

## **CD15**

## Sine Wave Carrier Demodulator



# **Basic Signal Conditioner**For Variable Reluctance Transducers

#### **Features**

Ш	Compact: may be used on bench top or mounted in existing enclosures
	Regulated against line voltage variation
	Solid state reliability

### **Description**

The CD15 Sine Wave Carrier Demodulator operates with variable reluctance transducers to provide a DC output signal for dynamics as well as steady state measurements. Α 5kHz sine excitation is applied to the two inductance ratio arms of the transducer and the resulting output is demodulated and amplified using the latest integrated circuit techniques. The DC output is obtained from an active filter circuit and gives a uniform response from steady state to 1000 Hz. The low impedance sine wave excitation allows operation with the transducer located over 1.000 feet from the CD15.

The unit is small enough to be included in the case of most receiving and recording instruments.

## **Optional Features**

In the Ordering Information Section of this Data Sheet (see following page), a number of optional features and capabilities are described in an ordering format that permits rapid identification and specification of the precise combination of features needed for the intended measurement.

#### **Specifications**

**Input Sensitivity:** 15mV/V minimum input for +/-5

Vdc FS output

**Transducer Excitation:** 5V rms, 5kHz sine wave

Output:

Voltage: ±5 Vdc @ 10 mA. Short circuit

proof. \*

Output Impedance: 10 ohms, nominal

Frequency Response: DC to 1000 Hz flat ±10% \*

Stability:  $\pm 0.1\% / 30 \text{ days}$ 

Ripple: Less than 5 mV peak-to-peak

**Zero Shift:** ±.005%/°F average

Temperature Range: 0-185°F

Power Requirements: 105-125 Vac, 50-400 Hz, 5 Watts,

nominal \*

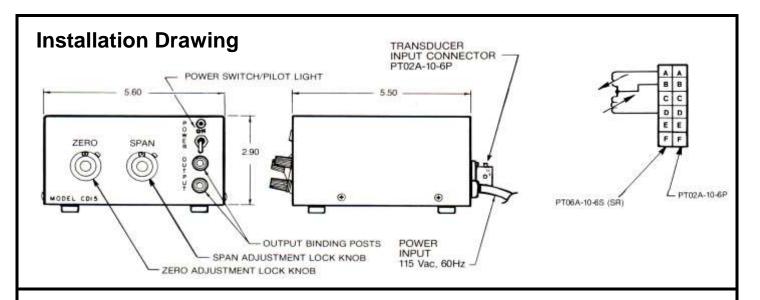
**Weight:** 3-1/2 lbs. avdp (1.58 kg)

**Transducer Input** PT02A-10-6P Bendix or equal mating connector. PT06A-10-6S

(SR) Bendix or equal, not

provided. \*

<sup>\*</sup> See Ordering Information section for available optional features.



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



Input Power
Description
95-125 Vac, 50-400 Hz (STD)
190-250 Vac, 50-400 Hz (Bare leads – No Plug)

Transducer Input Connector				
Option No.	Description			
1	PT02A-10-6P, Bendix or equal (STD)			
2	WK-4-32S, Cannon			

Output Filter			
Option No.	Description		
1	DC - 1000 Hz (STD)		
2	0.1 Hz		
3	0.5 Hz		
4	1.0 Hz		
5	25 Hz		
6	50 Hz		
7	100 Hz		

Output				
Option Letter	Description			
Α	±10 Vdc FS			
В	± 1 Vdc FS			
С	4 – 20 ma dc			
D	±5 Vdc FS (STD)			

#### Notes:

1. Mating electrical connectors may be ordered by specifying the following part numbers:

 Validyne P/N
 Mates with
 Mfg. P/N (Ref.)

 1280-1002
 PT02A-10-6P
 PT06A-10-6S-(SR)

 1310-0432
 WK-4-32S
 WK-4-21C-1/4

- 2. a. **Single unit rack mounted** to order CD15 with rack mounting option (supplied with 19"W x 5-1/4"H panel), specify "Rack Panel Option, P/N 10552-1" as a separate line item on purchase order.
  - b. Two units mounted on common panel (Dual Mount) to order rack mounting options for two units mounted on one common panel, specify "Rack Panel Option, Dual Mount, P/N 10553-1" as a separate line item on purchase order.
  - c. **Single Rack Mount Kit** to order a rack mount kit for an existing CD15, specify "Rack Mounting Kit, P/N 10522-2."
  - d. Dual Rack Mount Kit to order a rack mount kit for mounting two existing CD15's on a common panel, specify "Dual Rack Mount Kit, P/N 10553-2."

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