MODEL 303

HI REL DIGITAL PANEL OHM METER

FEATURES

- 6 Ranges 200.0 Ω to 20MΩ
- 200mS Response
- Floating Input
- ±10V CMV Allowed
- Conditioned Analog Output

DESCRIPTION

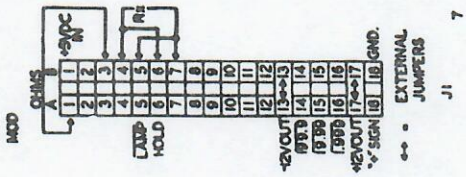
Whenever there is the need to measure resistance with accuracy and confidence of the reading, whether it is in the Lab in the production line or in the field, the 303 will perform resistance measurements of fuses, windings, thermistors (for temperature measurement), resistors and many others. The system uses a constant current source whose magnitude is determined by the range selected.

SPECIFICATIONS

Input Type	Floating
CMV	±10Vdc
Max. I Ref	1mAdc
Accuracy of Full Scale	±0.1%
Ranges	200 OHMS, 2K, 20K and 200K, 2M, 20M
Input Type	Floating
Analog Output	0-200mV @ 1mA
Common Mode Rejection	90dB @ dc, 60dB @ 50/60 Hz
Zero	Automatic
Display	0.5", High LED RED
Overrange Indication	4/Second Flashing Display
Overload Protection	To 10Vdc/AC Any Range
Accuracy and Linearity	±0.1% ±1 Digit
Sample Rate	4 Per Second Nominal
Step Response	100mS from Zero to Full Scale
Temperature Coefficient	50 Parts Per Million
Full Scale Adjustment	25 Turn ±30% Adjustment
Power Requirements	5Vdc ±5%, @ 330mA
Operating Temperature	−10°C to +60°C
Storage Temperature	−25°C to +80°C

PIN DESCRIPTION

1B +5Vdc; 18B 5V Return (Digital Ground); 3B Conditioned Analog Output connect to 1A (A-D Input); 2A Analog Common; 13A connect to 13B (−12V) 17A (+12V) connect to 17B; 14A-16A Decimal Point Ground as required; 4B and 6B connect to one end of RX; 5B and 7B connect to other side of RX.



ORDERING INFORMATION

MODEL 303 X X X

Range	Power	Display
0 ... 200.0Ω	0 ... 5Vdc Req'd.	0 ... Standard
1 ... 2KΩ	1 ... 115/230 Vac	1 ... Dummy Zero
2 ... 20KΩ		
3 ... 200KΩ		
4 ... 2MΩ		
5 ... 20MΩ		

MODEL 304

HI-REL AUTO RANGE ±3½ DIGIT DPM

FEATURES

- Auto Ranging .2 to 1KVdc
- Conditioned Analog Output
- Fast Step Response
- 10uV Resolution
- 1000V F.S. Range
- MTBF ≥50,000 Hr.
- Field Returns <0.7%
- Optional Dummy Zero

DESCRIPTION

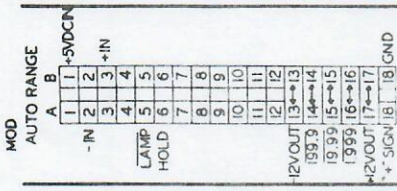
The 304 uses the Main Frame of the 300 with all its functions. (See page 16.) When the signal input is of such variable magnitude that either will overrange the instrument or be so small that resolution is uselss, you need an auto ranging instrument as offered by the 304 eliminating manual ranging or waste of time in reading useless or irrelevant data. The 304 automatically selects its most useful range shifting the appropriate decimal point and attenuating the input signal. The Conditioned Analog Output is available at the rear connector for external use.

SPECIFICATIONS @25°C

Ranges	200mV, 2V, 20V and 200V Or 2V, 20V, 200V, 1KV
Up/Down Step Response	360mS
Analog Output	0-200mV or 0-2V @ 1mA max.
Accuracy and Linearity	±0.1% ±1 Digit
Decimal Points	1.XXX, 1X.XX and 1XX.X (.1XXX Available at Edge Connector Only.)
Input Impedance	1000M on 200mV, 10M All Others
Overload Protection	1200 Vdc
Polarity	Fully Bipolar
Bias Current	Less than 5 pA
Common Mode Rejection	90dB @ dc, 60dB @ 50/60 Hz
Zero	Automatic
Display	0.5", High LED RED
Overrange Indication	4/Second Flashing Display
Sample Rate	4 Per Second Nominal
Temperature Coefficient	50 Parts Per Million
Full Scale Adjustment	25 Turn ±20% Adjustment
Power Requirements	5Vdc ±5% ° 330mA
Operating Temperature	−10°C to +60°C
Storage Temperature	−25°C to +85°C

TERMINAL DESCRIPTION

1B +5V Power; 3B + Signal Input; 2A − Signal Input (Common) 1A Conditioned Analog Output 0-200mVdc or 0-2Vdc @ 1mA max. depending on the most sensitive range; 13B connect externally to 13A (−12V) 17B connect externally to 17A (+12V). When 200mV, 2V, 20 and 200V Range is ordered connect externally 14A to 14B, 15A to 15B and 16A to 16B for Auto D.P.



Note: For 2-1KV Range connect 15B to 14A, 16B to 15A and 12B to 16A for auto dec. point.

ORDERING INFORMATION

MODEL 304 X X X

Range	Display	Power
0 ... 200mV - 200V	0 ... Standard	0 ... 5Vdc Req'd
1 ... 2V - 1 KV	1 ... Dummy Zero	1 ... 115/230 Vac