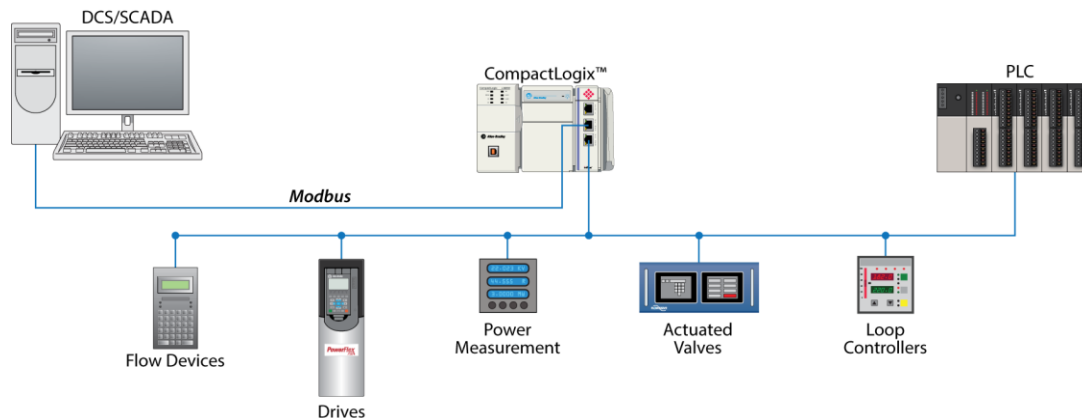# DATASHEET

Modbus Serial Enhanced Communication Module
MVI69E-MBS

The MVI69E-MBS Modbus Serial module for CompactLogix™ is designed for all applications requiring Modbus Serial connectivity. This module comes with an Add-on Profile and an Add-on Instruction to reduce commissioning time. The MVI69E-MBS has two serial ports and can support both Master and/or Slave connectivity to interface with a variety of devices using the Modbus Protocol.

Features

- ♦ Supports CompactLogix processors with 1769 I/O bus capability version 16 and greater (MicroLogix 1500 not supported)
- ♦ Add-on Instruction creates UDTs, providing logical definitions for I/O, status, and control data
- ♦ Add-on Profile support, improving integration in the CompactLogix System
- ♦ Diagnostic data available in processor controller tags, enabling decisions to be made based upon node health
- ♦ Module configuration backed up in CompactLogix project (ACD file)
- ♦ Module acts as a co-processor reducing impact to PLC scan time
- ♦ Supports up to 10,000 words of data
- ♦ Supports up to 250 Modbus Commands per port
- ♦ Each port can be configured individually as a Modbus Master or Modbus Slave device
- ♦ Supports Enron and Daniel-style Floating point data implementations
- ♦ Suitable for SCADA and field device interface applications

General Specifications

Specification	Description
Configuration	ProSoft Configuration Builder
I/O Size	60/120/240 - 16 bit integers
Communication parameters	Baud Rate: 110 to 115K baud Stop Bits: 1 or 2 Data Size: 7 or 8 bits Parity: None, Even, Odd RTS Timing delays: 0 to 65535 milliseconds
Modbus Modes	RTU mode (binary) with CRC-16 ASCII mode with LRC error checking
Floating Point Data	Floating point data movement supported, including configurable support for Enron, Daniel®, and other implementations
Modbus Function Codes Supported	1: Read Coil Status 2: Read Input Status 3: Read Holding Registers 4: Read Input Registers 5: Force (Write) Single Coil 6: Preset (Write) Single Holding Register 8: Diagnostics (Slave Only, Responds to Sub function 00) 15: Force(Write) Multiple Coils 16: Preset (Write) Multiple Holding Registers 17: Report Slave ID (Slave Only) 22: Mask Write Holding Register (Slave Only) 23: Read/Write Holding Registers (Slave Only)

Modbus Master

Specification	Description
Command List	Up to 250 command per Master port, each fully configurable for function, slave address, register to/from addressing and word/bit count.
Polling of command list	Configurable polling of command list, including continuous and on change of state.
Status Data	Error codes available on an individual command basis. A slave status list is maintained per active Modbus Master port.

Modbus Slave

Specification	Description
Node address	1 to 247 (software selectable)
Status Data	Error codes, counters and port status available per configured slave port

Hardware Specifications

Specification	Description
Dimensions	Standard 1769 Single-slot module
Current Load	500 mA max @ 5 VDC Power supply distance rating of 4
Operating Temp.	32° F to 140° F (0° C to 60°C)
Storage Temp.	-40° F to 185° F (-40° C to 85° C)
Relative Humidity	5% to 95% (with no condensation)
LED Indicators	OK - Module Status ETH - Ethernet Communication P1 - Port 1 Serial Communication P2 - Port 2 Serial Communication BP - Backplane Connectivity CFG - Valid Configuration
Debug Port	10/100 Ethernet Port (auto-negotiating)
App Ports (P1,P2)	RS-232, RS-485 or RS-422 RJ45 (DB-9F with supplied cable) RS-232 handshaking configurable 500V Optical isolation from backplane
Shipped with Unit	2 - RJ45 to DB-9M cables for application ports 2 - DB-9F breakout boards

Agency Approvals & Certifications

Please visit our website: www.prosoft-technology.com

Ordering Information

To order this product, please use the following:

Modbus Serial Enhanced Communication Module

MVI69E-MBS

To place an order, please contact your local ProSoft Technology distributor. For a list of ProSoft Technology distributors near you, go to: www.prosoft-technology.com and select *How to Buy* from the menu.