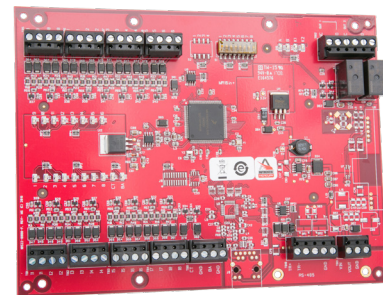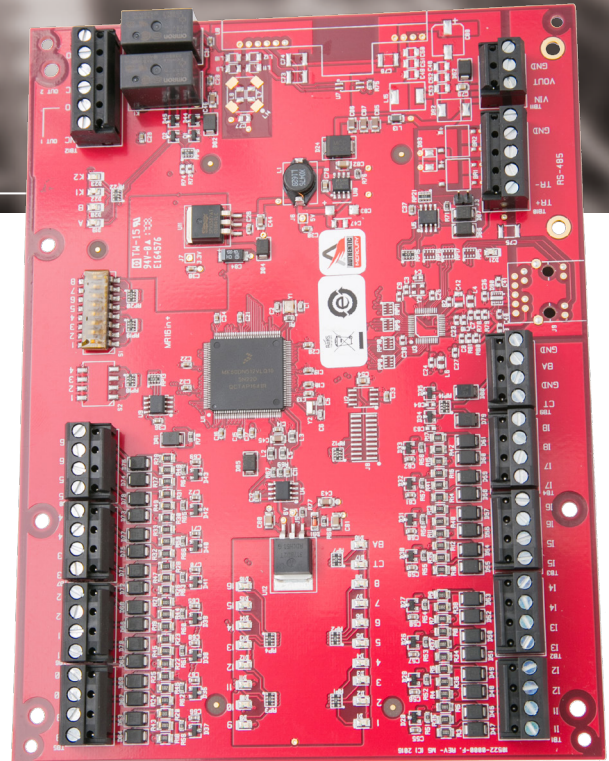# MR-16IN-S3

MR-16IN-S3 Subpanel

The MR-16IN-S3 SIO contains sixteen general-purpose input monitor points and two control relays. Inputs are often used in alarm monitoring applications such as door sensors, glass break sensors, water/water flow sensors, motion, and smoke detectors.

The MR-16IN-S3 allows for a simplified monitoring of external devices and system automation. Devices can be activated or deactivated by the condition of selected system devices locally or regionally without host intervention. The MR-16IN-S3 offers unmatched power and flexibility to expand the range of devices and building controls that are part of an access control system design. Input monitoring can be used to trigger tasks stored on the SCP that allows control of system devices. These tasks allow for control of the system through automated task logic.

The MR16IN-S3 inputs can be configured to support normally open, normally closed, supervised, and non-supervised circuits. Additionally, the inputs support supervised End-of-Line Resistance and can be programmed with custom resistance values. The auxiliary outputs provides individually configurable parameters to be set for timing and for fail-safe or fail-secure modes.

The Mercury Security platform continues to focus on data security. The MR-16IN-S3 subpanel supports secure communication between the controller board and the MR-16IN-S3 using AES-128/256 over the RS-485 bus communications ensuring that data in transit remains secure. Onboard, the MR-16IN-S3 contains an embedded cryptographic memory chip. This memory chip stores important data, such as communication encryptions keys, in a secure location ensuring data remains secure while at rest.

The MR-16IN-S3 simplifies device monitoring by allowing up to 16 devices to be connected to a single SIO panel.

The MR-16IN-S3 includes these features:

- 16 programmable auxiliary inputs
- 2 Form-C Relays with configurable parameters for fail-safe or fail-secure configurations
- 2 dedicated tamper and power monitor inputs
- Programmable Supervised End-of-Line resistance values
- Simplified integration with monitoring devices such as door sensors, glass break sensors, water/water flow sensors, smoke detectors, and motion detectors
- Embedded cryptographic memory chip ensures all local data remains secured while at rest
- SCP communication secured using TLS 1.2 and AES-128/256 bit data encryption
- Same footprint and interface as the Series 2 MR-16IN subpanel
- Programmable task logic can be triggered via input state changes to enable system automation
- UL 294, CE, RoHS Compliant

RS2 Technologies

RS2 Technologies has constructed an integrated family of access management software and hardware that can be configured to provide a cost-effective solution for very small to very large systems. The LP series of hardware relies on open architecture to maximize freedom for users, control costs, and allow for interoperability via integration to provide the most complete solution from a platform trusted worldwide.

Technical Specifications	
Power	
Primary Power	12 to 24 Vdc +/- 10% 350 mA maximum
Communication	
SCP Communication	RS-485 2-Wire AES-128/256 Encryption Addressable between addresses 0-31
Panel Specifications	
Inputs	1 Unsupervised Cabinet Tamper 1 Unsupervised Power Monitor 16 Unsupervised/Supervised Auxiliary

Outputs	2 Auxiliary Form-C Contact
	    NC 3 A @ 30 Vdc, resistive
	    NO 5 A @ 30 Vdc, resistive

Standards	UL 294, CE, RoHS

Technical Specifications	
Cabling	
Power & Relays	1 Twisted Pair - 18 to 16 AWG
SIO RS-485	1 Twisted Pair with Drain Wire and Shield, 120 Ohm Impedance, 24 AWG, 4,000 Foot Maximum
Physical Specifications	
Dimensions	6.0 in. (152 mm) W x 8.0 in. (203 mm) L x 1.0 in. (25 mm)
Humidity	5 to 85% RHNC
Temperature	-55 to +85 °C Storage 0 to +49 °C Operating
Weight	9 oz