Sensata Technologies

c3

SC2002ALM-HL

Dual Trip Amplifier

- **Wide Range of User Configurable Inputs**
- **2 Setpoints with Configurable Trip Action & Fail-safe mode**
- **Isolated Input Stage**
- **Setpoints Available as 0-10V, (0-100%) on terminals 9 & 12**
- **D.C or A.C. Power Supply Options, See 4002-ALM for Mains Version**

The SC2002ALM-HL trip amplifier can accept a wide range of user configurable inputs including 4-20mA, 0-20mA, 0-5V and 0-10V. The unit can have up to two relay outputs and each can operate as a high or a low trip; alternatively latching operation using both trip points can be configured.

The relay outputs are single pole change-over relays with mains voltage rating. Each trip can be configured so that the alarm condition can be above or below setpoint. The relays can be energised or de-energised in the alarm condition, satisfying fail-safe and non-fail-safe applications. In addition the alarm LEDs can be selected to light when the relay is either on or off. All these options are user-configurable using internal DIP switches. This minimises the number of spare units required.

The input stage is fully isolated and the high level input current or voltage and range may be configured. Separate products are available for thermocouple and RTD inputs.

Inputs

SC2002ALM-HL Standard Ranges

0-20mA, 4-20mA, 0-10mA into 12_u/15_u/24_u
0-5V, 0-10V into $1M_u$
Min and Max Full Scale Ranges available to order:
DC Current 0 to 1mA   0 to 5A
DC Voltage 0 to 100mV 0 to 300V
Note: For input voltages greater than 60Vdc a Divider unit must be specified.

Outputs

Mains Rated Relays - 3A resistive at 240V ac

Technical Specifications

Parameter	Min	Typ	Max	Comments
Supply Voltage		24V		
Supply Current (mA)			45	24Vdc supply, both relays energised
Volt Drop (mA input)		0.3	0.35	At 20mA Input
Input Impedance (Volt)	$100k_u$	$1M_u$	$10M_u$	Dependant on range (typ=10V)
Input Impedance (mA)	0.02_u	15_u	$5k_u$	Dependant on range (typ=4-20mA)
Trip Point Accuracy			0.25%	
Trip Point Drift			±100ppm/ºC	
Temp Coefficient			±100ppm/ºC	
Hysteresis		1% span		
Time Constant (10-90%)		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 Setpoints are adjusted by 20 turn potentiometers on the front panel.
Setpoints can be checked by measuring the 0-10V (0-100%) voltage on terminals 9 &12
H/H,H/L, L/H, LL, fail-safe, non-fail safe and LED options are user selectable using internal links.
Hysteresis is set at 1.0% but other values are possible, please specify if required.

Installation Data

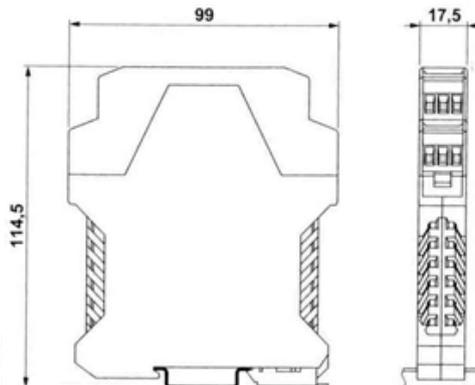|	
Mounting	DIN Rail TS35
Orientation	Any
Connections	Screw Clamp with pressure plate
Conductor Size	0.5-4.0mm
Insulation Stripping	12mm
Weight	Approx 120g

Ordering Information

Part No.: SC2002ALM-HL

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ISO9001 CERTIFIED

cynergy3-sc-2002almhl-v2

Made in the UK

Connection Details

10. Power input -ve	
11. Power input +ve	
7. Process Input -ve and Setpoint common	
8. Process input +ve	
9. Setpoint 1 (0-10V = 0-100%)	
12. Setpoint 2 (0-10V = 0-100%)	
1. Relay 1 Common	4. Relay 2 Common
2. Relay 1 N/C	5. Relay 2 N/C
3. Relay 1 N/O	6. Relay 2 N/O

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