

Subject: Temporary Hardware Change: Transmitter terminal board – Alternate pluggable connectors

TB030 Rev:03
Priority:6
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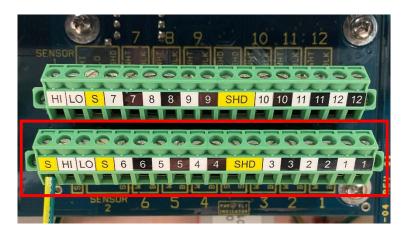
Problem:

Due to product procurement delay issues, we are encountering periods in which we are temporarily unable to source the designed pluggable I/O connectors with 45° wire entry for the transmitter terminal board.

- 1. 18-position I/O connector for sensor head cable wire pairs 1-6 and Sensor 2 (4-20mA) Input
- 2. 9-position connector used for Outputs Comm, Pulse, and Alarm
- 3. 17-position I/O connector for sensor head cable wire pairs 7-12 and Sensor 1 (4-20mA) Input

Procurement issue 1:

18-position pluggable Sensor I/O connector, with 45° wire entry, used for sensor head cable wire pairs 1-6 and the Sensor 2 (4-20mA) Input as is indicated in section 6.3 of the installation manual



| Priority Code: | | | | |
|----------------|--|---|---|--|
| 1 | Safety issue or system will not function | 2 | Intermittent problem causing system crash | |
| 3 | Erratic data/readings | 4 | Added product feature | |
| 5 | Product enhancement | 6 | Temporary Hardware modification | |

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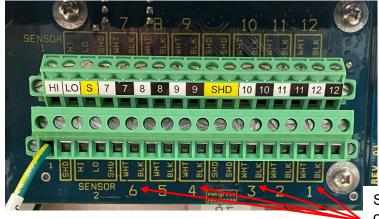


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Problem Resolution / Workaround:

To continue being able to ship customers transmitters a temporary alternate pluggable connector, with slightly different wire entry and screw orientation, has been identified to be used in the short term until the designed connector is again readily available.



Silk Screen labeling on terminal board



Alternate location for wiring ID sticker for the lower 18 position connector

The only change to the wiring termination instructions laid out in the Installation Manual section 6.3.2.3.1 is that 10mm of wire is recommended to be stripped rather than 8mm. The recommended torque of the terminal screws is still 4.4 to 5.3 lb_f-inch (.5 to .6 Nm).

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Although the terminal board itself is silkscreened to indicate the proper wire pair and color termination points the sticker affixed to the pluggable connector indicating same wire pair and color termination points may not be as easily viewed as it presently is with the intended connector design. As a result, the person performing the installation and wiring of new transmitters may find it easier to terminate wire pairs 1-6, prior to terminating wire pairs 7-12. (The shield wire in cable can be terminated in any of the four available locations between channels 3 & 4 or 9 & 10)





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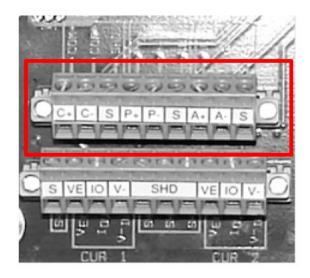


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Procurement issue 2:

9-position pluggable, with 45° wire entry, used for Outputs - COMM, PULSE, and ALARM as referenced in installation manual section 6.3.2.1



Problem Resolution / Workaround:

To continue being able to ship customers transmitters a temporary alternate pluggable connector, with slightly different wire entry and screw orientation, has been identified to be used in the short term until the designed connector is again readily available.

The wire entry is perpendicular to the board rather than at a 45° angle as in the designed connector. Unfortunately, the terminal screws are from top down making accessibility, when connector is plugged in, likely impossible due to the proximity of the chassis fixture for the keypad and display. The alternative 9-position pluggable connector will likely need to be removed from the circuit board mate to terminate wires to it and then reinserted into the circuit board mate.

As we find that few customers utilize the COMM, PULSE and ALARM outputs CiDRA Engineering has determined that the alternate connector will be acceptable in the short term. For customers known to use any of these outputs (MODBUS Comms specifically) an effort will be made to continue using the limited inventory available of 45° angle connectors on those transmitters.

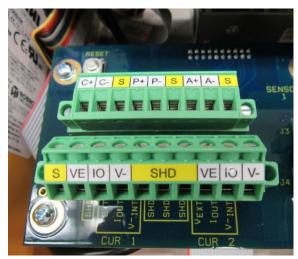
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The recommended wire stripping length for the alternative connector will be 7mm. The torque applied to the screws will be as outlined in the installation manual 4.4 to 5.3 lb_f-inch (.5 to .6 Nm). The torque applied to the two side screws, for securing the connector to the base will be 3.5 to 4.4 lb_f-inch (.4 to .5 Nm).

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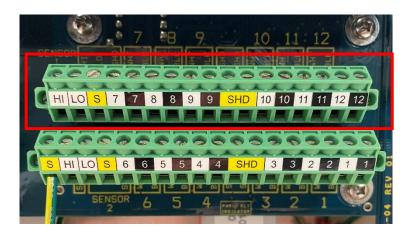


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Procurement issue 3:

17-position pluggable Sensor I/O connector, with 45° wire entry, used for sensor head cable wire pairs 7-12 and the Sensor 1 (4-20mA) Input as indicated in section 6.3 of the installation manual.



Problem Resolution / Workaround:

To continue being able to ship customers transmitters a temporary alternate pluggable connector, with slightly different wire entry and screw orientation, has been identified to be used in the short term until the designed connector is again readily available.

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Silk Screen labeling on terminal board



Alternate location for wiring ID sticker for the upper 17 position connector

The recommended wire stripping length for the alternative connector will be 7mm. The torque applied to the screws will be as outlined in the installation manual 4.4 to 5.3 lb_f-inch (.5 to .6 Nm). The torque applied to the two side screws, for securing the connector to the base will be 3.5 to 4.4 lb_f-inch (.4 to .5 Nm).

The alternative connector wire entry is perpendicular to the board rather than at a 45° angle as in the designed connector. Unfortunately, the terminal screws are from top down making accessibility, when connector is plugged in, likely impossible due to the proximity of the chassis fixture for the keypad and display. The alternative 17-position pluggable connector will likely need to be removed from the circuit board mate to terminate wires to it and then reinserted into the circuit board mate. As a result, the person performing the installation and wiring of new transmitters may find it easier to terminate wire pairs 1-6, prior to terminating wire pairs 7-12, as well as the Sensor 1 (4-20mA) Input if it is being used. The installer will then reinsert the 17-position pluggable connector back into the circuit board mate. (The shield wire in cable can be terminated in any of the four available locations between channels 3 & 4 or 9 & 10).

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Wired alternate connector shown

If, at a future date, when the designed connectors, with 45° wire entry, are again available a customer should wish to switch back to the intended pluggable connector they should contact their respective CiDRA sales channel contact or SonarTracSupport@cidra.com

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Document Change History

| Date | Revision | Changed | ECO# | Description of Change |
|-----------|----------|-------------|----------|-------------------------------------|
| | | Ву | | |
| 6/8/2022 | 01 | Tim Griffin | E22-0019 | INITIAL RELEASE |
| 8/9/2022 | 02 | Tim Griffin | E22-0032 | Revised – added procurement issue 2 |
| 6/25/2024 | 03 | Tim Griffin | E24-0032 | Revised – added procurement issue 3 |
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