

VDC & mADC INPUT PROCESS CONTROLLER

With · Dual Alarms · Tri-State BCD

· Peak & Hold · μ P Compatible

MODEL

700



Features

- $\pm 4\frac{1}{2}$ Digit, .6" High LED Display
- Dual Digital Limits
- Modular Construction
- $\frac{1}{4}$ DIN Package
- True Ratiometric Input
- MTBF: 100,000 Hours

"Output Disable" and common "Input Disable" for bussing purposes. Positive LPTTL Logic is standard.

DECIMAL POINTS: Switch controlled decimal points are accessible from the front panel.

FULL SCALE: Full scale adjustment (12 Turn) allows user to scale the reading from the front panel.

POWER: Choice of 5VDC, 12VDC or 120/240VAC Input. When 120/240 VAC Power Supply is ordered, its primary to secondary isolation is 1200VDC or RMS and it can supply the following for external use: +5VDC $\pm 5\%$ at 20mA and -5VDC $\pm 5\%$ at 5mA. Input is 120/240VAC $\pm 10\%$ selectable.

CASE: Conforms to DIN Standard. Fabricated of extruded anodized aluminum.

RELAYS OR OPTIO-ISOLATED TRIACS: 2 each 100mA at 120VAC Resistive Load is available. They are driven from the "Low" and "High" Logic Outputs of the Digital Limits and are SPST N.O. (normally open) N.C. (normally closed) available on request.

DESCRIPTION: The 700 is a complete process controller that not only monitors the signal; but, it has the capability of controlling and linearizing it. In addition to its μ P Compatible Inputs and Outputs, its modular design allows the user to have one basic instrument and by plugging in factory calibrated option cards, create their own custom instrument.

I/O PORTS: Busy, Strobe, Hold, Under-range, Over-range, Lamp Test and Display Blank are included.

DIGITAL PEAK & HOLD/RECALL: This unique and optional feature allows the user, upon logical command, to set the instrument on a Peak & Hold Mode or Peak & Recall both for positive or negative signals. In the Normal Mode, the updated data is displayed and the greatest peak is displayed and compared (only when recalled). Since the peak detector is digital, the data is retained indefinitely unless power is lost. Its frequency response is limited to the sampling rate of the instrument.

ANALOG OUTPUT: Analog output of the linearized and conditioned input signal is available. Its amplitude is 100 μ V/LSD or $\gg 2$ VDC full scale, maximum current is 1 mADC.

DUAL ALARMS: Thumbwheel switches for easy direct reading are used to set the High & Low Limits. They are of the "Two Quadrant" type since they not only compare the absolute value, but its sign as well. The three LEDs on the front panel give visual indication of the comparison. Their logic output is available at the rear connectors.

TRISTATE BCD: Tristate full parallel BCD with individual digit select

| ORDERING INFORMATION (11/1/00) | |
|--|-----------------------------|
| MODEL 7 0 0 0 0 | |
| INPUT RANGE | POWER/RELAYS-TRIAC |
| 0 2VDC | 0 5VDC, No Relays |
| 1 20VDC | 1 5VDC, w/Relays |
| 2 200VDC | 2 12VDC, No Relays |
| 3 Ratiometric - 2VDC | 3 12VDC, w/Relays |
| 4 200 μ ADC | 4 120/240VAC, No Relays |
| 5 2mADC | 5 ... 120/240VAC, w/Relays |
| 6 20mADC | 6 5VDC w/Triacs |
| 7 200mADC | 7 12VDC w/Triacs |
| 8 500VDC | 8 120/240VAC w/Triacs |
| Connectors Included | PEAK & HOLD |
| | 0 No Peak & Hold |
| | 1 Peak & Hold |

SPECIFICATIONS AT 25°C

| | |
|-------------------------------------|---|
| Accuracy and Linearity | + 0.008% ± 1 Digit |
| Common Mode Rejection Ratio | 90 db |
| Common Mode Voltage | ± 2 V Analog Ground to Digital Ground |
| Noise Rejection | 80 dB at 50/60 Hz |
| Input Impedance | 1000MEG on 2V Range |
| Bias Current | 7 picoamps |
| Temperature Coefficient | ± 50 PPM/ $^{\circ}$ C |
| Sample Rate | 3/Sec Nominal, 20 Maximum (Specials) |
| Overload Indication | Display Flashes |
| Display | $\pm 1.9.9.9.9$ 0.6" LED Red |
| Power Requirement | 300 mA at 5VDC |
| Humidity | To 60% RH Std. to 90% special |
| 3T BCD Outputs | 6LPTTL |
| 3T BCD Inputs | 1 LPTTL |
| F.S. Adjustment | ± 2500 Counts |
| Zero & Polarity | Automatic |
| Operating/Storage Temperature | -10 $^{\circ}$ to +60 $^{\circ}$ C/-20 $^{\circ}$ to +70 $^{\circ}$ C |

| RANGE | INPUT IMPEDANCE | PROTECTION |
|----------|-------------------|------------|
| 0 & 3 | 1000 Meg Ω | 500v |
| 1, 2 & 8 | 10 Meg Ω | 200% |
| 4 | 10K Ω | 10mA |
| 5 | 1K Ω | 10mA |
| 6 | 100 Ω | 60mA |
| 7 | 10 Ω | 500mA |
| 8 | 10 Meg Ω | 1000V |

D.C. VOLTS/AMPS

