

## Mercury MR50 Serial I/O Controller

Authentic Mercury MR serial Input/output (SIO) devices represent the secondary level in Mercury's distributed architecture. The devices provide flexibility ensuring they can choose the controller that best fits their needs.

The MR50 is an economical single card reader interface panel dedicated to individual door oversight and provides of all the I/O needed for controlling a single door. Each MR50 connects one card reader, two general-purpose input monitor points and two control relays for access control and security monitoring through an Authentic Mercury EP intelligent controller.

The panel is easy to install and supports Wiegand, clock and data magnetic stripe, F2F, Supervised F2F, OSDP, keypad and biometrics reader technologies. With its compact footprint and RS-485 connectivity, the MR50 can be clustered or distributed depending on the installation environment.

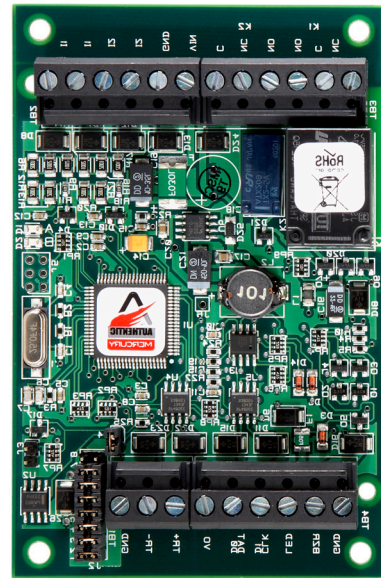
An ideal choice for a compact and economical single-card reader panel, the high-performance MR50 is a versatile, reliable interface for an individual door.

### Application Notes

The inputs and the relays can be assigned to door-related functions or to general purpose I/O. The inputs support normally open, normally closed, supervised and non-supervised circuits. The relays can be configured for fail-safe or fail secure operation.

Hardware interface and card format settings are loaded through software commands.

When connected to a Mercury EP intelligent controller, the MR50 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 MR50 can also locally process access requests based on facility code verification, even disconnected from an intelligent controller. Up to eight facility codes may be active in each MR50.



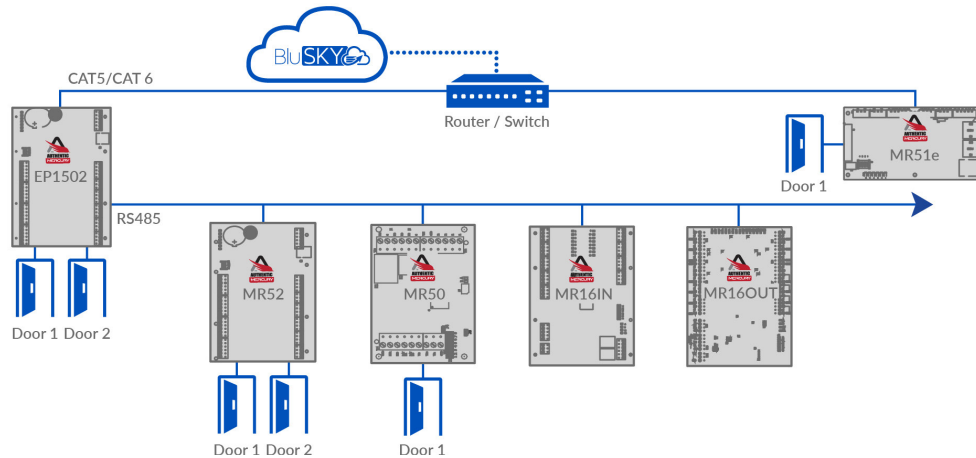
### Features

- Multi-facility code and reader technology support
- AES 128 bit data encryption
- UL 294 Recognized
- Universal I/O device characterization

### Benefits

- Easily connects to Mercury's intelligent controllers
- Provides all I/O needed for single door control
- Small footprint for versatility
- Supports Wiegand, clock and data, magnetic stripe, F2F, Supervised F2F, OSDP, keypad and biometrics reader technologies

## System Diagram



## Specifications

## Electrical

## Primary Power:

12-24 VDC +/- 10%,  
150mA maximum  
12VDC @ 110mA nominal  
24VDC @ 60mA nominal

## Communication:

RS-485, 2-wire, 4,000'  
(twisted pair with shield, Belden 9841)

## Reader Port: 1

Power: Input voltage pass-through Data Card/Keypad  
Clock/Data, Data-1/Data-0, or RS-485

## LED:

One-wire, or two-wire bi-color LED support

## Buzzer:

Only with 'one-wire' LED

## Inputs:

2 General purpose: Programmable circuit type  
1 Dedicated: Tamper

## Output Relays:

Relay 1: Form-C, 5 Amp 30 VDC  
Relay 2: Form-C, 1 Amp 30 VDC

## Dimensions:

2.75" L x 4.25" W x 1.0" H,  
(70mm L x 108mm W x 25.4mm H)

## Temperature:

-40–75 °C operational, -55–85 °C storage

## Humidity:

0 to 95% RHNC

## Standards:

UL 294 recognized  
CE compliant  
RoHS

## Ordering Information

MFG Part #	BluBØX Order #	Description
MR50	120-2300	Mercury - MR50 One Door Controller 12/24VDC

BluBØX: Security Re-Imagined

www.blub0x.com

e. info@blub0x.com

p. (844) 425-8209

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