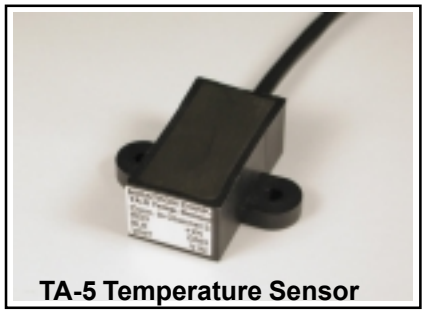
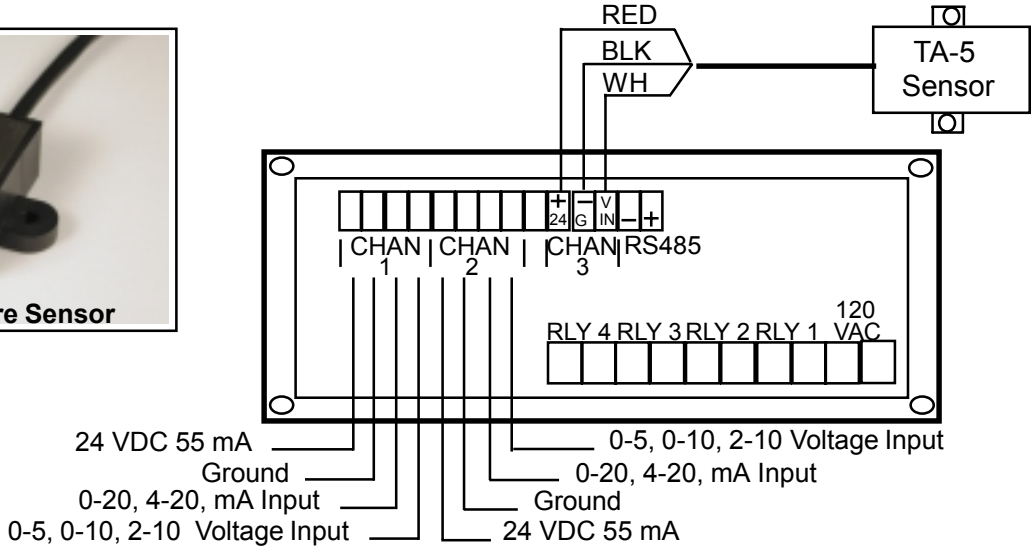
Addendum 7b

Connection Diagram for TA-5 Temperature Sensor When Used With M-1000

Channel 3 on the M-1000 is used for the temperature sensor. After proper connection, program the meter to enable temperature compensation. Also program the low and high current/voltage distances.



TA-5 Temperature Sensor



When used with other controllers at 25 °C the TA-5 delivers 2.98 volts. There is a 10mV change per degree centigrade, input voltage is 6-30VDC. The output of the TA-5 has a 1K series resistance. A 100K or greater resistance would then be desirable at the analog input card for linear stability.

C(9/5) + 32 = F °

Example: 1. Take a voltage reading (298 Kelvin is 25 °C)		2.98
2. Subtract 2.73 volts (273 Kelvin is 0 °C)	-	2.73
		0.25
3. Multiply by 100 to change to centigrade	x	100.00
		25.00
4. The result is in degrees centigrade	x	9.00
		225.00
5. Divide by 5 + 32 will change	÷	5.00
degrees centigrade to degrees fahrenheit		45.00
	+	32.00
		77.00

Volts	Kelvin	Degrees Centigrade	Degrees Fahrenheit
2.33	233	- 40	- 40
2.73	273	0	32
2.98	298	25	77
3.73	373	100	212