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

<table>
<thead>
<tr>
<th>Model</th>
<th>ASG-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excitation Voltage*</td>
<td>±24 VDC Max (agnd...10VDC typ)</td>
</tr>
<tr>
<td>Power Rating</td>
<td>0.25 W</td>
</tr>
<tr>
<td>Mechanical Rotation</td>
<td>300° ±5°</td>
</tr>
<tr>
<td>Linearity</td>
<td>±5%</td>
</tr>
<tr>
<td>Signal Out Switch</td>
<td>Single Pole Double Throw</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>0°C to 70°C (32°F to 158°F)</td>
</tr>
<tr>
<td>Power Requirement**</td>
<td>12...36VDC (+24V typ)</td>
</tr>
</tbody>
</table>

* 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

Connections diagram with terminal block and primary signal output plug (unpowered and 12...36 VDC).

Note: When using an LS-Cable to connect to Plug 1:
+xt (vreg) → brown
  sig → black
  -xt (agnd) → blue

Schematic

Schematic diagram with labeled connections and notes:
1. The default JP1 position is 1-2; cut trace to configure JP1
2. Add jumper for 0-10V operation; remove for normal operation
3. 12-36VDC Powered Mode:
   - With 12-36VDC input power and JP2 jumpers installed, potentiometer W2 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.