

## Transmotec Motor Breakout - QCI-BO-MT



For applications using a Transmotec DC motor with encoder feedback, the QCI-BO-MT is an ideal breakout. The breakout plugs directly into a SilverSterling S2 controller's Motor I/F port, which eliminates wiring and simplifies the interface with a single connector.

Transmotec DC motors with encoder feedback come equipped with a single connector for both motor and encoder signals. The encoder signals are single ended, and have no shielding to isolate them from the motor drive signals, but are of fairly low frequency.

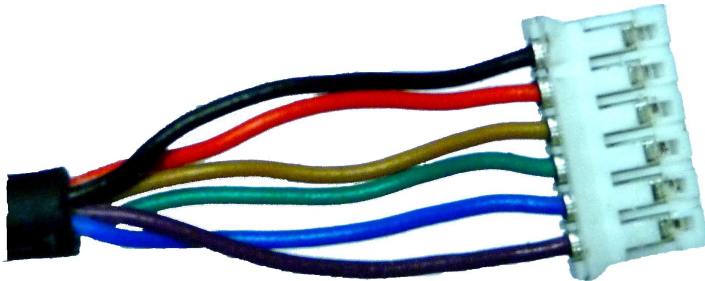
### Breakout Description

The breakout includes 0.001uF capacitors across the hall sensors to reduce noise from the DC brush motor and the chopper drive. The breakout provides external pull-up resistors for both encoder channels.

A voltage divider connects with the encoder inverting inputs into the 485 receivers to establish a voltage reference for these inputs.

## Motor Cable Connector Description

The Transmotec motors come equipped with a 6-pin connector for both motor and encoder signals. Two wires are associated with the motor signals and are typically color-coded as BLACK for **-Motor** and RED for **+Motor**.



TWO CHANNEL ENCODER	
CONNECTIONS:	
1. BLACK	: - MOTOR
2. RED	: + MOTOR
3. BROWN	: HALL SENSOR Vcc
4. GREEN	: HALL SENSOR GND
5. BLUE	: HALL SENSOR A Vout
6. PURPLE	: HALL SENSOR B Vout

The motor cable has four (4) wires associated with encoder feedback. These are **Vcc**, **Ground**, **A** and **B**. The encoder signals are single-ended and have no shielding to isolate them from the motor drive signals, but are fairly low frequency.

Most of Transmotec DC motors come equip with a JST PHR-6 (P=2.0-6P) connector, as shown above. The QCI-BO-MT breakout comes with a compatible header, JST S6B-PH-K-S. Verify the motor datasheet for the equipped cable connector.

Refer to Application Note QCI-AN068 for Transmotec setup instructions.  
 Refer to Datasheet QCI-DS026 for more information on the SilverSterling.  
 Refer to Technical Document QCI-TD072 for details on setting up a SilverSterling.

For more information concerning Transmotec products, please contact Transmotec.