BN-Series

FUNCTION SPECIFIC METERS

BN-45

5VDC Compact Meter 4 1/2 Digit 0.56" LED in a 1/16 DIN Case

5VDC Powered LED Voltmeter In Compact DIN 96x24mm Case.

General Features

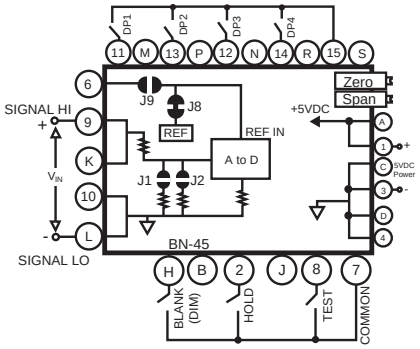
The BN-45 is a 4 1/2 digit voltmeter in a compact 96x24mm case with non-isolated 5VDC power. Another version of the BN-45, the BN-45I with internally isolated 12V, 15V or 24VDC power, is also available. The case has a short depth of just 2.83 inches (72mm) behind the panel.

The meter has three user-selectable ranges of 2V, 20V and 200V. The BN-45 may also be calibrated at the factory for these ranges or specially scaled for other ranges (see Ordering Information below). Provision to offset the zero is also available as an option for 4-20mA signals.

The display is shipped standard with red LEDs, but green LEDs or super bright LEDs for high ambient light environments are also offered. Display Segments Test, Display Blank and Hold Reading are standard features.

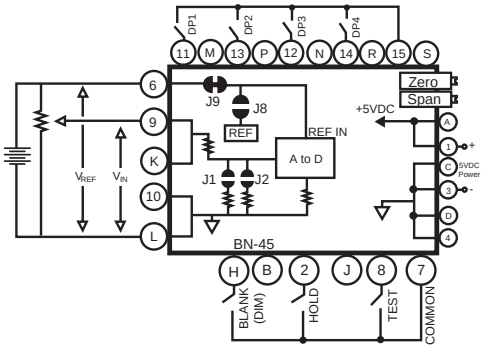
Typical Application Connections

DC Volts Single-ended
Measurement with a Resolution of 2V.



Ratiometric Voltmeter with External Reference
To use the BN-45 as a ratiometric voltmeter with an external reference, open J8 and close J9 jumpers. Connect as shown in the diagram.

NOTE: Signal Low is common to the 5VDC Power Ground.



Compatibility

The BN-Series have a matching DIN case style that is complementary to the Lynx, Leopard and Tiger family of meters. BN-Meters are the OEM's choice for economical switchboard and process indication. For economy, each model is dedicated to a specific application and designed for quick and easy installation.

INTERNATIONAL DIN CASES 1/32 1/32 1/8

Specifications

Input Configuration: .....Single ended with provision to offset zero

Full Scale Ranges: .....±1.9999VDC (standard) ±19.999VDC ±199.99VDC

Input Impedance: .....Approx. 1MΩ

Input Protection: .....±250VAC/DC for all range

Conversion Rate:.....3 readings per second

Accuracy: .....± (0.05% of reading + 3 digits)

Temp. Coefficient: .....10ppm/˚C in ratiometric mode 50ppm/˚C in 2V ranges

Maximum Resolution: .....100µV in 2V range.

Zero Stability:.....Autozeroed. 0.1 counts per ˚C

Display:.....0.56" high red LEDs. Display Hold, Blank and Test provided.

Overrange Indication: .....All digits flash to indicate overrange

Power Supply:.....5VDC @ 300mA.

Operating Temperature: ..0°C to 60°C

Storage Temperature:.....-40°C to 85°C

Relative humidity:.....95% (non condensing)

Case Dimensions: .....Bezel: 96X24 mm (3.62" X 0.95")
Depth behind bezel: 56.5 mm (2.23")
Plus 27 mm (1.06") for Push-On connector
or plus 17.5 mm (0.68") for Edge connector

Weight:.....85 gms (3 oz)
125 gms (4.4 oz) when packed

BN-Series, For Those Applications Where Space Is A Premium

BN-35 . . . . . .0.2/2/20/200V DC ranges, 3.5 digit, 5V DC Powered
BN-35BCD . . . . . .Parallel or Multiplex BCD, 3.5 digit, 5V DC Powered
BN-35CL . . . . . .4 to 20mA, Isolated 24V DC, 3.5 digit
BN-35I . . . . . .0.2/2/20/200V DC ranges, Isolated 24V DC, 3.5 digit
BN-40BCD . . . . . .Parallel or Multiplex BCD, 4.0 digit, 5V DC Powered
BN-45 . . . . . .2/20/200V DC ranges, 4.5 digit, 5V DC Powered
BN-45I . . . . . .2/20/200V DC ranges, Isolated 24V DC, 3.5 digit