



## 809 Series Frequency & Voltage Signal Convertors

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  $\pm$ 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:

CONVERTER	INPUT SIGNAL	TYPE	OUTPUT	TYPICAL APPLICATION
809-40008	0.887-1.242V, GND REF	VOLT	0.25 - 4.75 VDC	0° TO 150°C ENG TEMP
809-40009	0-100mV, 2-WIRE FLOATING, 5V CM	VOLT	0.25 - 4.75 VDC	0 TO 150 PSI ENG OIL PRESS
809-40010	4.10-41.27mV, TYPE K TC, 0°C REF	TC TYPE K	0.25 - 4.75 VDC	100° TO 1000° C TOT
809-40011	0.558-0.891V, GND REF	VOLT	0.25 - 4.75 VDC	0° TO 150°C XMSN OIL TEMP
809-40012	0-84HZ, 2-POLE	FREQ	0.25 - 4.75 VDC	0 TO 120% RPM TACH
809-40013	0.352 - 5.458V, GND REF	VOLT	0.25 - 4.75 VDC	0 TO 225 LBS. FUEL QTY
809-40014	6-34V, GND REF	VOLT	0.25 - 4.75 VDC	6 TO 34 VOLTS
809-40015	0-50mV, 2-WIRE FLOATING, 28V CM	VOLT	0.25 - 4.75 VDC	0 TO 150 AMPS
809-40016	0-666.5HZ, MONOPOLE	FREQ	0.25 - 4.75 VDC	TURBINE, ROTOR RPM
809-40017	0-53.3mV, 2-WIRE FLOATING, 5V CM	VOLT	0.25 - 4.75 VDC	0 TO 80 PSI TORQUE

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

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AHLERS AEROSPACE, INC. 3621 Raider Drive, Hurst, TX 76053  
Tel: (817) 553-2155 Fax: (817) 553-2161 info@ahlersaerospace.com