

Mifare CSN Readers.

1. AY-K/L6255 reader (mullion), AY-H6255 (single gang) or AY-Q6255 (anti-vandal) and AYC H/Q 6355/BT units with keypad and or Bluetooth (BT) reads credentials listed below;
 - a. Cards – AT-C1S-000-E000 ISO printable cards with Facility code and ID printed on them.
 - b. Fob – AT-C1K-000-0SB0 Shark tooth fobs no ID printed on the fob, you must enroll with the desktop enrollment reader DR-6255.
 - c. Android NFC with Ecard NFC application.
 - d. BT – operates with either Android or IOS phones using BLE (Bluetooth Low Energy mode) to communicate, requires the Rosslare BLE-ID app.

O2S Readers.

1. AY-G6270/6370 (mullion) or AY-H6270/6370 (single gang) - O2S reader 128-bit encryption, reads credentials listed below;
 - a. Cards – RT-P2S-26A-3000 Mifare Plus S - AES 128 bit encrypted, ISO PVC printable plastic preprogrammed and printed with FC and ID.
 - b. Fobs - RT-P2K-26A-7SB0 Mifare Plus S - AES 128bit encrypted, Shark Tooth Black preprogrammed and printed with FC and ID.
2. AY-G6280/6380 (mullion) or AY-H6280/6380 (single gang) - O2S reader 128-bit encryption, reads credentials listed below;
 - a. Cards – RT-V2S-26A-3000 Mifare Desfire EV1 - AES 128 bit encrypted during transmission, ISO PVC printable plastic preprogrammed and printed with FC and ID.
 - b. Fobs - RT-V2K-26A-7SB0 Mifare Desfire EV1 – AES 128 bit encrypted during transmission, Shark Tooth Black preprogrammed and printed with FC and ID.
3. **The RT-C1S-26A-3000/7SB0 Mifare Classic EV1 credentials will work with either reader type but provide no encryption, the data is protected from reading by a 48-bit security key.**

CSN vs O2S –

CSN Select - the CSN Select reader reads the CSN or Credential Serial Number only and presents it to the controller as a 26-bit Wiegand value. These readers will read the CSN from most Mifare credentials as well as NFC tags and Android phones using our NFC card emulation app Ecard NFC. This number is hard coded in the chip when it is manufactured and can't be changed, in the case of the Android app it is derived from several identifiers on the phone to create a unique identifier belonging only to that phone. This data is not encrypted in any matter so it may be read by any reader that is compatible and therefore it may be cloned, in this respect It is comparable to the EM cards (125KHz). The card credentials come imprinted with the FC and ID that the CSN will generate when read by our CSN Select readers, they will not be sequential so they can't be bulk loaded into the software. The Fob style credentials will have no markings imprinted and must be read either on a CSN reader or the DR-6255 desktop enrollment reader. Readers with Bluetooth support (AYC-H/Q6355BT) require the Rosslare BLE-ID app to operate. The Bluetooth app generates a unique identifier from the phone just as the NFC app does, but it will be different than the NFC app. This identifier is received by the Bluetooth reader and is used to create a unique 26-bit Weigand output to the access control panel. Bluetooth

enrollment may be done with the DR-U955BT desktop enrollment reader. Android phones using NFC emulation may be enrolled using the DR-6255 desktop enrollment reader.

O2S (Open 2 Secure) - the O2s readers are Mifare readers which can also read the data memory area of the Mifare card memory. Mifare credentials all have rewritable storage in addition to the CSN, when it is encrypted, the data may only be read from or written to when the correct encryption key is provided. For this reason, we sell preprogrammed credentials of the O2S readers which have been programmed with a facility code and ID number in 26-bit (optional 38 bit) format using our O2S encryption keys. These credentials (cards and fobs) come programmed and imprinted with the FC and ID just as our EM cards do in sequential order so they may be bulk loaded into the system or they may be enrolled from a compatible O2S reader or with the DR-6280 desktop enrollment reader.

Cost consideration – The CSN Select will be the lowest cost option and provides security equal to standard EM cards, like the EM cards they are easily cloned. The O2S readers will be more expensive than the CSN readers, the AY-G6270 is less expensive than the AY-G6280. The credentials are likewise less expensive for the CSN Select and more expensive for the O2S.