

VOLTS DC HIGH SPEED TRACK & HOLD PROCESS CONTROLLER

With · Dual Alarms · Tri-State BCD · μ P Compatible

MODEL
730



Features

- High Input Slew Rate
- 10 Giga Ohms Input Impedance
- ± 0.01 Accuracy
- $\frac{1}{4}$ DIN Package
- $\pm 4\frac{1}{2}$ Digit, .6" High LED Display
- Dual Digital Limits
- Modular Construction
- MTBF: 100,000 Hours

DESCRIPTION: The 730 is an Option Card for the 700 Series that's a very high speed track & hold function installed in the 700 mainframe converting it from a VDC DPM into a fast sample and hold instrument for applications requiring high speed data sampling. In addition, it can be commanded to be put on "Hold" retaining the data for as long as power to the 700 is maintained.

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

ANALOG OUTPUT: Analog output of the linearized and conditioned input signal is available. Its amplitude is $100 \mu\text{V}/\text{LSD}$ or ≈ 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 "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.

ORDERING INFORMATION (1/1/97)

MODEL 7 3 0-0

Note: Standard input is 2VDC full scale.
Other Ranges on Request

POWER/RELAYS-TRIAC

0	.....	5VDC, No Relays
1	.....	5VDC, w/Relays
2	.....	12VDC, No Relays
3	.....	12VDC, w/Relays
4	.....	120/240VAC, No Relays
5	.....	120/240VAC, w/Relays
6	.....	5VDC w/Triacs
7	.....	12VDC w/Triacs
8	.....	120/240VAC w/Triacs

POWER: Choice of 5VDC, 12VDC or 120/240VAC Input. When 120/240VAC 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 100mAmp 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.

SPECIFICATIONS AT 25°C

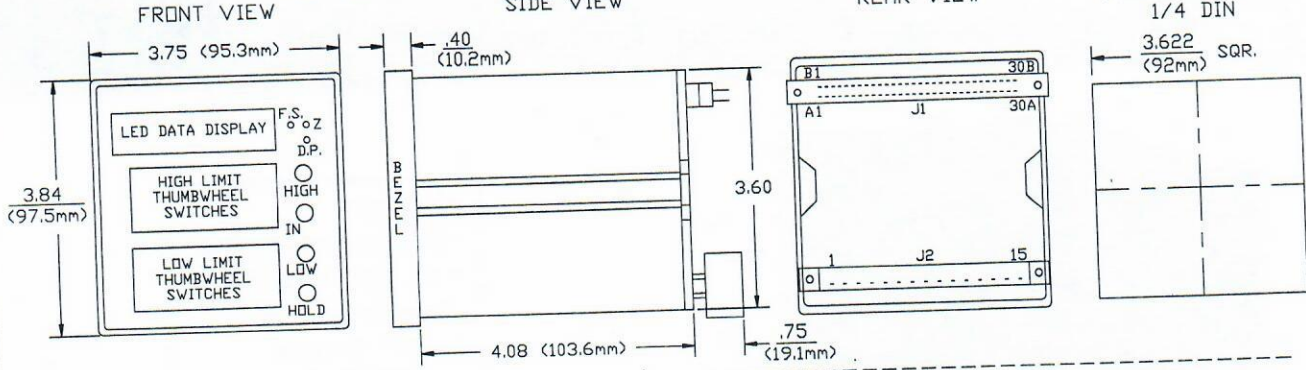
Accuracy	.....	$\pm 0.01\%$ of Full Scale
Input Impedance	.....	10 Giga Ohms
Input Bias Current	.....	50 nano Amps
Input Slew for $< 0.01\%$ F.S. Error	.....	0.1V/milli Sec.
Droop Rate	.....	None
+ Aperture Time	.....	30 nano Sec.
- Aperture Time	.....	125 nano Sec.
Logic Controls	.....	TTL/CMOS (5V)
Input Range	± 2 V Full Scale
Input Type	.....	Single Ended
Temperature Coefficient	± 50 PPM/ $^{\circ}\text{C}$
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° to $+60^{\circ}\text{C}/-20^{\circ}$ to $+70^{\circ}\text{C}$

APPLICATIONS

- Burst Testing
- Plastic Injection Molding
- Ballistics
- Safety Analysis

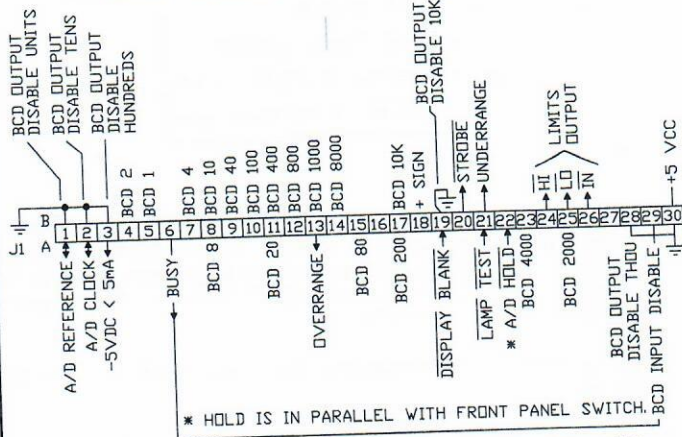
MIL-SPEC & MISC.

730 MECHANICAL & TYPICAL CONNECTIONS



TYPICAL CONNECTIONS

700 SERIES TRISTATE BCD OUTPUT & I/O PORTS INTERFACE



NOTES: INPUT DISABLE: CONTROLS BCD OUTPUT AND LIMITS OPERATION, RETAINS LAST READING WHEN AT 5VDC, FREE RUNS WHEN AT GROUND.
 OUTPUT DISABLE: MUST BE AT GROUND FOR PARALLEL OUTPUT AND LIMITS OPERATION.

FIG. 730-2 MOD. 700 AUTOMATIC OVER/UNDER LIMIT LATCH, WILL HOLD DISPLAY AND DATA IF EXCEEDED.

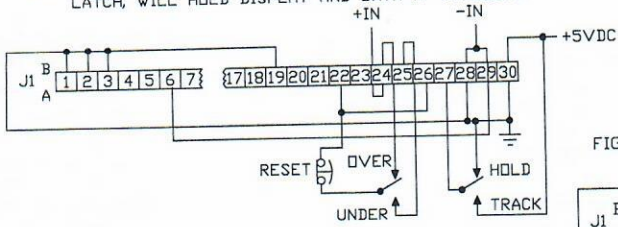
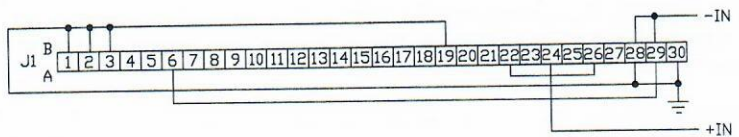
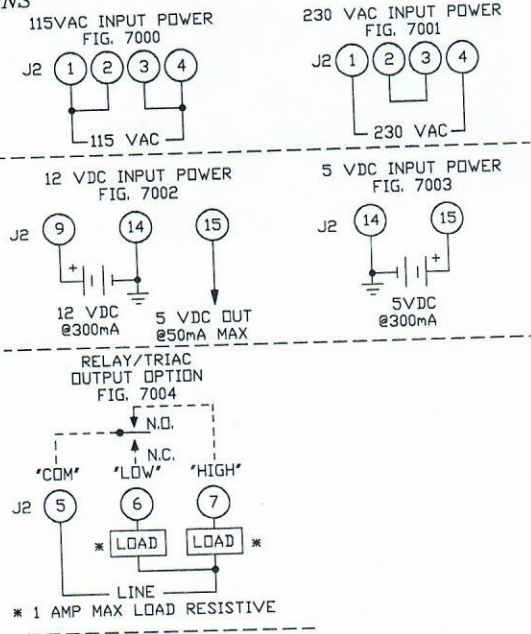


FIG. 7011



NOTES: *1. CONNECT 22B TO 29B FOR SINGLE ENDED. DELETE FOR DIFFERENTIAL INPUT ($\leq 2V$ CMV).
 2. 22B AND 23B ARE COMMON TO LOWER CONNECTOR IF USED.

F#87MC730.DWG



MOD. 730-1 TRACK & HOLD NO EXTERNAL CONTROLS NEEDED

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