



# HBDR Series

## 3.5 Digit LED Panel Meter

### 2.3" Numeral Multifunction Meter LARGE 3½ Digit LED Display

#### Specifications

##### Display

Digits: 3 ½ digits (±1999 counts)  
 Type: 2.3" (58.4mm) - 7 segment LED  
 red, green or blue digits

##### Inputs

Set Voltage Ranges: ±200.0 mV, ±2.000 V, ±20.00 VDC  
 Configuration: bipolar & differential  
 Protection: ±350V DC,  
 (±100V DC on 200mV range)  
 Impedance: >1 MΩ, (>10 MΩ on 200 mV range)  
 Adj. Voltage Ranges: 200 mV, 5 V, 10 VDC  
 Offset Range: -1999 to +1999  
 Gain Range: 1 to 1000  
 4-20mA Loop Ranges: 4 to 20mA DC  
 Configuration: bipolar differential  
 Protection: ±30mA  
 Loop Impedance: 300Ω nominal

##### Performance

Accuracy: ±0.1% fs + 1 count)  
 Conversion Rate: 3 per second  
 Normal Mode Rejection: >30 dB @ 60 Hz  
 Common Mode Rej.: >86 dB  
 Zero Adjustment: automatic on set voltage ranges  
 Warmup: 10 minutes typical  
 Temperature Coeff.: ± 100 ppm per °C typical

##### Environment

Operating Range: -10 to 50 °C  
 Storage Range: -40 to 75 °C

##### Power Supply

BDR-999: 90 to 250 VAC @ 12 VA  
 BDR-924: 10.5 to 30 VAC/DC @ 6 VA

##### Mounting

180° gimbal mounting  
 with 30° stops, or bezel mount

##### Connection

screw terminals



#### Features

- Replaces separate display and meter modules
- Optional Red, Green or Blue LED
- Bezel-mount or 180° gimbal mounting in multiple planes  
 - wall, bench, ceiling or panel mounting
- Resistant to RF and EMI
- Rugged metal case
- 2.3" LED display visible from across the room
- Multifunction loop, set-voltage, adjustable-voltage inputs,  
 all included
- Isolated AC/DC supply works in many control applications

#### Ordering Information

Part #	Meter Power	Color
BDR-999R	90 - 250 VAC	RED
BDR-999G	90 - 250 VAC	GREEN
BDR-999B	90 - 250 VAC	BLUE
BDR-924R	10.5 - 30 VAC/DC	RED
BDR-924G	10.5 - 30 VAC/DC	GREEN
BDR-924B	10.5 - 30 VAC/DC	BLUE

#### Accessories

CVC Calibrator

**Hoyt Electrical Instrument Works, Inc.**

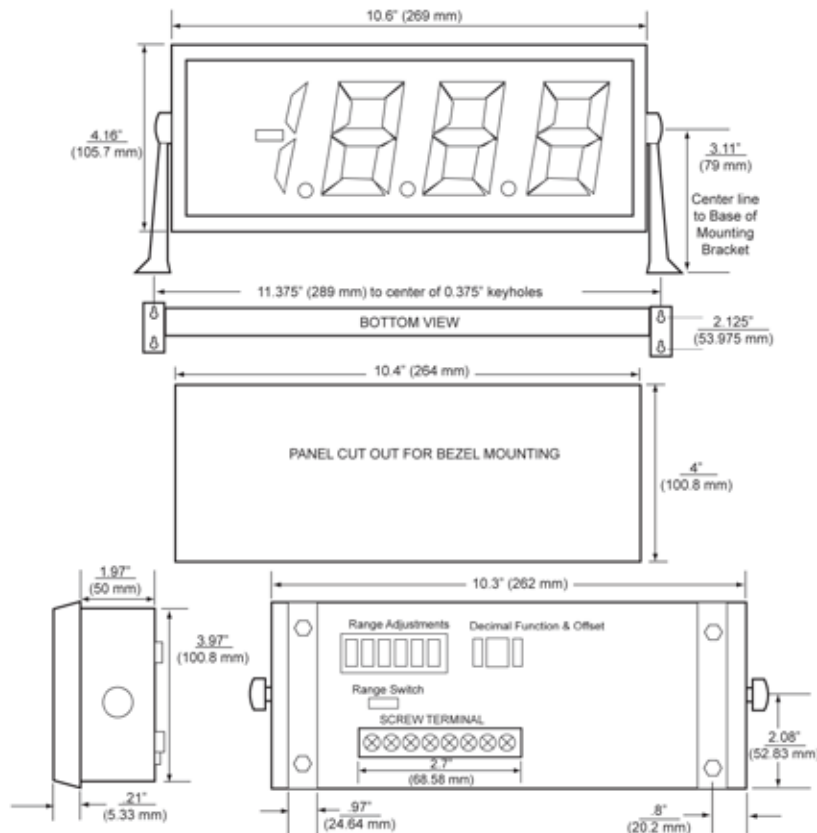
23 Meter Street  
 Penacook, NH 03303

Phone: (800) 258-3652  
 Fax: (603) 753-9592  
 Email: sales@hoytmeter.com

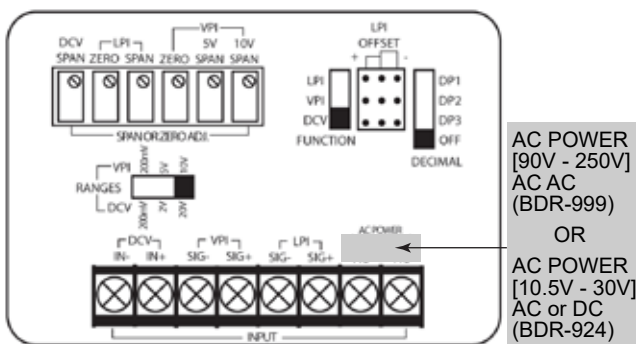
[www.hoytmeter.com](http://www.hoytmeter.com)



### Dimensions



### Wiring & Calibration



1. Set function switch in correct position (LPI, VPI, DCV).
2. Set voltage input range switch in correct position (200mV, 2V/5V, 20V/10V).
3. Attach input wires to appropriate screw terminals.
4. Attach power wires to AC/DC power screw terminals.
5. Power unit up.
6. Apply lowest input into meter, adjust correct zero pot for required reading (N/A on DCV function).
7. Apply highest input into meter, adjust correct span pot for required reading.
8. Recheck zero input and adjust again as needed.
9. Check reading at mid-point for required reading.
10. Select appropriate decimal as required on pins 14 & 15.

#### \* LPI OFFSET PIN POSITIONS

In "+" position enables user to have negative zero readings.  
 In "-" position enables user to have positive zero readings.