

# DIU 210

## Door Interface Unit

### OVERVIEW

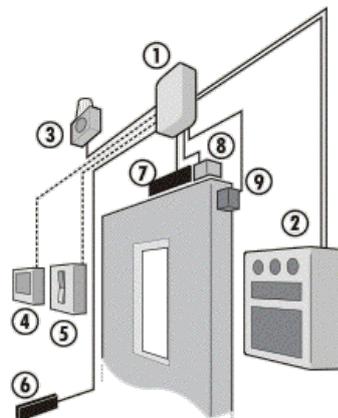
The Door Interface Unit (DIU 210) is designed primarily to provide power to a door lock, as well as local power to a CEM reader when a high level of security is required. It has onboard inputs which can be used to monitor conditions such as a fire alarm or activated Break-glass condition.

The DIU 210 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 210 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 210 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 210 is supplied in a steel enclosure complete with power supply backplane and an output for an additional door holder.



DIU 210



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

### FEATURES

- Door Interface Electronics held on one board
- Provides 'coded lock' serial interface between door hardware and card reader
- On site selectable for 12V or 24V 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

## PRODUCT HIGHLIGHTS

### Interfaces

The DIU 210 provides direct interfaces to the following devices:

- CEM Card Reader
- Electric Door Lock
- Fire Alarm System
- Break Glass Unit
- Exit Push Button
- Inputs from alarm devices

Up to 8 inputs can be wired from alarm/status monitoring devices directly to the DIU 210. These devices 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 door controller or to the host, via the card reader, for central alarm notification.

### Board Protection

The DIU 210 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 210 can also monitor the status of all the door furniture inputs, freeing up the inputs on the intelligent CEM reader for general purpose input monitoring.

### PSU Backplane Board and Enclosure

The DIU 210 is supplied with a steel enclosure and backplane board providing a mains input PSU, battery charging capabilities and door holder connections.

## TECHNICAL SPECIFICATIONS

### PHYSICAL

|           |  |
|-----------|--|
| Size      | 300 x 250 x 150 mm<br>(11.8 x 9.84 x 5.9in)                                    |
| Weight    | 4.3Kg  |
| Power     |  |
| - Voltage | 100-240VAC, 50/60Hz<br>Current 0.6A (excluding locks and heads)<br>Consumption |

|               |                             |
|---------------|-----------------------------|
| 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<br>* Lock Status<br>* Exit Push Button<br>* General Purpose<br>Break Glass Sense<br>Fire Alarm Sense<br>Power Fail<br>Tamper |
|--------|--|

|  |         |  |
|--|---------|--|
| Battery Low (reported internally)<br>Dedicated Power Fail Input<br>* = 4 state tamper protected inputs | Outputs | Three 12V or 24V open collector outputs limited to 1.5A<br>(Door Lock, Door Holder and External Sounder) |
| Reader Output  |         | 12V, limited to 800mA  |
| Memory   |         | 32kB Flash memory  |

### COMMUNICATION INTERFACE

|                |  |
|----------------|--|
| To Card Reader | RS485 multidrop cable runs using copper wire with maximum length of 1.2km without repeater |
| - Connection   | 2 part screw terminals   |

### PRODUCT CODES

|             |   |
|-------------|---|
| DIU/700/000 | DIU 210 (Complete with PSU Backplane and Enclosure. |
|-------------|---|

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