

DIU 200 Module

Compact Door Interface Unit



Features that make a difference:

- Door Interface Electronics held on one board
- Provides encoded lock control serial interface between door hardware and card reader
- On site selectable for 12 or 24 volt lock output
- Fire alarm and break glass inputs for emergency door release
- Designed for ease of installation and maintenance using 2 part connectors throughout
- Compliant with EN55022 (emissions) and EN55024 (access control immunity)
- Backup battery connection for emergency power (optional)

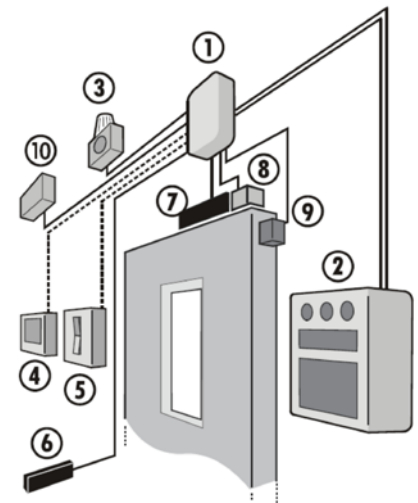
The Compact Door Interface Unit (DIU 200) is designed primarily to provide power to a door lock, as well as local power to a CEM reader when a high level of security is required. It has onboard inputs which can be used to monitor conditions such as a fire alarm or activated break-glass condition.

The DIU 200 improves door security, by allowing the installer to locate lock controls on the secure side of a door, with an intelligent CEM reader on the unsecured side.

The DIU 200 communicates with an intelligent CEM reader over a single pair RS485 cable. Upon a valid swipe at the card reader, the reader will instruct the DIU (over the RS485 communications channel) to activate the appropriate output to release the lock using a coded data signal (i.e. coded lock).

As an added benefit, the DIU 200 monitors the status of all standard door monitoring inputs; inputs on an intelligent CEM reader are free for use as general purpose inputs.

The DIU is highly tamper resistant, for example shorting out reader connections and power supply will not bring down the lock supply.



1. DIU Unit Enclosure
2. CEM Reader
3. Sounder
4. Break Glass Unit
5. REX/ Exit Reader or Secure side push button
6. Door Holder
7. Door Lock
8. Lock Sense
9. Door Position sensor

Interfaces

The DIU 200 Module provides direct interfaces to the following devices:

- CEM Card Reader
- Electric Door Lock
- Fire Alarm System
- Break Glass Unit
- Exit Push Button
- Door Monitor Sensors
- Tamper

These inputs are used to monitor door sensors, DIU tamper and battery alarms and fire/break glass emergency conditions.

If an input from the fire alarm system or break glass unit changes state, the power to the door lock is automatically dropped; this hardware-controlled facility ensures that the door opens in an emergency situation. Details of alarm conditions can be sent directly to the host, via the CEM intelligent card reader, for central alarm notification

Board Protection

The DIU 200 has been designed to meet the UL294 standard providing resistance to power supply tamper, limiting the current to a reader so that shorting together the 12 Volt terminals prevents the lock from opening:

Reader Inputs

The DIU 200 will monitor the status of all the door furniture inputs, freeing up the inputs on the intelligent CEM reader for general purpose input monitoring.

Optional PSU Backplane Board and Enclosure

The DIU can also be supplied with an enclosure and backplane board (DIU 200) providing a mains input PSU, battery charging capabilities and door holder connections.

Alternative PSU Enclosure

The DIU 200 module has been tried and tested with the Elmdene 1380 series enclosure. (www.elmdene.co.uk)

Specifications

Physical

Size 115 x 76 x 10mm (4.5 x 3.0 x 0.4")
Weight 0.1Kg

Power

Voltage Recommended 12Vdc (Min 9Vdc – Max 14Vdc)
Current Consumption 36mA (excluding locks and heads)
Peak Current Consumption. 40mA (excluding locks and heads)

Environmental

Temperature -10° to 40°C (14° to 104°F)
Humidity 95% non condensing

LED Indicators. +12 Volts OK, Lock supply OK, Lock Status, Watchdog, Fault, Battery Low, RS485 Rx and TX.

Functionality

Inputs

- Door Position*
- Lock Status*
- Exit Push Button*
- Break Glass Sense
- Fire Alarm Sense
- Tamper
- Battery Low (reported internally)
- Dedicated Power Fail Input

* = 4 state tamper protected inputs

Lock Output Choice of a 12V or 24V open collector output (Door Lock and External Sounder) limited to 1.5A

Sounder Output. 12V

Power Supply. 12V, limited to 800mA

Communication Interface

To Card Reader. RS485, maximum length of 1.2km

Connection 2 part screw terminals

Requirements

Compatible with the AC2000 access control family:

- AC2000 SE
- AC2000 AE
- AC2000 Lite

Ordering Information

Product Code	Description
DIU/700/200	DIU 200 (Board Only Module)
DIU/700/210	DIU 210 (Complete with PSU Backplane and Enclosure)

Related Products



AC2000 SE



AC2000 AE



AC2000 Lite



S610 reader range



emerald reader range

www.cemsys.com