

The Type 9543 module is designed to accept up to eight Pt100, RTD resistance thermometers, in the range of -200 to +800°C which are located in Zone 0, 1 gas group IIC or a Class I, Division 1 or 2 hazardous area. The inputs may be operated in 2-, 3-, or 4-wire mode. Line balancing is automatic in both 2- and 3-wire modes. Temperature linearisation is to IEC 751, Issue December 1990.

Each input is sampled independently and fed to an integrating A/D converter via an analog multiplexer. After conversion, the digital signal is fed to a microprocessor which prepares it for reading by the central unit. The scan rate for all eight inputs is user-selectable between 1070ms and 1440ms.

Application	2-, 3-, 4-wire RTDs
Number of inputs	8
Isolation	point to USE point to ground

Input characteristics	
Signal	-200...+800°C selec table
Input resolution	± 0.1°C
Line balancing	automatic, 2-, 3-wire
Scaling	temp. linear to IEC 751/1990

System data	
Resolution	12 bit + sign
Update frequency	160ms per input
Basic error	< ± 0.015% FSR
Temperature effect	< ± 0.2% per 10K

External power, SVB	
Module	19V/30mA
Field	not applicable

Diagnostics	
open/short-circuit, out of range, module failure	

