### 6.7.3   MTL4576-RTD - Temperature Converter

Two channel, RTD/potentiometer input

The MTL4576-RTD converts signals from resistance temperature detectors (RTDs) mounted in a hazardous area, into 4/20mA currents for driving safe-area loads. The MTL4576-RTD is compatible with 2- and 3-wire RTD inputs.

Performance features, including input type and characterisation, ranging, monitoring, testing and tagging are selected using PCS45 software, which is loaded onto a personal computer and connected via the PCL45USB serial link - see Section 6.9.

Use the following LED information to understand the module status.
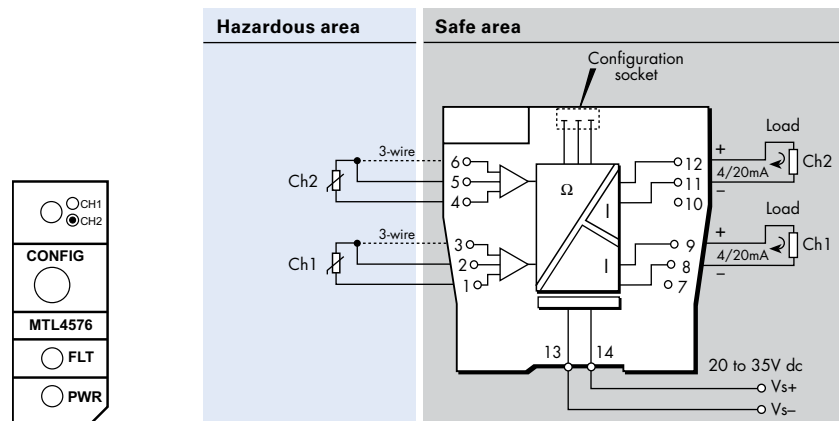
Figure 6.36: Top label for MTL4576

Terminal	Function
1	RTD input (Ch1)
2	RTD input (Ch1)
3	3–wire RTD input (Ch1)
4	RTD input (Ch2)
5	RTD input (Ch2)
6	3–wire RTD input (Ch2)
8	Output –ve (Ch1)
9	Output +ve (Ch1)
11	Output –ve (Ch2)
12	Output +ve (Ch2)
13	Supply –ve
14	Supply +ve

Top label

Use the following LED information to understand the module status.

Status	PWR (green)	FLT (red)	STS(yellow)
Power ON	ON		
Insufficient voltage or Power OFF	OFF		
Communication in progress	FLASH		
Normal working	ON	OFF	OFF
Device failure	ON	ON	
Channel 1 - Sensor failure/Error	ON	FLASH	OFF
Channel 2 - Sensor failure/Error	ON	FLASH	ON

Default configuration for both channels is as shown in 6.7 except:

•   Input type: pt100 3 wire RTD
•   S/C alarm set low (downscale)

6.7.4   MTL4576-THC - Temperature Converter

Two channel, mV/THC input

The MTL4576-THC converts low-level dc signals from temperature sensors mounted in a hazardous area, into 4/20mA currents for driving safe-area loads. The hazardous area connections include cold-junction compensation and do not need to be ordered separately.

Performance features, including linearisation for standard thermocouple types, ranging, monitoring, testing and tagging are selected using PCS45 software, which is loaded onto a personal computer and connected via the PCL45USB serial link- see Section 6.9.
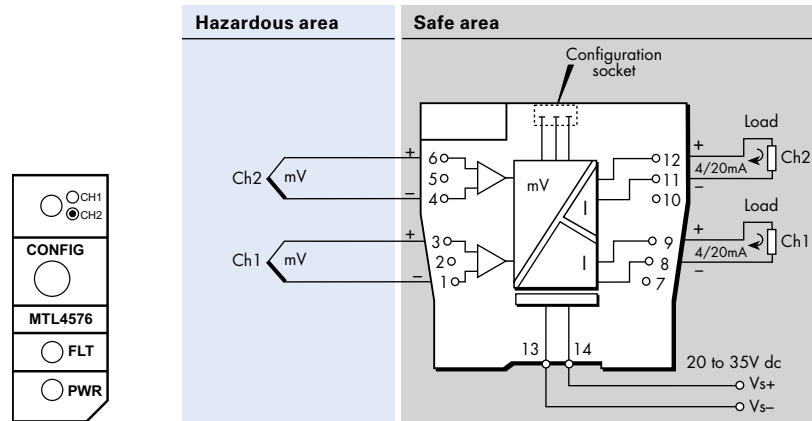
Figure 6.37: Top label for MTL4576

Terminal	Function
1	THC/mV (Ch1)
3	THC/mV (Ch1)
4	THC/mV (Ch2)
6	THC/mV (Ch2)
8	Output –ve (Ch1)
9	Output +ve (Ch1)
11	Output –ve (Ch2)
12	Output +ve (Ch2)
13	Supply –ve
14	Supply +ve

Top label

Use the following LED information to understand the module status.

Status	PWR (green)	FLT (red)	STS(yellow)
Power ON	ON		
Insufficient voltage or Power OFF	OFF		
Communication in progress	FLASH		
Normal working	ON	OFF	OFF
Device failure	ON	ON	
Channel 1 - Sensor failure/Error	ON	FLASH	OFF
Channel 2 - Sensor failure/Error	ON	FLASH	ON

Default configuration for both channels is as shown in 6.7 except S/C alarm set OFF.