

The **Ethernet Lock Manager** has a small footprint and is designed to be mounted on the secure side of the door. It controls 1 or 2 doors and supports up to **4 Card Readers** and **2 Electric Locks/Strikes**. It combines a power supply and door controller in a single panel.

It performs the following functions:

- Breaks out the power and data supplied down a standard CAT5e/6 cable from a suitable PoE switch/midspan bridge.
- Monitors door status settings (Door Open, Lock Status and Request to Exit button).
- Intelligently manages the power supplied to operate electric door locks and strikes.

Power over CAT5e/6 Cable technology powers equipment where it is inconvenient, expensive or not possible to provide a mains power outlet to the door.

It provides electrical power and data to devices, such as card readers and electric door locks, over standard CAT5e/6 cable.

This solution requires 2 components as follows:

- **A Power Injector/Midspan** at the source that injects power into a standard CAT5e/6 cable system.
- **A Standard/Two-Door Lock Manager** at the destination that splits power and data for delivery to local devices.

The power management chipset employed (IEEE 802.3 PoE plus standard), is designed for Power over Ethernet applications, providing protection against short circuit, polarity reversal and the accidental connection of PoE non-compliant equipment.



Features

Delivers Data and Power to control 2 Doors including electric locks over a single 100 metre run of CAT5e/6 cable.

Operating Modes Supported Include:

- 2 door control each with IN and OUT card readers and 2 electric locks;
- Single door control with IN and OUT card readers, electric lock and audible alarm or alarm circuit shunt output;
- Airlock/Interlock/Mantrap control sequencing 2 doors and only permitting one at a time to be opened.

Optional Local 12V Power Supply if the applications power demands exceed PoE current limits.

Quick Press Fit Terminal Connectors for a speedy install.

Six Digital Inputs, each with 4 state monitoring and an optical tamper.

Two Solid State 12V DC Powered Outputs, selectable for fail safe and fail secure operation and able to deliver enough energy to power an electric door release.

Reprogrammable Firmware with Software Updates delivered over the LAN allows for the access control infrastructure to be updated and new technologies to be added.

Benefits

Enhances Security preventing door access by tampering with the card access reader head.

Protects the CAT5e/6 Cable by monitoring the energy delivered providing a 48V current limited power source.

Reduces Equipment Cost by eliminating the requirement for local main outlets, power supply and battery at every door.

Reduces Installation Cost by eliminating the local mains wiring, which in most countries, for legal or insurance reasons, has to be installed by a qualified and/or licensed electrician.

Intelligent Power Management to reduce energy consumption by up to 80%.

Technical

Installation:	For access control applications, the Ethernet Lock Manager is located on the secure side of the door.
Dimensions:	90 x 70 x 30 mm
Environmental Humidity Range: Operating Temperature	Interior / 10% to 80% non-condensing -20 to 60 C (-4 to 140 F)
Power:	Power PoE 44-56 Volts DC IEEE802.3af compliant detection and voltage control, Classification IEEE802.3at / Optional 12 Volt DC local input for non-PoE environments
Protocol:	TCP/IP / telnet for device configuration
Cable Type/Power/Delivery:	Point to point connection using CAT5e/6 cable Max 30 Watts, 48 Volt, Max. 100 meters (327ft) cable length
Diagnostic Indicators:	Network 10/100, Device/Reader: Power and Data RX/TX
Sensor Inputs:	Optical tamper and 6 digital inputs, each with four state monitoring
Lock Outputs:	Two 12 Volt DC, current limited (variable under program control)
Event Reporting:	Door ajar, door forced, tamper, egress made (handle or push to exit switch)

How it works

Installation:	The Ethernet Lock Manager (ELM) when used with an electric or magnetic lock is mounted on the secure side of the door. The REX, door open monitor and lock power supply are connected to the ELM and a separate power/data cable connects the ELM to the IN and/or OUT readers. A CAT5e/6 cable connects the ELM to a PoE power and data source.
Commissioning:	Following installation, power is applied to the ELM by connecting the CAT5e/6 cable. Once powered, the ELM and associated readers automatically connect and log on to the server. The user will then use FUSION software to create a logical association between the ELM and its reader.
Operation:	Communications between the central server, the ELM and its associated readers are conducted over the LAN using an encrypted data link. An access request at a reader is referred to the server and once the server verifies the request, the reader instructs the ELM to unlock the door, thereby providing a uniquely secure (<i>Card to Database Server</i>) solution, which is resistant to unauthorized access by either tampering with reader or injecting data into the signal wires.

