

AGS1143-4 Average Deviation Trip Amplifier

- Suitable for any process I/V (DC) inputs
- Supply voltage options: 24Vdc / 115Vac / 230Vac.
- Amelec standard 10 year Warranty.
- Suitable for SIL 1 & SIL 2 rated (IEC 61508-2) Safety System loop applications, 1oo1 architecture (HFT:0).

APPLICATION

Any one input channel deviating away from the other three inputs by more than the limit set on the trip set point, will activate the Trip and give a change over relay contact output. The associated input channel status LED and output Relay status LED will both Extinguish.

TECHNICAL SPECIFICATION

INPUT (Four channels)

DC current / voltage can be specified in the range of:
 Current up to 100mA max (Passive)
 Voltage 0.4 to 100V max
 Typical input: 4 - 20mA (Passive)
 Note: Inputs will share a Common internal 0V.

OUTPUT

1 x SPCO relay rated at 250VAC, 2A, 100VA resistive.

CONTROLS

Trip : 15 turn blindset potentiometer to set deviation limit in the range of ± 1 to 50%.

INDICATOR

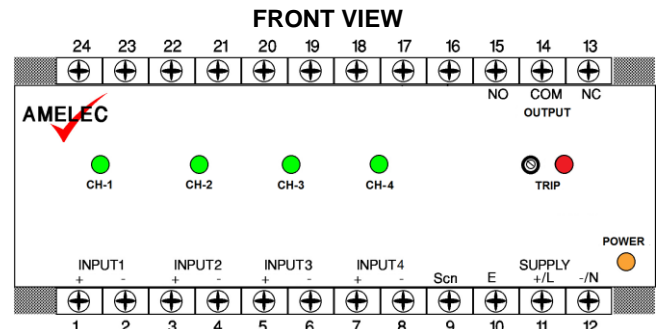
Power ON: LED, Amber.
 Relay status: LED, Red.
 Input status: LED, Green.
 (Normally energised to show Healthy)

PERFORMANCE

Trip settability: better than $\pm 1\%$
 Trip repeatability: better than $\pm 0.1\%$
 Dead band: Typically $\leq 1\%$ span
 Response time: Typically < 300mS
 Accuracy: < $\pm 0.1\%$
 Power: < 3.5W

PROTECTION

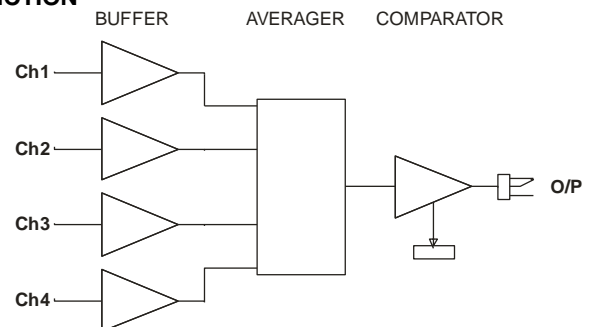
Isolation 1000V RMS. Inputs/Contacts/Output/Supply/Earth
 Internal Fuse.
 Failsafe Relay, loss of power
 Input over range up to typically 300%.
 Input O/C response downscale



TERMINATION

Input 1	TB1 +	TB2 -	
Input 2	TB3 +	TB4 -	
Input 3	TB5 +	TB6 -	
Input 4	TB7 +	TB8 -	
Scn	TB9		
O/P 1	TB13 N/C	TB14 Com	TB15 N/O
Supply	TB10 Earth	TB11 Live/+	TB12 Neutral

FUNCTION



$$A+B+C+D/4 = \text{Average } \{(A \text{ or } B \text{ or } C \text{ or } D) \leftrightarrow \text{Diff Set Point}\} = \text{Trip}$$

ENVIROMENTAL CONDITION

Storage temperature: - 40 to +70 °C
 Operating Ambient: -15 to +55 °C
 Relative Humidity: 5 to 95% RH

MOUNTING / DIMENSION

Enclosure: 152w x 81h x 137d
 Mounting: Din rail (TS35)
 Weight < 300g

ADD ON / OPTIONS

DI: LCD display for local monitoring
 J : Input injection jack socket
 P: Test point (Trip set point monitoring)
 Non standard Power supply ranges available