

## Wire Colour Coding

|              |                           |
|--------------|---------------------------|
| Red          | +12V DC                   |
| Red          | +12V DC                   |
| Black        | Ground                    |
| Black        | Ground                    |
| Green        | TTL Input 1               |
| White        | TTL Input 2               |
| Pink         | TTL Input 3               |
| Grey         | TTL Input 4               |
| Yellow/Black | Output 1 (TTL)            |
| Pink/Black   | Output 2 (Open Collector) |
| Orange/Black | Output 3 (TTL)            |
| Yellow/White | RS485A                    |
| Green/White  | RS485B                    |
| Purple/White | Relay Normal Close        |
| Orange/White | Relay Common              |
| Blue/White   | Relay Normal Open         |

### Note:

- A short cable assembly with four way connector is built in HSM. Do Not connect it to any wire.
- Wiring methods shall be in accordance with the Electrical wiring regulation in your country / region.
- Check your circuit diagram for the colour coding of the circuit wiring. The reader can be damaged beyond repair if the wiring is connected incorrectly. This will void the warranty.
- For correct wiring diagram for your application, see overleaf for connection diagram that is applicable to your application. Alternatively, please contact your distributor or BQT office.
- Terminate or insulate all un-used wires

### External Use

- Make sure the wire bundle to the device has an IP rating of at least IP65

### Handling

- Handle the device with care. DO NOT damage or drop unit before installation. This will void the warranty.
- If the case is damaged, the device may not be to the specified IP rating. Replace the device if the case is damaged.

### Specifications

|                       |  |
|-----------------------|--|
| Power requirement     | 12V DC   |
| Current consumption   | 73mA (Average)<br>100mA (Peak)                           |
| Relay Rating          | Maximum 1A @ 12V DC                                      |
| Operating temperature | -25°C to +65°C (-13°F to 149°F)                          |
| Relative humidity     | 90% max, operating non-condensing                        |
| Dimensions            | 64.7mm(L) x 26.3mm(W) x 19.6mm(D)<br>(2.55"x1.04"x0.77") |
| Status LED            | Green & Orange   |
| Colour finish         | Charcoal   |
| IP rating             | IP65   |

Information obtained in this document is subject to change without notice.

For further technical information, visit our website at [www.bqtsolutions.com](http://www.bqtsolutions.com) or email [techsupport@bqtsolutions.com](mailto:techsupport@bqtsolutions.com).

Alternatively contact us at one of our global locations

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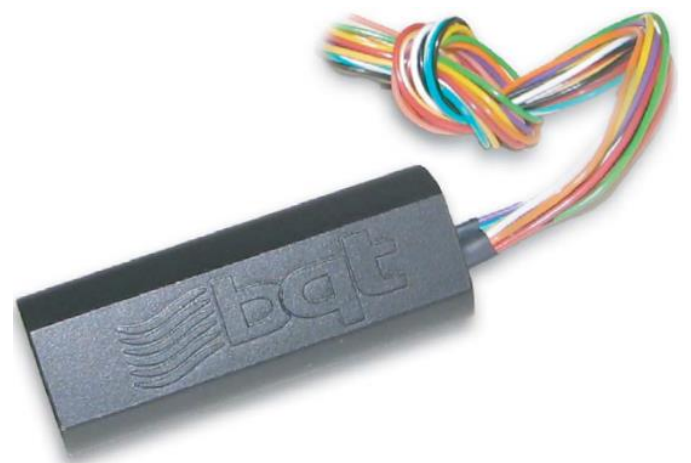
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# HSM

## INSTALLATION GUIDE

Version 1.5

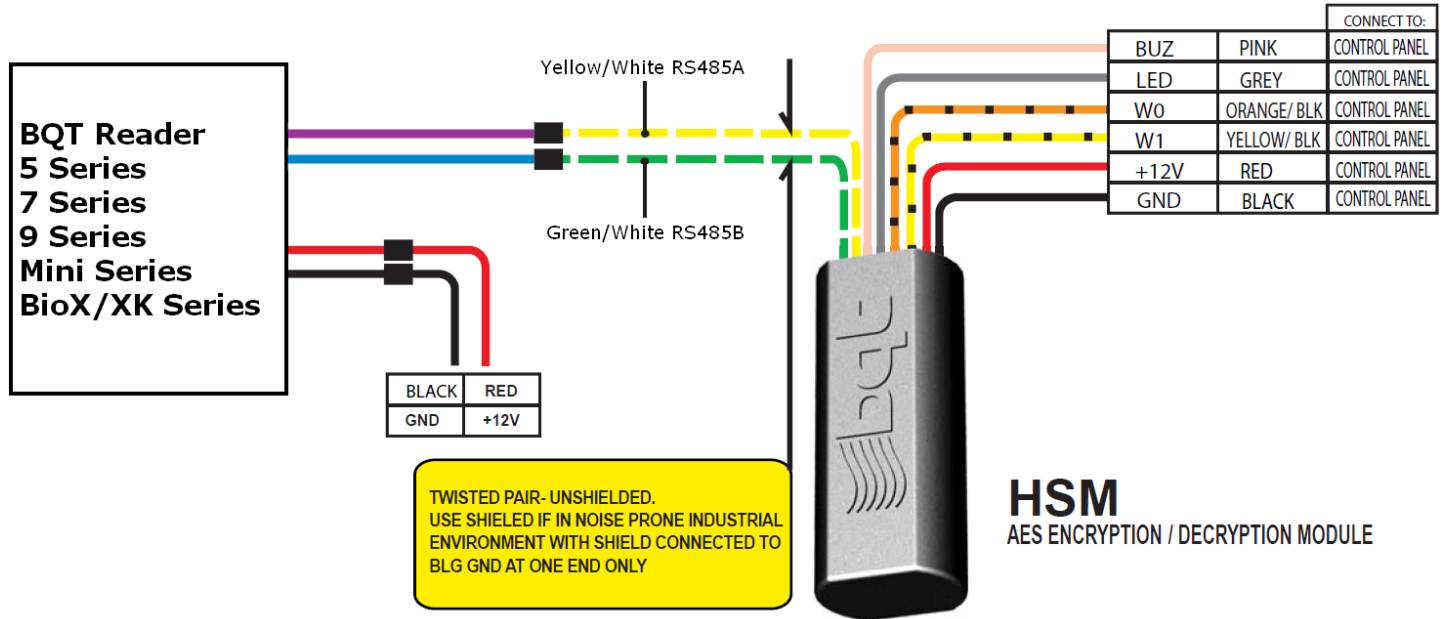


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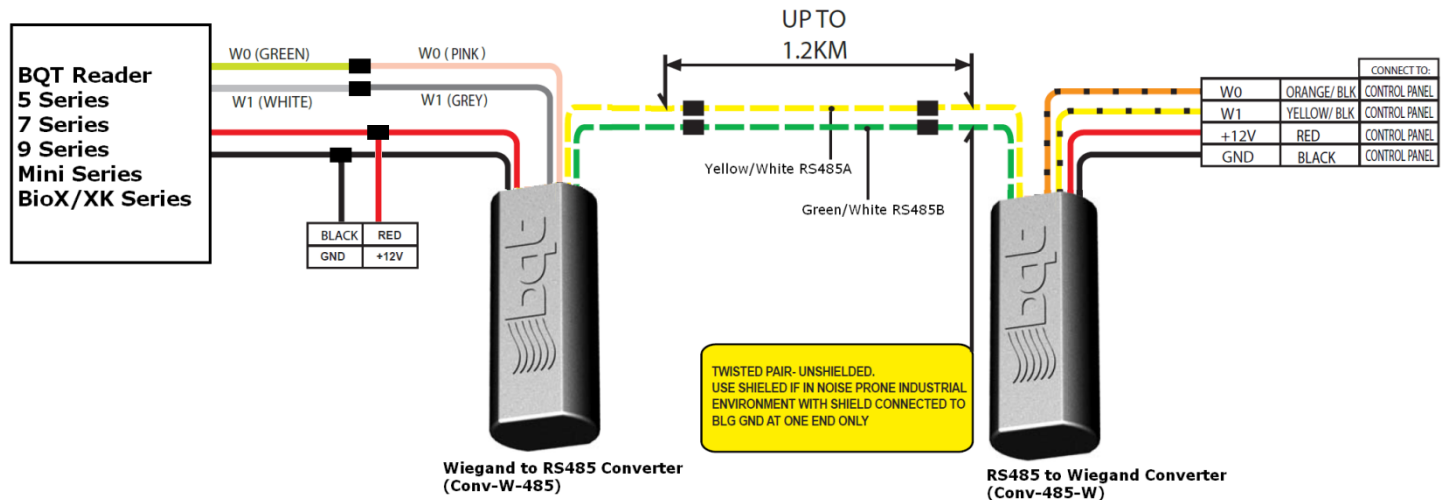
## Connection Diagram

Note: The application of HSM is firmware depended. This manual only specifies the connection diagram for High Security Module Application and Wiegand-RS485 Converter Application. If your application isn't listed below, please contact your distributor or BQT office for correct connection diagram.

### High Security Module (HSM) Application



### Wiegand-RS485 Converter Application



W-485 marked converter is connected to reader

485-W marked converter is connected to panel

### Trouble shooting:

Wire and test reader connected to 2 converts and panel to make sure all wiring is correct and data is getting through and decoding correctly at panel. Then install reader and W-485 in remote location wire and test again.