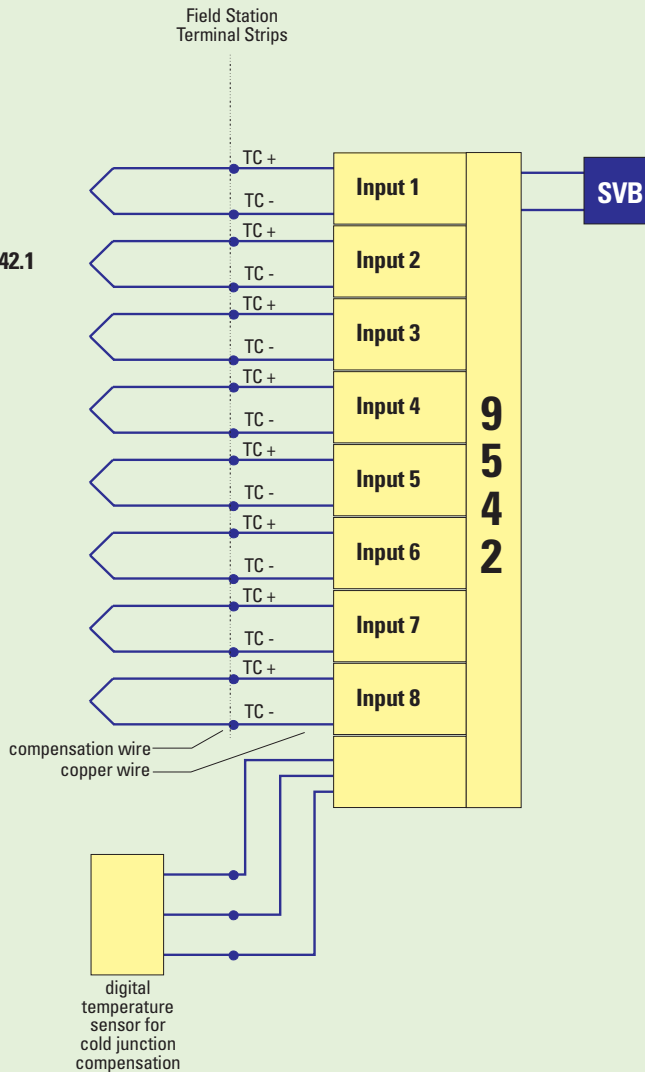


Figure 9542.1



The Type 9542 is designed for the direct measurement of up to eight thermocouples (grounded or ungrounded) of the same type which are located in Zone 0, 1 gas group IIC or a Class I, Division 1 or 2 hazardous area.

Each input is fed via solid state relays into an integrating A/D converter. After conversion, the digital signal is fed to a microprocessor which prepares it for reading by the central unit. The scan rate can be selected for all eight inputs.

The absolute temperature measurement required for the cold junction reference may be taken by connecting a digital temperature sensor to one of the 9542/20 units.

Application	thermocouples
Number of inputs	8
Isolation	point to ZE point to ground point to point, 200 V

Input characteristics	
Type	K, E, L/J, U/T, R, S, B
Scaling	temp.linear

System data	
Resolution	12 bit + sign
Scan rates	0,6 sec, 1,4 sec, 2,4 sec, 5,2 sec
Basic error	< ± 0.075% FSR
Temperature effect	< ± 0.05% per 10K

External power, SVB	
Module	19V/16,5mA
Field	not applicable

Diagnostics	
open-circuit, over/under range, cold junction reference not available, module failure	

