

Long-line & Zone Leak Detection and Location System (H55472) TTDM-NMM and TTDM-SIM Leak Detection and Location System (H56313) Important Changes—Please read

1. SCOPE

For wiring this Revision B TTDM 4–20 mA module to your current-loop monitoring equipment, refer to the instructions below, in lieu of those in the TTDM or TTDM-NMM and TTDM-SIM operation and maintenance manuals.

2. INSTALLATION AND WIRING

2.1 Jumpers

Ensure that jumpers J11 and J12 “OPTION PCB INT PWR JMPRS” on the TTDM motherboard are not installed. (When installed, these jumpers power the TTDM 4–20 mA module using TTDM internal power instead of the external 24 Vdc power, but this can cause ground loops that interfere with proper leak detection and location.)

2.2 Wiring new installations

Connect your current-monitoring equipment at the 4–20 mA OUT PORT connector J2 on the TTDM motherboard.

If your current-monitoring equipment (a) floats with respect to your 24Vdc supply or, (b) is referenced to the negative of your 24Vdc supply, connect your monitoring equipment so that the TTDM 4-20mA module sources current, as shown in Figure 1.

If your current-monitoring equipment is referenced to the positive of your 24 Vdc supply, connect your equipment so that the the TTDM 4–20 mA module sinks current, as shown in Figure 2.

The new wiring in Figures 1 and 2 is different from that specified in the operations and maintenance manuals and from that indicated by the terminal labeling on the motherboard. The new wiring uses only two wires, an improvement over the original four wires.

Note: Typical current-monitoring equipment requires the TTDM 4-20 mA module to source current.

3. OPERATION

For TTDM units, refer to Appendix 4 in the TTDM Operation and Maintenance Manual (H55472 3/97) for the following 4–20 mA module details:

- Output signals
- Testing
- Adjusting the scale

For TTDM-NMM units, refer to Appendix 6 in the TTDM-NMM and TTDM-SIM Operation and Maintenance Manual (H56313 11/97) for the following 4–20 mA module details:

- Output signals
- Testing and calibration
- Adjusting
- Selecting the SIM channel

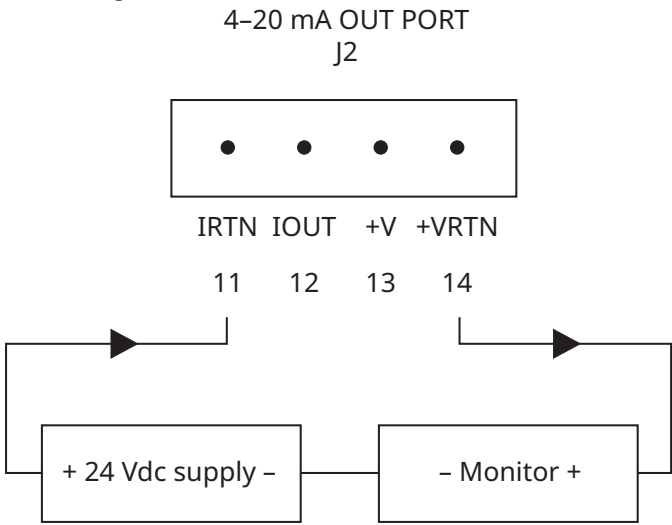


Figure 1

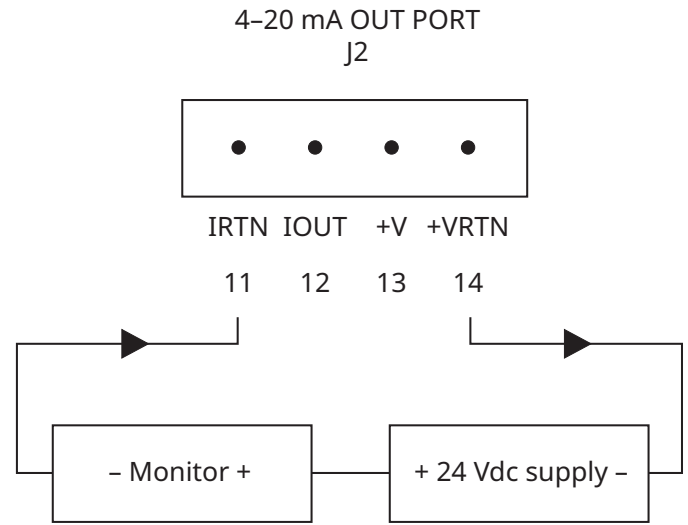


Figure 2

4. NOTES

4.1 Maximum voltage of power supply

Your 24 Vdc power supply should apply no more than 26.4 V across the terminals labeled IRTN and +VRTN (where IRTN is positive with respect to +VRTN). If voltage greater than 26.4 V is applied across the terminals, the internal protection will clamp the voltage and cause spurious currents to flow.

4.2 Maximum resistance in loop

The maximum resistance (R_{max}) through which the TTDM 4–20 mA module can push 20 mA is determined by your power supply (V_{supply}). The V_{supply} is nominally 24 Vdc. The sum of the resistance of your current-monitoring equipment plus the wiring in the loop should be less than R_{max} . The table below lists values of R_{max} for selected voltages.

RMAX VS. VSUPPLY

Vsupply (Vdc)	Rmax (W)
24	900
18	600
12	300

North America

Tel +1 800 545 6258
info@chemelex.com

Latin America

Tel +1 713 868 4800
info@chemelex.com

Europe, Middle East, Africa, India

Tel +32 16 213 511
Fax +32 16 213 604
info@chemelex.com

Asia Pacific

Tel +86 21 2412 1688
infoAPAC@chemelex.com