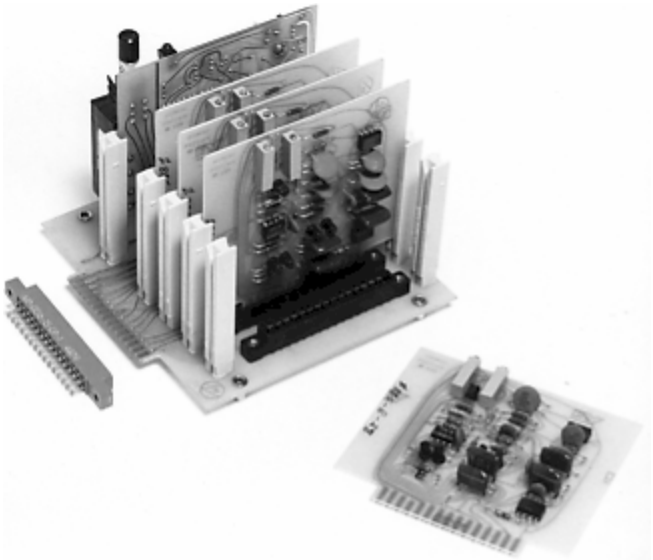
CD72

Carrier Demodulator



Features

- **10 Vdc Output**
- **Carrier Excitation for Variable Reluctance and Variable Differential Transformer Transducers**
- **2 or 4 Channel Operation**
- **Regulated Against Power Variations**

DESCRIPTION

The CD72 Carrier Demodulator is a complete Multichannel system in a small package for OEM Applications. Using the latest integrated circuit techniques, this unit supplies a 5 volt, 5 kHz carrier excitation for Variable Reluctance and Variable Differential Transformer Transducers, demodulates and amplifies their outputs to provide a ±10 Vdc signal for static and dynamic measurements.

Available in either two (2) channel or four (4) channel configurations. The CD72 consists of an interconnecting "mother board" and either three (3) or five (5) plug-in circuit boards. One circuit card contains the oscillator power supply, which supplies the carrier excitation to the transducers and ±15 Vdc to power the carrier demodulators. The remaining circuit cards are the carrier demodulator boards.

The Carrier Demodulator Card amplifies and demodulates the transducer output signal to ±10 Vdc which is proportional to the stimulus applied to the transducer. Each card has a screwdriver adjustment for zero and span control.

Low input impedance allows for operation with transducers at a distance of over a thousand (1000) feet from the carrier demodulator with no degradation of signal.

An active filter on the output provides the CD72 with a flat frequency response from steady state to 1000 Hz.

Both input and output are protected against short circuit.

Specifications

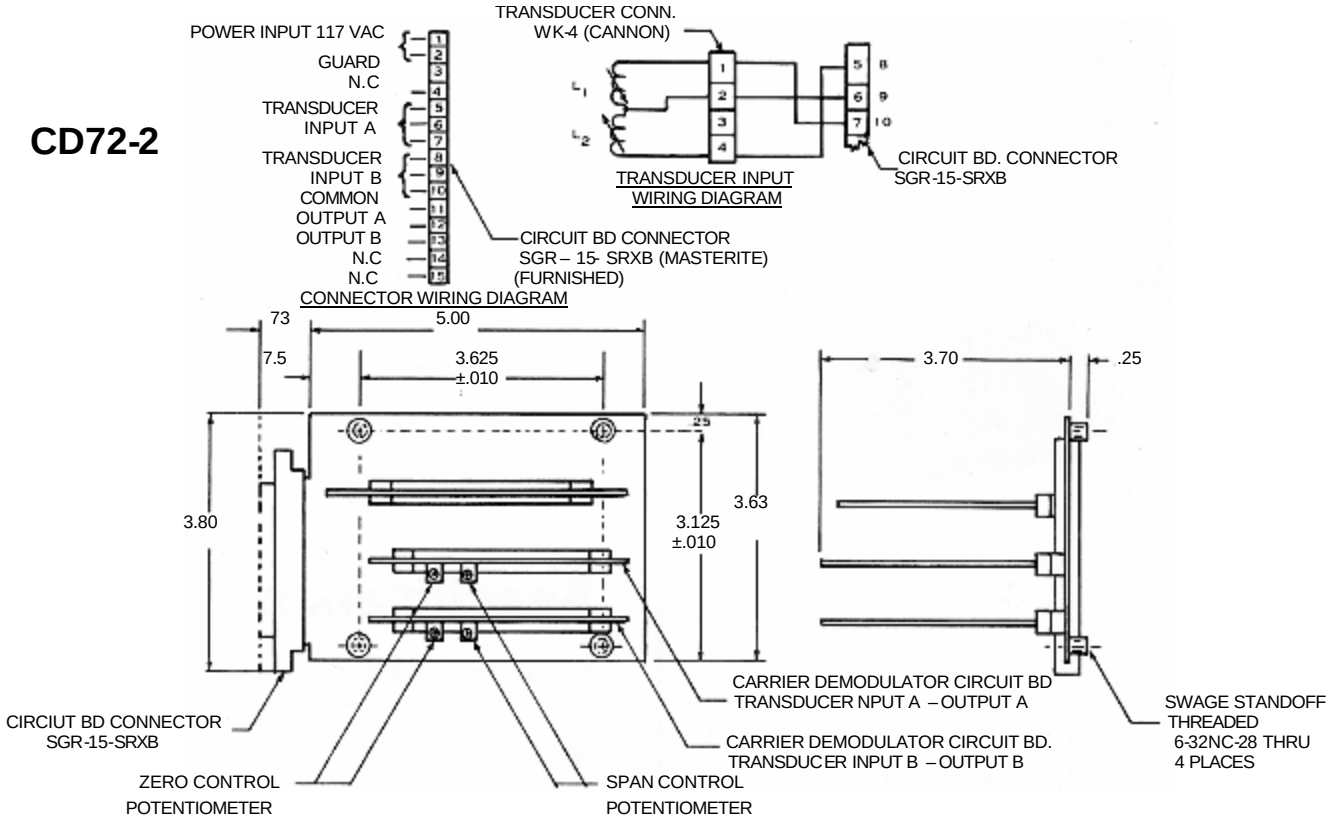
Input Sensitivity:	Min. 12 mV/V for ±10 Vdc output continuously adjustable by span control
Maximum Input:	2.5 Vrms, 5 kHz
Bridge Excitation:	5 Vrms, 5 kHz
Bridge Configuration:	2 arm variable reluctance transducers – LVDT
Zero Control:	±10 mV/V
Output:	0 to ±10 Vdc; 10 mA into 1k ohm load, protected against short circuit
Output Ripple:	Less than 10 mV peak to peak, max
Output Impedance:	10 ohms maximum
Frequency Response:	Flat to 1000 Hz
Linearity:	±0.05%
Stability:	±0.1% long term
Temperature Range:	0 to 185°F
Thermal Effects:	Zero: 0.5%/100°F Span: 1%/100°F
Oscillator Power Suppy	
Carrier:	5 Vrms, ±1%, 5 kHz
D.C. Power:	±15 Vdc to operate either the 2 or 4 channel system
A.C. Power Required:	95 to 125 Vac, 50 to 400 Hz, 3 VA (205 to 250 Vac by internal connection change)

Ordering Information	
CD72-2	For two channel system consisting of: 1 Mother Board 1 Oscillator Power Supply Board 2 Carrier Demodulator Boards
CD72-4	For four channel system consisting of: 1 Mother Board 1 oscillator Power Supply Board 4 Carrier Demodulator Boards

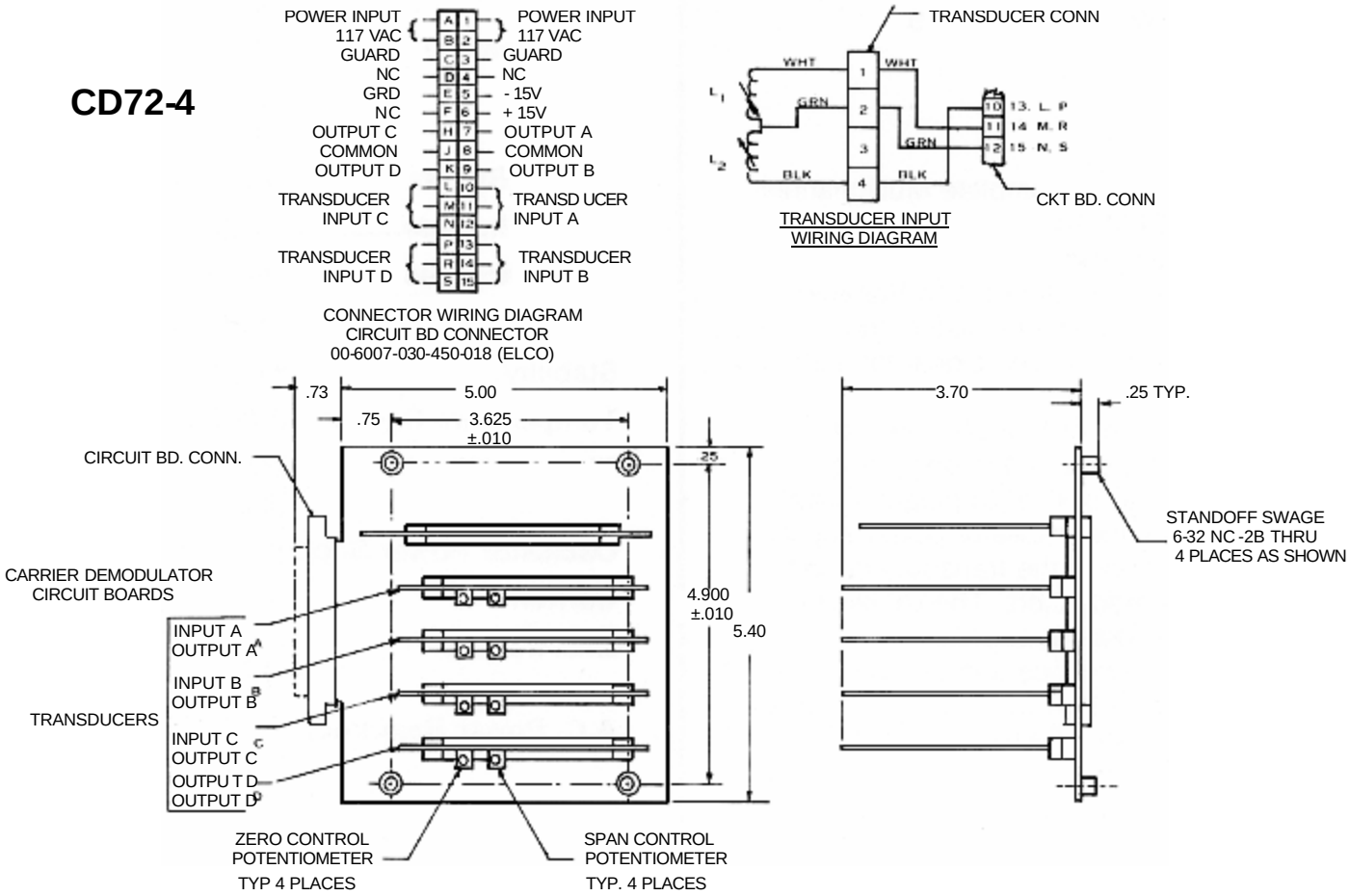
Spare Parts Information	
Mother Board:	CD72-2 – P/N 7347 CD72-4 – P/N 7775
Carrier Demodulator Boards: P/N 7344-1	
Oscillator Power Supply: P/N 9617	

CD72-2 AND 4 SCHEMATIC TYPCIAL CONNECTION

CD72-2



CD72-4



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