Crystal pressure

RTD Sensor Connection Instructions

Your nVision RTD100 module has been shipped with an IP67 rated, M8 connector (P/N: 3953). The terminal block based connector allows you to attach your RTD sensor for 2-, 3-, or 4-wire connections. Care must be taken to install the RTD connector shell properly to ensure the robust IP67 sealing.

**1** RTD sensor element connection requirements:

- 100Ω Platinum RTD with:
  - TCR of 385, 3926, or 3911
  - Cable diameter of 3.5 to 5.0mm [0.14 to 0.2 inches] with smooth, continuous covering adequate for IP67 sealing.
  - Stranded conductor cross section of 0.14 to 0.5mm^2 [0.0002 to 0.0008 in^2].

2 For your ease in sourcing this connector, the following sources of supply may be used:

- Phoenix Contact:
  - Order Number: 1501265, or Part Number: SACC-M8MS-4CON-M-SW
- Binder:
  - Part Number 99-3383-100-04

3 RTD sensor element cable preparation:

(a) Strip approximately 12.0mm [0.5 in] outer insulation from RTD cable.

(b) Strip the individual RTD element sense wires approximately 4.0mm [0.16 in].

(c) Install 3 piece sealing system onto the cable assembly. Take care to place parts in proper order and orientation.

12.0 mm
4.0 mm

Wiring connection hardware may vary.

Lubricate here with DOW 111 (See Step **4**)
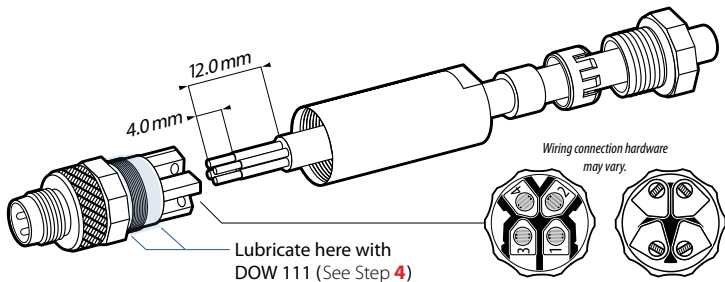
(d) Install your RTD sense element wires as appropriate for your configuration (see illustration below), and tighten the set screws.

(e) Confirm correct orientation of element wires in connected state.

| 2-wire | 3-wire | 4-wire |
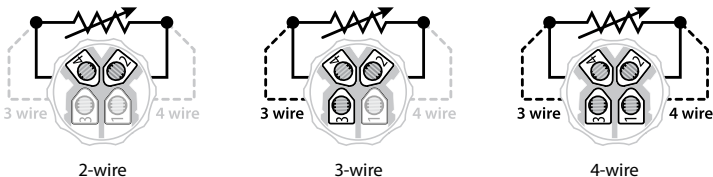
4 Lubricate o-ring and thread system with Dow 111 or equivalent in location near terminal block as required to prevent water intrusion when connector shell is installed. Thread shell in place until tight.

5 Leak check to ensure water tight seal. If any leaking occurs, rework and lubricate as necessary. If leak-free, your RTD sensor is ready to use with the nVision Reference Recorder.

Note: (CRYSTALCONTROL) Your nVision has the RTD100 module TCR set to Pt100 (385) Euro. Modify this setting in CrystalControl as needed.