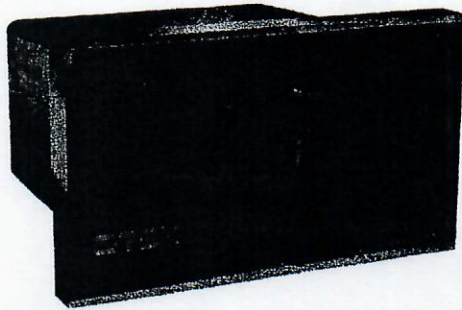


VAC/AAC TRUE RMS 4½ & 3½ DIGIT D.P.M.
With: MUX BCD · 3-State BCD · Peak & Hold
· Digital Comparator (Alarm) · µP Compatible

MODEL
358



4½ DIGIT

Features

- DC to 20KHz
- Analog DC Output
- Large 0.6" Display
- Line or Logic Powered
- Separate Connectors for Signal and AC Power
- MTBF: 100,000 Hours



3½ DIGIT

DESCRIPTION: The Model 358 is a high-accuracy True RMS to DC Conversion DPM. This DPM computes the instantaneous square of the input signal, averages it and takes the square root of the result to provide a DC voltage that is proportional to the RMS of the input. This DC voltage is available also at the connector for external use and is about 0.1mV/count for the 4½ digit and 1mV/count for the 3½ digit model. By using this method of conversion, highly accurate measurements are possible with complex input waveforms such as: non-periodic, non-sinusoidal, superimposed on DC levels and waveforms having high crest factors (ratio of Peak to RMS).

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

3T BCD: Tristate Full Parallel BCD can be grouped in 4 bit, 8 bit or 16 bit format with individual digit select "Output Disable" and common "Input Disable" lines, 10 LP Loads of Positive LPTTL Logic is standard (Negative Logic is available on request). A must for µP, Printer and UART Interface.

DIGITAL COMPARATOR: Compares Internal BCD to External BCD from any source such as Thumbwheel Switches, µP, etc. High, equal and low logic outputs are available. Two latchable Opto-isolated Triac Drivers of high and low comparison are included. Also, 10 or 100 counts of Hysteresis can be enabled. **Thumbwheel Switches** for the digital limit are available and must be mounted separately on the panel, they are rear mount type. Order P/N 89-0213 for ±3½ or P/N 89-0215 for ±4½ digits.

DIGITAL PEAK & HOLD/RECALL: With this option, the DPM will store both positive and negative peaks as it displays the current data. Since the peaks are stored digitally, there is no droop (drift vs. time). The user can recall or reset the positive and negative peaks by external logic connections.

FULL SCALE: Adjustment (15 Turns) allows user to scale the reading from front panel (behind filter). Full scale adjustment for 2V, 20V, 200V and 500V is ±25% of F.S. for high stability.

DECIMAL POINTS: Hard wired selectable at rear connector.

POWER: Choice of 5VDC (std.) or AC Input (optional). 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 ±5% at 50mA and -5VDC ±5% at 5mA. Input is 120/240VAC ±10% selectable.

CASE: U.L. approved ABS Polycarbonate 94VO rated.

SPECIFICATIONS AT 25°C

Frequency Response to 0.5% Accuracy	DC to 20KHz
Frequency Response to 1% Accuracy	20-50KHz
Zero	Internally Adjustable
Bias Current	50pA
Input Protection Voltage Range	1000 volts F.S.
Input Protection Current Ranges	200% of F.S.
Input Impedance: 50mV & 200mV	1000MΩ
2V, 20V, 200V & 500 Volts	1MΩ
200µA Range	10KΩ
2mA Range	1KΩ
20mA Range	100Ω
200mA	10Ω
Sampling Rate	3/Sec. Nominal, 20 Maximum (Specials)
Temperature Coefficient	50PPM/°C
Display	3½ or 4½ 0.6" Red LED
All Logic Outputs	1 TTL Load
Overload Indication	Flashing Display
Warm-up Time	1 Minute
Operating Temperature	-10° to +60°C
Storage Temperature	-20° to +70°C
Power Consumption	1 Watt at +5VDC
Analog Output	0-2VDC at 1mA
Triac Drivers	120VAC @ 10mA MAX

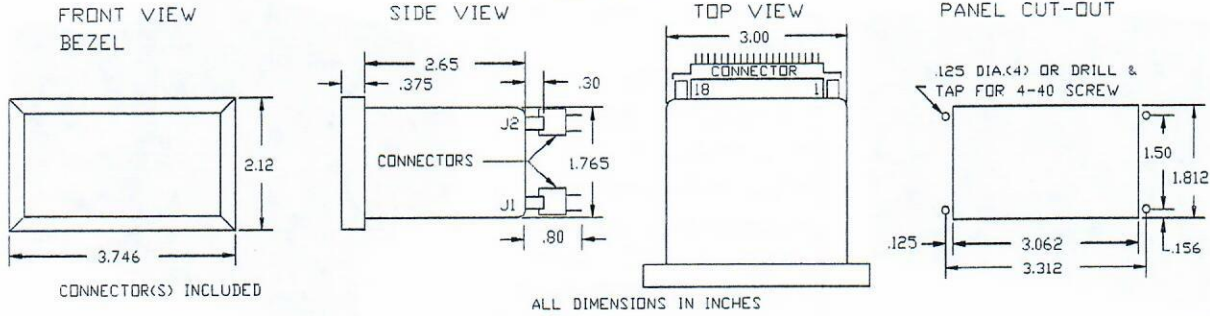
WARNING: Meter has no isolation from D.C. power, see Power Supply Description.

ORDERING INFORMATION (11/1/00)

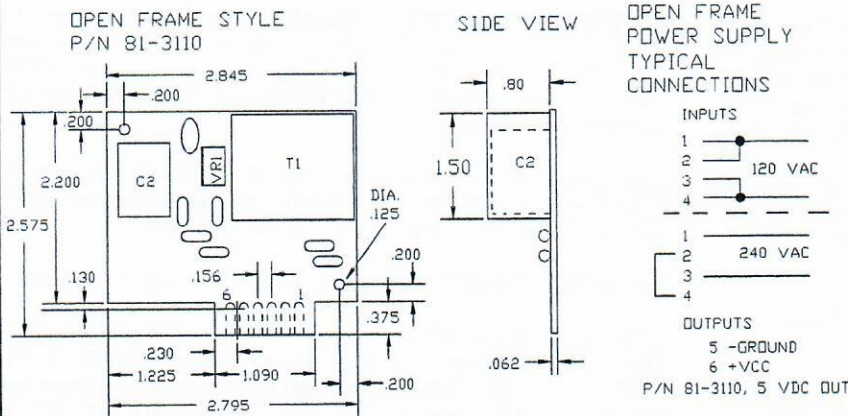
MODEL <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 5 <input type="checkbox"/> 8 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	SWITCHES FOR DIG. COMPARATOR
RANGE	0 None
0 200mV	1 ±3½ Digit
1 2 Volts	2 ±4½ Digit
2 20 Volts	
3 200 Volts	POWER OPTIONS (1)
4 500 Volts	0 5VDC
5 2V Ratiometric	1 120/240VAC
6 200µAmp	2 3T Parallel BCD
7 2mAmp	3 3T BCD w/AC (2)
8 20mAmp	4 Dig. Comp.
9 200mAmp	5 Comp. w/AC (2)
\$* 50mV	6 Peak/Hold
(50mV=1000 Counts)	7 P&H w/AC
(1) When P&H w/AC (7) is ordered power supply must be mounted externally.	DISPLAY/RESOLUTION
* Not available w/4½ display option	0 3½-2000 Counts
	1 4½-20,000 Counts
	Connectors included

358 MECHANICALS & TYPICAL CONNECTIONS

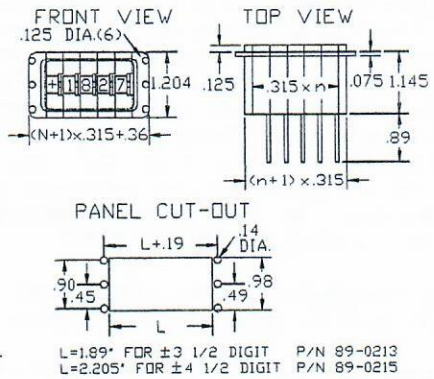
MECHANICALS



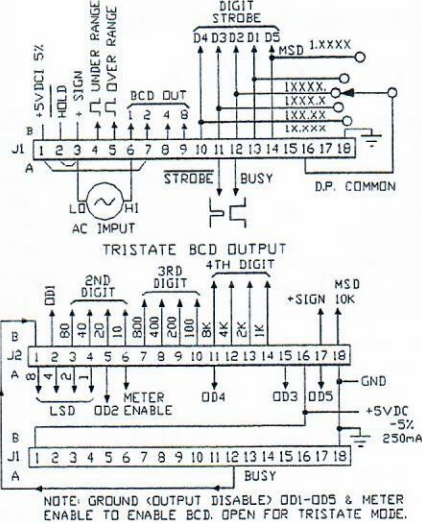
MECHANICALS FOR POWER SUPPLIES



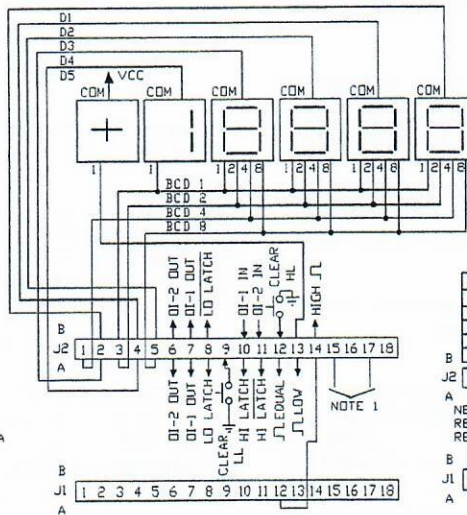
SR SERIES THUMBWHEEL SWITCHES (REAR MOUNT)



SIGNAL INPUT, MULTIPLEXED OUTPUT & DEC. POINT SELECTION



MOD. 358 TYPICAL CONNECTIONS

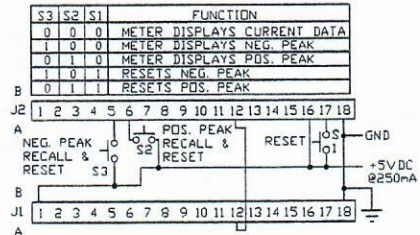


NOTE 1: CONNECT 17A TO 2B FOR 10 CTS. HYST. OR ALSO CONNECT 15A TO 4B FOR 100 CTS. HYST.

THUMBWHEEL SWITCHES WITH BLOCKING DIODES IN COMMON ANODE CONFIGURATION

F#87MC358.DWG

DIGITAL PEAK & RECALL



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