



DU-35MV

**50/100/200mV DC Full Scale
3 1/2 Digit with 0.56" LEDs
in a 1/8 DIN Case**

Measuring DC signals as low as 50mV full scale, this meter is ideal for use with low voltage drop current shunts or other precision low DC measurements.

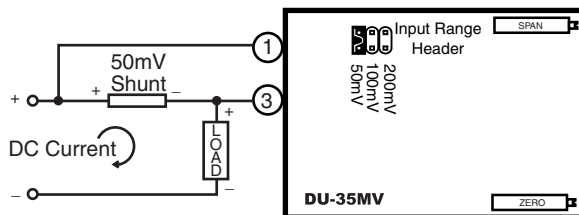
General Features

The DU-35MV is an economical, low DC voltage measuring meter with three header selectable full scale ranges of 50mV, 100mV and 200mV. The meter is particularly suited for measuring DC current using 50mV standard current shunts. After selecting a new range, re-calibration is required. Display Hold and Display Test functions are also provided.

The standard meter has a high efficiency red LED display and user selectable AC power inputs of 100V AC to 120V AC or 200V AC to 240V AC are provided. An Optional 24V AC or an auto sensing isolated AC/DC 24V switching power supply can be ordered. (See ordering information)

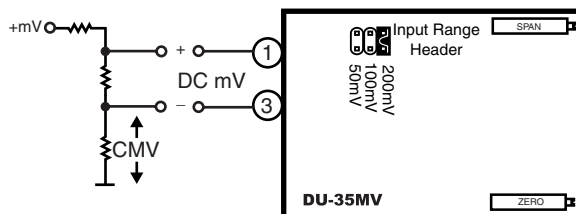
Typical Application Connections

DC Current measurement using 50mV Shunt.
Easily User Scaled to Display Currents up to 1999 Amps.



Shunt may be in Hi or Lo side of Load.

DC mV measurement with a Resolution of 100 microVolts.
Easily User Scaled to Display Voltages up to 199.9 mV.



Can be used to measure single-ended or differential inputs.
Max CMV (common mode voltage) is 50V*.
Because CMV is common with meter ground, higher CMV inputs to a max of 1KV require mechanical isolation of all contactable meter parts.

Compatibility

The DU-Series have a matching DIN case style that is complementary to the Lynx, Leopard and Tiger family of meters. DU-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.



Specifications

- Input Configuration:**Single-ended, however isolated power supply enables differential measurements up to a maximum common mode of 50V.*
- Full Scale Ranges:**Three header selectable ranges of $\pm 50\text{mV}$ DC, $\pm 100\text{mV}$ DC & $\pm 200\text{mV}$ DC full scale
- Input Impedance:**50K Ω /100K Ω /65K Ω in 50/100/200 ranges
- A/D Converter:**12 Bit Dual Slope
- Accuracy:** $\pm (0.05\%$ of reading + 3 digits)
- Temperature Coefficient:** 100ppm/ $^{\circ}\text{C}$ (Typical)
- Warm Up Time:**One minute to specified accuracy
- Conversion Rate:**3 readings per second
- Display:**0.56" hi efficiency Red or optional Green LEDs. Display Hold & Display Test are provided.
- Polarity:**Bipolar. Assumed positive, displays negative
- Decimal Selection:**Header under face plate, X•X•X•X•
- Over-range Indication:** ...The MSD digit 1 is displayed with all other digits blank
- Power Supply (std):**120/240V AC, 50/60 Hz. approx 2.5W.
(Optn) VO-DC/ISOIsolated Switcher. 9 to 36V DC/12 to 24V AC
(Optn) VO-24VIsolated Transformer 24V AC $\pm 10\%$
(Optn) VO-5V DCNon-isolated 5V DC $\pm 10\%$
- Operating Temperature:** ..-10 to 50 $^{\circ}\text{C}$
- Storage Temperature:**-20 to 70 $^{\circ}\text{C}$
- Relative Humidity:**95% (non-condensing)
- Case Dimensions:**1/8 DIN, Bezel: 96x48mm (3.78"x1.89")
Depth behind bezel 117 mm (4.61") plus 11.8mm (0.47") for Right-angled Connector or 20mm (0.79") for Straight-through Connectors.
- Weight:**11 oz., 14 oz when packed

DU-Series, the OEMs choice for switchboard and process indication

- DU-35AC1/5**AC amps, Scaled RMS. (1 or 5 Amp Internal shunt), 3.5 digit
- DU-35ACIRMS1/5** ..AC amps, True RMS. (1 or 5 Amp Internal shunt), 3.5 digit
- DU-40AC1-5**AC amps, Scaled RMS. (1 or 5 Amp Internal shunt), 4 digit
- DU-35AC**AC volts, Scaled RMS. **199.9/700V** AC Header Selectable Ranges, 3.5 digit
- DU-35ACRMS**AC volts, True RMS **199.9/700V** AC Header Selectable Ranges, 3.5 digit
- DU-40AC**AC volts, Scaled RMS. **700.0V AC** full scale, 4 digit
- DU-35HZ****15.0Hz** to **199.9Hz** or 15/500Hz. Up to 700V AC input, 3.5 digit
- DU-35**DC volts $\pm 2\text{V}/\pm 20\text{V}/\pm 200\text{V}$ Header Selectable Ranges, 3.5 digit
- DU-35MV**DC mV $\pm 50\text{mV}$, $\pm 100\text{mV}$, $\pm 200\text{mV}$ Header Selectable Ranges, 3.5 digit

- DU-45**DC volts $\pm 2\text{V}/\pm 20\text{V}/\pm 200\text{V}$ Header Selectable Ranges, 4.5 digit
- DU-45MV**DC mV $\pm 50\text{mV}/\pm 100\text{mV}/\pm 200\text{mV}$ Header Selectable Ranges, 4.5 digit
- DU-35CL**Process 4 to 20mA (**100.0**), easily user scalable, 3.5 digit
- DU-35CLE**Process 4 to 20mA (**100.0**) with 24V DC excitation, scalable, 3.5 digit
- DU-45CL**Process 4 to 20mA (**100.00**), easily user scalable, 4.5 digit
- DU-35P**Pressure, strain gage and load cell, 4 and 6 wire, 5V DC excitation, Header Selectable Sensitivity 2mV/V, 5mV/V, 10mV/V, **20mV/V**, 3.5 digit
- DU-35J/K**Order **J** or **K** Thermocouple and $^{\circ}\text{C}$ or $^{\circ}\text{F}$, 3.5 digit
- DU-35RTD**100 Ω platinum RTD, 3 or 4 wire, order $^{\circ}\text{C}$ or $^{\circ}\text{F}$ and **0.1 $^{\circ}$** or **1 $^{\circ}$** , 3.5 digit