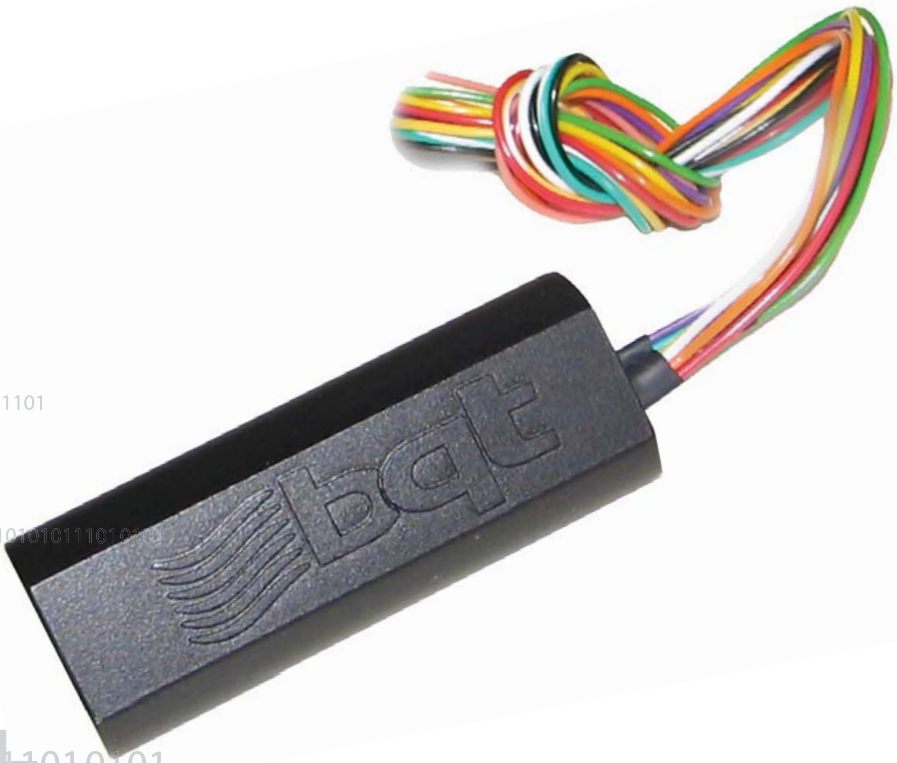
# HSM High Security Module




## *Secure Data Transmission*

***protected with advanced digital encryption***

**smartersecuritytoday**

The High Security Module, in addition to BQT's miPASS suite of Mifare and Biometric solutions, is the complete answer for secure access control.

# Learn More miPass HSM

Most access control systems rely on the transfer of information through unsecured Wiegand lines to an access control panel from a front end reader, such as a smart card reader, biometric unit or a PIN (Personal Identification Number) terminal. Although the wiring itself is vulnerable to snooping and signal manipulation, the user's sensitive data can be protected with digital encryption.

BQT has developed the High Security Module (HSM) as an addition to our range of Biometric and Mifare access solutions, which through encryption secures the transmission of data between BQT's miPASS readers and any standard security access control panel.

The connection between a miPASS reader and an HSM is via RS485 communication, thus allowing the card readers to be located up to 1.2km (4000 ft) from the control panel, providing greater flexibility and a reduction in installation cost.

Encrypted communication travels between the miPASS reader and the decryption module, ensuring an absolute secure information path that cannot be compromised whether it be wall enclosed or a remote site such as an access gate. The HSM unit can be installed inside the control panel or in a secured area.

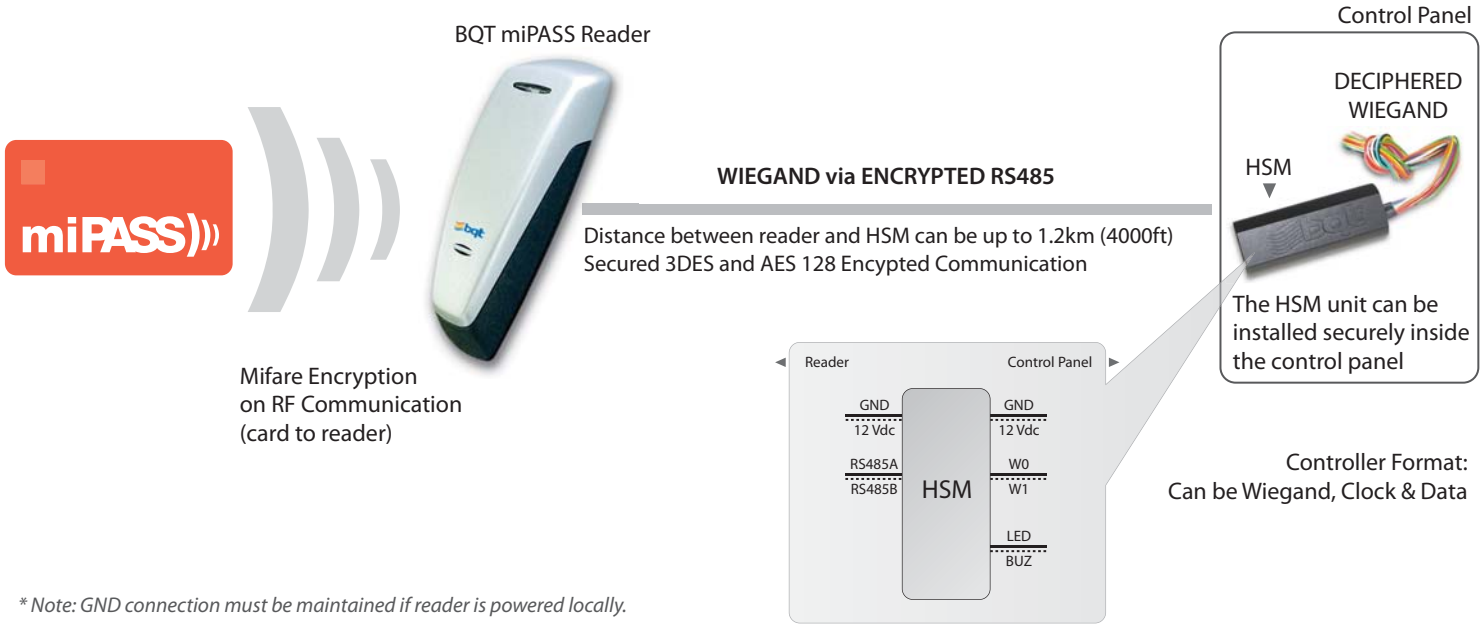
**How it works**

Firstly, the miPASS reader retrieves the card data via contactless technologies such as Mifare, or DESFire.

Next, it packages the data by using a choice of approved encryption methods such as 3DES and AES 128 to the HSM. The secure package is then sent to the HSM using a unique session key that is never repeated.

Finally, the HSM module decrypts the data quickly and forwards it to the controller as Wiegand data.

# miPASS HSM Example Configuration




** Note: GND connection must be maintained if reader is powered locally.*

# miPASS HSM Specifications

* Note specifications may change on products amended or updated without notice

| | |
|---|---|
| Power requirement | 12Vdc |
| Current consumption | 60 mA |
| Reader interface | Power: *12Vdc, GND*<br>RS485: *485A, 485B* |
| Control Panel interface | Power: *Wiegand*<br>Wiegand: *W0, W1*<br>Notifications: *LED, BUZ* |
| Relay | Dry contact |
| Operating temperature | -10°C to 55°C (14°F to 131°F) |
| Relative humidity | 90% max, Operating non-condensing |
| Dimensions | 65mm x 20mm 25mm(2.56" x 0.79" x 0.98") |
| Encryption | - 3DES<br>- AES 128bit<br>- Custom configurations |
| IP Rating | IP67 |
| Colour | Charcoal |

BQT offers a complete range of smart card access control solutions to suit all physical and IT security requirements, including highly secure biometric, data encryption and CCTV technologies. **For futher information, please visit our website www.bqtsolutions.com or contact us at one of our global locations.**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