

AGS1059X-2K-ASMU Analogue Signal Matching Unit

- Suitable for SIL 1 & SIL 2 rated (IEC61508) safety system loop applications, as 1oo1 architecture (HFT:0).
- Supply voltage options: 24Vdc $\pm 10\%$
48Vdc $\pm 10\%$

- RFI Protection to IEC61000-4-3:2006/A2:2010
- Amelec standard 10 year warranty

APPLICATION

- This unit referred to as the analogue signal matching unit (ASMU) takes two analogue input signals (a target level & actual level) and based on the error differential between the two, provides pulsed relay outputs to an external control system.

TECHNICAL SPECIFICATION

FUNCTION

Provides both a Lower & Raise output pulse signal, each at a rate proportional to the difference between the input signal levels.
Pulse/ frequency rate for 0-100% input span diff TBC at time of orders

INPUTS

DC current or voltage can be specified in the ranges of:
Current up to 100mA max (Passive)
Voltage 0.4 to 150Vdc max
Typical input: 2 x 4 - 20mA (Passive ports, impedance 20 ohms)
The input channels share an internal common 0V rail as std.
(Internally isolated input channels option is available if required)

OUTPUT

3 x N.O or N.C Relay Contacts (*TBC at time of orders*),
Rated 250V, 5A, 100VA (resistive)
RL1 pulse rate = input A < input B
RL2 pulse rate = input A > input B
Alarm = either input A or B < set point

CONTROLS

RL1/ RL2 pulse rates: Zero / Span 15 turn potentiometers.
Alarm/ Trip Set Point: 15 turn potentiometer.

INDICATOR

Alarm Relay Status: Red LED On/Energised, Off/ De-energised.
Power: Amber LED On.

PERFORMANCE

Accuracy / Linearity: < $\pm 0.1\%$
Response time: Typically < 200ms
Deadband: $\leq 1\%$ span diff as std (other fixed ranges available)

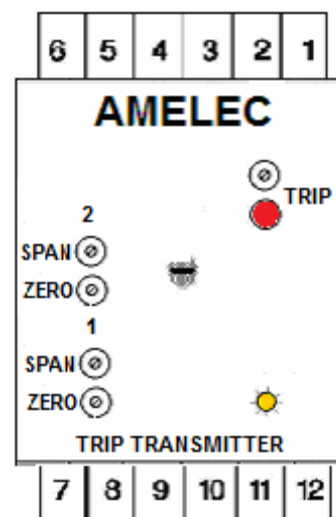
PROTECTION

Input O/C drive response: Downscale drive/ Alarm
Isolation: 500Vdc Inputs/ Alarm contacts/ RL1/ RL2 contacts/ Supply/Earth
Internal Fuse.
Input over range up to typically 300%.
RF Immunity: 20MHz-3GHz/5.25GHz $\leq 10\text{V/m}$,
(80MHz-1GHz/5.6GHz $\leq 30\text{V/m}$, 889MHz-1.75GHz $\leq 40\text{V/m}$)

TERMINATION

INPUT A+	1
INPUT A -	2
INPUT B+	3
INPUT B -	4
Alarm N/O	5
Alarm Comm	6
RL1 N/O (a)	7
Comm (a)	8
RL2 N/O (b)	9
Comm (b)	10
Supply (+)	11
Supply (-)	12

FRONT VIEW



ENVIROMENTAL CONDITION

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

MOUNTING / DIMENSION

Enclosure: 50w x 75h x 182d mm
Mounting: Din rail (TS35) or Surface by seismic Keyhole plate
(Surface mounting plate Dims: 50w x 130h mm)
Weight < 500g

ADD ON / OPTIONS

DI: LCD display for local monitoring
P: Test point (Output or trip set point monitoring)
Non standard Power supply ranges available