SC20ALMDC

Loop Powered Trip Amplifier



- ***High or Low Alarm Option***
- ***Low Voltage Drop***
- ***Isolated Input Stage***
- ***Setpoints Available on Front Panel as 0.4-2V Signal (4-20mA)***
- ***LED Indication Of Alarm***
- ***Unique Low Cost Solution***

The SC20ALMDC is a 4-20mA direct current loop powered trip amplifier. The device derives its power from the input signal and therefore requires no external power supply.
The output of the SC20ALMDC is a single pole, normally open, solid state relay which can be configured to close either above or below the adjustable setpoint. The switched output can be connected to any potential within 1kV of the transmitter supply, while transients of 2.5kV can be withstood.
The relay is designed to switch AC or DC.
The trip amplifier is typically used to activate a warning or control system override when a sensor output goes above or below a pre-set limit. Alternatively, the unit can be used for simple on/off control, having a built in switching hysteresis.
The device is housed in an ultra-compact DIN rail mounted enclosure, only 18mm wide.

General Specification

Recommended Operating Conditions

Input Current	4-20mA
Relay Contact Voltage	110Vac
Relay Current (max)	130mA @ 110Vac / 24Vdc
Output Resistance	24 (on) 110Vac Type

Environmental Conditions

Storage Temperature	-40 - 70 ºC
Operating Ambient	0 - 55 ºC
Relative Humidity	0 - 90 % RH

Technical Specifications

Parameter	Min	Typ	Max	Comments
Supply Voltage		Loop power		
Supply Current (mA)	4		20	
Full Scale Volt Drop		3.4V	3.5V	At 20mA Input
Relay Current			130mA	Rated at 110Vac
Output Resistance 'On'			24Ω	110Vac Relay Type
Trip Point Accuracy			0.25%	
Trip Point Drift			±100ppm/ºC	
Temp Coefficient			±100ppm/ºC	
Relay Time Response		10ms		
Operating Ambient	0ºC		55ºC	
Relative Humidity	0%		90%	
Isolation Voltage see note	1kV			
Surge Voltage	2.5kV for 50µS		Transient of 10kV/µS	

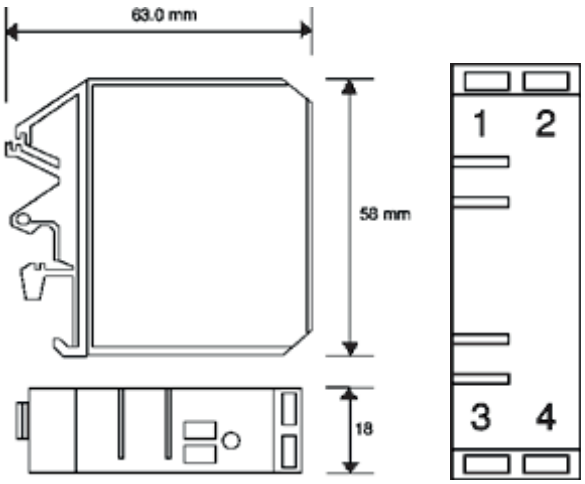
Notes
Setpoint is adjusted by 20 turn potentiometers on the front panel.
Setpoint can be checked by measuring the 0.4 to 2V (2-20mA) voltage on the front panel
High or Low Alarm is selectable using internal link.
Closed output contact is indicated by a red LED on the front panel

Installation Data

Mounting	DIN Rail TS32/35
Orientation	Any
Connections	Screw Clamp with pressure plate
Conductor Size	0.5-4.0mm
Insulation Stripping	12mm
Weight	Approx 45g

Ordering Information

Part No.: SC20ALMDC



Connection Details

1.	Relay Output -ve
2.	Relay Output +ve
3.	Input Channel +ve
4.	Input Channel -ve

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ISO9001CERTIFIED

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