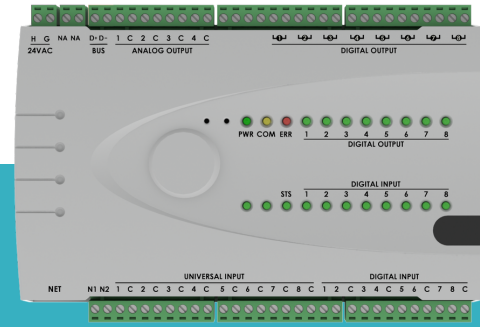




IO-28P



INPUT OUTPUT MODBUS MODULE

PRODUCT DEFINATION

The IO-28P Controller is designed for extension capacity of input and output points via RS485 Modbus RTU communication. Completed with 28 input and output points that allow expansion of IOs to a maximum of 1 km distance.

FEATURES

Open Communication Protocols

RS-485 port that allows connection to any controllers that support Modbus RTU communication protocols.

Various Input and Output Points

This IO expansion controller module provides universal inputs, digital inputs, analogue outputs and digital outputs with a total of 28 points.

Built in Conversion Table

Controller comes with standard 10k thermistor resistance conversion tables that provide direct readable data.

Non Configurable

Different Modbus addresses provide various types and values for input and output to cater for different application requirements without any programming or physical setting.

Installation Friendly

All input and output points termination are designed via field removable terminal block connectors given separate wiring sockets for quick exchange without rewiring. Controller casing fits standard DIN rail mounting ease to mount and unmount the controller to designated location

Robust System Operation

The controller has a built-in High Accuracy Real Time clock with backup battery. Software and hardware watchdog timer are provided for high reliability operation.

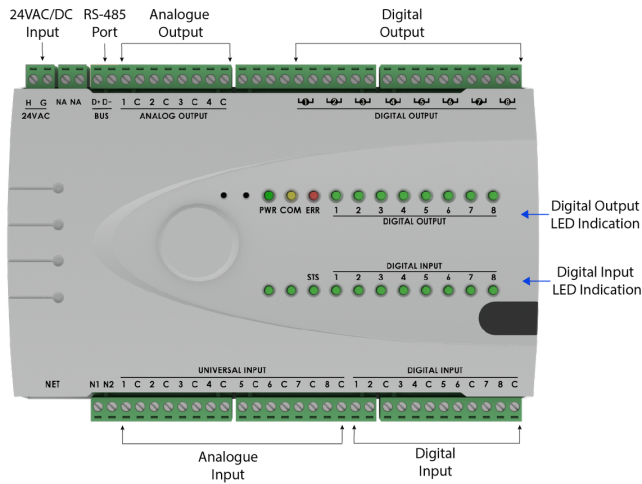


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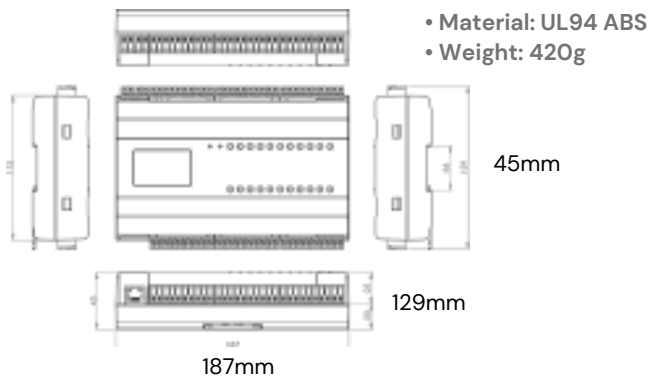


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SYSTEM CONTROLLER



DIAMENSION



ELECTRICAL SPECIFICATION

- Power Supply: 24VAC \pm 5% or 24 VDC \pm 5%
- Consumption: 3.6VA max or 300mA max
- Operating Temperature: 32° to 150° F (0° to 65° C)
- Storage Temperature: -4° to 150° F (-20° to 65° C)
- Operating Humidity: 10% to 95% HR (non-condensed)

Technical Specification

Universal Input:

- 8 Channels (12 bits Resolution)
 - o Voltage: 0 – 10V (\pm 0.005V), 0 – 5V (\pm 0.003V)
 - o Current: 0 – 20mA (\pm 0.01mA), 4 – 20mA (\pm 0.01mA)
 - o Resistance: 0 – 30k (\pm 10 Ω), 0 – 10k (\pm 5 Ω), 0 – 1.5k (\pm 1 Ω)
 - o Thermistor: 10k, 10k Shunt

Analogue Output:

- 4 Channels (10 bits Resolution)
 - o Voltage: 0 – 10V (\pm 0.003V)
 - o Current: 4 – 20mA (up to 550 Ω load)

Digital Input:

- 8 Channels
 - o Type: Voltage Free
 - o Limit: +5V at 500 Ω maximum

Digital Output:

- 8 Channels
 - o Type: Relay Contacts, SPST NO, Pilot Duty
 - Max Rating: 5A, 250VAC/30VDC

Communication

Physical Interface 1 (Port 1):

- EIA-485 Standard (Bus A, B) two-wire
- Half Duplex
- Baud Rate Speed: 9.6k, 19.2k, 38.4k, 76.8k, 115.2k bit/s
- Data Bit: 8 bits
- Application Protocol: Modbus
- Multi-drop Capability: Yes (Hardware ID Setting)

Status Indicators

- Power Status LED
- Operation Status LED
- Communication Status LED
- Error Status LED
- Digital Input, Digital Output

