the input or output value be in eligible range.

■ Wiring

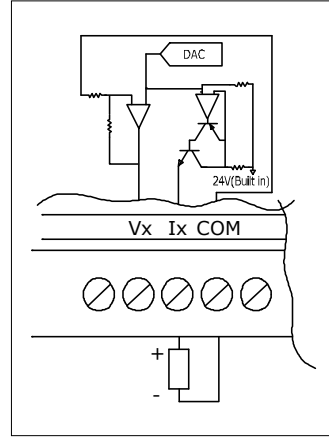
The following block diagram shows you information about wiring of the module.



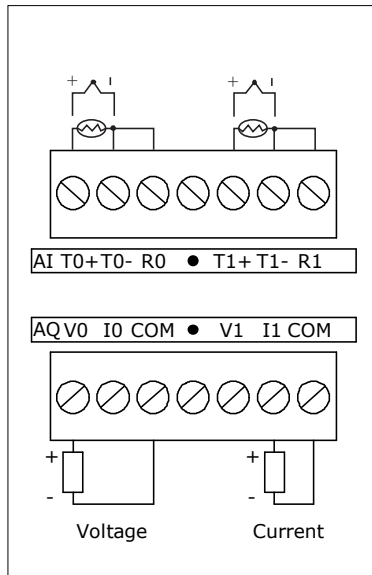
Analog Inputs Diagram



Analog Voltage Outputs Diagram



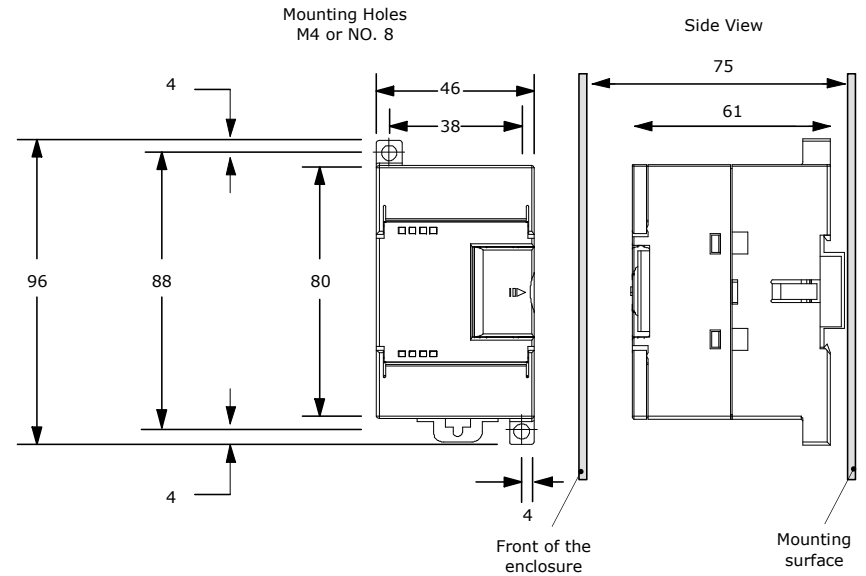
Analog Current Outputs Diagram



Wiring Sample

■ Dimensional Drawing

The dimensions of the module are available in this section. For install the module and its main device follow the below dimensional drawing.



All dimensions are in mm

Some parts may not included in diagrams

May change without prior notice