



## FEATURES

- "3T" Parallel Buffered BCD
- $\mu$ P Compatible
- Low Power Consumption
- MTBF > 45000 Hours
- 10uV Resolution
- 1000V F.S. Range
- Field Returns  $\leq 0.7\%$
- Optional Dummy Zero



## DESCRIPTION

When Model 302 is ordered, the Main Frame of the Model 300 ( see page 16 ) is used and a Multiplex to Parallel BCD Board is added. Its BCD is fully buffered and can drive 10 LPTTL or 5 TTL Loads. Its Output is 13 Bits and can be set to a High State (3T) in Full Parallel or in two groups. OD1 controls the 2 LSD and OD2 the MSD (Overrange) and second MSD. There is no standard provision for tristating the sign but can be provided on request.

## TERMINAL DESCRIPTION

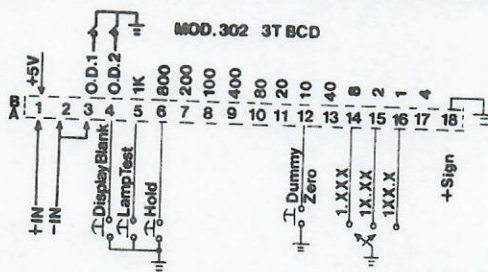
1B (Top) +5Vdc Input; 18B, Digital Ground (5V Return) 1A (Bottom) + Signal Input; 2A - Signal Input (connected internally to 18B). **Do not allow power currents to flow on this line or Offsets (Ground Loops) will occur.**

4A, Display Blank; 5A, Lamp Test; 6A, Display Hold (optional); 13A, -12Vdc out 5mA max.; 14A, 1XX.X D.P.; 15A, 1X.XX D.P.; 16A, 1.XXX D.P. (connect to 18B to Light Up); 17A, +12Vdc out 5mA max.; 18A, Sign Out (Low for +, High for -).

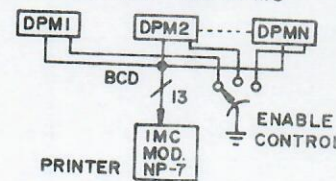
Pins 3 and 4 B, OD1 and OD2 connect to Ground (18A) for normal operation, connect +5V to force the BCD Output to Hi Z State. 5B thru 17B, BCD out as per label. **Note:** Sign Pin 18A is not tristated. Ground 12A to activate dummy zero.

## SPECIFICATIONS @25°C

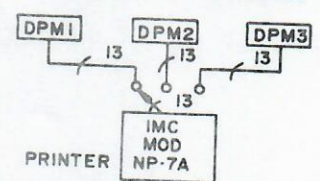
BCD Logic 0	< 0.8V @ 8mA Sink Max.
BCD Logic 1	> 1.5V @ 8mA Source
OD1 or OD2	1LPTTL Load (800uA)
Polarity	Fully Bipolar
Input Impedance	Greater than 1000 Meg OHMS (see options)
Bias Current	Less than 5pA
Normal Mode Rejection	60dB @ 50/60 Hz
Zero	Automatic
Display	0.5", High LED RED
Overrange Indication	4/Second Flashing Display
Overload Protection	To 1200 Vdc/AC Any Voltage Range
Accuracy & Linearity	$\pm 0.05\% \pm 1$ Digit
Sample Rate	4 Per Second Nominal
Step Response	100mS from Zero to Full Scale
Temperature Coefficient	30 Parts per Million
Full Scale Adjustment	25 Turn $\pm 20\%$ Adjustment
Power Requirements	5Vdc $\pm 5\%$ @ 330mA
Operating Temperature	-10°C to +60°C
Storage Temperature	-25° to +85°C



### DATA SWITCHING WITH IMC'S TRISTATED BCD DPMS



### OLD FASHIONED DATA SWITCHING 52 LINES



## ORDERING INFORMATION

MODEL 302 X X X

### INPUT RANGE SPECIFICATIONS

F.S. Input	Resolution	Input Impedance	Accuracy
\$ ..... * $\pm 20.00$ mV	10u Volts	1000 Megohms	$\pm 0.1\%$
0 ..... $\pm 200$ mV	100u Volts	1000 Megohms	$\pm 0.05\%$
1 ..... $\pm 2.000$ V	1m Volt	1000 Megohms	$\pm 0.05\%$
2 ..... $\pm 20.00$ V	10m Volt	10 Megohms	$\pm 0.05\%$
3 ..... $\pm 200.0$ V	100m Volt	10 Megohms	$\pm 0.05\%$
4 ..... $\pm 1000$ V	1 Volt	10 Megohms	$\pm 0.05\%$
5 ..... $\pm 200.0$ uA	100nA	1000 Ohms	$\pm 0.05\%$
6 ..... $\pm 2.000$ mA	1uA	100 Ohms	$\pm 0.05\%$
7 ..... $\pm 20.00$ mA	10uA	10 Ohms	$\pm 0.05\%$
8 ..... $\pm 200.0$ mA	100uA	1 Ohm	$\pm 0.05\%$
9 ..... $\pm 50$ mV	1 count	1000 Megohms	$\pm 0.1\%$

\* This range not available with built-in Power Supply, see page 45 for External P.S.

### Power

- 0 ... 5Vdc Req'd
- 1 ... 115/230 Vac
- 2 ... External Open Frame
- 3 ... External Power Pack

### Display

- 0 ... Standard
- 1 ... Dummy Zero

**Note:** 50mV range is factory scale to read 1000 counts at 50mV for standard current shunts. Other scalings available.

**Note:** Connectors are included with instrument.