General Information

This simple, compact module converts a 4-20 mA analog signal into a pulse frequency, typically to control a pulse-type chemical metering pump. The most common applications involve injecting chemical proportional to some measured variable, such as pH, ORP, or flow. Designed for simplicity of use, the unit is encapsulated and pre-wired, with input and output connectors as specified. Frequency at 20 mA is user settable, with a choice of 60, 80, 100, or 150 pulses per minute. So that it can work with a wide variety of metering pumps, the AD30 is loop-powered and requires no other power supply. Low impedance makes it possible to connect several units to a single current loop.

The unit can be mounted with screws through a lug on each side, or with the supplied double-backed tape. Standard input cable length is 12 feet, and standard output length is 24 inches. An LMI connector is standard; pigtails are available for other pumps.

Specifications

<table>
<thead>
<tr>
<th>Power</th>
<th>14 - 30 VDC</th>
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<tbody>
<tr>
<td>Minimum Current</td>
<td>3.9 mA</td>
</tr>
<tr>
<td>Accuracy</td>
<td></td>
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<tr>
<td>Linearity</td>
<td>± 1% FS</td>
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<tr>
<td>Zero Drift</td>
<td>0.06% per °C of full scale</td>
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<tr>
<td>Span drift</td>
<td>0.04% per °C of output frequency</td>
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<tr>
<td>Output</td>
<td>Solid state relay</td>
</tr>
<tr>
<td>Max Output Sink</td>
<td>120 mA at 110 VAC/ VDC</td>
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<tr>
<td>Operating Temperature</td>
<td>32° F to 140° F</td>
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<tr>
<td>Storage Temperature</td>
<td>-40° F to 175° F</td>
</tr>
</tbody>
</table>

Features

- Encapsulated for environmental protection
- Choice of maximum pulse frequency: 60, 80, 100, 150
- Screw or double-backed tape mounting
- Pump connector as specified for convenient hookup
- 4-20 mA input

DISCONTINUED
Typical Application

Chemical metering pump

Connections (without connector)

4-20 mA input  Pulse output

Red (+)  Red (+)
Black (-)  Black (-)

Installation

Use the double adhesive strips on the back of the module to mount the AD30 to the pump or any other clean, flat surface. If screw mounting is desired, use the two screw holes provided on the sides of the unit.

Connections

If the AD30 was ordered with a pump connector for your pump, connect the pump by plugging it in. If there is no pump connector, follow the connections diagram. Connect to the analog signal as shown.

Operation

Pulse output from the AD30 increases or decreases proportionally with the 4-20 mA input signal. At 20 mA, output is at the rated maximum strokes per minute, and at 4 mA there are no pulses.

Repair

There are no field-repairable components in the AD30. If the unit should fail to operate, contact your distributor or SeaMetrics for information.

Multiple Pump Application

Optional 4-20 mA digital display

Chemical metering pump

Chemical metering pump

SeaMetrics

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