

# Application Note:

## Math Modules: Monitoring RTDs for Temperature Differential

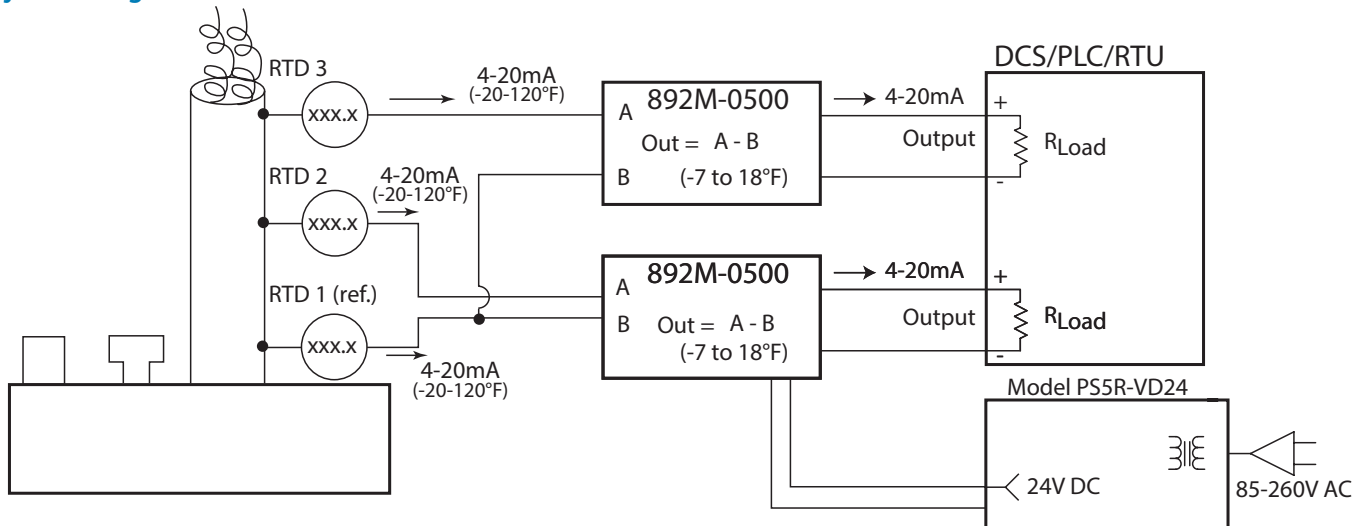
### Defining the Problem:

Monitor three RTD's on a stack and transmit two differential 4-20mA signals representing -7 to 18°F. Each RTD transmitter is calibrated -20 to 120°F.

### Solution:

[Model 892M-0500](#) math module (qty. 3)  
[Model 800C-SIP](#) software interface package (qty. 1)  
[Model PS5R-VD24](#) power supply (qty. 1)

### System Diagram:



### Wiring Diagram:

Model No: 892M-0500

Tag No: RTD3-RTD1

Input: 4-20mA

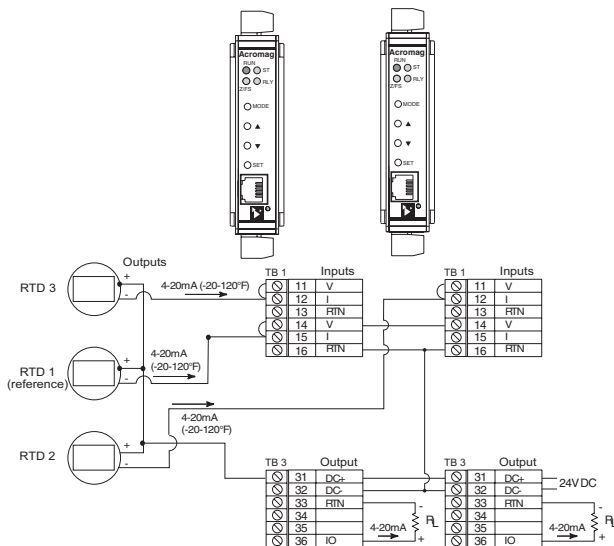
Output: 4-20mA (-7 to 18°F)

Model No: 892M-0500

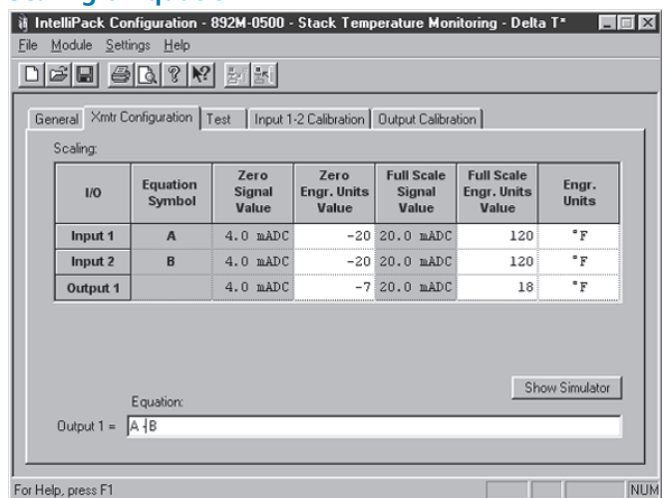
Tag No: RTD2-RTD1

Input: 4-20mA

Output: 4-20mA (-7 to 18°F)



### Scaling & Equation:



**Output Equation: A - B**