Description

The G123-817 LVDT Oscillator Demodulator is a complete Linear Variable Differential Transformer (LVDT) signal conditioning module. It is used in conjunction with an LVDT to convert transducer mechanical position to a DC voltage of ±10V and a DC current of 4-20mA. The outputs have high accuracy and repeatability with very low noise and ripple. Due to a unique ratiometric circuit structure, temperature stability and power supply immunity are vastly improved over older style circuits.

The module has an oscillator for driving the LVDT primary. Its level is set by a front panel trimpot. Selector switches inside the module set its frequency. A front panel test point enables the level and frequency to be measured.

Features

- Improved accuracy, repeatability, noise and ripple
- Output voltage and current
- High supply immunity and temperature stability
- Oscillator level and frequency adjust
- Output span and zero adjust
- Switch selectable secondary phase adjust
- Convenient front panel controls and indicators
- Compact DIN rail housing
- CE marked

Specifications

Outputs: 0 to ±10V, 1 kOhm min load, terminal 3
4-20mA, 500 Ohm max load, terminal 7
100PPM/dB excitation rejection
500PPM non-linearity
4mV RMS ripple @ 3 kHz
300Hz bandwidth

Oscillator: 1 to 8.0V RMS
1 to 10kHz
50mA RMS
-50dB THD
200PPM/ºC frequency TC

Internal trimpot: Secondary demodulator phase adjust R6
Internal switches: Oscillator frequency select S1-1 to -4
Phase lead select S2-1 to -6
Phase lag select S2-7 and -8
Supply: Terminal 1
24V DC nominal, 22 to 28V
60mA @ 24V, no load
160mA @ 22V, 50mA oscillator load

Recommended supply protection: M205, 250mA T (slow blow) fuse compliant with IEC 127-2 sheet 3
Mounting: DIN rail
IP 20

Temperature: 0 to +40ºC
Dimensions: 100W x 108H x 22.5D
Weight: 127g

CE mark: EN50081.1 emission
EN61000-6-2 immunity

C tick: AS4251.1 emission
Full scale sensitivity: Min: 0.15 V/V
Max: 0.9 V/V
Ordering Information
LVDT Oscillator Demodulator G123-817-006

Special configurations can be provided.
Consult your Moog sales office to discuss details.