



Features

- 3 ½ or 4 ½ Digit Display
- Dual Transducer Inputs on CD223
- BCD output option
- Analog DC output
- Operates with variable reluctance or LVDT transducers

Description

The CD23 and CD223 Digital Transducer Indicators are designed for use with variable reluctance and differential transformer transducers. The CD23 accepts input from a single transducer, and the CD223 accepts two switch-selectable inputs, with Zero and Span controls for each input.

The indicators provide 5 Vrms, 5 kHz carrier excitation voltage to the transducer(s) and solid state circuitry to amplify, demodulate and filter the transducer output signals. A 3 ½ digit front panel display is standard, with a 4 ½ digit display optionally available.

In addition, a high level dc analog output voltage is provided, based on 1.0 Vdc output per 100 digit display counts, or 10 Vdc full-scale and 1000 counts on the display. To provide maximum flexibility, the standard display is set to read in percent of full-scale ($\pm 100.0\%$ for normal full-scale indication), permitting use with transducers of different pressure ranges and units while retaining the resolution of the full 10 Vdc analog output and 1000 digit counts.

A High-low range switch is provided to increase meter sensitivity by 10x over 0 to ± 19.99 percent of full-scale range (analog output is unaffected by the Range switch.)

Panel Mounting Options

1. To order a new CD23 or CD223 with panel mounting hardware, including 19" panel (not assembled), specify the following, *as a separate line item*;
 - a. To mount a single unit on a 19" panel, specify "Panel Mounting Option Part No. 10554-1"
 - b. To mount two units on a common 19" panel, specify "Panel Mounting Option Part No. 10555-1"
2. To order a Panel Mounting Kit to adapt existing CD23's or CD223's;
 - a. To adapt a single unit to a 19" panel, specify "Panel Mounting Kit, Part No. 10554-2" (Provides modified cabinet cover and 19" panel with necessary hardware).
 - b. To mount two units on a common 19" panel, specify "Panel Mounting Kit, Part No. 10555-2" (Provides panel with two modified cabinet covers and necessary hardware).

Specifications

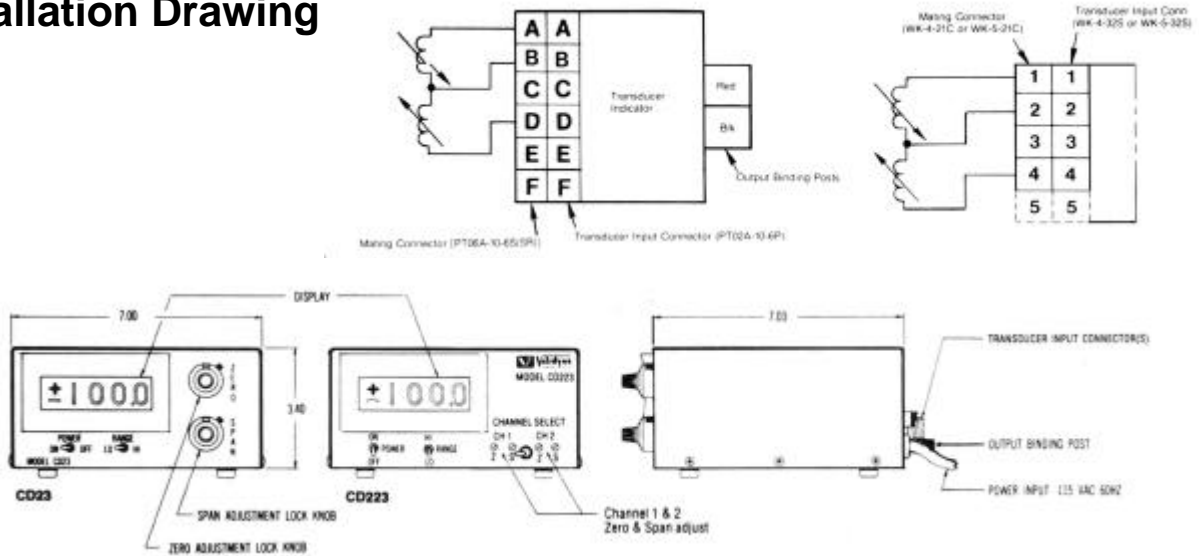
| | |
|---------------------------------------|--|
| Input Sensitivity: | Min. ± 15 mV/V for ± 10 Vdc FS analog output (100.00% FS display); adjustable by Span Control. |
| Transducer Excitation | 5V rms, 5 kHz sine wave. |
| Output: | Analog ± 10 Vdc @ 10 mA Digital: <i>High range:</i> * 1000 counts equals 100.0% FS* <i>Low range:</i> ± 19.99 counts equals 19.99% FS* |
| Output Impedance: | 10 ohms nominal |
| Frequency Response: | 0-1000 Hz (analog output) |
| Stability: | 0.1% full-scale for 30 days, $\pm 10^\circ$ C |
| Zero Adjust Range: | ± 10 mV/V |
| Temperature Range: | -10° C to $+60^\circ$ C. |
| Transducer Input Connector(s): | PT02A-10-6P, Bendix or equal: one per input channel. Mating connector(s) PT06A-10-6S(SR) not provided.* |
| Power Requirements: | 105 to 125 Vac, 60 Hz, 7 watts nominal.* |
| Weight: | 3 lbs. avdp (1.361 kg) |

Optional Features

The Ordering Information section on the following page of this Data Sheet lists available options for Input power, connectors, display types, filters, decimal point locations, etc., and a part numbering format for specifying the particular choices selected.

* See Ordering information section for available optional features.

Installation Drawing



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

CD23 – A – 1 – A – 1 – C

or

CD223 – A – 1 – A – 1 – C – C

① Input Power

② Transducer Input Connector

③ Display & Full Scale Count

Decimal Point Location –
Channel 2
(CD223 only) ⑤

Decimal Point Location –
Channel 1 (CD223 only) ⑤

Output Filter ④

① Input Power

| Option Letter | Description |
|---------------|-----------------------------|
| A | 105-125 Vac, 50-60 Hz (STD) |
| B | 12 Vdc only |
| C | 205-250 Vac, 50-60 Hz |

② Transducer Input Connector

| Option No. | Description |
|------------|------------------------------------|
| 1 | PT02A-10-6P, Bendix or equal (STD) |
| 2 | WK-4-32S, Cannon or equal |
| 3 | WK-5-32S, Cannon or equal |

③ Display & Full Scale Count

| Option Letter | Type | FS Count | BCD |
|---------------|----------|----------|----------|
| A | 3½ Digit | 1000 | NO (std) |
| B | 3½ Digit | 1999 | NO |
| C | 4½ Digit | 10000 | NO |
| D | 4½ Digit | 19999 | NO |
| E | 3½ Digit | 1000 | YES |
| F | 3½ Digit | 1999 | YES |
| G | 4½ Digit | 10000 | YES |
| H | 4½ Digit | 19999 | YES |

④ Output Filter (Low Pass)

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

Notes:

1. Mating Electrical Connectors – Mating connectors may be ordered by specifying the following Validyne part number:

| VEC P/N | Mfgr. P/N (Ref.) | Mates with (Ref.) |
|-----------|------------------|-------------------|
| 1280-1002 | PT06A-10-6S (SR) | PT02A-10-6P |
| 1310-0432 | WK-4-21C- ¼ | WK-4-32S |
| 1310-0532 | WK-5-21C- ¼ | WK-5-32S |

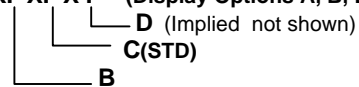
2. Mounting Options – For available mounting options, see "Panel Mounting Options" section on the previous page of this Data Sheet.

⑤ Decimal Point Location (s)

Choice of available decimal point locations is as follows:

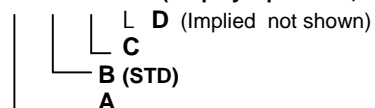
3½ digit display: 1 X. X. X. (Display Options A, B, E & F)

See Option ③
"Display"
Letters A, B, E & F



4½ digit display: 1 X. X. X. X. (Display Options C, D, G & H)

See Option ③
"Display"
Letters C, D, G & H



1. Decimal point locations shown are with Hi-Lo range Switch in Hi range position. Decimal point shifts one place to the left in Lo range position.

2. **Model CD23** – Choose **one** decimal point location.

Model CD223 – Decimal point location for **each channel** must be specified.