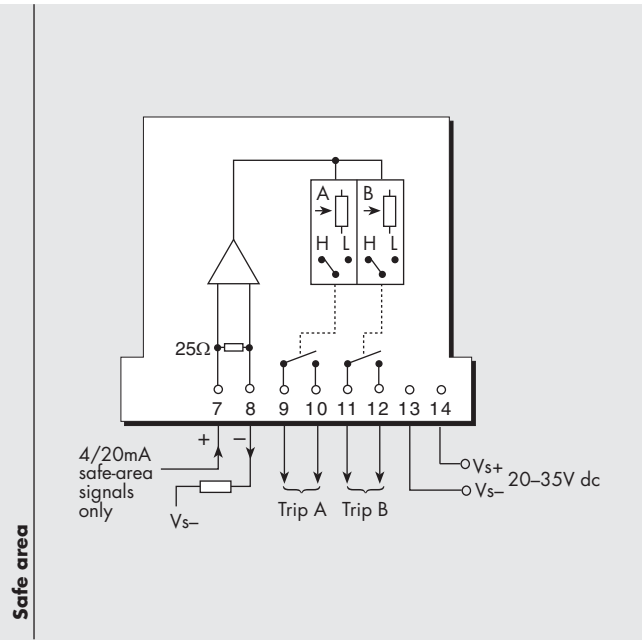
MTL4403 HIGH-LEVEL TRIP AMPLIFIER

CE

This single-channel non-IS unit derives its input from the safe-area output of the MTL4041B or MTL4073 and compares the loop current with a trip level in the range 4 to 20mA. Two trip points are provided and may be set by multiturn potentiometers accessible on the top of the unit. Each trip can be set to indicate a high or low alarm. Test points are provided so that the approximate trip value (1 to 5V) may be measured using a portable voltmeter. A normally-open relay contact and amber LEDs indicate the trip condition.



SPECIFICATION

See also common specification

Number of channels
One

Location of signal source
Safe area only. Interface to hazardous area via suitable barrier/ isolator.

Input range
4 to 20mA into 25Ω
Common-mode input voltage: 8V max
Hysteresis: 1% nominal of input range

Trip-point adjustment
Within 0.1% of input range over whole range

Supply voltage effect on trip point
<0.1% for supply voltage change 20 to 35V dc

Temperature effect on trip point
<0.02% of input range per °C

Response time
20ms nominal

Alarm functions
High alarm: relay energised when input less than trip point
Low alarm: relay energised when input greater than trip point

Power supply failure protection
Relay de-energises if supply fails

Alarm relay contacts
Single pole, normally open

Contact rating
3A at 35V dc (on standard MTL backplanes)
Note that reactive loads must be adequately suppressed.

LED indicators
Amber: one provided for each relay, ON when relay energised (not tripped)
Green: one provided for power indication

Power requirements
37mA at 24V dc
40mA at 20V dc
30mA at 35V dc

Power dissipation within unit
0.8W at 24V
0.9W at 35V

Terminal	Function
7	Input +ve
8	Input –ve
9	Output trip A (normally open)
10	Output trip A (common)
11	Output trip B (normally open)
12	Output trip B (common)
13	Supply –ve
14	Supply +ve

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