



## Features

- **Dual Channel Output  $\pm 10\text{Vdc}$**
- **Optional Frequency Responses**
- **3 kHz Carrier Operation**
- **Low Cost**

## DESCRIPTION

The Model CD18 Carrier Demodulator is a low cost plug-in module for use with the Validyne MC1 Signal Conditioning System. It is used both to supply the 3 kHz carrier to the transducer and for demodulating and signal conditioning of the transducer output. The CD 18 can be used with variable reluctance transducers and most differential transformers.

The CD18 will produce a  $\pm 10\text{Vdc}$  output from transducer inputs of  $15\text{mV/V}$ . The standard CD18 dual outputs are set for  $\pm 1\text{OVdc}$  (other options are available). The output frequency response is 0 to 250 Hz. Other filters are available.

## Options Available

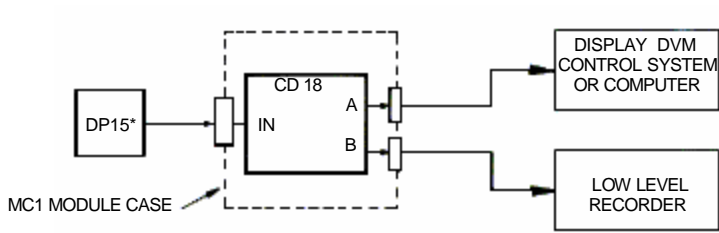
- Output "A" and "B" at  $10\text{Vdc}$
- 10-turn pots and dials for zero and span controls
- Low pass filter
- Bifurcated terminals for "B" output attenuator and 1000 Hz filter
- 4-20 mA "B" output, 550 ohm load max.; "A" output  $10\text{Vdc}$
- Output V A P

## Specifications

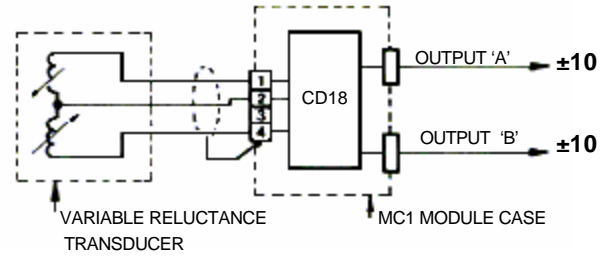
<b>Input Range:</b>	15mV/V to 75mV/V for FS output.
<b>Bridge Excitation:</b>	5Vrms, 3 kHz from a precision center tapped transformer.
<b>Bridge Configuration:</b>	2 arm variable reluctance transducer
<b>Input Impedance:</b>	100K ohms
<b>Zero Control:</b>	$\pm 10\text{mV/V}$
<b>Zero Control (Gain):</b>	0 to 100% for $10\text{Vdc}$ output.
<b>Output:</b>	A & B: $\pm 10\text{Vdc}$ at 10 mA.
<b>Output Noise:</b>	Less than 10 mV/V p-p at $10\text{Vdc}$ .
<b>Output Impedance:</b>	Less than 10 ohms.
<b>Frequency Response:</b>	DC to 250 Hz flat $\pm 10\%$ Optionally Available: 0 to 0.1, 0.5, 1, 5, 10, 25, 50, 100, 500 and 1000 Hz
<b>Non-Linearity:</b>	$\pm 0.05\%$ FS maximum.
<b>Temperature Range:</b>	$0^\circ$ to $+160^\circ\text{F}$
<b>Thermal Zero Shift:</b>	0.005%/°F
<b>Thermal Sensitivity Shift:</b>	0.01%/°F
<b>Power Requirements:</b>	5Vrms, 3 khz & $\pm 15\text{Vdc}$ (supplied from MC1 Module Case)

## Typical Applications

\*TS265 may be substituted during system checkout

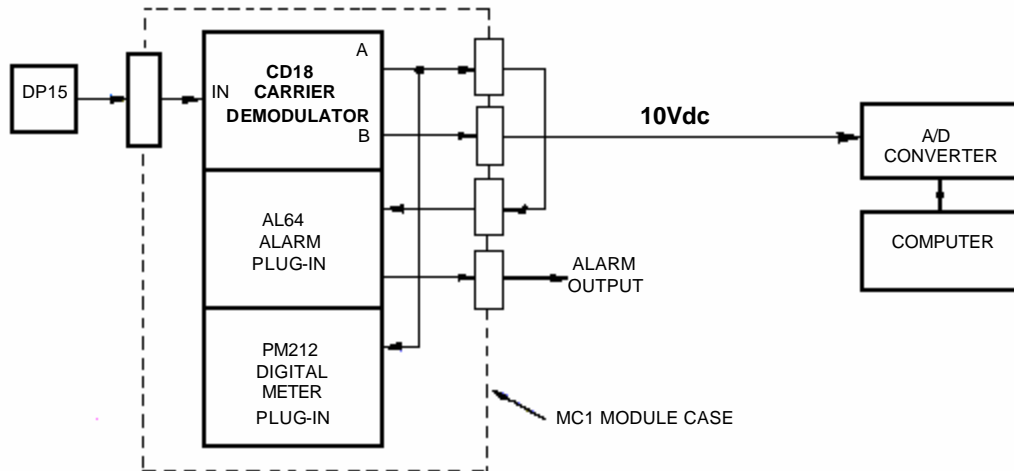


**BASIC PRESSURE MEASUREMENT SYSTEM**



**INSTALLATION DRAWING**

\*TS265 may be substituted during system checkout



**PRESSURE MEASUREMENT AND ALARM SYSTEM WITH OUTPUT "B" TIED TO COMPUTER INTERFACE FOR CONTROL**

**Ordering Information** to order, specify part number as follows:

**CD18 - X - 1 - J - 1 - B**

OUTPUT	
OPTION NUMBER	DESCRIPTION
1	$\Delta P$ 10V $\Delta P$ 10Vdc
2	$\Delta P$ 10V $\sqrt{\Delta P}$ 10Vdc
3	$\Delta P$ 10V $\sqrt{\Delta P}$ 4-20mA
4	$\Delta P$ 10V $\Delta P$ 4-20mA

LOW PASS FILTER	
OPTION LETTER	DESCRIPTION
A	0.1Hz
B	0.5Hz
C	.1Hz
D	5Hz
E	101Hz
F	25Hz
G	50Hz
H	100Hz
J	250Hz (STD)
K	500Hz
L	1kHz

ATTENUATION TERMINALS ON B-OUTPUT	
OPTION NUMBER	DESCRIPTION
1	Not Installed
2	Installed

ZERO & SPAN POTS-FRONT PANEL	
OPTION LETTER	DESCRIPTION
A	10 Turn Dial Pots
B	Trim Pots

NOTE: First option must be -1 if -2 is selected for third option.



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