

Overview

The BLE DIU is designed to allow simple addition of BLE credentials to an existing Access Control System.

The DIU is designed to be installed close to a controlled portal, ideally on the secure side. The compact dimensions allow for the fitting of a DIU in power supply, or inside a turnstile.

The DIU can support both BLE credentials and existing Wiegand interface readers.



Novel features

The DIU supports a number of novel features :

- optional environmental sensing, and a USB C interface.
- It can be configured both as a reader, a BLE beacon, or a BLE Mesh node.
- Supports Click module expansion
- 4 state inputs
- 2 heavy duty changeover relays
- 4 input, 3 output Wiegand interface, supporting either Wiegand input or output
- Operation with contactless door release

Operating Modes

- Local Door control, provides BLE credential to control door, and all of the interfaces to manage the lock and door sensors, along with contactless door release.
- Wiegand to OSDDP convertor
- OSDP to Wiegand Convertor
- BLE Mesh gateway (requires optional expansion Module)
- Distributed environment sensing

Protocols supported

The module supports both the proprietary LumenID and Leaf Identity protocols. Use of Leaf identity allows the use of open and interoperable credentials across multiple systems and sites.

Wide operating Voltage

The module operates from 5 Volts to 28 Volts DC, this allows direct operation at the 2 popular voltages associated with door locks



Bluetooth Low Energy Door Interface Unit

Specification

Feature	
CPU	NRF52840 Cortex M4F 1MB Flash 256KB RAM NFC -A Tag Interface BT840 Module
Secure element	ATECC 608A
Sensing Option	Temperature, humidity and Barometric pressure
Connectors	2 x 12 way 3.5mm, 1 x 2 way Tamper input
Temperature Range	-40 to +70C
Read Range	Configurable
Mechanical	100 x 50mm
Current Consumption	100mA at 12 V plus relay current
Operating Voltage	5-28 Volts DC
Warranty	3 years

Pin No	Door Control	Wiegand
1	Relay 1 NC	Supply in (5-28V)
2	Relay 1 COM	OSDP A
3	Relay 1 NO	OSDP B
4	Relay 2 NC	0V
5	Relay 2 COM	V Out (limited to 750mA)
6	Relay 2 NO	Wiegand D0
7	4 State IN 1	Wiegand D1
8	0V	Door Release/Tamper
9	4 State IN 2	Red LED
10	4 State IN 3	Green LED
11	0V	Sounder
12	4 State IN 4	0V