Johnson Controls Metasys Slave Interface Module
MVI56-N2

Ideal for Energy Management Applications.

Applications benefiting from the N2 module are prevalent in commercial building and energy management projects. Single or multiple processor applications will benefit through reduced installation costs and increased functionality.

How to Contact Us: Sales and Support

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Johnson Controls Metasys Slave Interface Module

MVI56-N2

The MVI56 Johnson Controls Metasys Slave Communication Module allows Rockwell Automation ControlLogix I/O compatible processors to interface easily with other Johnson Controls N2 master devices.

Features and Benefits

The MVI56-N2 module acts as an input/output module between the Johnson Controls Metasys network and the Rockwell Automation ControlLogix backplane. The module acts as a slave receiving commands from a master device. The data transfer from the ControlLogix processor is asynchronous from the actions on the Johnson Controls Metasys network. An internal database in the module exchanges data between the processor and the Johnson Controls Metasys Master (NCM, N-30, NAE, NIE).

General Specifications

- Single Slot – 1756 backplane compatible
- The module is recognized as an Input/Output module and has access to processor memory for data transfer between processor and module
- Ladder Logic is used for data transfer between module and processor. Sample ladder file included.
- Configuration data obtained from configuration text file downloaded to module. Sample configuration file included
- Local or remote rack

Hardware Specifications

Specification	Description
Backplane Current Load	800 mA @ 5 V
Operating Temperature	0 to 60°C (32 to 140°F)
Storage Temperature	–40 to 85°C (–40 to 185°F)
Shock:	30g Operational
	50g non-operational
	Vibration: 5 g from 10 to 150 Hz
Relative Humidity	5 to 95% (non-condensing)
LED Indicators:	Module Status
	Backplane Transfer Status
	Application Status
	Serial Activity

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Specification	Description
Debug/Configuration port (CFG)	
CFG Port (CFG)	RJ45 (DB-9M with supplied cable)
	RS-232 only
Application ports (PRT1 & PRT2)	
Full hardware handshaking control, providing radio, modem and Multi-drop support	
Software configurable communication parameters	Baud rate: 110 to 115,200 baud, depending on protocol
	RS-232, 485 and 422
	Parity: none, odd or even
	Data bits: 5, 6, 7, or 8
	Stop bits: 1 or 2
	RTS on/off delay: 0 to 65535 ms
App Ports (P1,P2) (Serial modules)	RJ45 (DB-9M with supplied cable)
	RS-232 handshaking configurable
	500V Optical isolation from backplane
Shipped with Unit	RJ45 to DB-9M cables for each port
	6-foot RS-232 configuration cable

Functional Specifications
Some of the general specifications include:
- Support for the storage and transfer of internal database registers to/from the ControlLogix processor's controller tags
- Two ports to emulate a Johnson Controls N2 slave
- Supports the following N2 objects:
  - Binary Input: Up to 960 points
  - Analog Input: Up to 300 points
  - Binary Output: Up to 960 points
  - Analog Output: Up to 300 points
- Supported Commands/Sub-commands
  - 0/4: Poll Message No Acknowledge
  - 0/5: Poll Message with Acknowledge
  - 0/9: Status Update
  - 1/1: Read Analog Input Attributes
  - 1/2: Read Binary Input Attributes
  - 1/3: Read Analog Output Attributes
  - 1/4: Read Binary Output Attributes
  - 2/1: Write Analog Input Attributes
  - 2/2: Write Binary Input Attributes
  - 2/3: Write Analog Output Attributes
  - 2/4: Write Binary Output Attributes
  - 7/2/3: Override Analog Output
  - 7/2/4: Override Binary Output
  - F: Identify Device Type
- The following commands are recognized, and acknowledged, but are not communicated in any way to the ControlLogix , and do not return any data:
  - 0/0: Time Update
  - 0/8: Warm Start
  - All other commands return a Bad Command Error Code

- Configurable through the configuration file for the following:
  - Slave Address (assignable individually for Port 1 and 2)
  - Analog Input Object Count
  - Binary Input Object Count
  - Analog Output Object Count
  - Binary Output Object Count

- Warning and Alarming functions performed on Analog Input and Binary Input data types
- Change of State Response buffering
- Communication status error codes and statistics returned per port
- Communication parameter: Baud rate 9600 bps.

Memory mapping is pre-assigned to optimize data access and to ease implementation

A port configured as a Johnson Controls N2 slave permits a remote master to interact with data contained in the module. This data is derived from the ControlLogix processor.

Additional Products
ProSoft Technology offers a full complement of hardware and software solutions for a wide variety of industrial communication platforms. Compatible products in the inRAx product line also include:

Johnson Controls Metasys Module for SLC (MVI46-N2)

Johnson Controls Metasys Module for CompactLogix (MVI69-N2)

Visit our web site at http://www.prosoft-technology.com for a complete list of products.