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

| | T |
|-----------------------|-----------------------------------|
| Power requirement | 12V DC |
| Current consumption | 73mA (Average) |
| | 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) |
| | (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 or email techsupport@bqtsolutions.com.

Alternatively contact us at one of our global locations

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Regulatory Information

C-Tick: This device is C-Tick complied.

CE: The device has passed all relevant tests and obtained CE approval.

FCC: This device is FCC complied.

Warranty

Unless specified otherwise, the Company warrants to the Customer that' BQT Solutions Branded Products' (excluding third party products and software) are covered by a return to base warranty on defects in materials and workmanship affecting normal use for a period of the Warranty offered under the Standard Terms and Conditions of Sale from BQT invoice date ('Standard Warranty')

This standard warranty does not cover damage, fault, failure or malfunction due to external causes including; accident, misuse, problems with electrical power, servicing not authorised by the Company, usage and/or storage and/or installation not in accordance with Product instructions, failure to perform required preventative maintenance, normal wear and tear, act of God, fire, flood, war, any violent or similar occurrence; any attempt by any person other than Company personnel or any person authorised by the Company to repair or support the Products and problems caused by use of parts and components not supplied by the Company. The standard warranty does not cover any items that are in one or more of the following categories: software; external devices; accessories or parts added to the product after the product has been shipped from BQT Solutions.

During the warranty, period beginning on the invoice date, the Company will repair or replace faulty products (at its absolute discretion) returned to its' factory. The Customer must prepay shipping and transportation costs and insure the shipment or accept the risk of loss or damage during such transportation.

The Customer shall be solely responsible for determining suitability for use and the Company will, in no event, be liable in this respect. This standard warranty is given in place of all warranties, conditions, terms, undertakings and obligations implied by statute, common law, trade usage, and course of dealing or otherwise including warranties or conditions of merchantability, fitness for purpose, satisfactory quality and / or compliance with description, all of which are hereby excluded to the fullest extent permitted by law.









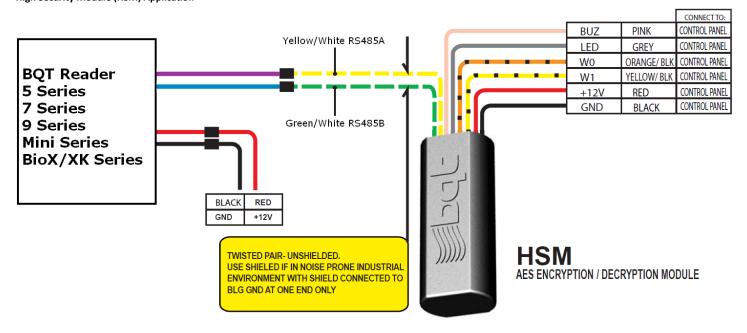




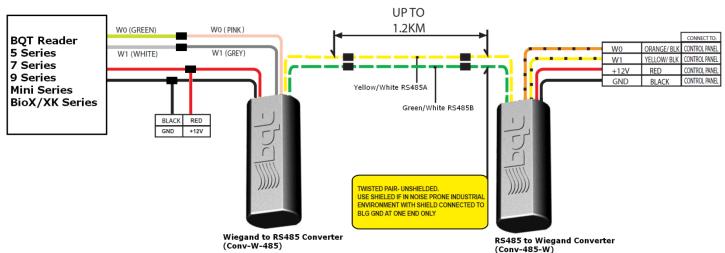
Connection Diagram

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.