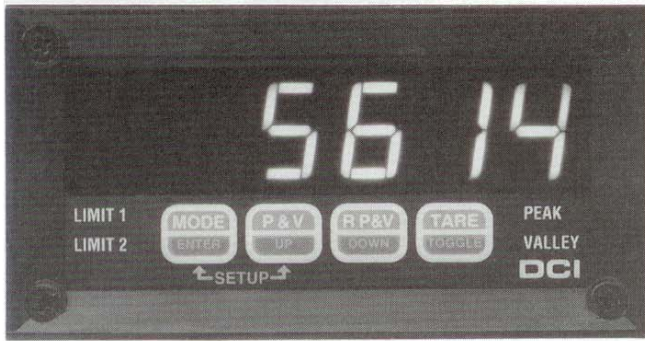


# INCLINOMETER READOUT



## MODEL 9200

### FEATURES

- Splash proof bezel with panel gasket seal
- Heavy duty aluminum case
- All programming and calibration from four front panel switches
- Optional analog output 4-20mA or 0 to 10VDC
- 4 1/2 digits, .56" red LED readout with negative indication
- Two setpoints with relay closures
- Short case, only 4" behind the panel depth
- Programmable for different inclinometer ranges from front panel
- Optional RS232 or RS485 interface
- $\pm 15$ VDC sensor excitation.

### MODEL 9200

The Model 9200 is a microprocessor based panel meter designed to take the output from a DC operated gravity referenced inclinometer with sine of angle output of  $\pm 5$ VDC. The compact unit provides excitation voltage of  $\pm 15$ VDC, conditions the inclinometer output, and displays the angle down to .001 degrees. Full scale readings of  $\pm 1.000$  to  $\pm 90.00$  degrees are programmable via the front panel switches. Resolution is automatic and readings below ten degrees display to the nearest thousandth of a degree and to the nearest hundredth at ten degrees and above.

Optional analog outputs of 0-10 VDC or 4-20mA are available and the high and low points of these outputs can be programmed via the front panel switches or even inverted, ie: 20-4mA instead of 4-20mA. Peak and valley detect with memory and reset are standard on the unit. RS232 and 485 interface options are available to interface to computers, PLC's or printers. Bezel and scratch resistant lens are sealed to meet the requirements of NEMA 4 and supplied with gasket to seal unit to panel.

### SPECIFICATIONS

#### Power Requirements:

- AC: 105 VAC to 132VAC @ 50mA (47 to 500 Hz)
- AC: 198VAC to 264VAC @ 25mA (47 to 500 Hz) optional.
- DC: 10 -15VDC @ 600mA max (optional)

#### Display:

- 4 1/2 digit, seven segment red LED 0.56" (14.3 mm) high
- Full Scale: Programmable;  $\pm 1.000$ ,  $\pm 3.000$ ,  $\pm 14.50$ ,  $\pm 30.00$ ,  $\pm 90.00$
- Accuracy:  $\pm .01\%$  or reading  $\pm 2$  counts of LSD up to 60.00 degrees.  $\pm .1\%$  of reading  $\pm 2$  counts 60.00 to 89.00 degrees.
- Polarity Indication: "-" Displayed.
- Resolution: Unit is auto ranging, below 10 degrees the resolution is .001 degree and at 10 degrees or above it is .01 degree.
- Tare: up to 50% of span from single front panel switch.

### Limit Outputs:

- Two form "A" relay closures rated 28VDC at .25 amps.

### Environmental:

- Operating Temperature Range:  $-20^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$
- Storage Temperature Range:  $-25^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- Relative Humidity: 0% to 90%, Non-condensing

### Dimensions:

- Case size "D" Refer to page 39 of catalog
- Weight: 1 pound
- I/O Terminations: Fifteen quick disconnect terminals

### Analog to Digital Conversion:

- Technique: 16 Bit Sigma Delta
- Rate: 3 Conversions/Second

### Excitation for inclinometer:

- $\pm 15$  VDC @  $\pm 15$  mA

### Analog Output: (optional)

- Voltage: 0-10V 2.5mV resolution, Linearized. 0V and 10V points are programmable via front panel switches. Maximum drive capability  $\pm 2$ mA.
- 4-20mA Linearized output, maximum load 600 $\Omega$ . The 4mA and 20mA points are programmable via front panel switches.
- CMV: 1400V Peak (AC or DC) between analog output ground and AC power line ground.

### Serial Interface: (optional)

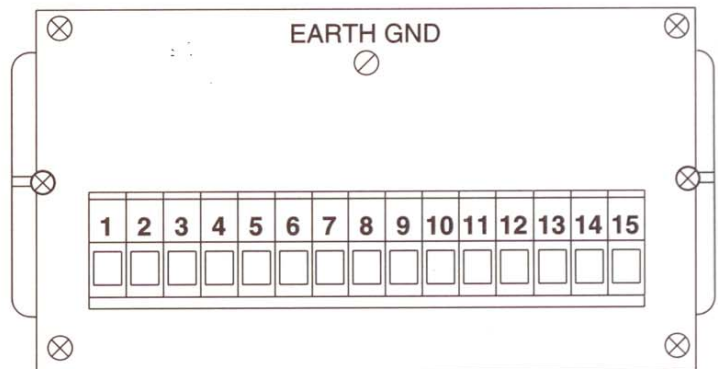
- ASCII RS232 or RS485 compatible (optional); format: 1 start bit, 8 data bits, 1 stop bit, and no parity bits. Baud rates: 9600, 4800, 2400, 1200, 600, 300, 150, & 75 programmable from the front panel. Output compatible with DCI Model 9100 remote readout.

### OPTIONS

- 01 RS232 Compatible Interface
- 02 RS485 Compatible Interface
- 05 +5VDC power 500mA max
- 08 4-20mA output max load 600 ohms
- 09 Analog output, tracks input 0-10VDC
- 12 9-18VDC power 400mA max
- 22 230VAC; 50-400 Hz input power
- 24 18-36VDC power 300mA max.
- 50 Sunlight Readable Red LED

### MODELS

9200 Inclinometer Readout



- |                  |                       |
|------------------|-----------------------|
| 1 - POWER-       | 9 - COMMON2           |
| 2 - POWER+       | 10 - +INPUT1          |
| 3 - SER485/RX232 | 11 - -INPUT1          |
| 4 - SER485/TX232 | 12 - EXCITATION PLUS  |
| 5 - DIGITAL GND  | 13 - EXCITATION MINUS |
| 6 - LIMIT1       | 14 - ANALOG OUT       |
| 7 - COMMON1      | 15 - ANALOG GND       |
| 8 - LIMIT2       |                       |