Vaisala - How to build a DB9 serial connector for the Vaisala met pack

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Vaisala - How to build a DB9 serial connector for the Vaisala WXT met pack

>These instructions are for RS232 only <
Consult the User Guide for other communications standards

Attaching a DB9 serial connector to the cable supplied with both models of the instrument is essentially the same; however there can be a difference with the cable supplied resulting in a difference of the wiring colors used for the power input (DC 3-32 volts). The most important point is to ensure that the wiring to the DB9 results in the proper connections at the round M12 met-pack connector. Refer to the drawings with this document or check the documentation that came with the instrument.

Only 5 wires from the cable will be used: three for communications connected to the DB9, and two for DC power input to the met-pack. Simply cut the unused wires even with the end of the cable outer insulation. Use care in soldering the connections at the DB9 so excess solder does not create a short. Using small shrink tube over each connection point is advised.

It may be necessary to slightly enlarge where the cable exits the DB9 shell to accommodate the power leads exiting the shell. Alternately the cable cover can be carefully slit above and outside the connector shell and the power wire leads can be routed from the cable insulation cover and outside of the DB9 shell.

Solder and shrink wrap suitable lengths of 20-24 gauge wire as needed to the two correct wires from the cable for the DC power input. Use Red wire for the positive and Black wire for the negative, to avoid any confusion in making power connections later. Finish by routing the power leads from the cable or DB9 connector. The end can be terminated to match your power connection needs. Add wire ties and shrink tubing as pictured to seal and reinforce the connections.

NOTE: The power input leads DO NOT connect to the red and black wires in the supplied cable!

For the 510 model (typically with an Orange cable) the negative is either a bare wire or a clear insulated wire and the positive is the wire with brown insulation.

IMPORTANT NOTE:

For the 520/530 positive is a wire with BROWN insulation and the negative is RED.

CONSULT THE MANUAL

The pin out for the cable should be confirmed by performing a continuity check with a voltage meter. Be sure the power input is on pins 2 and 8 of the round M12 connector to either model of the met-pack with the positive voltage on pin 2 of the M12 (see attached .pdf document for diagrams).

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