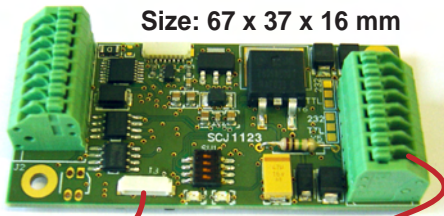


The **Borer LIM V5** (*Legacy Reader Head Interface Module*) is a low cost controller designed to interface third-party access control reader heads to Borer controllers.

It delivers a modular and flexible approach in the provision of door access systems in that one reader head can be configured to control several doors or several reader heads can operate one door.

The **LIM V5** supports reader heads with **Wiegand** (Data/Data), **Magnetic Stripe** (Clock and Data) or **Serial RS232** interfaces. This covers a wide range of technologies from RF Proximity to Biometric devices. The **LIM V5** also provides full online and offline validation and decision making capability at the point of access.

**borer**  
LIM V5 Supports



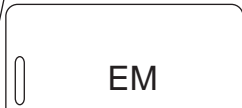
**Storm**  
Interface



**HID**



**LEGIC**



EM



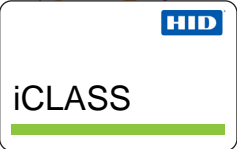
Biometrics



Magnetic Stripe



Mifare



iCLASS



Hitag



Wiegand

### Features

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

**Supports for Access Control Card Reader Technologies** including Wiegand, Magnetic Stripe and proximity formats including HID, Mifare, iClass, Legic, EM, Hitag, etc.

**Large Memory** that supports up to 120,000 cardholders/transactions.

**Dual Database of Cardholders and Access Profiles** with a fall-back to the last known good database in the event of a data corruption as a result of an interruption in the database download.

**Keypad Matrix Interface** supports 3rd party keypads.

**Optical Tamper Sensor.**

**Press Fit Cable Connectors** makes for easy and rapid cable termination.

**Distributed Decision Making** allows access decisions to be made by the LIM V5 should the network connection to the central database fail.

### Benefits

**Upgrade Access Control System** while retaining the investment in existing card reader heads and card stocks.

**Provides an Upgrade Path** to smart card and biometric technologies.

**'Plug and Play'** makes for rapid installation and commissioning.

**Low Energy Requirements** allows for a number of devices to be connected to and powered by a single PoE technology Lock Manager eliminating the need for a power outlet, power supply and battery at the door.

## Technical

<b>Installation:</b>	For door access control applications, the LIM V5 is located on the secure side of the door.
<b>Dimensions/Weight:</b>	67 x 32 x 16 mm / 18g
<b>Environmental Humidity Range: Operating Temperature</b>	Interior / 10% to 80% non-condensing -20 to 60 C (-4 to 140 F)
<b>CAN Network/Network Connection:</b>	1 channel CAN, ISO 11898 standard for serial data communications
<b>Transmission Network Data Rate:</b>	CSMA-CA (Carrier Sense Multiple Access with Collision Avoidance) 125kbps
<b>Power Requirements:</b>	50 mA @ 12 Volts DC
<b>Diagnostic Indicators:</b>	CAN TX, CAN RX, CAN Fault

## How it works

<b>Installation:</b>	The LIM V5 can be installed between a standard/2 door Lock Manger and a reader head.
<b>Commissioning:</b>	<p>When the LIM V5 is connected for the first time, it will sign-on to the FUSION Database using a unique MAC address and is issued with a device address that used in all further communications. The user will, via software, create a logical association between the LIM V5 and its Lock Manager.</p> <p>Once signed on, the card credential database is downloaded to the LIM V5's memory from the host computer. This ensures that the reader has up-to-date card information when it works in offline mode.</p>
<b>Operation:</b>	<p>When a card is presented to the reader, it sends a serial stream of data to the LIM V5. When the LIM V5 receives the data stream, it is decoded and the card holder reference number is extracted. This is included in the access request message and transmitted to the host. The host checks the cardholder's access permissions and issues an access granted or denied response. When an access denied response is received by the LIM V5, it will illuminate the reader heads "red" card rejected led. An access granted response will illuminate the "green" access granted led and sent a unlock door command to the Lock Manager. The LIM V5 will then monitor door activity and send an "access Made" or "access not made" message to the host depending on whether the door is opened or not.</p>

