

TIMING WAVE FORM

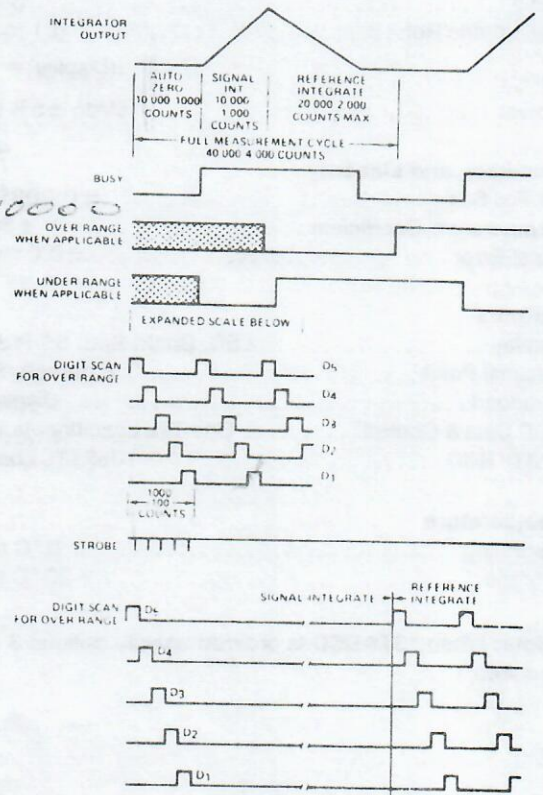


FIGURE 4. TIMING DIAGRAM



FEATURES

- Mux or Parallel "3T" BCD
- Run, Hold, Strobe, Busy and Blank Signals
- True Ratiometric
- Differential or Single Ended
- Flashing Display for Overrange
- -5Vdc @ 5mA Available
- 150 Hour Burn-in Plus 3-100% Tests
- MTBF of 50,000 Hours (calculated)
- Field Failure Rate Below 0.3%

DESCRIPTION

Series 600 is the first DPM designed for use with μP 's. Low level signal/power/current requirements are compatible with μP systems and use of LSI monolithic component technology increases reliability and efficiency. Latest LSI design also makes the Series 600 and its options easily interfaced with UART's and transducers as well as conventional solid state devices.

SPECIFICATIONS @ 25°C

MAIN FRAME

Input

Type	Differential Single Ended, Bipolar
Zero	Automatic
Impedance	1000 Megohms 200mV & 2V, 10 Megohms, all other ranges
Overvoltage	1200 Vdc Non-damaging
Sample Rate	3/Sec. Std., Others on Request
Bias Current	5 Picoamps Typical
Noise Rejection	60dB Typical
CMRR	90dB Typical
CMV	1200V RMS (AC Power), 2Vdc
Ratio	3-Wire Type
Ratiometric Ref.	0.1 to 2V Range
	(Display = $\frac{V_{in}}{V_{Ref}}$)
Power	5Vdc $\pm 5\%$ @ 300mA

Accuracy and Linearity

Of Full Scale	$\pm 0.008\% \pm 1$ Digit
Temperature Coefficient	± 30 PPM/°C
Total Error	$\pm 0.01\% \pm 1$ Digit

Outputs

Display	LED, Bright Red. 5" (13mm) High
Decimal Point	Externally Selectable
Overload	Display Flashes
BCD Data & Control	One TTL Load (Inputs & Outputs)
*"3T" BCD	10LPTTL Loads (5TTL)

Temperature

Operating	0°C to +60°C
Storage	-20°C to +80°C

*Note: When "3T" BCD is ordered specify options 3 or 4 if required.

OPTIONS

115/230Vac. 47-400Hz Internal Power Supply with 1200 Vac Isolation, $\pm 10\%$ Input; 5Vdc $\pm 5\%$ at 400mA Output. 115Vac at 1, 2 and 3, 4; 230 Vac at 2 and 4 Jumper 1 and 3 Pin 5 is Dig. Gnd. to Pin 18B, Pin 6 is +5Vdc to Pin 1A of Lower Connector.

"3State" Parallel. Buffered BCD when ordered occupies the place of the Power Supply. External connections must be made by customer to connect the MUX BCD from lower connector to top connector. Pin 1B "Input Disable" when grounded will allow input data to be transferred to latches; when at Vcc, will prevent data from being transferred. It can be connected to Pin 12A (Busy) of lower connector for auto transfer.

2B "Output Disable" normally at Logic "0"; when at Logic 1 (Vcc), it will force all outputs to a high output impedance state (3T) facilitating busing 3B thru 14B, 17B, 18B and 1A-4A Parallel BCD Output, 5A-8A MUX BCD Input, 9A-13A Digit Selects; 14A + Sign Input; 16A Vcc (+ 5Vdc); 18A Ground.

External Power Pack. Refer to page 45.

TERMINAL DESCRIPTION

Bottom Row: 1A + Signal Input; 2A - Single Input reference to Power Common (18B); 4A External Reference (optional) for Ratiometric, 0.1 to 2V Range; 8A Lamp Test; 9A Display Blank connect to 18B to enable; 11A Strobe, five negative pulses at EOC, one for each D.S. 5 μ S wide; 12A Busy, High during Conversion, Low during Auto Zero 10mS Wide; 16A D.P. connect to appropriate D.S. to light desired D.P; 18A -5Vdc out, 5mA.

Top Row: 1B + 5Vdc Input; 2B Reading Hold, Open for normal operation, connect to 18B to hold, a positive pulse over 300nS will command the 600 to make one single conversion; 3B Sign, Low for Negative Reading, High for Positive Reading; 4B Underrange, normally Low goes high when reading is less than 9% of F.S. (1800 counts), 5B Overrange, normally low, goes high when reading exceeds 19999 counts (F.S.); 6-9 B 1, 2, 4, 8 BCD Output Positive Logic 1 LPTTL load max. (400 μ A Sink); 10-14B Digit selects, DS1 is LSD, DS5 is MSD 1LPTTL Load max. (400 μ A Sink); 17B and 18B Digital Ground.

ORDERING INFORMATION

MODEL 600 X X X

Input Range	Zin	Options
0-2V	1000M	0 ... 5Vdc Power Req'd
1-20V	10M	1 ... 115/230AC Power
2-200V	10M	2 ... "3T" BCD & 5V DC
3-Ratiometric 2V ..	1000M	3 ... "3T" BCD & Open Frame
4-200 μ A	10K	4 ... "3T" BCD & Power Pack
5-2mA	1K	
6-20mA	100 OHMS	
7-200mA	10 OHMS	0 ... Standard

Note: connector(s) included with unit.