SIGNAL WIRING FOR THE F6600/F6700 SERIES READOUTS

FLIT 553-5 2/06

WIRING OVERVIEW

Electrical connections are made via screw-clamp terminals located on the back of the display. All conductors should conform to the meter's voltage and current ratings. All cabling should conform to appropriate standards of good installation, local codes and regulations. It is recommended that power supplied to the meter (DC or AC) be protected by a fuse or circuit breaker.

When wiring the display, compare the numbers embossed on the back of the display case against those shown in wiring drawings for proper wire position. Strip the wire, leaving approximately 0.3" (7.5 mm) bare lead exposed (stranded wires should be tinned with solder). Insert the lead under the correct screw-clamp terminal and tighten until the wire is secure. (Pull wire to verify tightness.) Each terminal can accept up to one #14 AWG (2.55 mm) wire, two #18 AWG (1.02 mm), or four #20 AWG (0.61 mm).

Wiring the F6600 / F6650 Series Displays

The frequency signal from the Flo-tech FSC, FSB, and FSD series turbines is connected to the display using one of the F2832 series cables. The Flo-tech Ultima sensor is connected using the F6234 series cables.

FSB, FSC*, and FSD sensors

1) Connect the BLUE wire of the F2832 cable to terminal 5 (INPUT A) and the YELLOW wire to terminal 4 (COMM) on the F6600 series display *(**See Figure 1**).*

Ultima sensors*

1) Connect the RED wire of the F6234 cable to terminal 5 (INPUT A) and the BLACK wire to terminal 4 (COMM) on the F6600 series display *(**See Figure 1**).* The White wire is not used.

***Note:** Some require the use of the F5140 K-Factor Scaler to ensure adequate signal strength to the display.*

Wiring the F6600 / F6650 Series Displays (With F5140 K-Factor Scaler)

The Flo-tech FSC-375, F6202-F, and F6222-F turbines require the F5140 K-Factor Scaler to amplify the milli-volt sensor output for transmission to the F6600 series display. Because these turbines produce a low level signal it is important to keep the F5140 K-Factor Scaler as close to the flow sensor as possible. This will minimize signal interference and help eliminate erratic readings.

If not already completed feed the terminal end of the F2832 or F6234 cable through the wire bushing on the F5140. In a similar manner insert the three wire (customer supplied) cable that will be used to bring power and return the output signal to the F6600 series readout. Tighten the wiring bushing.

1) Connect the BLUE wire from the F2832 or the RED wire from the F6234 cable to terminal 5 of the F5140 K-Factor Scaler. Connect the YELLOW wire from the F2832 or the BLACK wire from the F6234 cable to terminal 6 of the F5140 K-Factor Scaler *(**See Figure 2**).*
2) Connect one of the wires from the user supplied cable to terminal 4 (+VIN) of the F5140 and note the wire color. Connect the other end of this wire to terminal 3 (+12 VDC) of the F6600 series display
3) Connect one of the wires from the user supplied cable to terminal 2 (+OUTPUT) of the F5140 and note that wire color. Connect the other end of this wire to terminal 5 (INPUT A) of the F6600 series display.
4) Finally connect the remaining wire in the three wire cable to terminal 1 (-OUTPUT) of the F5140. Connect the other end of this wire to terminal 4 (COMM) of the F6600 series display.

***Note:** A jumper wire is required between terminals 1 and 3 of the F5140 for proper operation.*

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Wiring the F6700 / F6750 Series Displays

ACTIVA Flow Sensors, FS Series Flow Sensors and F6100 Series Sensor Arrays using the Intelligent Frequency Converter (IFC) Option:

4-20 mA Output

The F6557 cable is a five pin, three wire cable used to connect the IFC sensors to the F6700 series displays. Only two of the three wires in the cable are used.

1) Connect the RED wire of the F6557 cable to terminal 6 (+24 V EXC) on the F6700 series display *(**See Figure 3**)*.
2) Connect the BLACK wire of the F6557 cable to terminal 4 (20 mA) on the F6700 series display.
3) Connect the SHIELD wire of the F6557 cable to terminal 4 (20 mA) on the F6700 series display.

0-5 Volt Output

The F6557 cable is a five pin, three wire cable used to connect the IFC sensors to the F6700 series displays. Only two of the three wires in the cable are used.

1) Connect the RED wire of the F6557 cable to terminal 6 (+24 V EXC) on the F6700 series display *(**See Figure 4**)*.
2) Connect the BLACK wire of the F6557 cable to terminal 3 (10 V) on the F6700 series display.
3) Connect the WHITE wire of the F6557 cable to terminal 5 (COMM) on the F6700 series display.

F6301 Pressure Sensors and F6310 Temperature Sensors:

The F6234 cable is a three pin, three wire cable used to connect either a pressure or temperature sensor to the F6700 series displays. Only two of the three wires in the cable are used.

1) Connect the RED wire of the F6234 cable to terminal 6 (+24 V EXC) on the F6700 series display *(**See Figure 5**)*.
2) Connect the BLACK wire of the F6234 cable to terminal 4 (20 mA) on the F6700 series display.

HEDLAND Flow Transmitter:

The HN100542 cable is a four pin, four wire cable used to connect the HEDLAND flow transmitters to the F6700 series displays. Only two of the four wires in the cable are used.

1) Connect the RED wire of the HN100542 cable to terminal 6 (+24 V EXC) on the F6700 series display *(**See Figure 6**)*.
2) Connect the BLACK wire of the HN100542 cable to terminal 4 (20 mA) on the F6700 series display.

After the signal wiring has been completed the F6700 series display can then be mounted in the panel and power wiring applied. See the specific F6700 series display manual for power wiring and additional setup requirements.

Figure 1 - Flo-tech Frequency Output Wiring

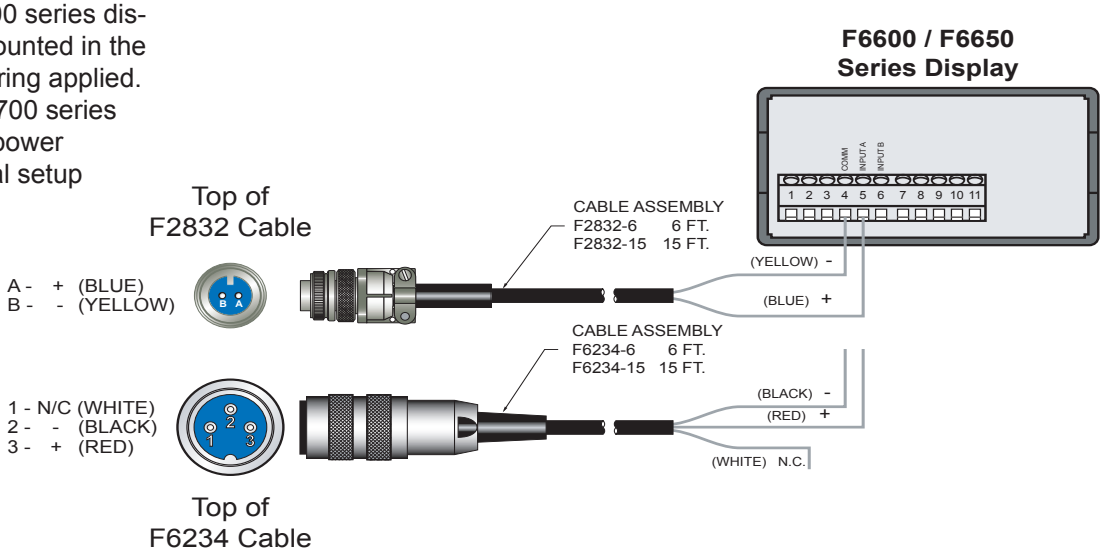

Figure 2 - Flo-tech Frequency Output Wiring using F5140 K-FACTOR SCALER

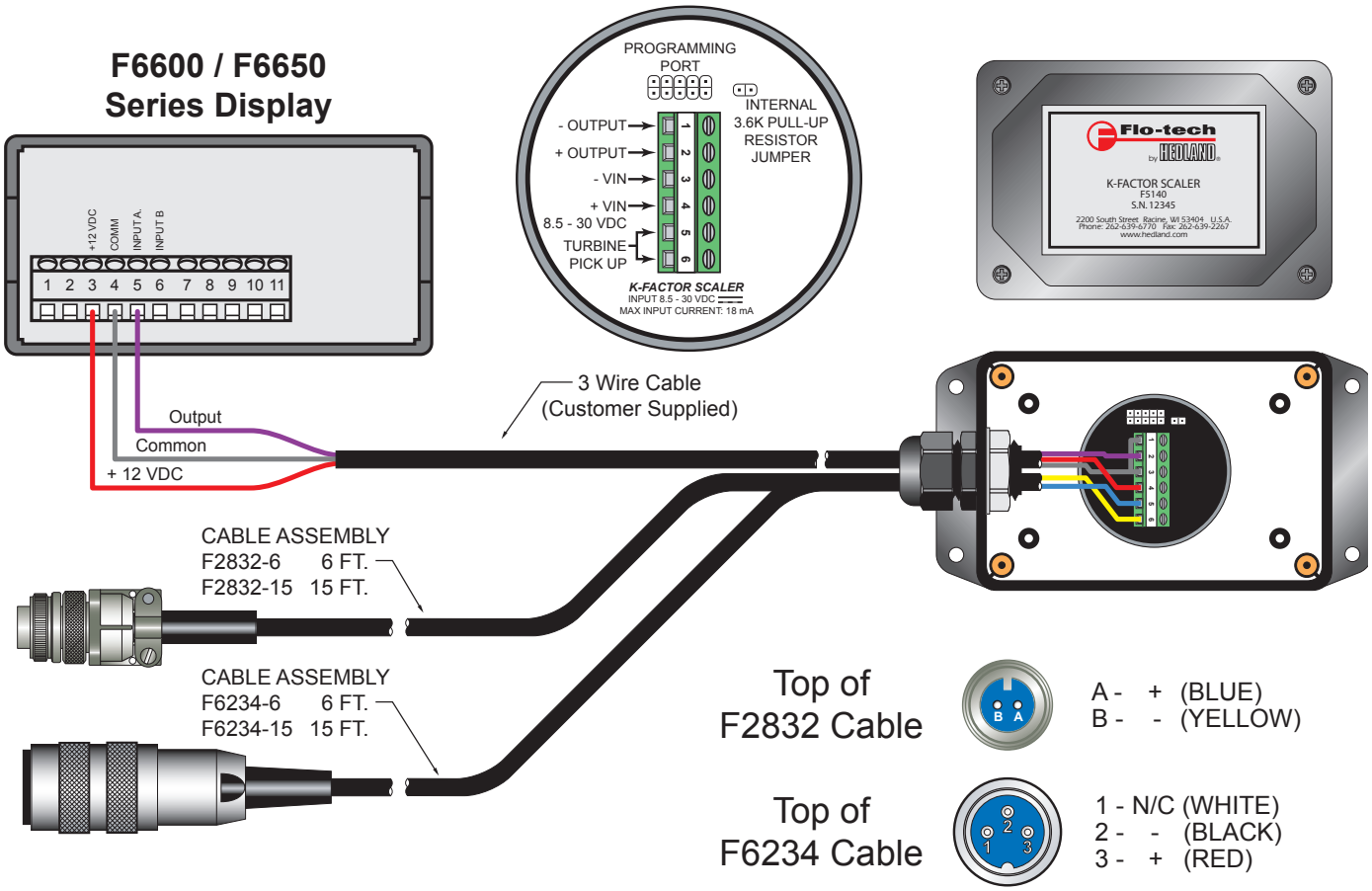

Figure 3 - Flo-tech IFC Flow Sensor Wiring

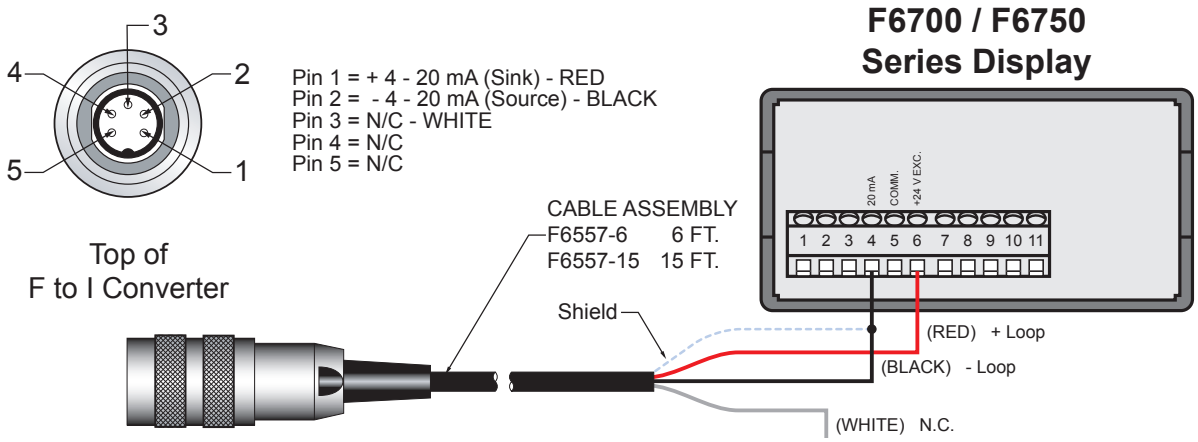

Figure 4 - Flo-tech IFC Flow Sensor Wiring

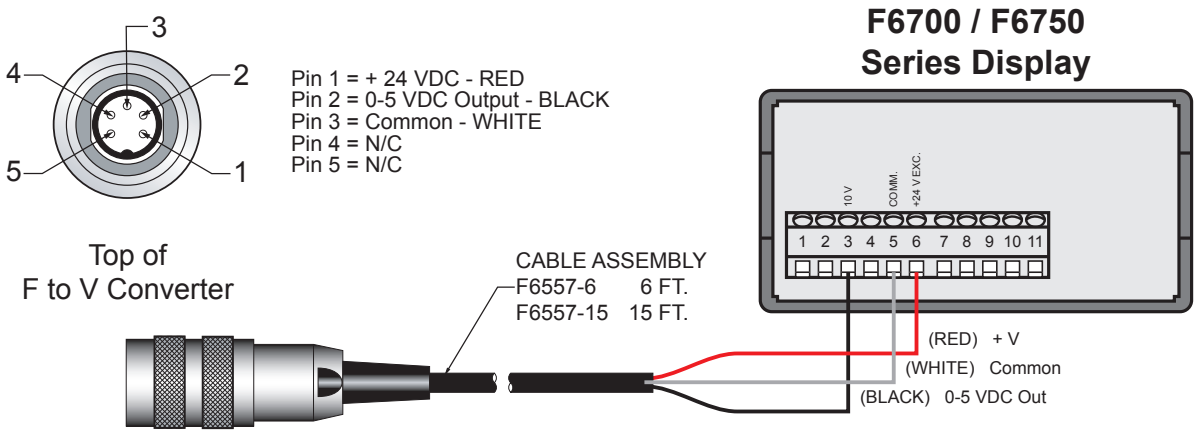

Figure 5 - Flo-tech Pressure and Temperature Sensor Wiring

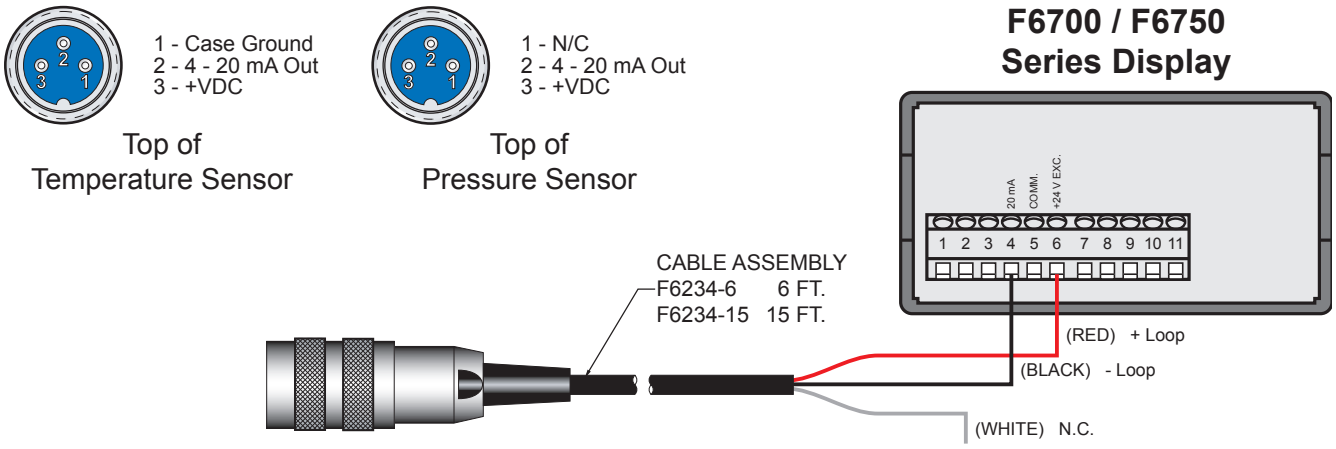

Figure 6 - Hedland Flow Transmitter Wiring