

# Electrical Parameters Measurement

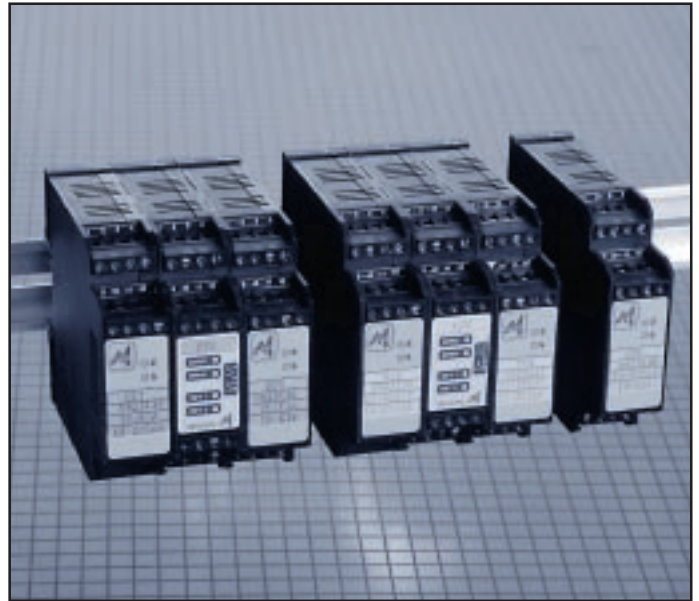
## AC POWER/CURRENT/VOLTAGE

### EP Series

The EP series is a high accuracy family of electrical parameter measurement instruments featuring full galvanic isolation. The entire series is available as a two wire loop powered transmitter or a four wire AC or DC powered signal conditioning units.

The EP series inputs and outputs can be easily configured without requiring special tools or board modifications. AC conversion is performed using either full wave rectification or via true RMS methods.

For units with current output a Test provides a 40-200 mV signal proportional to the 4-20mA output. Applying a DVM to the TEST terminals allows for monitoring and verification of the output without interrupting or disconnecting the current loop. Optional features include dual trip alarm relays (2A@250V) capability with dual LED status



#### FEATURES:

- 2 wire transmitter system OR
- 4 wire versions (AC or DC) powered
- Eliminates ground loop errors
- Over 2000 Volts isolation
- High density Din rail mounting
- Accuracy better than 0.25%
- FWR average signal conversion
- Output test terminals

#### OPTIONS:

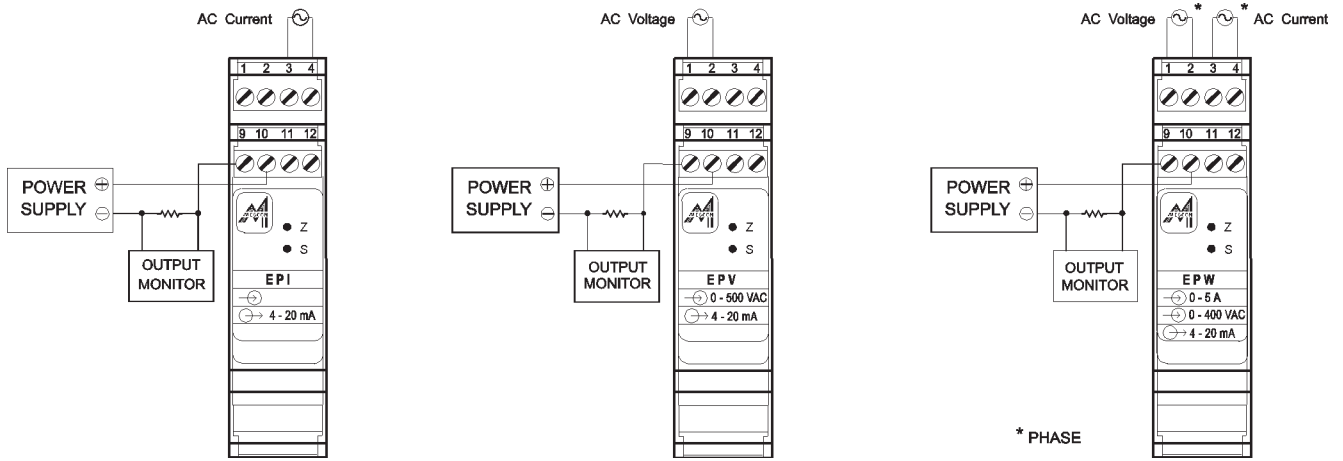
- True RMS conversion measurement
- Single or dual alarm output with LED status indication
- Custom calibration & special features.
- Input currents to 12 Amps.
- Input voltage to 750 Volts



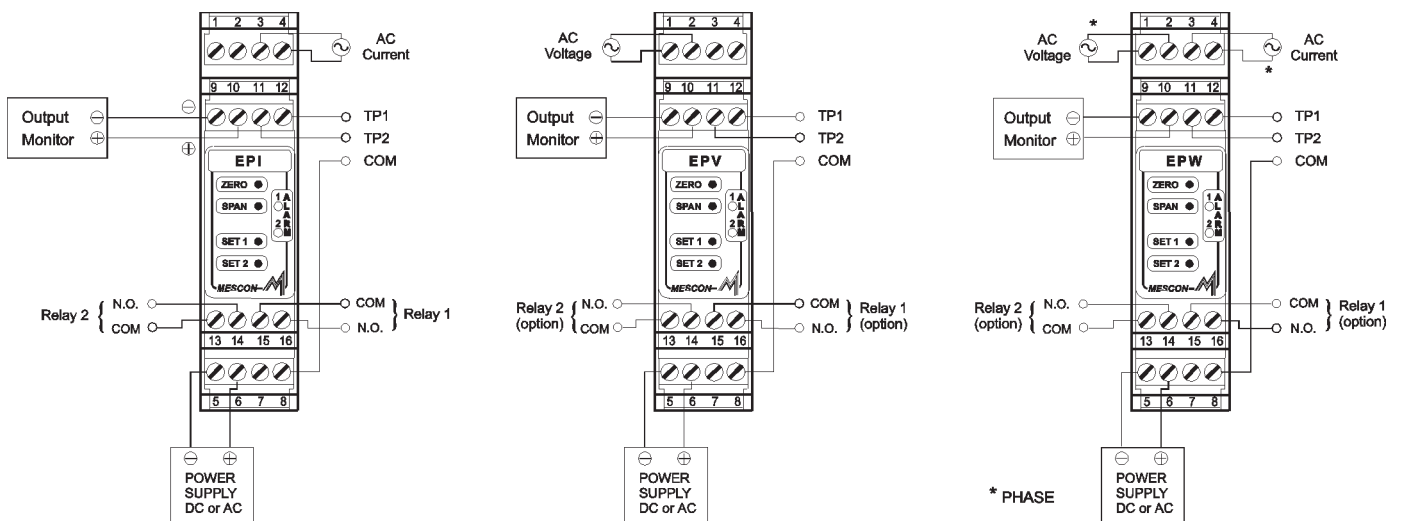
**MESCON**  
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## Loop Powered



## AC/DC Powered



## SPECIFICATIONS:

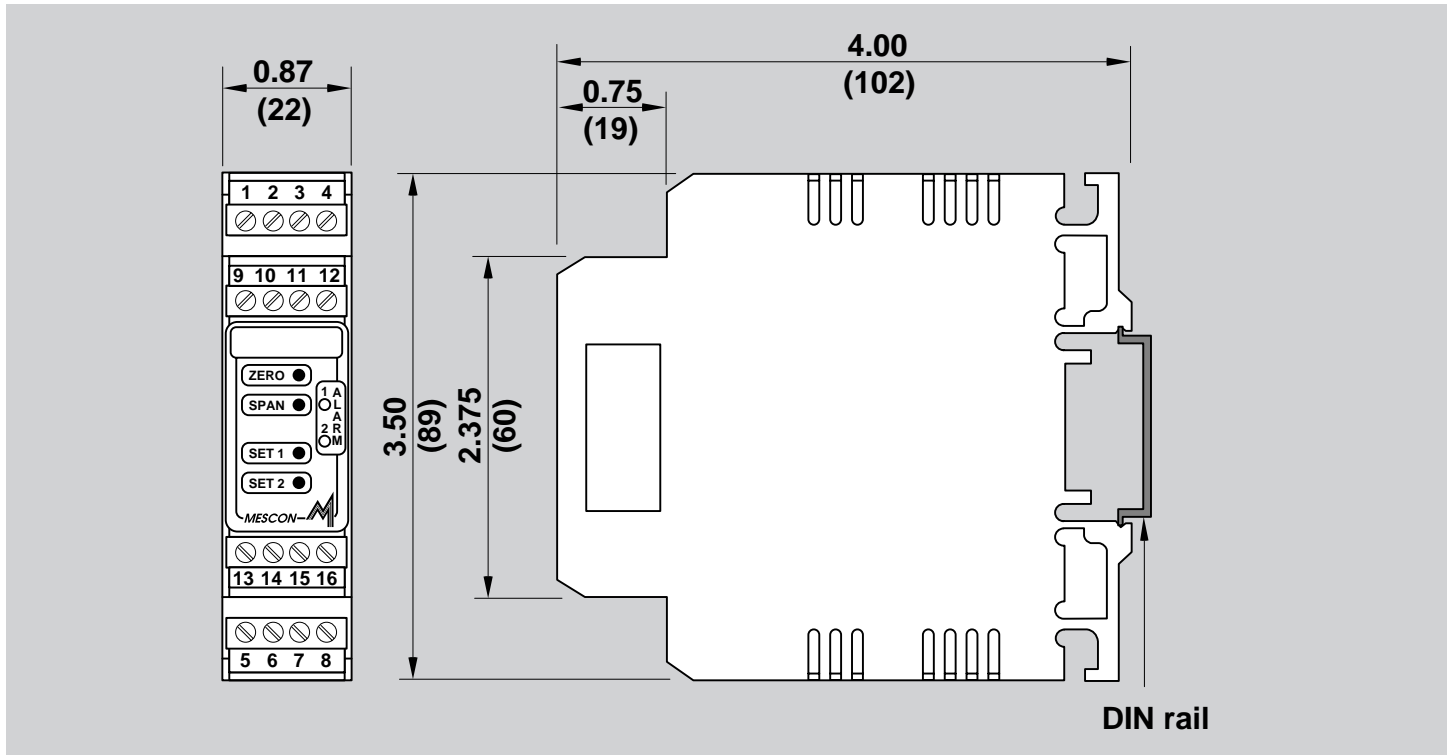
Supply Voltage .....	(Loop Powered) .....	10 - 36 VDC Polarity protected
	(DC Powered) .....	24 VDC Polarity protected
	(AC Powered) .....	115 or 230 VAC $\pm 10\%$ , 50/60 Hz.
Input Ranges .....	EPI (current) .....	Min. 0 - 1 Amp, Max. 0 - 10 Amps AC current: 40 Hz - 2 kHz
	EPV (voltage) .....	Min. 0 - 3 Volts, Max. 0 - 500 Volts AC Voltage: 40 Hz - 2 kHz
	EPW (watts) .....	AC Watts: 40 Hz - 2 kHz Voltage: to 500 V, Current: to 10A
Outputs .....	(Loop Powered) .....	4-20mA, limiting at <28mA
	(AC or DC Powered) .....	Voltage: 0-1, 0-2, 0-5, 0-10, $\pm 5$ , $\pm 10$ V std. Current: 4-20, 0-20, 0-1, 1-5 mA std.
Alarm Outputs .....	(AC or DC Powered Only) .....	0, 1, 2 set-points, adjustable dead band LEDs or relay outputs, rated 2A@250V
Isolation .....	Input/Output/Supply .....	2000 VDC or peak AC 1500 VDC for DC powered conditioners
Conversion Method .....	EPI & EPV .....	True RMS or FWR, averaging
	EPW .....	Four-Quadrant multiplying
Linearity (BSLF) .....		$\pm 0.15\%$ of Span, max.
Stability .....		$\pm 0.02\%/^{\circ}\text{C}$ , max. combined zero + span
Input Voltage Drop .....	EPI .....	<200mV for 10A input, max.
Input Voltage Impedance (K $\acute{y}$ ) .....	EPV, EPW .....	equal to input range (in Volts) 1mA burden
Input Current Voltage Drop .....	EPW .....	<200mV @ 10A input current
Operating Temperature .....	EPI, EPW .....	-20 $^{\circ}\text{C}$ - 70 $^{\circ}\text{C}$ (0 $^{\circ}\text{F}$ - 160 $^{\circ}\text{F}$ )
	EPV .....	40 $^{\circ}\text{C}$ - 86 $^{\circ}\text{C}$
Humidity .....		0 - 95%RH, non-condensing
Adjustability .....		$\pm 20\%$ on both zero and span
Mounting .....		DIN rails, 35mm

*All specifications are subject to change without notice.*

# Electrical Parameters Measurement

## AC POWER/CURRENT/VOLTAGE

### EP Series



### EP SERIES - ORDERING INFORMATION

EPX - (X/X) X - XX - X - X - X - (X/X) X

INPUT TYPE: \_\_\_\_\_ UNITS: \_\_\_\_\_

I = Current  
V = Voltage  
W = Watts

INPUT RANGES: \_\_\_\_\_

EPI - Min. 0 ÷ 1 Amp, Max. 0 ÷ 10 Amps.  
AC current  
EPV - Min. 0 ÷ 3 Volts, Max. 0 ÷ 500 Volts  
Ac Voltage  
EPW - AC Watts: Min. 0 ÷ 3 Wt, Max. 0 ÷ 5 kWt  
Voltage: to 500V, Current: to 10A

UNITS: (I, V, W) \_\_\_\_\_

LINE FREQUENCY: \_\_\_\_\_

1 - 50 Hz  
2 - 60 Hz  
3 - 400 Hz  
4 - Other(specify) \_\_\_\_\_

POWER SUPPLY: \_\_\_\_\_

1 - loop powered  
2 - 24 VDC  
3 - 115 VAC  
4 - 230 VAC

OUTPUT RANGE: \_\_\_\_\_

(low/high)

ALARM: \_\_\_\_\_

0 - none  
1 - single set -point  
2 - dual set -point

CONVERSION: \_\_\_\_\_

1 - true RMS  
2 - average

Please request our ordering and calibration diskette describing the balance of Mescon's products.



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