



DESCRIPTION

The CD101 is a complete carrier demodulator, designed to be used in a large variety of individual channel or multi-channel system applications.

Using the latest integrated circuit techniques, this unit supplies a 5 volt, 5kHz carrier excitation for variable reluctance and variable differential transformer transducers, demodulators their output and provides a ± 10 volt DC signal for static and dynamic measurements.

The small compact size printed circuit board construction makes it possible to package the CD101 inside recorders, behind panels, in multi-channel systems, etc. Complete adaptability to any single unit or system application is provided by optional bracket, standoff or card guide mounting; remote, board or bracket mounted zero and span control option; a choice of trimmer pots or 10-turn potentiometers with calibrated dials, for zero and span controls; optional printed circuit board connector or terminal strip for all connections, with an additional optional of a circuit board mounted Cannon connector for the transducer connections, and finally a choice, which can be made in the field, of operation from 115 or 230VAC, 50-400 Hz, or ± 15 VDC power

Low input impedance allows operation with transducers at a distance of over a thousand feet from the CD101 with no degradation of signal.

An active filter circuit provides the CD101 with a flat frequency response from steady state to 1000 Hz.

Both input and output are protected against a short circuit.

VERSATILE TRANSDUCER CONDITIONER for Variable Reluctance Pressure Transducer

Features

- ± 10 Vdc Output
- Carrier Excitation for Variable Reluctance and Differential Transformer Transducers
- Optional Mounting Configurations
- Optional Input, Output and Control Connections
- Optional Power Sources

Specifications

Input Sensitivity:	Min. 15mV/V for 10V DC output Continuously adjustable by span control
Maximum Input:	2.5V rms
Bridge Excitation:	5V rms, 5kHz
Bridge Configuration:	2 arm variable reluctance, variable differential transformer
Zero Control:	± 10 mV/V
Output:	0 to ± 10 V DC; 10mA to 1K ohm load, protected against short circuit
Output Ripple:	10 mV peak to peak maximum
Output Impedance:	10 ohms nominal
Frequency Response:	Flat $\pm 5\%$, 0 to 1000 Hz
Linearity:	$\pm 0.05\%$
Stability:	$\pm 0.1\%$ long term
Temp Range:	0-185 F
Thermal Effects:	Zero – 0.005%/ F Typical Span – 0.01%/ F Typical
Electrical Connections:	Printed circuit board connection; other options available
Power Requirements:	105 – 125 VAC; or 205 – 250 VAC, 50 – 400 Hz; 2VA; or, ± 15 VDC, @ ± 17 mA, ± 25 mA. Determined by user-selected wiring connections.
Size:	5 in. x 6 in. max. height above mounting surface 1.6"

Ordering Information for transducers, specify part number as follows:

CD101 - A - 6 - A - 1 - A

INPUT POWER	
Option Letter	Description
A	115 Vac/230 Vac. 50-400 Hz and ± 15Vdc - user selected
B	± 15 Vdc only

ZERO & SPAN CONTROL OPTIONS		
Codes: 10 TDR = 10 Turn potentiometer & Dial furnished – remote mount		
10 TDB = 10 Turn potentiometer & dial bracket mounted on board		
TP = Trimming potentiometer board mounted		
Option No.	-----Control Type-----	
	Zero	Span
1.	10 TDR	10 TDR
2.	10 TDR	TP
3.	10 TDB	10 TDB
4.	TP	TP
5.	TP	10 TDB
6.	None	None
7.	TP	10 TDR
8.	10 TDB	TP

OUTPUT OPTIONS	
Option Letter	Description
A	± 10 Vdc FS (STD)
B	± 1 Vdc FS
C	4 – 20 mA dc
D	$E_0 = 10vP_{IN}$ mA dc PFS
E	$I_0 = 4 + 16vP_{IN}$ mA dc PFS

OUTPUT FILTER (Low Pass)	
Option No	Description
1.	100 Hz (STD.)
2.	0.1 Hz
3.	0.5 Hz
4.	1 Hz
5.	25 Hz
6.	50 Hz
7.	100 Hz

ELECTRICAL CONNECTIONS
 Codes: PC = Mating edge card connector with solder terminals furnished
 TS = Cage Clamps terminators added in parallel to etched Terminal pads
 PT = Transducer Input Connector, PT02A-10-6P or equal
 WK = Transducer Input Connector, WK-4-32S or equal

Option Letter	Transducer Input Conn./Type			Option Letter	Transducer Input Conn./Type		
	PC	TS			PC	TC	
A	Yes	No	None	G	No	Yes	None
B	Yes	Yes	None	H	No	Yes	PT
C	Yes	Yes	PT	J	No	Yes	WK
D	Yes	Yes	WK	K	No	No	PT
E	Yes	No	PT	L	No	No	WK
F	Yes	No	WK	M	No	No	None



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