## **Traditional Moving Coil Meter**



First Invented In The 19th Century.

## The New KEP-APM "Analog Effect" **Digital Panel Meters**

Unique and flexible. The custom curved 40 segment display is as quick and easy to read as any analog instrument, with the added precision of a digital display. Available in a wide range of voltage and current inputs. Precise measurement that is simple, modern and reliable.



**KEP-APM-DCV** 



**KEP-APM-ACV** 



**KEP-APM-ACA** 



**KEP-APM-DCA** 



**KEP-APM-DCMA** 



KEP-APM-ACMA



**KEP-APM-ACUA** 



**KEP-APM-DCUA** 

Welcome To The 21st Century!



# KEP-APM ACV/DCV

### LCD Digital Volt Meters Measures ACV or DCV







**KEP-APM-ACV** 

### **KEPAPMDCV** Features

- Powered from measured voltage between 6-300VDC.
- · 4 digit display and curved bargraph display.
- Reading, DCV accuracy +/- 2%. Measures to 2 decimal places.
- DC Volts: KEPAPMDCV
- Measured VOLTAGE input from 6-300VDC.
   A minimum voltage of 6VDC is required.
- Externally powered green backlight, Separate 12 or 24VDC power required.
- Measurement connection using a 4 way 7.5mm pitch screw terminal block.

### Specifications

Supply Voltage 6-300VDC

Display 3<sup>3/4</sup> digit LCD, 12mm

characters, 40 segment

curved display

Protection NEMA4X / IP65 front panel

only

Display response time

15mSec

Supply current
Sample rate
Sper second
6-300VDC
120mA max
Typical 2%
Operating Temp.
-10°C to +50°C
-20°C to +70°C.

### **KEPAPMACV** Features

- Powered from measured voltage between 12-440VAC.
- 4 digit display and curved bargraph display.
- Reading, ACV accuracy +/- 2%. Measures to 2 decimal places.
- AC Volts: KEPAPMACV
- Measured VOLTAGE input from 12-440VAC.
   A minimum voltage of 12VAC is required.
- Externally powered green backlight, Separate 12 or 24VDC power required.
- Measurement connection using a 4 way 7.5mm pitch screw terminal block.

### **Specifications**

Supply Voltage 12-440VAC RMS
Display 3<sup>3/4</sup> digit LCD, 12mm
characters, 40 segment

curved display

Protection NEMA4X / IP65 front panel

15mSec

only

Display response time

Supply current

Sample rate

3mA typical 3 per second

Measuring Range 12-440VAC
Backlight current 120mA max
Accuracy Typical 2%
Operating Temp. -10°C to +50°C
Storage Temp. -20°C to +70°C.

AC Measurement True RMS

Op. Freq. Range 40 to 650Hz ±2% 650 to 2700Hz ±5%

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# KEP-APM ACA/DCA

# LCD Digital Ammeters Measures AC or DC Amps



**KEP-APM-DCA** 



- Powered from measured current with voltage of 6-300VDC.
- · 4 digit display and curved bargraph display.
- Reading, DCA accuracy +/- 2%. Measures to 2 decimal places.
- DC Amps: KEPAPMDCA
- Measured CURRENT input from 0.1A-40.0A.
- A minimum voltage of 6VDC is required.
- Externally powered green backlight, Separate 12 or 24VDC power required.
- Measurement connection using a 4 way 7.5mm pitch screw terminal block.

**Specifications** 

Supply Voltage 6-300VDC

Display 3<sup>3/4</sup> digit LCD, 12mm

characters, 40 segment

curved display

Protection NEMA4X / IP65 front panel

only

Display response time

15mSec

Supply current
Sample rate
Sample rate
Sample rate
Sample rate
3 per second
0.1A-40.0A
120mA max
Typical 2%
Operating Temp.
-10°C to +50°C
Storage Temp.
-20°C to +70°C.



**KEP-APM-ACA** 

### **KEPAPMACA** Features

- Powered from measured current with voltage of 12-440VAC.
- 4 digit display and curved bargraph display.
- Reading, ACA accuracy +/- 2%. Measures to 2 decimal places.
- AC Amps: KEPAPMACA
- Measured CURRENT input from 0.1A-40.0A.
- A minimum voltage of 12VAC is required.
- Externally powered green backlight, Separate 12 or 24VDC power required.
- Measurement connection using a 4 way 7.5mm pitch screw terminal block.

**Specifications** 

Supply Voltage 12-440VAC RMS
Display 3<sup>3/4</sup> digit LCD, 12mm

characters, 40 segment

curved display

Protection NEMA4X / IP65 front panel

only

Display response time

Op. Freq. Range

Supply current 3mA typical
Sample rate 3 per second
Measuring Range 0.1A-40.0A
Backlight current 120mA max
Accuracy Typical 2%
Operating Temp. -10°C to +50°C
Storage Temp. -20°C to +70°C.

650 to 2700Hz ±5%

40 to 650Hz ±2%

# KEP-APM ACMA/DCMA

# LCD Digital Milli Ameters Measures AC mA or DC mA



**KEP-APM-DCMA** 



- Powered from measured current with voltage of 6-300VDC.
- 4 digit display and curved bargraph display.
- Reading, DCMA accuracy +/- 2%. Measures to 2 decimal places.
- DC Milliamps: KEPAPMDCMA
- Measured CURRENT input from 0.1mA-400.0mA.
- · A minimum voltage of 6VDC is required.
- Externally powered green backlight, Separate 12 or 24VDC power required.
- Measurement connection using a 4 way 7.5mm pitch screw terminal block.

### **Specifications**

Supply Voltage 6-300VDC

Display 3<sup>3/4</sup> digit LCD, 12mm

characters, 40 segment

curved display

Protection NEMA4X / IP65 front panel

only

Display response time

15mSec

Supply current 3mA typical
Sample rate 3 per second
Measuring Range 0.1mA-400.0mA
Backlight current 120mA max

Backlight current 120mA max
Accuracy Typical 2%
Operating Temp. -10°C to +50°C
Storage Temp. -20°C to +70°C.



**KEP-APM-ACMA** 

### **KEPAPMACMA** Features

- Powered from measured current with voltage of 12-440VAC.
- · 4 digit display and curved bargraph display.
- Reading, DCMA accuracy +/- 2%. Measures to 2 decimal places.
- AC Milliamps: KEPAPMACMA
- Measured CURRENT input from 0.1mA-400.0mA.
- A minimum voltage of 12VAC is required.
- Externally powered green backlight, Separate 12 or 24VDC power required.
- Measurement connection using a 4 way 7.5mm pitch screw terminal block.

### **Specifications**

Supply Voltage 12-440VAC RMS
Display 3<sup>3/4</sup> digit LCD, 12mm

characters, 40 segment

curved display

Protection NEMA4X / IP65 front panel

only

Display response time

15mSec

Supply current 3mA typical
Sample rate 3 per second
Measuring Range 0.1mA-400.0mA
Backlight current 120mA max
Accuracy Typical 2%
Operating Temp. -10°C to +50°C

Storage Temp.  $-20^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$ . Op. Freq. Range 40 to 650Hz  $\pm 2\%$ 

650 to 2700Hz ±5%

# EP-APM ACUA/DCUA

## LCD Digital Micro Ammeters Measures AC μA or DC μA



**KEP-APM-DCUA** 



- Powered from measured current with voltage of 6-300VDC.
- 4 digit display and curved bargraph display.
- Reading, DCUA accuracy +/- 2%. Measures to 1 decimal places.
- DC Microamps: KEPAPMDCUA
- Measured CURRENT input from 1μΑ-4000μΑ.
- A minimum voltage of 6VDC is required.
- · Externally powered green backlight, Separate 12 or 24VDC power required.
- · Measurement connection using a 4 way 7.5mm pitch screw terminal block.

**Specifications** 

Supply Voltage 6-300VDC

33/4 digit LCD, 12mm Display

characters, 40 segment

curved display

NEMA4X / IP65 front panel Protection

only

Display response time

15mSec Supply current 3mA typical Sample rate 3 per second Measuring Range 1μA-4000μA Backlight current 120mA max Accuracy Typical 2% -10°C to +50°C

Operating Temp. -20°C to +70°C.

Storage Temp.



**KEP-APM-ACUA** 

### **KEPAPMACUA Features**

- Powered from measured current with voltage of 12-440VAC.
- 4 digit display and curved bargraph display.
- Reading, ACUA accuracy +/- 2%. Measures to 1 decimal places.
- AC Microamps: KEPAPMACUA
- Measured CURRENT input from 1μΑ-4000μΑ.
- A minimum voltage of 12VAC is required.
- · Externally powered green backlight, Separate 12 or 24VDC power required.
- Measurement connection using a 4 way 7.5mm pitch screw terminal block.

**Specifications** 

Supply Voltage 12-440VAC RMS Display 33/4 digit LCD, 12mm

characters, 40 segment

curved display

NEMA4X / IP65 front panel Protection

only

Display response time

15mSec Supply current 3mA typical Sample rate 3 per second Measuring Range 1μA-4000μA Backlight current 120mA max Accuracy Typical 2% Operating Temp. -10°C to +50°C Storage Temp. -20°C to +70°C. Op. Freq. Range 40 to 650Hz ±2%

650 to 2700Hz ±5%

## **Common Features for KEP-APM Series**

- Digital and analog readout for precise reading.
- Linear scale even on the AC versions. AC analog meters do not have a linear scale.
- Same panel cutout as the analog meters.
   Will directly replace the analog type meter.
- Screw terminals for easy connection of wires. Analog meters have clamps or threaded bolts which are more difficult to connect to.
- Fully insulated connection terminals. Analog connections are not usually insulated.
- The meters are fully readable even in the dark (backlit version). It's difficult to read analog meters in the dark.

- Single easy fit ratchet style fixing clip. 72 size analog meters usually have 2 screw clamps which are awkward to fit in tight spaces.
- More robust against vibrations. There is no pointer to damage.
- Auto zero. The analog meters have to be manually adjusted to zero.
- NEMA4X / IP65 Sealed smooth front face for easy cleaning. Analog units have a protruding bezel and an adjustment screw which can trap dirt.

### **Dimensions**

# 

72mm x 72mm DIN with 68mm x 68mm panel cut out.

## **Ordering Information**

| Model No.  | <b>Description</b>    |
|------------|-----------------------|
| KEPAPMDCV  | DC Volt Meter         |
| KEPAPMACV  | AC Volt Meter         |
| KEPAPMDCA  | DC Ammeter            |
| KEPAPMACA  | AC Ammeter            |
| KEPAPMDCMA | DC Milli Ammeter (mA) |
| KEPAPMACMA | AC Milli Ammeter (mA) |
| KEPAPMDCUA | DC Micro Ammeter (µA) |
| KEPAPMACUA | AC Micro Ammeter (µA) |
|            |                       |

The green backlight option is supplied on all models. Separate 12 or 24VDC power is required. If the backlight is not needed, leave the backlight terminals disconnected.

