FUSION
Smart Solutions @ Work

Borer's Intelligent FUSION Smartcard PIN Reader is for use in online access control applications.

The reader delivers full online and offline card validation and decision making capabilities at the point of entry, eliminating the need for a separate control panel, wall box and mains power supply at each door.

'Power over Ethernet' Technology manages energy supply to the lock, extends the lock life and reduce the amount of energy consumed at the door by up to 80%.

The elimination of unnecessary equipment together with a low energy profile delivers a '*Cleaner, Leaner and Greener*' solution, reducing lifetime cost of ownership.

Support for open standard (ISO 14443A and B, ISO 7816-4 - MIFARE® and DESFire®, ISO 15693) technologies where a single card can be used for a range of applications including: banking, travel card, cashless vending, access control and attendance recording.

Features

10 Digit Touch Capacitive Keypad with backlight for the input of cardholder PIN

Dual Database of Cardholders and Access Rights held at every reader, allowing fall back to the last known good database in the event of a data corruption or network interruption during database download.

Large Database with a capacity of up to 120,000 card holders/transactions.

Secure Database, all cardholder details are fully encryted to prevent manipulation or misuse of data.

Four LEDs and polyphonic sounder gives clear feedback when a card is presented.

Works with Borer Midspan Bridge technology to deliver power and data over a single CAT5e/6 cable.

No Moving Parts and Fully Potted for application indoors and outdoors.

Optical Tamper Protection for the installed reader.

Supports SAM and Crypto engine (optional) for smartcard based PKI applications delivers the highest levels of secure card authentication.

Benefits

Developed using 'Clean Design' principles to reduce component count and energy consumption.

'Plug and Play' makes for faster installation & commissioning.

Distributed Intelligence allows decisions to be made at the point of access.

TCP/IP Network Connection via Borer Bridge facilitates direct connectivity to the access central management system and database.

Energy Savings of up to 80% - Save on ongoing operating costs over the lifetime of the system.

Eliminates the Need for a separate control panel, wall box and power supply reducing component count, bespoke cabling requirements and installation complexity and associated costs.

User Programmable open format MIFARE® and DESFire® cards which, unlike systems that use proprietary and exclusive formats, eliminates single supplier dependence and benefits the user with lower cost for replacement cards.

Future Proof - Firmware updates can be automatically downloaded directly to the reader over the LAN enabling new smartcard standards to be supported when they are introduced.

Power Over Ethernet Technology - Delivering both Power and Data over CAT5e/6 - Green Clean Design

borer

Installation:	Borer FUSION access control PIN readers for mullion mounting with optical tamper protection
Colour:	Black
Power Supply:	190mA quiescent, 300mA peak @ 12v DC
Dimensions/Weight:	110 x 64 x 26 mm / 166g
Installation Range:	Potted with rubber compound suitable for both indoor and outdoor installation
Reader Status Information: Cable Termination:	Speaker with Polyphonic tones, Four colour LEDs 300mm pigtail - 4 Wire (2 Data | 2 Power) to Lock Manager **Red:** +12v (Supply), **Black:** 0v (Ground), **Green:** CAN High, **White:** CAN Low Match with corresponding colours to the Lock Manager
Reader Database:	48 sets of reader rules, 16 scheduled holiday dates, 2 x 15,000 cardholders/transactions (Version 1), 2 x 60,000 cardholders/transactions (Version 2), 14 timezones
Data Retention without Power:	10 years
Network Connections:	Controller Area Network (CAN), ISO 11898 standard for serial data communications
Cable Type:	CAT5e/6 Cable, Max. cable length 300m from Midspan Bridge
Transmission Protocol:	CSMA-CA (Carrier Sense Multiple Access with Collision Avoidance)
Operating Temperature Range:	-25 to 60 C (-13 to 140 F)
Read Range:	Up to 80mm; range may vary with token type and installed environment
Smart Card Technology: Standard	MIFARE®/DESFire® (13.56mHz) ISO 14443A, ISO 14443B, ISO 7816-4 and ISO 15693 cards or tokens
SAM/Cryptographic System:	The addition of a SIM card together with the SAM and Crypto engine enables the reader to operate in PKI mode, delivers the highest levels of secure card authenticaion

FUSION Release Key
(Supplied with Keypad Reader)

Borer FUSION PIN Reader

Electric Strike

Door Monitor

DOOR FRAME

Power and Data delivered over CAT5e/6 Cables

SERVER ROOM

Mains Power

8 Port Midspan Bridge

LAN NETWORK

FUSION PC

PoE Lock Manager

PRESS TO EXIT

Request to Exit Switch