

The **Ethernet Lock Manager** has a small footprint and is designed to be mounted on the secure side of the door.

It performs the following functions:

- Manages power and data supplied in a CAT5 cable from a standard PoE switch or power injector.
- Monitors door status (Door Open, Lock Status and Request to Exit button) and redirects to central database.
- Delivers power to electric door locks, magnetic locks, strikes, turnstiles.

Power over CAT5e/6 Cable technology powers equipment where it is inconvenient, expensive or difficult to provide a mains power outlet to the door.

Borer ELM supports IEEE 802.3af (PoE) and IEEE 802.3at (PoE+) standards, which allows a single cable to deliver both data and power to doors over data cable, providing protection against short circuit, polarity reversal and accidental connection of non-PoE compliant equipment.

Biometric Enabled Lock Manager

The Biometric enabled version of the Lock Manager holds a library of up to 64,000 biometric templates. The template library held by the Lock Manager is referenced by biometric reader heads every time a person types in a unique PIN or presents their ID card. The template corresponding to the PIN or card is sent to the reader head where it is compared to the live finger to verify that the presenter of the card or PIN is the true owner.



Features

- **Small footprint** design
- **Delivers Data and Power to one or two Doors**, including electric locks over a single 100 metre run of CAT5e/6 cable
- **Supports two independent doors**, each with IN and OUT card readers and electric lock
- **Support for one door** with IN and OUT card readers, electric lock and audible alarm or alarm circuit shunt output
- **Support for two door interlock/airlock/mantrap** only permitting one door at a time to be opened
- **Optional Local 12v Power Connection**
- **Quick Press fit Terminal Connectors** for a speedy install
- **Six Digital Inputs**, each with 4 state monitoring
- **Reprogrammable Firmware with Software Updates** delivered over the LAN

Benefits

- **Enhances Security** preventing door access by tampering with the card access reader head
- **Power Protection** for CAT5e/6 cable by monitoring the energy delivered
- **Cost Reduction** 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** can reduce energy consumption by up to 80%

Operating Modes – Part Numbers

Part No. 04-154	RFID Card One Door Controller
Part No. 04-155	RFID Card Two Door Controller
Part No. 04-158	Biometric One Door Controller
Part No. 04-159	Biometric Two Door Controller

Ethernet Lock Manager

Dimensions/Weight	90 x 70 x 30 mm / 200g
Environmental Humidity Range:	Interior / 10% to 80% non-condensing
Operating Temperature	-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 and 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
Six Sensor Inputs	Each with four state monitoring
Two Lock Outputs	Each with maximum 1 Amp 12 Volt DC, current limited
Event Reporting	Door unsecure, door forced, tamper, egress made (handle or push to exit switch)
IP Rating	For external use, fit in a suitable housing for protection against water ingress

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 monitor and lock 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 compliant switch or power injector.

Operation

Communications between the central server, the ELM and its associated readers are conducted over the LAN with data encryption. 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 (*Card to Database Server*) solution, which is resistant to unauthorised access by either tampering with reader or injecting data into the signal wires.

Illustrated Configuration

