

Overview

The ASG-1 is a convenient variable voltage signal source. Common applications are automation systems, test and measurements stands, and R&D projects. The attractive, intuitive design provides easy installation and operation for end-users. This simplicity also allows designers and technicians to configure the device for a wide variety of applications.

Standard features that are easily forgotten but commonly needed include the pass-through of excitation voltage for use in other devices and sensors, adjustable output voltage (0-90% of input), a switch to pass-through an external signal rather than the dial setting and outputs to monitor the dial position for use in other processes. The device is passive, meaning that it requires an external source of excitation voltage that defines the output signal range and quality.

Features

- Easy to implement and use
- Allows application flexibility
- Pass through excitation voltage to coordinate command and feedback signals; adjustable excitation output voltage
- Ability to constantly monitor signal from dial, even in external signal mode
- Local/Remote Capability

Specifications

Model	ASG-1	
Excitation Voltage*	±24 VDC Max (agnd10VDC typ)	
Power Rating	0.25 W	
Mechanical Rotation	300° ±5°	
Linearity	±5%	
Signal Out Switch	Single Pole Double Throw	
Temperature Range	0°C to 70°C (32°F to 158°F)	
Power Requirement**	1236VDC (+24V typ)	
* Uppowered configuration ** 12.26VDC powered mode		

^{*} Unpowered configuration ** 12-36VDC powered mode

Applications

Override – take local control of a process or device Development – switch between simulated and actual signals Flexibility – switch between signal sources for different tasks



Connections

External Connections Terminal Block 1 (TB1)



+sm signal monitor output

Plug 1	(unpowered)	Plug 1 (12 36 VDC)
agnd +se +xt -xt	common ground external signal inpu excitation signal inc	t (010 VDC typ; ±24 VDC max ut (+10 VDC typ; ±24 VDC max) erence (agnd typ; ±24 VDC max)
+pwr	input power - 123	6 VDC

Plug 1 (unpowered

sig signal out -xt negative excitation in/out +xt positive excitation in/out

Plug 1 (12...36 VD)

reg* regulated +excitation *user set via RP2 Primary Signal Output Plug 1 (P1): Unpowered



Primary Signal Output Plug 1 (P1): 12...36 VDC



Note: When using an LS-Cable to connect to Plug 1:

 $+xt (vreg) \rightarrow brown$

 $sig \rightarrow black$

-xt (agnd) → blue

Schematic

ASG-1 Schematic Notes

Note 1 - The default JP1 position is 1-2; cut trace to configure JP1

Note 2 - Add jumper for 0-10V operation; remove for normal operation

12-36VDC Powered Mode:

 With 12-36VDC input power and JP2 jumpers installed, potentiometer RP2 adjusts output voltage (vreg) from 0 to 90% of input voltage.

- With switch SW1 in External mode, an outside source (e.g. PLC or function generator) provides the system with a command signal.

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