

# Mercury™-based Wavestore Serial I/O Dual Card Interface

WS-MR52-S3B

## Key Benefits

### Open Architecture:

High performance, reliable platform enables use of hardware with Mercury OEM partners software solutions

### Enhanced Cybersecurity:

Embedded crypto memory chip provides secured layer of encryption to protect sensitive data

### OSDP Protocol:

Supports OSDP and Secure Channel protocol for device connectivity, file transfer and extended applications such as biometrics and federal government profile support

### Versatile Interoperability:

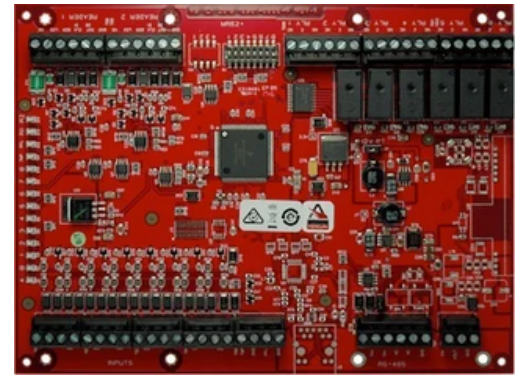
Same reliable interface and identical footprint as the Series 2 Mercury IO modules, enabling seamless upgrades for existing deployments.

The Wavestore Mercury-Based MR S3 Serial Input/Output (SIO) modules enable system expansion of Mercury intelligent controllers as part of Mercury's distributed architecture. The enhanced modules offer an improved processor and increased memory, plus features an embedded crypto memory chip that provides a secured layer of encryption to onboard sensitive data. Built on the HID Mercury open platform, Series 3 modules provide the necessary flexibility for OEMs, channel partners and end customers to choose the controller configuration that best fits their needs.

The WS-MR52-S3B is a card reader interface panel with on-board flexibility to connect a wide range of security devices. The WS-MR52-S3B is easy to install and provides the required I/O for interfacing two card readers, eight general-purpose input monitor points and six control relays to any Mercury series intelligent controller.

With two-wire RS-485 connectivity, the WS-MR52-S3B's two reader ports support OSDP, OSDP Secure Channel, FICAM government profiles, keypads, biometric readers, Wiegand, clock and data, magnetic stripe, F/2F and supervised F/2F reader technologies. System configuration and setup are provided through Mercury OEM partner software applications.

The WS-MR52-S3B is the latest generation door interface module for Mercury intelligent controllers, the platform of choice for customers seeking open architecture access control solutions.



## Highlights

AES 128/256 bit data encryption

HSPD-12/FIPS201 compliant

UL 294 recognized, CE compliant, FCC, RoHS

Supports OSDP, OSDP Secure Channel, FICAM government profiles, keypads, biometric readers, Wiegand, clock and data, magnetic stripe, F/2F and supervised F/2F reader technologies

RS-485 host connectivity

## Application Notes

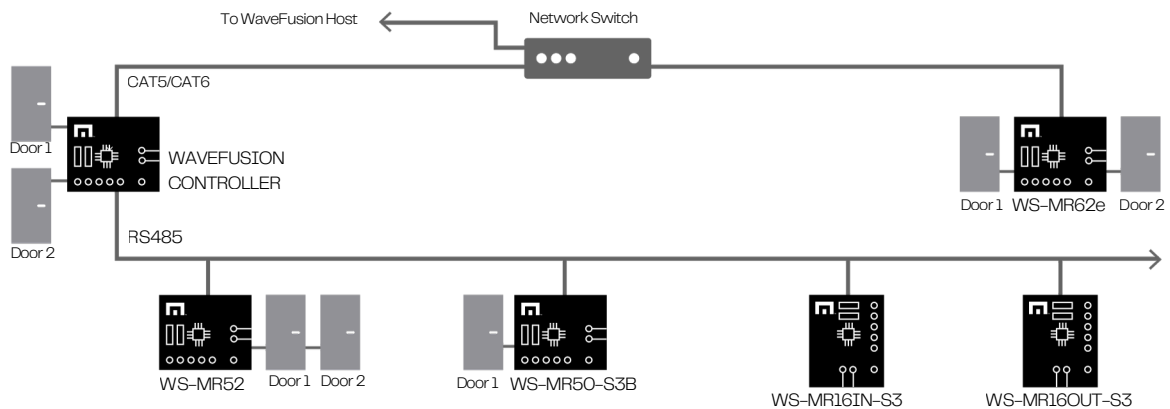
The inputs and the relays may be assigned to door-related functions or to general purpose I/O. The inputs support normally open, normally closed, supervised, and non-supervised circuits. End-of-line (EOL) resistance values are configurable, and the relays can be configured for fail-safe or fail-secure operation.

When connected to an HID Mercury intelligent controller, the MR52 can relate the activities of selected system devices to other devices within the system, generating actions and allowing activities to occur independent of the host. The MR52 can also locally process access requests based on facility code verification, even when disconnected from an intelligent controller. Up to eight facility codes may be active in each MR52.

# Specifications

WS-MR52-S3B	
Primary Power	12-24 VDC +/- 10%, 550mA maximum
Host Communication	RS-485, 2-wire, 4,000' (twisted pair with shield, Belden 9841)
Reader Port	2 Reader Ports*
Card/Keypad Data	OSDP, Clock/Data, Data-1/Data-0, RS-485 or F/2F
Keypad	8-bit Mercury, 8-bit Dorado/HID, 4-bit HID
Reader Power	Pass-through or 12 VDC regulated 300mA each reader
LED	One-wire bi-color LED or two-wire LED
Buzzer	Only with 'one-wire' LED
Inputs	8 General Purpose: Programmable circuit type 2 Dedicated: Tamper and Power Monitor
Output Relays	Six Form-C Relays: Normally open contact (NO): 5A @ 30 VDC resistive Normally closed contact (NC): 3A @ 30 VDC resistive
Dimensions	6.0" W x 8.0" L x 1.0" H (152mm W x 203mm L x 25mm H)
Temperature	Storage: -55° - 85° C Operational: 0° - 70° C
Humidity	5 to 95% RHNC
Product Compliance	UL294 Recognized, FCC Part 15 Class A, CE Compliant, RoHS (2011/65/EU & 2015/863), EU REACH (1907/2006), California Proposition 65

\*Note: A single entry/exit door application (2 readers total) can be supported when connected to OSDP readers.



**wavestore**

Visit [wavestore.com/wavefusion](http://wavestore.com/wavefusion) for more information.

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