6.7.1   MTL4573 - Temperature Converter

Single channel, THC or RTD input

The MTLx573 converts a low-level dc signal from a temperature sensor mounted in a hazardous area into a 4/20mA current for driving a safe-area load. Software selectable features include linearisation, ranging, monitoring, testing and tagging for all thermocouple types and 2-, 3- or 4-wire RTDs. (For thermocouple applications the HAZ-CJC plug on terminals 1–3 includes an integral CJC sensor). Configuration is carried out using a personal computer with PCS45 software.
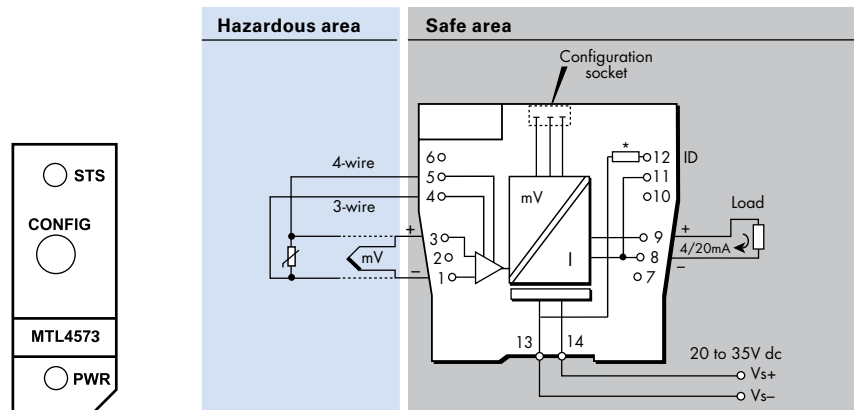

Figure 6.34: Top labels for MTL4573

Terminal	Function
1	THC/mV/RTD input –ve
3	THC/mV/RTD input +ve
4	3-wire RTD input –ve
5	4-wire RTD input +ve
8	Output –ve
9	Output +ve
11	Output –ve
12	ID resistor (*MTL4573Y only)
13	Supply –ve
14	Supply +ve

Top label

Use the following LED information to understand the module status.

Status	PWR (green)	STS(yellow)
Power ON	ON	
Insufficient voltage or Power OFF	OFF	
Normal working	ON	
Device failure	FLASH	
Sensor failure/Error	FLASH	
Early burnout detection (EBD)	FAST FLASH	

6.7.2　MTL4575 - Temperature Converter

Single channel, THC or RTD input with alarm

The MTL4575 converts a low-level dc signal from a temperature sensor mounted in a hazardous area into a 4/20mA current for driving a safe-area load. Software selectable features include linearisation, ranging, monitoring, testing and tagging for all thermocouple types and 2, 3 or 4-wire RTDs. (For thermocouple applications the HAZ-CJC plug, on terminals 1–3, includes an integral CJC sensor). A single alarm output is provided and may be configured for process alarm or to provide notice of early thermocouple failure.
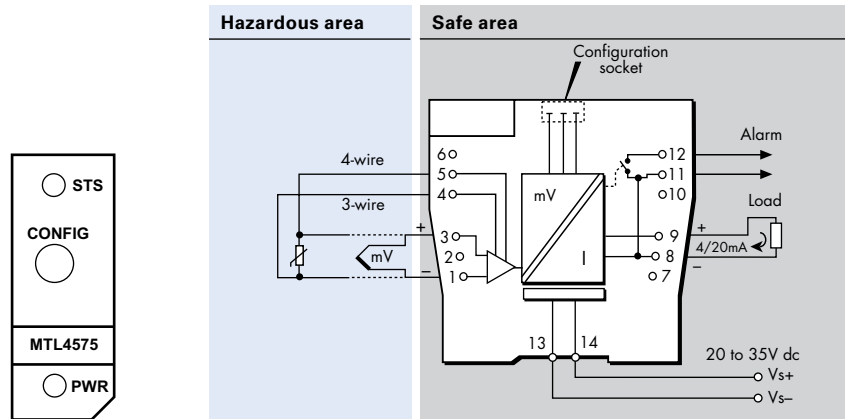

Figure 6.35: Top label for MTL4575

Terminal	Function
1	THC/mV/RTD input −ve
3	THC/mV/RTD input +ve
4	3-wire RTD input −ve
5	4-wire RTD input +ve
8	Output −ve
9	Output +ve
11	Output −ve/Alarm relay
12	Alarm relay
13	Supply −ve
14	Supply +ve

Top label

Use the following LED information to understand the module status.

Status	PWR (green)	STS(yellow)
Power ON	ON	
Insufficient voltage or Power OFF	OFF	
Normal working	ON	
Device failure	FLASH	
Sensor failure/Error	FLASH	
Output relay ON (Trip)	ON	ON
Output relay OFF (Trip)	ON	OFF
Early burnout detection (EBD)	FAST FLASH	