INTELART Robust in Automation

IM341 Technical Sheet — Analog Input / Analog Output Module

■ Caution

1. The product/system described in this documentation may be operated only by personnel qualified for the specific task in accordance with the relevant documentation.
2. 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.

1. Inspect wiring of equipment before each use. Replace damaged or frayed electrical cords immediately. Use a reliable power supply.
2. Minimize the potential for dust, metallic particles, water or any chemical spills on or near the equipment.
3. DO NOT disassemble or modify any part of the equipment.
4. 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
5. 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	Linear DC: 0 to 10 V, 0 to 24 mA
	Sampling rate	25 ms
	Destruction limit (Voltage)	30 V
	Destruction limit (Current)	70 mA
	Resolution	12 bit
	Input resistance (Voltage)	>145 kΩ
	Input resistance (Current)	>250 Ω
	Measuring principle	Pseudo Differential
	Hardware interrupt	Yes. Under flow, Over flow
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

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

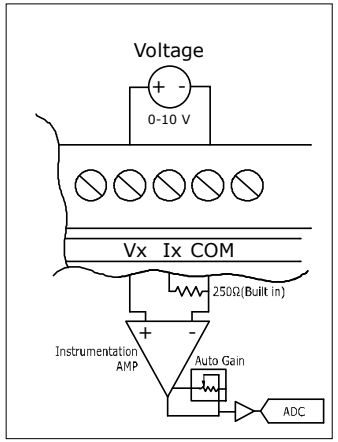
■ Diagnostic

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

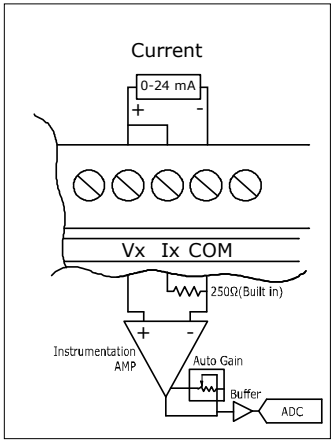
LED	Indicating	Solution
□	Power missing or hardware failure.	Check the main power supply Verify that the module is installed correctly
■	The module is configured and is in RUN mode.	--
✸	Indicates an error (Out of range error, configuration error etc.)	Verify that the module is installed correctly Ensure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

■ Wiring

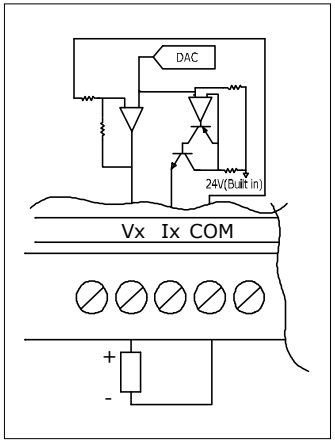
The following block diagram shows you information about wiring of the module.



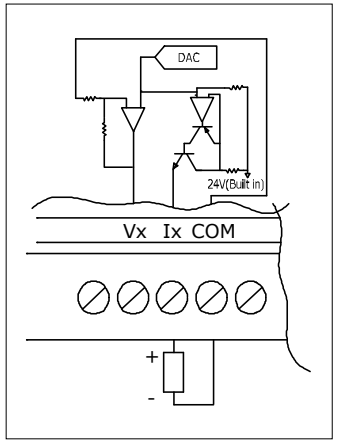
Analog Voltage Inputs Diagram



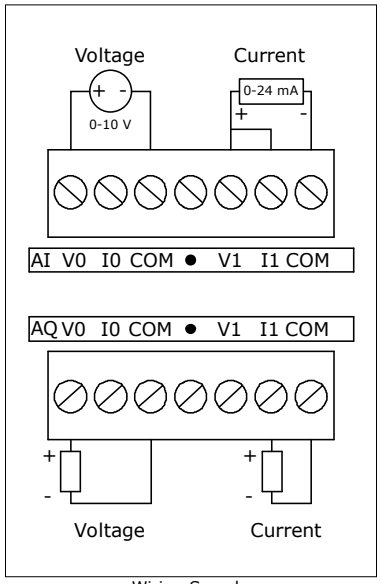
Analog Current Inputs Diagram



Analog Voltage Outputs Diagram



Analog Current Outputs Diagram



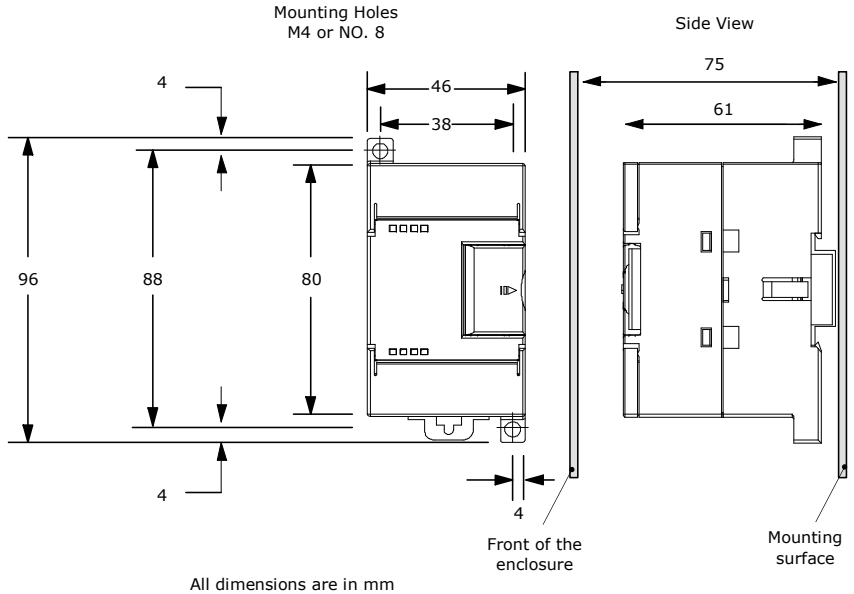
Wiring Sample

Some parts may not included in diagrams

May change without prior notice

■ 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