The Ahlers 809 Series Signal Converters have a standard output of 0.25 to 4.75 Vdc, however other outputs from 0 to 5 Vdc can be accommodated. The converter can be made to accommodate various input signals such as ground referenced DC volts, two-wire DC mV at common mode voltages from 0 to 32 Vdc, Type K and Type J Thermocouple inputs, and Frequency inputs from Mono-Pole and Two-Pole Tachometer Signal Generators, plus Open Collector Hall Effect Devices. The converters can be used in a stand-alone configuration, or to parallel existing indicators without affecting signal integrity.

Features:
- Low current draw (< 50mA)
- Low voltage shut-off (< 10 Vdc)
- Output 0.25 to 4.75 Vdc ±0.5% @ room temp.
- Load resistance 5K min.
- Input power 10 to 32 Vdc
- Output is short-circuit proof, will not damage unit.
- Measures less than 4" long, 3" wide, 2" tall. Weight typically under 10 oz.
- American made in our Texas facility (Repairable in the USA.)

Specifications:
- Operating temperature: -45 °C to +70 °C
- Storage temperature: -55 °C to +85 °C
- Meets RTCA DO-160G:
  - A. Temperature and Altitude, Sec. 4, Cat. B2
  - B. Humidity, Sec. 6, Cat. C, with exception when cable penetrations are present. Boards are conformal coated for protection against moisture.
  - C. Operational Shocks and Crash Safety, Sec. 7, Cat. B
  - D. Vibration, Sec. 8, Cat. U2, (Curve F & F1)
  - E. Magnetic Effect, Sec. 15, Cat. Z
  - F. Power Input, Sec. 16, Cat. BXX
  - G. Voltage Spike, Sec. 17, Cat A
  - H. Audio Frequency Conducted Susceptibility, Sec 18, Cat B
  - I. Induced Signal Susceptibility, Sec 19, Cat. ZC, with exception to 19.3.5.
  - J. Radio Frequency Susceptibility, Sec. 20, Cat. TT
  - K. Emission of Radio Frequency Energy, Sec. 21, Cat. M
  - L. Lightning Induced Transient Susceptibility, Sec. 22, Cat. A2XXX

Partial list* of typical converters:

<table>
<thead>
<tr>
<th>CONVERTER</th>
<th>INPUT SIGNAL</th>
<th>TYPE</th>
<th>OUTPUT</th>
<th>TYPICAL APPLICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>809-40008</td>
<td>0.887-1.242V, GND REF</td>
<td>VOLT</td>
<td>0.25 - 4.75 VDC</td>
<td>0° TO 150°C ENG TEMP</td>
</tr>
<tr>
<td>809-40009</td>
<td>0-100mV, 2-WIRE FLOATING, 5V CM</td>
<td>VOLT</td>
<td>0.25 - 4.75 VDC</td>
<td>0 TO 150 PSI ENG OIL PRESS</td>
</tr>
<tr>
<td>809-40010</td>
<td>4.10-4.127mV, TYPE K TC, 0°C REF</td>
<td>TC TYPE K</td>
<td>0.25 - 4.75 VDC</td>
<td>100° TO 1000° C TOT</td>
</tr>
<tr>
<td>809-40011</td>
<td>0.558-0.891V, GND REF</td>
<td>VOLT</td>
<td>0.25 - 4.75 VDC</td>
<td>0° TO 150°C XMSN OIL TEMP</td>
</tr>
<tr>
<td>809-40012</td>
<td>0-84.24HZ, 2-POLE</td>
<td>FREQ</td>
<td>0.25 - 4.75 VDC</td>
<td>0 TO 120% RPM TACH</td>
</tr>
<tr>
<td>809-40013</td>
<td>0.352 - 5.458V, GND REF</td>
<td>VOLT</td>
<td>0.25 - 4.75 VDC</td>
<td>0 TO 225 LBS. FUEL QTY</td>
</tr>
<tr>
<td>809-40014</td>
<td>6-34V, GND REF</td>
<td>VOLT</td>
<td>0.25 - 4.75 VDC</td>
<td>6 TO 34 VOLTS</td>
</tr>
<tr>
<td>809-40015</td>
<td>0.50mV, 2-WIRE FLOATING, 28V CM</td>
<td>VOLT</td>
<td>0.25 - 4.75 VDC</td>
<td>0 TO 150 AMPS</td>
</tr>
<tr>
<td>809-40016</td>
<td>0.666-5HZ, MONOPOLE</td>
<td>FREQ</td>
<td>0.25 - 4.75 VDC</td>
<td>TURBINE, ROTOR RPM</td>
</tr>
<tr>
<td>809-40017</td>
<td>0-53.3mV, 2-WIRE FLOATING, 5V CM</td>
<td>VOLT</td>
<td>0.25 - 4.75 VDC</td>
<td>0 TO 80 PSI TORQUE</td>
</tr>
</tbody>
</table>

*Other dash numbers to be assigned to meet your requirements.

You have problems… We have solutions.
Visit our website: www.ahlersaerospace.com for more information on our products and services.
AHLERS AEROSPACE, INC. 3621 Raider Drive, Hurst, TX 76053
Tel: (817) 553-2155  Fax: (817) 553-2161  info@ahlersaerospace.com