



**R-18B**

R-18 series multifunction network instruments can measure electrical parameters in the electrical circuit.

This meter can be used in various Industrial and Domestic purposes such as Home appliance Testing, Energy Audit, QC, Power Management, Generator / Motor Characteristics, Plant - Maintenance, LED Lights, Studying Energy Efficiency of Electrical Equipment, etc.

Size - 96x96mm

### MEASURING PARAMETERS

- VOLTAGE (V)
- CURRENT (A)
- ACTIVE POWER (W)
- REACTIVE POWER (VAR)
- APPARENT POWER (VA)
- POWER FACTOR (Cosφ)
- ACTIVE ELECTRIC ENERGY (WH)
- REACTIVE ELECTRIC ENERGY (varH)
- FREQUENCY (Hz)

### Specification:

<b>Measuring Method</b>	:TRMS using Micro controller
<b>Sampling Time</b>	:2.5 Samples Per Second
<b>Display Type</b>	:Red LED Super Bright Display
<b>Maximum Display</b>	:9999 Counts
<b>Resolution</b>	:0.001 to 1 Count Depending on range
<b>Polarity Indication</b>	:“-” is indicated for Negative Input
<b>Decimal Selection</b>	:Auto
<b>Over Range Indication</b>	:“1” or “-1”
<b>Maximum Overload</b>	:Voltage: 1.2 times continuous :Current: 2 times continuous
<b>Frequency Response</b>	:50-60Hz Standard.
<b>Environment</b>	:Calibration: 27°± 5°C :Operating: 0° ~ 50°C, RH < 95% :Storage: -10° ~ 60°C, RH < 95%

<b>VA Burden (Typical)</b>	: <5VA
<b>Dielectric Strength</b>	: 3kV at 50Hz for 1 min. between input and Power terminals. : 3kV at 50Hz for 1 min. between all terminals to case.
<b>Aux. Supply</b>	: 85-264V AC/DC

DISPLAY	RANGE	ACCURACY
Voltage (V)	0-110, 230, 440V (Any One) @ 50Hz	± 0.3% + 4dgts.
Ampere (A)	0-1A / 5A (Any One) (CTR --/1A / --5A)	± 0.3% + 4dgts.
Frequency (Hz)	40-99.99 Hz	± 0.1Hz
Power Factor (P.F.)	0.2 (Lead) - 1.0 - 0.2 (Lag)	± 2° Electrical

<b>INPUT</b>	Network		1Phase, 3 Phase 3 Wire, 3 Phase 4 Wire
	Volts	Rated Value	110VAC / 230VAC / 440VAC
		Over Load	Continuous: 1.2x, Instantaneous: 2x <20seconds
		Consumption	<1VA / Phase.
		Impedance	>500KΩ
	Current	Rated Value	1A / 5A AC
		Over load	Continuous: 1.2x, Instantaneous: 20x <1seconds
Impedance		<20mΩ	
Frequency		45-65Hz	
<b>OUTPUT</b>	Electric	Output Mode	Two channel open-collector optical coupling pulse output
	Energy	Pulse	Active 10000 imp/kwh
Constant		Reactive 10000 imp/kvarh	
Start		At rated voltage, reference frequency and the load current is More than 0.001 times Input, it can start and measure the Electric energy continuously	
Commu- nication	Output mode	RS 485 MODBUS Protocol, RTU	
	Baud Rate	1200, 2400, 4800, 9600	
	Load Ability	AC 240 V /1A	
	Switching Value Input		Four dry contact input modes
<b>DISPLAY</b>	7 SEGMENT BRIGHT RED LED DISPLAY, FIVE ROWS		
<b>ACCURACY</b>	Voltage, Current		±(0.5%FS + 2dgts)
	Watts, Var, KVA		±(0.5%FS + 2dgts)
	Frequency		± 0.1 Hz
	Power Factor		± 0.01 PF
	Active Energy		± 0.5%
	Reactive Energy		± 2.0%
<b>SUPPLY</b>	Auxillary Supply	AC/DC 85~264 V, <5VA	
<b>SAFETY</b>	AC Breakdown	Bet.Input or Output and Supply : 2KV 50Hz /1 min.	
	Voltage	Bet .Input & Output :1KV 50Hz /1 min.	
	Insulation Resistance	Bet.Input / Output / Supply and casing: 20MW@500V DC.	
<b>OPERATING CONDITION</b>	Temperature		Operating : -10° ~ 50° C
			Storage: -25° ~ 70° C
	Humidity		< 85% RH, free of moisture and gas

