



MECO-G®

**THINK METERS
THINK MECO-G**

SINCE 1982

An ISO 9001-2015 Certified Company

4 YEARS

Affordable, Accurate, Precise & Reliable instruments... since 1982

Pioneers and Experts in Test and Measuring Instruments...

**GOLIYA INSTRUMENTS PRIVATE LTD.
MUMBAI**

www.goliyainstruments.com

We at **GOLIYA INSTRUMENTS PRIVATE LTD.** offering **Affordable, Reliable, Accurate and Precise** instruments for over four decades. Established in the year 1982 with personals having over 50 years of experience in the field of Electrical and Electronic Test and Measuring Instruments.

Slowly & Steadily, under the dynamic leadership of our Managing Director Mr. Abheykumar P. Goliya, who is a Graduate in Electronics from IIT - Indian Institute of Technology, Kharagpur (leading Institute recognized worldwide), the company has added many products to its range and now has a full range of Electrical and Electronic Test & Measuring and Testing Instruments.

Our in house R & D for development of new products and up-gradation in the functionality and quality of our products have lead to some of the products being developed and introduced for the first time in India. Our team of skilled and trained personnel is equipped with complete in-house facilities to develop, design and manufacture world class equipments.

As a result of our never ending quest for Quality, the efforts were rewarded and now the company is **ISO 9001:2015** Certified.

The **Make In India** campaign started by the Government of India has us in very high spirits as we use state of art electronics along with indigenously developed intelligent software / firmware in creating products that are ideal for the Power, Renewable Energy, Solar and Automotive Sectors.

Keeping in mind the various industry segments, we have the following instruments to offer:-

- Digital Multimeters
- Digital Clamp Meters / Tongtester
- Digital Lux Meters
- Digital Infrared Thermometer
- Digital Insulation Tester
- Digital Tacho Meter (RPM)
- Power Guard
- Vibration Meter
- LCR Meter
- Electromagnetic Radiation Meter
- Sound Level Meters
- Multifunction Meters
- Automatic Power Factor Controllers
- Power Line Transducers
- Digital Panel Meters & Modules
- Digital Portable Multifunction Meters
- Digital Portable Meters
- Analog Portable Meters
- Analog Panel & Switchboard Instruments
- Analog Portable Electrodynamicometer Type Watt / Var / P.F. Meter

These instruments are very well accepted by Electricity Boards, Control Panel Manufacturers, Fertilizer Plant, Steel Plants, Railways, Refineries, Plastic Machine manufacturers etc and all leading OEM's. The company's products are approved by leading consultants in India.

A majority of Technical Educational & Research Institutions all over India use our products in their laboratories and research labs.

EXPORTS:

It is a great honour that our products are well accepted overseas and have satisfied customers in almost all countries in Europe and also countries like Egypt, Iran, Iraq, Chile, Italy, South Korea, Syria, Dubai, Saudi Arabia, Kuwait, Malaysia, Thailand, Sri Lanka etc.

QUALITY CONTROL:

The company's motto has always been to deliver Quality product to customer satisfaction. We have world famous sophisticated and accurate standard instruments from FLUKE, YOKOGAWA, and Agilent Technologies etc. to maintain the quality of our products. Our Engineers are trained in many companies overseas.

We seek strategic alliance with companies worldwide, who can efficiently market our products in their local markets or with companies who wish to channel their products in India through our marketing network.

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- 9 3% Digit 6,000 Counts Trms Autoranging Digital Multimeter



Test and Measuring Instruments - Clampmeters / Tongtesters

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- 10 3% Digit 6,000 Counts Trms Autoranging Digital Clamp-meter 600A AC / 600A AC/DC
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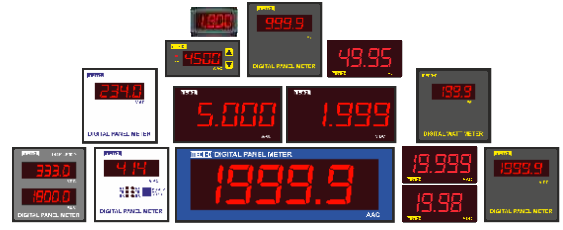
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Quality Control Facilities

For Electrical / Electronic QC

- + Fluke 5500A Calibrator
- + Yokogawa 2558 AC STD Source
- + Yokogawa 2553, 2563, 2564 DC STD Source
- + Yokogawa 2533 AC / DC STD Power Meter
- + AC 3 Phase Test Bench
- + AC Single Phase Test Bench
- + YEW 2768 Wheatstone Bridge
- + HP 34401A 6½ Digit Multimeter
- + Multifunctional Calibrator MECO-G CAL9
- + Multifunctional Calibrator 90DQ
- + DIT99E
- + OSAW Senior Kelvin Double Bridge

- + Resistor Banks for MΩ / GΩ for Insulation Tester Measurement
- + Jigs / Fixtures for PCB Assembly, Calibration & Final Testing

For Mechanical (Dimensional) QC

- + World class Measuring Instruments & Facility with an
- + In-House Tool Room

For Type Test QC

- + Equipment for Damping Test
- + Life Tester
- + High Voltage Tester
- + Insulation Tester
- + Stereo Microscopes 40X, e-Microscope
- + Oscilloscopes, DMMs etc.

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Associated with Professional Bodies / Association:

- a) Indian Electrical & Electronics Manufacturers Association, Mumbai.
- b) Institute of Electrical & Electronic Engineers, U.S.A.
- c) Engineering Export Promotion Council, New Delhi.

Directors:

1. **Mr. Abheykumar P. Goliya** (CMD)
2. **Mrs. Pramila A. Goliya** (PERSONNEL)
3. **Mr. Ajay A. Goliya** (CEO)

Year of Establishment:

1982

Registered Address:

311, Bharat Industrial Estate,
T.J. Road, Sewree, Mumbai-400 015 Maharashtra, India
Tel: 0091-22-24149657, 24179467
Fax: 0091-22-24130747
E-mail: info@goliyainstruments.com
Web: www.goliyainstruments.com / www.meco-g.com

Authorised Service Center:

Registered Address:

M/s. GOLIYA IMPEX
316, Bharat Industrial Estate,
T.J. Road, Sewree, Mumbai-400 015 Maharashtra, India
Tel: 0091-22-24149657, 24179467
Fax: 0091-22-24130747
E-mail: repairs@goliyainstruments.com
Web: www.goliyainstruments.com / www.meco-g.com

Banker:

1) M/s. Canara Bank,
12, G.S. Lane, Nr. Shishu Mandir,
Parel - 400012, Mumbai, Maharashtra, India
A/c. No: 0110261020605, IFSC Code: CNRB0000110

2) M/s. Kotak Mahindra Bank Limited
Raj Niketan, Bhandarkar Road,
Matunga - 400019, Mumbai, Maharashtra, India
A/c. No.: 1212600708, IFSC Code: KKBK0000644

MSME Registration (Micro Enterprise)

Registration No. 27/023/12/00048 dt. 15-07-2008
Udhyam Aadhar Number: MH-19-0071060

NSIC Registration:

NSIC/MUM/GP/RS/G-129/MH dt. 25/08/2020

ISO 9001:2015 Certification

Certificate No. IN80709A dt. 11-09-2020

Small Scale Industry Registration

Registration No. 11-07-19657-PMT-SSI dt. 11-03-1985

GST

27AAACG1870H1ZQ

Permanent Income Tax No. (PAN)

AAACG1870H

Company's ACT

26691 dt. 18-03-1982

Factory License

MUMBAI 2(m)(i)32109 / G-534

Importer Exporter Code:

0388031247

Echelon of Standards at MECO-G

Acc.	Para	Resistance	D.C.Volts	D.C.Amps	A.C.Volts	A.C.Amps	Watt	Var	P.F. / φ	Hz	Capacitance	Temperature
0.002%		H.P. 34401A D.M.M.	H.P. 34401A D.M.M.									
0.003%												
0.0035%			• Fluke 8846A D.M.M. • Fluke 5500A Calibrators									
0.005%												
0.006%										H.P. 34401A DMM		
0.008%												
0.01%		• YEW 2768 Wheatstone Bridge		Fluke 5500A Calibrator								
0.015%										MECO-G CAL9 Calibrator		
0.02%			• YEW 2553 D.C. Voltage Current std. • 90DQ Calibrator	• YEW 2553 D.C. Voltage Current std. • 90DQ Calibrator			YEW 2885 Watt Convertor					
0.025%												
0.03%			MECO-G CAL9 Calibrator	MECO-G CAL9 Calibrator	• Fluke 5500A Calibrator • MECO-G CAL9	MECO-G CAL9 Calibrator				• MECO-G CAL9 Calibrator		
0.035%												
0.05%			• H.P. 34401A D.M.M.		• MECO-G 9 Cal. • 90DQ Calibrator	• MECO-G 9 Cal. • 90DQ Calibrator						
0.06%						Fluke 8846A D.M.M.						
0.07%			Shunt 50A/100mV(2mV)									
0.08%					YEW 2558 A.C. Volt/Amp. Source	YEW 2558 A.C. Volt/Amp. Source	Fluke 5500A Calibrator	Fluke 5500A Calibrator				
0.1%	OSAW INDIA DECADE BOX				Fluke 8846A D.M.M.	H.P. 34401A D.M.M.	YEW 2533 Power Meter			• MECO-G 9 Cal. • 90DQ Calibrator		Fluke 5500A Calibrator
0.15%		YEW 2563 Voltage Unit										
0.2%		• MECO-G 9 Cal. • 90DQ Calibrator		YEW 2564 Current Unit			Fluke 5500A Calibrator	Fluke 5500A Calibrator	Fluke 5500A Calibrator			Fluke 5500A Calibrator
0.5%			YEW Analog Meter	YEW Analog Meter	YEW Analog Meter	YEW Analog Meter	YEW Analog Meter					

Industry Segments

Automobile	Food Processing	Refractories
Automation	Hotel & Tourism	Rubber & Plastic
Aviation	Mining & Metallurgy	SCADA
Cement	Oil / Gas / Petroleum	Shipping
Cellular Service Provider	Paper	Sugar Plants &
Chemical	Petrochemical	Distilleries
Defence	Pharmaceutical	System Houses /
Educational Institutions	Power Utilities	Integrators
EEE Manufacturer	R & D Organization	Telecommunication
Fertilizer	Railway	Textile Plants / Mills

Exports To More Than 30 Countries

Australia	Germany	Kenya	Russia
Bahrain	Ghana	Kuwait	Saudi Arabia
Bangladesh	Greece	Lebanon	Singapore
Bahrain	Iran	Malaysia	Spain
Chile	Iraq	Morocco	South Africa
Dubai	Indonesia	Netherlands	Syria
Egypt	Israel	Oman	Thailand
Ethiopia	Italy	Philippines	UK
France	Kampala	Qatar	

On Approved List of Major Consultants and Customers

ACC Limited	C&S Group	ISRO	NIT
Airport Authority Of India (AAI)	Deccan Cement Limited	JVVNL	NPCIL
Air India Limited	Dept. Of Atomic Energy (BARC)	Jyoti Ltd	NTPC
Amara Raja Group	DMRC	KELTRON	ONGC
Ambuja Cement Ltd.	ECIL	KPCL	Orient Paper Mills Limited
Andhra Sugars Ltd.	EMCO	KSEB	PCI Ltd.
APGENCO	Essar Steel Limited	Madras Cement Ltd	PDIL
Bajaj Auto Limited	GAIL India Limited	Mahanagar Gas Limited	PGCIL
BEST	GE	Mahindra & Mahindra Ltd	Polycab Cable
Bharati Shipyard Ltd.	Godrej & Boyce Group	Maruti Udyog Limited	Popular Switchgear
Bharti Airtel Ltd.	Grasim Industries Limited	Megawin Switchgears Pvt. Ltd.	Raychem RPG Group
BHEL	GSEB	Ministry Of Defence	RCF Limited
Blue Star Limited	Hindalco Industries Limited	MPMKVVCL	Reliance Energy Ltd.
BPCL	Hindustan Zinc Limited	MRPL	RIL
BSES	HPCL	MSEDCL (MAHADISCOM)	RRVPL
BSNL	ICICI Bank	MSETCL	SAIL
Chemtrols	IIT	MTNL	Sardar Patel College Of Engg.
Chloride	Indian Oil Corporation Limited	NPC	Tata Chemicals Limited
C.R.I. Pumps Private Limited	Indian Ordnance Factory	NALCO	Tata Power Limited
Cochin Ship Yard	Indian Railways	NFL	TELCO Limited
Crompton Greaves Limited	IPCL	NHPC	And Many More....



TEST AND MEASURING INSTRUMENTS

Affordable, Accurate, Precise & Reliable instruments... since 1982

Pioneers and Experts in Test and Measuring Instruments...

THINK METERS, THINK MECO-G

**GOLIYA INSTRUMENTS PRIVATE LTD.
MUMBAI**

Preliminary
Data



R-36B



R-36C



R-801T

3 ½ digit 1999 counts LCD Display	
Manual Ranging, Data Hold, APO, Back Light, Resistance Check, Diode, Continuity Check, Battery Check	
Ranges	
DC Voltage	200mV/2V/20V/200V/1000V
Accuracy	± (0.5%+3dgts) on 200mV ± (0.8%+2dgts) on 2000mV - 200V ± (0.8%+3dgts) on 1000V
AC Voltage	200V/750V
Accuracy	± (2.0%+10dgts) on all ranges
DC Current	200µA/200mA/10A
Accuracy	± (2.0%+5dgts) on 200µA -200mA ± (2.5%+5dgts) on 10A
Resistance	200Ω/2000Ω/20KΩ/200KΩ/ 2MΩ/20MΩ
Accuracy	± (1.5%+5dgts) on 200Ω ± (1.0%+4dgts) on 2000Ω -200KΩ ± (1.0%+10dgts) on 20MΩ
Battery Test	1.5V / 9.0V / 12.0V
Resolution	0.001V on 1.5V range 0.01V on 9.0V / 12.0V range
Over Range	"1" will be displayed.
Meas. Rate	2-3 times / sec
Op. Temp.	0°C ~ 40°C, 0-75% RH
Storage Temp.	0°C ~ 50°C, 0-75% RH
Op. Freq.	40 ~ 400Hz
Sp. Function	HFE Test, Diode Test, Audible Continuity Test Data Hold, Backlight
Power	9V Battery, NEDA 6F22 Type
Low Battery	"" is indicated
Dimensions	130 x 73.5 x 35mm (approx.)
Weight	150gms. Incl. Battery (approx.)
Accessories	Test Leads, Operational Manual

3 ½ digit 1999 counts LCD Display	
Manual Ranging, Data Hold, APO, Temperature Check, Back Light, Diode, Continuity, Resistance Check	
Ranges	
DC Voltage	200mV/2V/20V/200V/1000V
Accuracy	± (0.5%+3dgts) on 200mV ± (0.8%+2dgts) on 2000mV - 200V ± (0.8%+3dgts) on 1000V
AC Voltage	200V/750V
Accuracy	± (2.0%+10dgts) on all ranges
DC Current	2000µA/20mA/200mA/10A
Accuracy	± (2.0%+5dgts) on 2000µA -200mA ± (2.5%+5dgts) on 10A
Resistance	200Ω/2000Ω/20KΩ/200KΩ/ 2MΩ/20MΩ
Accuracy	± (1.5%+5dgts) on 200Ω ± (1.0%+4dgts) on 2000Ω -200KΩ ± (1.0%+10dgts) on 20MΩ
Temperature	-20° ~ 1370°C / -4°F ~ 2498°F
Resolution	± (3.0°C+2dgts) upto 150°C ± (3.0°C+2dgts) above 150°C
Over Range	"1" will be displayed.
Meas. Rate	2-3 times / sec
Op. Temp.	0°C ~ 40°C, 0-75% RH
Storage Temp.	0°C ~ 50°C, 0-75% RH
Op. Freq.	40 ~ 400Hz
Sp. Function	HFE Test, Diode Test, Audible Continuity Test Data Hold, Backlight
Power	9V Battery, NEDA 6F22 Type
Low Battery	"" is indicated
Dimensions	130 x 73.5 x 35mm (approx.)
Weight	150gms. Incl. Battery (approx.)
Accessories	Test Leads, Operational Manual K-Type Thermocouple Leads

3 ½ digit 6000 counts Trms LCD Display	
Auto Ranging, Data Hold, APO, NCV, Back Light, Temperature, Resistance Diode, Continuity Check, Battery Check	
Ranges	
DC Voltage	600mV / 6V / 60V / 600V
Accuracy	± (0.5%+1dgts) on 600mV ± (0.8%+1dgts) on 6V - 600V
AC Voltage	600mV / 6V / 60V / 600V
Accuracy	± (1.2%+3dgts) on 600mV ± (0.8%+3dgts) on 6V - 600V
DC Current	600µA ~ 10A
Accuracy	± (1.0%+5dgts) on 600µA - 600mA ± (1.5%+5dgts) on 6A - 10A
AC Current	600µA ~ 10A
Accuracy	± (1.0%+5dgts) on 600µA - 600mA ± (1.5%+7dgts) on 6A - 10A
Resistance	600Ω/6KΩ/60KΩ/600KΩ/ 6MΩ/60MΩ
Accuracy	± (1.0%+2dgts) on all ranges
Temperature	-40°C ~ 1000°C / -40°F ~ 1832°F
Accuracy	± (1.0%+2dgts) on all ranges
Frequency	100Hz/1kHz/10kHz/100kHz 1MHZ/10MHZ
Resolution	± (0.5%+3dgts) on all ranges
Duty Cycle	0.01% - 99.9%
Capacitance	6nF/60nF/600nF/6µF/60µF/ 600µF
Accuracy	± (4.0%+3Dgts) 6nF ~ 60µF ± (5.0%+10Dgts) 600µF
Power	9V Battery, NEDA 6F22 Type
Low Battery	"" is indicated
Dimensions	145 x 70.0 x 35mm (approx.)
Weight	180gms. Incl. Battery (approx.)
Accessories	Test Leads, Carrying Case, Operational Manual, K-Type Thermocouple leads

Preliminary
Data



R-603A



R-603B



R-909T

3 ½ digit 1999 counts Trms LCD Display	
Manual Ranging, Data Hold, APO, Live	
Frequency, Capacitance, Square Wave O/P	
Diode, Continuity, Resistance Check	
Ranges	
DC Voltage	200mV/2V/20V/200V/1000V
Accuracy	± (0.8%+10dgts) on 200mV
	± (0.5%+3dgts) on 2V - 200V
	± (0.8%+3dgts) on 1000V
AC Voltage	2V/20V/200V/750V
Accuracy	± (0.8%+3dgts) on 2V - 200V
	± (1.2%+3dgts) on 750V
DC Current	200µA/2mA/20mA/200mA/20A
Accuracy	± (1.0%+2dgts) on 200µA
	± (0.8%+2dgts) on 2mA - 20mA
	± (1.2%+3dgts) on 200mA
	± (2.0%+5dgts) on 20A
AC Current	2mA/20mA/200mA/20A
Accuracy	± (0.8%+3dgts) on 2-20mA
	± (1.2%+3dgts) on 200mA - 20A
Resistance	200Ω/2KΩ/20KΩ/200KΩ/ 2MΩ/20MΩ/200MΩ
Accuracy	± (1.0%+5dgts) on 200Ω
	± (0.8%+3dgts) on 2KΩ - 200KΩ
	± (1.2%+5dgts) on 2MΩ
	± (4.0%+20dgts) on 200MΩ
Capacitance	20nF/200nF/2µF/20µF/200µF/2mF/20mF
Accuracy	± (3.0%+3gts) 20nF - 200µF
	± (4.0%+10dgts) on 200mF
Sq. Wave O/P	50 ~ 5.0KHz
Accuracy	± (3.0% + 5dgts) on all ranges
Frequency	2Hz ~ 2MHz
Accuracy	± (1.0%+3dgts)
Power	9V Battery, NEDA 6F22 Type
Low Battery	"" is indicated
Dimensions	185 x 90 x 35mm (approx.)
Weight	300gms. Incl. Battery (approx.)
Accessories	Test Leads, Carrying Case
	Operational Manual

3 ½ digit 1999 counts LCD Display	
Manual Ranging, Data Hold, APO, Live	
Frequency, Capacitance, Temperature,	
Diode, Continuity, Resistance Check	
Ranges	
DC Voltage	200mV/2V/20V/200V/1000V
Accuracy	± (0.8%+10dgts) on 200mV
	± (0.5%+5dgts) on 2V - 200V
	± (0.8%+5dgts) on 1000V
AC Voltage	2V/20V/200V/750V
Accuracy	± (0.8%+3dgts) on 2V - 200V
	± (1.2%+3dgts) on 750V
DC Current	200µA/2mA/20mA/200mA/20A
Accuracy	± (1.0%+2dgts) on 200µA
	± (0.8%+2dgts) on 2mA - 20mA
	± (1.2%+3dgts) on 200mA
	± (2.0%+5dgts) on 20A
AC Current	2mA/20mA/200mA/20A
Accuracy	± (0.8%+3dgts) on 2-20mA
	± (1.2%+3dgts) on 200mA - 20A
Resistance	200Ω/2KΩ/20KΩ/200KΩ/ 2MΩ/20MΩ/200MΩ
Accuracy	± (1.0%+5dgts) on 200Ω
	± (0.8%+3dgts) on 2KΩ - 200KΩ
	± (1.2%+5dgts) on 2MΩ
	± (4.0%+20dgts) on 200MΩ
Capacitance	20nF/200nF/2µF/20µF/200µF/2mF/20mF
Accuracy	± (3.0%+3gts) 20nF - 200µF
	± (4.0%+10dgts) on 200mF
Temperature	-40°C ~ 1000°C
Resolution	± 1°C on all ranges
Frequency	200KHz
Accuracy	± (2.0% + 10dgts) on all ranges
Power	9V Battery, NEDA 6F22 Type
Low Battery	"" is indicated
Dimensions	185 x 90 x 35mm (approx.)
Weight	300gms. Incl. Battery (approx.)
Accessories	Test Leads, Carrying Case
	Operational Manual

3 ½ digit 6000 counts Trms LCD Display	
Auto Ranging, Data Hold, APO, Relative,	
Temperature, Frequency, Capacitance	
Diode, Continuity, Resistance Check	
Ranges	
DC Voltage	600mV/6V/60V/600V/1000V
Accuracy	± (0.8%+5dgts) on 600mV
	± (0.8%+3dgts) on 6V - 600V
	± (0.8%+5dgts) on 1000V
AC Voltage	600mV/6V/60V/600V/750V
Accuracy	± (1.2%+8dgts) on 600mV
	± (1.2%+6dgts) on 6V-600V
	± (1.2%+8dgts) on 750V
DC Current	600µA / 6000µA / 60mA / 600mA / 6A / 10A (Fused)
Accuracy	± (0.8%+5dgts) on 600µ-600mA
	± (1.5%+5dgts) on 6A-10A
AC Current	600µA / 6000µA / 60mA / 600mA / 6A / 10A (Fused)
Accuracy	±(1.5%+8dgts) on 600µ-600mA
	± (2.0%+10dgts) on 6A-10A
Resistance	600Ω/6KΩ/60KΩ/600KΩ/ 6MΩ/60MΩ
Accuracy	± (1.5%+5gts) on all ranges
Capacitance	60nF/600nF/6µF/60µF/600µF/20µF
Accuracy	± (8.0%+5gts) on all ranges
Frequency	60MHz (Auto-Ranging)
Accuracy	±(1.0%+5dgts) on all ranges
Temperature	-40°C ~ 1370°C
Accuracy	± (2%+2dgt) on all ranges
Power	9V Battery, NEDA 6F22 Type
Low Battery	"" is indicated
Dimensions	190 x 90 x 35mm (approx.)
Weight	360gms. Incl. Battery (approx.)
Accessories	Test Leads, Carrying Case
	Operational Manual
	K-Type Thermocouple Leads

Preliminary
Data

CE

NEW
ARRIVAL




R-2700T Trms





R-2070C



R-2070D

3% digit 6000 counts Trms LCD Display	
Auto Ranging, Data Hold, APO, Temperature, Frequency, Capacitance	
Diode, Continuity, Resistance Check	
Ranges	
DC Voltage	600mV/6V/60V/600V/1000V
Accuracy	± (0.8%+3dgts) on 600mV
	± (0.8%+3dgts) on 6V - 600V
	± (1.0%+5dgts) on 1000V
AC Voltage	600mV/6V/60V/600V/750V
Accuracy	± (1.2%+8dgts) on 600mV
	± (1.2%+6dgts) on 6V-600V
	± (1.2%+8dgts) on 750V
AC Current	6A/60A/300A
Accuracy	± (2.5%+10dgts) on all ranges
Resistance	600Ω/6KΩ/60KΩ/600KΩ/ 6MΩ/60MΩ
Accuracy	± (1.0%+5gts) on all ranges
Capacitance	60nF/600nF/6μF/60μF/ 600μF/20mF
	± (8.0%+5gts) on all ranges
Frequency	1Hz/10Hz/100Hz/1KHz/ 10KHz/100KHz/10MHz
Accuracy	± (1.0%+5dgts) on all ranges
Temperature	-40°C ~ 1370°C
	± (1%+2dgt) on -40~-150°C
	± (2%+2dgt) on 150~1370°C
Duty Cycle	0.01%~99.9%
	±(1%)
Jaw Size	40mm
Power	AAA 1.5V (3 Batteries)
Low Battery	"  +" is indicated
Dimensions	215 x 66 x 35mm (approx.)
Weight	310gms. Incl. Battery (approx.)
Accessories	Test Leads, Carrying Case
	Operational Manual
	K-Type Thermocouple Leads

3% digit 6000 counts Trms LCD Display	
Auto Ranging, Data Hold, APO, NCV	
Temperature, Frequency, Capacitance	
Diode, Continuity, Resistance, Backlight	
Ranges	
DC Voltage	6V/60V/600V
Accuracy	± (0.8%+3dgts) on 6V - 60V
	± (1.0%+3dgts) on 600V
AC Voltage	6V/60V/600V
	± (1.5%+5dgts) on all ranges
AC Current	6A/60A/600A
Accuracy	± (3.0%+20dgts) on 6A
	± (3.0%+5dgts) on 60A
	± (3.0%+8dgts) on 600A
Resistance	600Ω/6KΩ/60KΩ/600KΩ/ 6MΩ/60MΩ
Accuracy	± (1.0%+3dgts) on 600Ω - 6MΩ
	± (1.5%+3dgts) on 60MΩ
Capacitance	60nF/600nF/6μF/60μF/ 600μF/1000μF
Accuracy	± (3.0%+18dgts) on 10nF
	± (1.0%+3dgts) on 100nF - 1000μF
Temperature	0°C - 600°C / 32°F-1112°F
Accuracy	± (1.0%+3dgts)
Frequency	10Hz/100Hz/1KHz/100KHz/ 1MHz/10MHz
Accuracy	± (0.8%+3dgts) on all ranges
Duty Cycle	0.1% - 99.9%
Resolution	± (0.1%) on all ranges
Jaw Size	28mm
Power	AAA 1.5V (2 Batteries)
Low Battery	"  +" is indicated
Dimensions	185 x 51 x 25mm (approx.)
Weight	180gms. Incl. Battery (approx.)
Accessories	Test Leads, Carrying Case
	Operational Manual
	K-Type Thermocouple Lead

3% digit 6000 counts Trms AC / DC	
Auto Ranging, Data Hold, APO, Backlight	
Temperature, Frequency, Capacitance	
Diode, Continuity, Resistance Check	
Ranges	
DC Voltage	6V/60V/600V
Accuracy	± (0.8%+3dgts) on 6V - 60V
	± (1.0%+5dgts) on 600V
AC Voltage	6V/60V/600V
Accuracy	± (1.5%+5dgts) on all ranges
DC Current	60A/600A
Accuracy	± (2.5%+5dgts) on 60A
	± (2.5%+8dgts) on 600A
AC Current	60A/600A
Accuracy	±(2.5%+5dgts) on 60A
	±(2.5%+8dgts) on 600A
Resistance	600Ω/6KΩ/60KΩ/600KΩ/ 6MΩ/60MΩ
Accuracy	± (1.0%+3dgts) on 600Ω - 6MΩ
	± (1.5%+3dgts) on 60MΩ
Capacitance	60nF/600nF/6μF/60μF/ 600μF/1000μF
Accuracy	± (3.0%+18dgts) on 10nF
	± (1.0%+3dgts) on 100nF - 1000μF
Temperature	0°C - 600°C / 32°F-1112°F
Accuracy	± (1.0%+3dgts)
Frequency	10Hz/100Hz/1KHz/100KHz/ 1MHz/10MHz
Accuracy	± (0.8%+3dgts) on all ranges
Jaw Size	28mm
Power	AAA 1.5V (2 Batteries)
Low Battery	"  +" is indicated
Dimensions	185 x 90 x 35mm (approx.)
Weight	160gms. Incl. Battery (approx.)
Accessories	Test Leads, Carrying Case
	Operational Manual
	K-Type Thermocouple Leads

Preliminary
Data



R-2025



R-2025THz



R-1818T

3 ½ digit 1999 counts LCD Display	
Manual Ranging, Data Hold, APO, Diode, Continuity, Resistance, Backlight	
Ranges	
DC Voltage	1000V
Accuracy	± (1.0+2dgts) on 1000V
AC Voltage	750V
	± (1.2+5dgts) on 750V
AC Current	20A/200A/1000A
Accuracy	± (2.5%+10dgts) on 20A-200A ± (2.5%+10dgts) on 200-800A ± (3.0%+5dgts) on 800-1000A
Resistance	200KΩ/2KΩ
Accuracy	± (1.0%+10dgts) on 200Ω ± (1.0%+4dgts) on 2KΩ
Measurement	Dual Slope Integration Method
Polarity	Automatic, indicated minus
Overload	750V AC/DC on all VAC
Protection	1200A for 1min. in AAC 1000V DC/peak AC in VDC
OverRange	"1" will be displayed.
Meas. Rate	3 times / sec
Op. Temp.	0°C ~ 40°C, 0-75% RH
Storage Temp.	0°C ~ 50°C, 0-75% RH
Op. Freq.	40 ~ 400Hz
Sp. Function	HFE Test, Diode Test, Audible Continuity Test Data Hold, Backlight
Jaw Size	45mm
Power	9V Battery, NEDA 6F22 Type
Low Battery	"" is indicated
Dimensions	245 x 90 x 45mm (approx.)
Weight	360gms. Incl. Battery (approx.)
Accessories	Test Leads, Carrying Case Operational Manual

3 ½ digit 6000 counts Trms LCD Display	
Auto Ranging, Data Hold, APO, Backlight Temperature, Frequency, Capacitance Diode, Continuity, Resistance, Duty Cycle	
Ranges	
DC Voltage	600mV/6V/60V/600V/1000V
Accuracy	± (0.8%+5dgts) on 600mV ± (0.8%+5dgts) on 6V - 600V ± (1.0%+5dgts) on 1000V
AC Voltage	600mV/6V/60V/600V/750V
Accuracy	± (1.2%+8dgts) on 600mV ± (1.2%+6dgts) on 6V - 600V ± (1.2%+8dgts) on 750V
AC Current	60A/600A/1000A
Accuracy	± (2.5%+10dgts) on all ranges
Resistance	600Ω/6KΩ/60KΩ/600KΩ/ 6MΩ/60MΩ
Accuracy	± (1.5%+5dgts) on all ranges
Capacitance	60nF/600nF/6μF/60μF/ 400μF/20mF
Accuracy	± (8.0%+5dgts) on all ranges
Frequency	60Hz/600Hz/6KHz/600KHz/ 6MHz/60MHz
Accuracy	± (1.0%+5dgts) on all ranges
Frequency	50~1KHZ (Thru Clamp)
	± (1.5%+5dgts) on all ranges
Temperature	-40°C - 1370°C / 32°F-2000°F
Accuracy	± (1.0%+4dgts) on -40°-1500°C ± (2.0%+3dgts) on 150°-1370°C
Jaw Size	45mm
Power	9V Battery, NEDA 6F22 Type
Low Battery	"" is indicated
Dimensions	245 x 90 x 45mm (approx.)
Weight	360gms. Incl. Battery (approx.)
Accessories	Test Leads, Carrying Case Operational Manual K-Type Thermocouple Leads

3 ½ digit 6000 counts Trms AC / DC	
Auto Ranging, Data Hold, APO, NCV Temperature, Frequency, Capacitance Diode, Continuity, Resistance Check	
Ranges	
DC Voltage	600mV/6V/60V/1000V
Accuracy	± (0.5%+3dgts) on 600mV - 60V ± (0.8%+5dgts) on 1000V
AC Voltage	6V/60V/750V
Accuracy	± (1.0%+8dgts) on 6V - 60V ± (1.2%+8dgts) on 750V
DC Current	600/1000A
Accuracy	± (2.5%+8dgts) on 600A ± (2.5%+5dgts) on 1000A
AC Current	600/1000A
Accuracy	± (2.5%+8dgts) on 600A ± (2.5%+5dgts) on 1000A
Resistance	600Ω/6KΩ/60KΩ/600KΩ/ 6MΩ/60MΩ
Accuracy	± (0.8%+10gts) on 600Ω ± (0.8%+8gts) on 6KΩ - 6MΩ ± (1.5%+15gts) on 60MΩ
Capacitance	60nF/600nF/6μF/60μF/ 600μF/1000μF
	± (3.0%+10gts) 60nF-600μF ± (5.0%+30gts) 1000μF
Frequency	100Hz - 10MHz
Accuracy	± (0.1%+4dgts) on all ranges
Temperature	-40°C - 1370°C / 32°F-2000°F
Jaw Size	50mm
Power	AA 1.5V (2 Batteries)
Low Battery	"" is indicated
Dimensions	247 x 92 x 46mm (approx.)
Weight	385gms. Incl. Battery (approx.)
Accessories	Test Leads, Carrying Case Operational Manual K-Type Thermocouple Leads



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**GOLIYA INSTRUMENTS PRIVATE LTD.
MUMBAI**

Preliminary
Data

CE

NEW
ARRIVAL



IR-550



IR-1050



IR-1350

Special Features:

- * EMISSIVITY (ADJUSTABLE)
- * LASER TARGET
- * °C / °F SWITCH
- * MEASURE MAX. AVG. AND DIFF.
- * DISTANCE RATIO 12:1
- * LOW BATTERY DISPLAY
- * AUTO POWER OFF IN 10 MINS.

Model	IR-550	IR-1050	IR-1350
Range	-32°C ~ 550°C -26°F ~ 1022°F	-32°C ~ 1050°C -26°F ~ 1922°F	-32°C ~ 1350°C -26°F ~ 2462°F
Accuracy	±1.5°C	±1.5°C	±1.5°C
Distance Spot Ratio	12:1	12:1	50:1
Emissivity	0.95	0.10 ~ 1.00 (Adjustable)	0.10 ~ 1.00 (Adjustable)
Repeatability	±0.5% or ±1°C (2°F)	±0.5% or ±1°C (2°F)	±0.5% or ±1°C (2°F)
Resolution	0.1°C (0.1°F)	0.1°C (0.1°F)	0.1°C (0.1°F)
Spectral Response	0.1°C (0.1°F)	0.1°C (0.1°F)	0.1°C (0.1°F)
Special Functions			
°C / °F Selection	✓	✓	✓
Laser Switch	✓	✓	✓
Auto Power Off	✓	✓	✓
Low Battery Indication	✓	✓	✓
Backlight Display	✓	✓	✓
MAX Function	✓	✓	✓
MIN Function	✓	✓	✓
DIF Function	=	=	✓
AVG Function	-	-	✓
Data Storage	-	-	✓
High / Low Temperature Alarm Setting	-	-	✓
Setting	-	✓	✓
LCD Size	26 x 29mm	26 x 29mm	36 x 26mm
Packing Information			
Power	9V Battery	9V Battery	9V Battery
Product Colour	Red + Black	Red + Black	Red + Black
Product Size	170 x 81 x 38mm	170 x 81 x 38mm	220 x 130 x 53mm
Product New Weight	145gms (Approx.)	145gms (Approx.)	145gms (Approx.)
Accessories	Blister Pack x 1	Blister Pack x 1	Hard Carrying Case x 1
	Instruction Manual x 1	Instruction Manual x 1	Tripod Stand x 1
	9V Battery x 1	9V Battery x 1	Thermocouple Cable x 1
			Instruction Manual x 1
			9V Battery x 1

Preliminary
Data



MODEL: R-63A

“MECO-G” Vibration Meter model **R-63A** is designed using piezoelectric effect of artificial polarized ceramics. This unit can be used to monitor various types of mechanical vibrations like rotating and reciprocating machines. This instrument can measure acceleration, velocity and displacement in the mechanical manufacturing process, metallurgy, general aviation field etc.

FEATURES:-

1. Simple to use for measurement, the structure is compact, portable for carrying
2. Visually displays the measurement value and state.
3. Acceleration, velocity and displacement measurement.
4. Different vibration frequency selection.
High sensitivity probe for accurate measurement with long and short probe head, each one is suitable for different measurement situation.
5. Equipped with AC signal output interface.
6. Low Power Indication
7. Auto Power-Off
8. LCD Back-light.

GENERAL SPECIFICATIONS

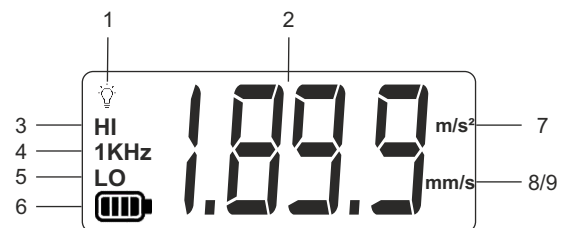
Display	: 3½ Digits, LCD Back-light display
Display Update Cycle	: 1 second.
Output	: AC Output 2V peak (display full scale). Load Impedance 10KΩ or more earphones can be connected
Battery	: 9V Battery (6F22)
Static Current	: ≤20μA
Operating Current	: ≤25mA
Battery Life	: 20 Hours continuous use
Operating Temperature	: 0~40°C
Operating Humidity Range	: 30~90%RH
Low Battery Indication	: 6.9V ± 0.2V
Auto Power Off	: Turns off Automatically in 60 seconds
Dimensions	: 67 x 30 x 138mm
Weight	: 182g (including battery)
Accessories	: Long and short probe head (1 Each) Users Manual, Battery, Carrying Case

TECHNICAL SPECIFICATIONS

Vibration Pickup	: Piezoelectric ceramic accelerometer (shear-type)
Measurement range of Acceleration	: 0.1~199.9 mm/s ² peak
Measurement range of Velocity	: 0.1~199.9 mm/s rms
Measurement range of Displacement	: 0.001~1.999 mm p-p. Velocity and displacement range is limited by acceleration 199.9m/s ²
Measurement accuracy	: ± (5%+2Digits)
Measurement frequency of acceleration	: 10Hz~1KHz (LO) / 1KHz - 15KHz (HI)
Measurement frequency of velocity	: 10Hz~1KHz (LO)
Measurement frequency of displacement	: 10Hz~1KHz (LO)

DISPLAY SPECIFICATIONS

1. Back-light indication:- The back-light will be on for 7 seconds upon the operation of the button.
2. Measurement Data
3. High Frequency
4. 1KHz Frequency
5. Low Frequency
6. Battery mark shows battery Power. These are the following 5 indication level:-
 - a. : Battery is sufficient
 - b. : Battery is comparative sufficient
 - c. : Battery is nearly sufficient
 - d. : Battery is nearly exhausted, need to replace with a new one
 - e. : Battery is exhausted completely. Replace immediately.
7. When taking measurement of acceleration, the LCD displays the acceleration unit = m/s²
8. When taking measurement of velocity, the LCD displays the velocity unit = mm/s
9. When taking measurement of displacement, the LCD displays the displacement unit = mm.



Preliminary
Data

CE



R-DT903A-1



TEST LEADS



AA X 6
BATTERIES



CARRYING
CASE

Introduction:

"MECO-G" has introduced a new & advanced multi-range 3½ Dgt. (1999 Counts) Digital Insulation Tester Model: R-DT903A-1. It has 3 Voltage Ranges i.e. 250V/500V/1000V

R-DT903A-1 has two MOhms (MΩ) ranges, 0-200MΩ and 0-2000MΩ. It has a separate Resistance Measurement Range upto 2KOhms (KΩ).

AC Voltage Measurement upto 750VAC and DC Voltage Measurement upto 1000VDC is available.

Voltage is maintained from 10% to 100% of the insulation resistance range.

Special Functions:

- * 3½ Digit (1999 Counts) Large Display with Back light
- * High Accuracy $\pm(4\% + 2\text{dgt})$ for Insulation Measurement. and $\pm(1\% + 5\text{dgt})$ for VAC Measurement
- * LCD Back Light Function with Indicator Switch.
- * Measurement of AC voltage upto 750VAC.
- * LED Indicator for HV (High Voltage)
- * In-built Protection Circuit to prevent the damage reverse voltages.
- * Battery Operated / AC adaptor (At additional cost)
- * 3 Ranges of Insulation Measurement.

Electrical Specifications: R-DT903A-1

Specification	Test Voltage	Range	Accuracy	Resolution
Insulation Resistance	250VDC $\pm 10\%$	0~200MΩ	$\pm(4\% + 2\text{dgt})$	100kΩ
	500VDC $\pm 10\%$	0~200MΩ		100kΩ
	1000VDC $\pm 10\%$	0~2GΩ		1MΩ
Resistance Measurement	2KΩ		$\pm(0.8\% + 6\text{dgt})$	1Ω
DC Voltage Measurement	0-1000VDC	0-1000VDC	$\pm(0.5\% + 6\text{dgt})$	1V
AC Voltage Measurement	0-750VAC (40~200Hz)	0-750VAC	$\pm(1.0\% + 5\text{dgt})$	1V

Accuracy \pm (% reading + digits) at 23°C \pm 5°C; RH \leq 75%

General Specifications:

Display	3½ Dgt. (1999 Counts) Large LCD Display with 33mm Display Height.
Resistance Measurement	0-2KΩ
Continuity Test	<50Ω Beeper on, testing current @ 1mA
Low Battery Indication	
Operating Temperature	0°C to 40°C (RH \leq 85%)
Storage Temperature	-10°C to 50°C (RH \leq 75%)
Insulation Resistance	\geq 500MΩ / 1000V
Voltage Withstand	2KV for 1 min.
Dimensions	176 x 116 x 63 mm
Weight	Approx. 580gms including batteries
Power	9V (6 x 1.5V) (R6AA size batteries) or AC Adaptor 9VDC
Accessories	1. Insulation Test leads for High Voltage x 1 2. Batteries (R6AA size batteries) 1.5V x 6 3. Instruction Manual 4. Carrying Case 5. Adaptor (At additional cost)

Preliminary
Data

CE



AA X 8
BATTERIES



12VDC
ADAPTOR



R-DIT945K-1



CARRYING
CASE



TEST LEADS

Introduction:

"MECO-G" has introduced a new & advanced multi-range 3½ Dgt. (1999 Counts) Digital Insulation Tester Model: R-DIT945K-1. It has 6 Voltage Ranges i.e. 100V/250V/500V/1000V/2500V/5000V.

R-DIT945K-1 has three Ohms (Ω) ranges, 0-200M Ω , 200M Ω -10G Ω and 10G Ω -200G Ω .

Special Functions:

- * 3½ Digit (1999 Counts) Large Display with Back light
- * High Accuracy $\pm(3\% + 2\text{dgt})$ for Insulation Measurement.
- * LCD Back Light Function with Indicator Switch.
- * Battery Operated / AC adaptor
- * Display with Annunciators
- * Auto-Ranging (Insulation Measurement)
- * As per EMC standard IEC 61326-1 Class B
- * AS per Safety Standard IEC/EN 61010-1 & 61010-31
- * LED Indicator for HV (High Voltage)
- * In-built Protection Circuit to prevent the damage reverse voltages.
- * 6 Ranges of Insulation Measurement.
- * Suitable for calculation PI and DAR (manually)
- * As per IS10656-1983
- * Over Voltage CAT III, 600V
- * IP-44 Protection

Electrical Specifications: R-DIT945K-1

Specification	Test Voltage	Range	Accuracy	Resolution
Insulation Resistance	100V/250V/500V $\pm 10\%$	0.1~20M Ω	$\pm(3\% + 5\text{dgt})$	0.01M Ω
	1000V/2500V/5000VDC $\pm 10\%$	200M Ω ~10G Ω	$\pm(5\% + 10\text{dgt})$	
		10G Ω ~200G Ω	$\pm(10\% + 5\text{dgt})$	

Accuracy \pm (% reading + digits) at 23°C \pm 5°C; RH \leq 75%

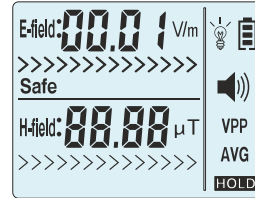
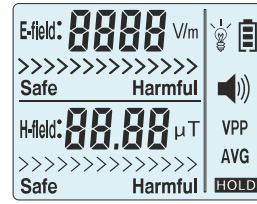
General Specifications:

Display	3½ Dgt. (1999 Counts) Large LCD Display with 29mm Display Height.
Accuracy	$\pm(3\% + 5\text{dgt})$
Low Battery Indication	
Operating Temperature	0°C to 40°C (RH \leq 85%)
Storage Temperature	-10°C to 50°C (RH \leq 75%)
Voltage Withstand	2KV for 1 min.
Dimensions	190 x 155 x 75 mm
Weight	Approx. 900gms including batteries
Power	12V (8 x 1.5V) (R6AA size batteries) or AC Adaptor 12VDC
Accessories	1. Insulation Test leads for High Voltage x 1 2. Batteries (R6AA size batteries) 1.5V x 8 3. Instruction Manual 4. Carrying Case 5. Adaptor

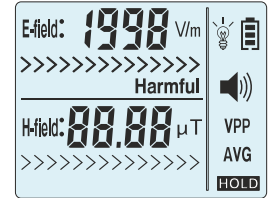
Preliminary
Data



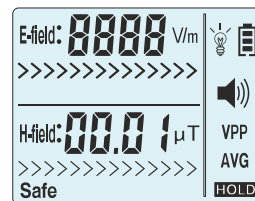
Model: R-EMR



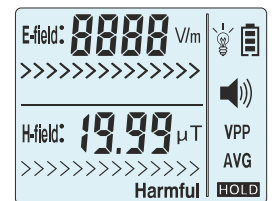
ELECTRO-FIELD (SAFE)



ELECTRO-FIELD (HARMFUL)



MAGNETIC-FIELD (SAFE)



MAGNETIC-FIELD (HARMFUL)

“MECO-G” ELECTRO-MAGNETIC Radiation Tester can test electric field radiation and magnetic field emission to reach the optimal test results.

FEATURES

- * One can be used for both, Electronic and Magnetic radiation.
- * Sound & Light alarm, when the test result exceeds the safety limit.
- * Data-Hold
- * Graphical LCD Display for Radiation level
- * Radiation assessment, reminding of whether the operation is safe or not.

RADIATION INDEXES

- * X-Ray Radiation: ★★★★★★
- * Electric Hair Drier: ★★★★★★
- * Electric Blanket Radiation: ★★★★★★
- * Microwave Oven Radiation: ★★★★★★
- * Computer Monitor: ★★★★★
- * TV set radiation: ★★
- * Keyboard, Mouse, Security Check: ★

APPLICATION

- * Electro-Magnetic Radiation Monitoring: House / Apartments, Offices, Schools
- * Electro-Magnetic Radiation Test: Mobile Phones, Computers, TV Sets, Refrigerators and High volt cables radiation test.
- * Radiation Protection Test: Tests effects of radiation-proof clothes, radiation-proof films and other prevention articles.

Functions	Electric Field	Magnetic Field
Unit	V/m	μT
Accuracy	1V/m	0.01μT
Range	1V/m ~ 1999V/m	0.01μT ~ 19.99μT
Alarm Treshold Value	40V/m	0.4μT
Sampling Time	2.5 Samples (Approx.)	
Testing Bandwidth (Hz)	50Hz ~ 3500Hz	
Test Mode	Bimodule Synchronous Test	
Over-Range Indication	“1”	
Operating Temperature	0° ~ 50°C	
Operating Voltage	9V Battery (6F22)	
LCD Display	3½ Digit LCD	
Weight & Size	Weight: 146gms. approx.	Size: 63.6 x 31 x 125.8mm
Applications	This Electro-Magnetic Radiation Tester can be used in Houses, Schools, Offices, Shops, Laboratories etc. Teaching, Demonstration & Testing of Electrical Consumption of Household / Office appliances.	

Preliminary
Data

CE

NEW
ARRIVAL



LCR-4077

FEATURES

1. Easy and Accurate reading.
2. High Accuracy
3. Measurements are possible even under a strong magnetic field.
4. LSI - Circuit provides high reliability and durability.
5. Input overload Protection
6. LCD display for low power consumption and clear readout even in bright ambient light conditions.
7. In-line pushbuttons allow one hand operation.
8. Light-weight and compact design for easy operation
9. Low battery Indication.
10. Data Hold
11. Zero Adjustment.

GENERAL SPECIFICATIONS

- Display : LCD. Max. 1999
 Measurement : L= Inductance, C= Capacitance, R= Resistance
 Zero Adjustment : Automatic / Manual with knob
 Over-Range : "1" will appear
 Sampling Rate : 3 times / second
 Operating Temp : 0°C ~ 40°C, Humidity <80%
 Dimensions : 180 x 90 x 50mm (Approx.)
 Weight : 430gms Approx. (With Battery)
 Power Supply : Single, 9V Battery (6F22)
 Standard Accessories : Alligator Test Clips (Red & Black) x 1 pair
 Instruction Manual x 1
 Battery x 1

CHARACTERISTICS

PF = pico Farad (10^{-12} F),
 nF = nano Farad (10^{-9} F),
 µF = micro Farad (10^{-6} F)
 Temperature Coefficient : Capacitance $\leq 0.5 \mu\text{F} - 0.1\% / ^\circ\text{C}$
 $> 0.5 \mu\text{F} - 0.2\% / ^\circ\text{C}$
 Inductance $\leq 0.5 \text{H} - 0.2\% / ^\circ\text{C}$
 $> 0.5 \text{H} - 0.5\% / ^\circ\text{C}$
 Zero Error: Capacitance $< 5\text{pF}$
 Inductance $< 10\mu\text{H}$

Inductance

Range	Test Frequency	Accuracy
200µH	1KHz	± 1.5% of reading ± 5 digits
2mH		
20mH		
200mH		
2H	160Hz	± 3.0% of reading ± 5 digits
20H		
200H		± 5.0% of reading ± 5 digits

Capacitance

Range	Resolution	Accuracy
200pF	0.1pF	± 1.5% of reading ± 20 digits
2nF	10pF	
20nF	100pF	
2µF	1nF	
20µF	10nF	
200µF	100nF	± 3.0% of reading ± 5 digits
2000µF	1µF	

Resistance

Range	Resolution	Accuracy
20Ω	0.01Ω	± 1.0% of reading ± 2 digits
200Ω	0.01kΩ	
2kΩ	1kΩ	
20kΩ	10kΩ	
200Ω	100Ω	
2MΩ	1KΩ	
20MΩ	10KΩ	

Diode Test

	Forward DC Current approx. 1mA. Reverse DC Voltage approx. 3V.
--	---

Preliminary
Data

CE

NEW
ARRIVAL



**MODEL: R-2034A
NON-CONTACT**



**MODEL: R-2241A
CONTACT / NON-CONTACT
(COMBINED)**



Adaptor for
Liner Surface



Adaptor for
round shaft
with "V" groove.



Adaptor for
round shaft
with "O" groove.

APPLICATION



"MECO-G" Digital Tachometers use the latest technology for accurate measurements. They are based exclusively on single Chip Micro-computer LSI Circuit. They are housed in tough ABS case & have ergonomic design for easy holding in the hand.

Model	R-2034A (NON-CONTACT)	R-2241A (COMBINED)	
Display	5 Dgt. 18mm (0.7") LCD White Backlight Display		
Sampling Time	0.5 Sec. (Over 60RPM)	0.8 Sec. (Over 60RPM)	
Test Range	Autoranging		
Range I	2.5 ~ 999.9 RPM/min	Non-Contact	2.5 ~ 99999 RPM/min
Range II	1000 ~ 99999 RPM/min	Contact	0.5 ~ 19999 RPM/min
		Surface	0.05 ~ 1999.9 m/min
		Surface Distance	0.05 ~ 99999 m
Accuracy	± (0.05% + 1 Dgt.)		
Resolution	0.1RPM (2.5 ~999.9RPM)	Non-Contact	0.1RPM [2.5~9999RPM (Photo)]
	1RPM (Above 1000 RPM)		1RPM (Above 1000RPM)
		Contact	0.1RPM (0.5~999.9RPM)
			1RPM (Above 1000RPM)
		Surface	0.01m/min (0.05~99.99m/min)
			0.1m/min (Over 100m/min)
		Surface Distance	0.02m (0.05~99999m)
Memory	Max. Value, Min. Value and last value will be stored.		
Detecting Distance	50 to 500mm	50 to 500mm (Photo)	
Operating Temperature	0~50°C (32-122°F)		
Operating Humidity	Less than 80% RH		
Power Consumption	Approx. 65mA		
Power Supply	4 x 1.5V AA Battery	4x1.5V AA battery or external 6V DC regulated power supply via Adaptor	
Dimension	164 x 74 x 37mm	210 x 74 x 37mm	
Weight (With Battery)	Approx 200gms	Approx. 235gms	
Accessories	User Manual, Carrying Case, 2pcs of reflecting strip, Batteries	User Manual, Carrying case, Surface Speed Test Wheels, RPM Adaptor (Cone, Funnel), 2pcs of reflecting strip, Batteries	

Preliminary
Data

CE

NEW
ARRIVAL



MODEL: R-180A

“MECO-G” Digital Coating Thickness meter is a portable coating thickness gauge, which can quickly, non-destructively and accurately measure metallic and non metallic coating thickness (such as paint, film etc.) of a metal & non-metal substrate. It is widely used in detection areas like manufacturing industry, car washing industry, metal processing industry, chemical industry and commodity inspection.

FEATURES:-

1. Simple to use for measurement, the structure is compact, portable.
2. Visually displays the measurement value.
3. Low Power Indication
4. Auto Power-Off
5. Measures coating thickness of Ferrous and Non-Ferrous substrate.
6. Metric Unit and Imperial unit

GENERAL SPECIFICATIONS

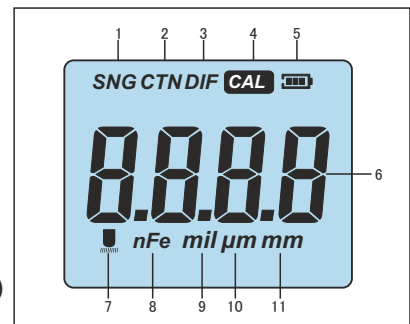
Display	: 4 Digit
Display Update Cycle	: 1 second.
Battery	: 2x1.5V AAA batteries
Battery Life	: 20 Hours continuous use
Operating Temperature	: 20~40°C. It is recommended to re-calibrate instrument incase of change in temperature
Operating Humidity Range	: 30~90%RH
Low Battery Indication	: 2.8V ± 0.2V
Auto Power Off	: Turns off Automatically in 60 seconds
Dimensions	: 62 x 27 x 121.5mm
Weight	: 150g (including battery)
Accessories	: Metallic and Non-Metallic Measuring plate, Measurement films, Users Manual, Battery.

TECHNICAL SPECIFICATIONS

Measurement Range	: 0~1800μm / 0~70.8mil / 1.8mm
Resolution	: 0.1μm (<100μm), 1μm (≥100μm) : 0.1mil / 0.001mm
Measurement Error	: ≤150μm ~ ±5μM, >150μm ~ ±3%H+1μ
Minimum diameter of Fe substrate	: 12mm
Minimum thickness of Fe substrate	: 0.5mm
Minimum curvature radius of convex of Fe substrate	: 2mm
Minimum curvature radius of concave of Fe substrate	: 11mm
Minimum diameter of nFe substrate	: 50mm
Minimum thickness of nFe substrate	: 0.5mm
Three measurement ways	: single measurement, continuous measurement, difference value measurement.
Three calibration functions	: Zero calibration

DISPLAY SPECIFICATIONS

- | | |
|-----------------------------------|--|
| 1. SNG | : Single Measurement |
| 2. CTN | : Continuous Measurement |
| 3. DIF | : Difference Value Measurement |
| 4. CAL | : Enter Calibration mode |
| 5. | : Battery Status |
| 6. Display area of measured value | |
| 7. | : Coupling Icon |
| 8. nFE | : Non-Magnetic Metal Substrate |
| FE | : Magnetic Metal Substrate |
| 9. mil | : Imperial Unit (1mil=0.0254mm / 25.4μm) |
| 10. μm | : Metric Unit (1mm = 1000μm) |
| 11. mm | : Metric Unit (1mm=39.4mil) |



Preliminary
Data

CE

NEW
ARRIVAL



“MECO-G” Digital Sound Level Meter is applicable for measurement of noise engineering, quality control, health prevention and various environmental noise, including noise measurement in such various places such as factories offices, transporting routes, families, stereo equipment and other places. The design of these instruments are novel, small and portable in nature making it handy.

FEATURES:-

1. Simple to use for measurement, the structure is compact, portable.
2. Visually displays the measurement value.
3. Low Power Indication
4. Auto Power-Off
5. Measures the Sound for Frequency of 31.5Hz ~ 8KHz
6. Measurement in dBA.

MODEL: R-126

GENERAL SPECIFICATIONS

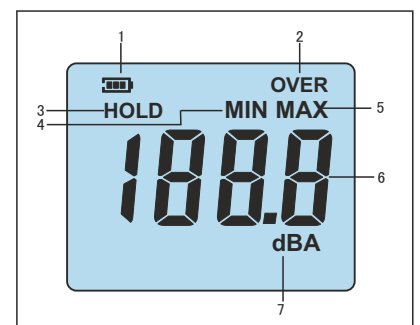
Display	: 4 Digit
Display Update Cycle	: 1 second.
Battery	: 3x1.5V AAA batteries
Battery Life	: 20 Hours continuous use
Operating Temperature	: 20~40°C
Operating Humidity Range	: 30~90%RH
Low Battery Indication	: 4.1V ± 0.2V
Auto Power Off	: Turns off Automatically in 60 seconds
Dimensions	: 56.1 x 177 x 36.03 mm
Weight	: 96.38g approx. (Without battery)
Accessories	: Users Manual, Battery.

TECHNICAL SPECIFICATIONS

Measurement Range	: 30 ~ 130dBA
Accuracy	: ± 1.5 dBA
Frequency Response	: 31.5Hz ~ 8KHz
Frequency Weighting Features	: A Weighting
Resolution	: 0.1 dBA
Working Temperature & Humidity	: 0~40°C, 10~80% RH

DISPLAY SPECIFICATIONS

- | | |
|-----------------------------------|----------------------------------|
| 1. | : Battery Indication |
| 2. OVER | : Over Range Indication |
| 3. HOLD | : Data Retention |
| 4. MIN | : Minimum value |
| 5. MAX | : Maximum Value |
| 6. Display area of measured value | |
| 7. dBA | : Sound Level unit (A weighting) |



Preliminary
Data

CE

NEW
ARRIVAL



MODEL: R-135

“MECO-G” Digital Sound Level Meter is applicable for measurement of noise engineering, quality control, health prevention and various environmental noise, including noise measurement in such various places such as factories offices, transporting routes, families, stereo equipment and other places. The design of these instruments are novel, small and portable in nature making it handy.


FEATURES:-

1. Simple to use for measurement, the structure is compact, portable.
2. Visually displays the measurement value.
3. Low Power Indication
4. Auto Power-Off
5. Measures the Sound for Frequency of 31.5Hz ~ 8.5KHz
6. Measurement in dBA and dBC

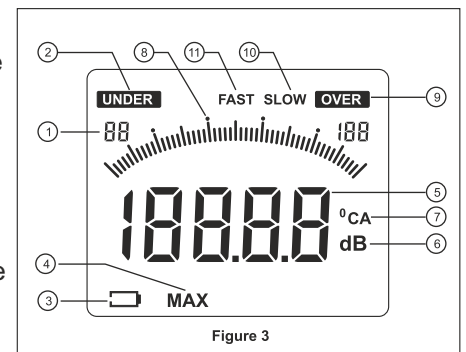
TECHNICAL SPECIFICATIONS

Measurement Range	: 30 ~ 130dBA, 35~130dBC
Accuracy	: ± 1.5 dB
Frequency Response	: 31.5Hz ~ 8.5KHz
Level Range	: 30~80, 50~100, 60~110, 80~130, 30~130 dB
Linearity Range	: 50dB / 100dB
Frequency Weighting Features	: A / C Weighting
Resolution	: 0.1 dB
Sampling Rate	: 2 times / Second
Bar Graph	: 50dB Scale at dB step for monitoring current sound pressure Level display. Sample Rate : 20 times / second
Over range Indication	: OVER / UNDER
AC Output	: 0.707Vrms at FS output impedance approx. 600Ω
DC Output	: 10mV / dB, output impedance approx. 100Ω
Time weight	: FAST / SLOW
Microphone	: 1/2 Inch electric condenser microphone
Display	: 4 Digit
Power	: 4x1.5V AAA batteries or DC 6V 100mA Adapter
Battery Life	: 30 Hours continuous use
Auto Power Off	: Turns off Automatically in 60 seconds
Dimensions	: 70 x 35 x 256mm
Weight	: 308g (including battery)
Accessories	: User Manual, battery, Tripod mounting screw, Windscreen & Carrying case
Working Temperature & Humidity	: 0~40°C, 10~80% RH
Storage Temperature	: -10~40°C, 0-70%RH

DISPLAY SPECIFICATIONS

1. Level Range
2. Under Range
3. 
4. MAX
5. Display area of measured value
6. DB
7. C/A
8. BAR graph
9. Over Range
10. SLOW
11. FAST

- : Min. Range set
- : Displays if reading is below the set range
- : Battery Status
- : Maximum value held during measuring.
- : Measuring unit
- : Measuring weight
- : Analog Measurement value
- : Displays if reading is above the set range
- : Method of Measurement
- : Method of Measurement





R-LX50B

SPECIFICATION

- Display : 3½ digit, 18mm (0.7") LCD
- Ranges : 0-50,000 Lux. (3 ranges)
- Accuracy : ± (5% rdg. + 2 dgts.)
- Over-Range : Indication of "1"
- Sampling Time : 0.4 Seconds
- Operating Temperature : 0° to 50° (32° to 122°F)
- Operating Humidity : Less than 80% R.H.
- Temperature Characteristic : ±0.1% / °C
- Repeatability : ±2%
- Photo Detector : One silicon photo diode with filter
- Low Battery Indication :
- Data Hold : ✓
- Display in Lux : ✓
- Power Supply : 9V Battery (6F22)
- Dimensions : 116 x 70 x 29mm (4.6x2.7x1.1 inch)
- Weight : 200g approx. (With battery)
- Accessories : Instruction Manual, Carrying Case, Battery

ELECTRICAL SPECIFICATIONS

For 20,000 Lux range reading x10 and 50,000 Lux range reading x100

Range	Resolution	Accuracy
0-1,999Lux	1 Lux	± (5% + 2)
2,000-19,999Lux	10 Lux	± (5% + 2)
20,000-50,000Lux	100 Lux	± (5% + 2)

Calibrated to standard incandescent lamp at color temperature 2856K

NEW!

Preliminary
Data



CT-600

CLAMP ON AC ADAPTER

This is a AC Current Clamp Adaptor for measurement of High Currents upto 600Amps by Digital Multi meter R-9A.

Range	Switch Position	Accuracy
200A	1mV/1A	±3%
600A	1mV/10A	±3%

Clamp Max. Diameter: 33mm.



QUALITY POLICY

The Management team of GOLIYA INSTRUMENTS PRIVATE LTD., Is dedicated to the Quality policy and will ensure that our products and services fulfil the requirements of our esteemed customers at all times.

The objective of our Quality policy is to achieve excellence in customer satisfaction and we will implement all managerial and operational systems to achieve this goal.

Goliya Instruments Private Limited, firmly believes in closely partnering with customers and suppliers towards achieving the objectives of Quality policy and will strive towards continuous improvement in the quality of its offering to customers.

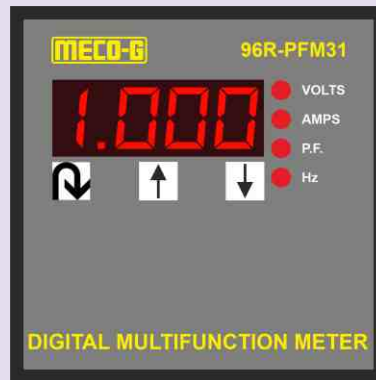
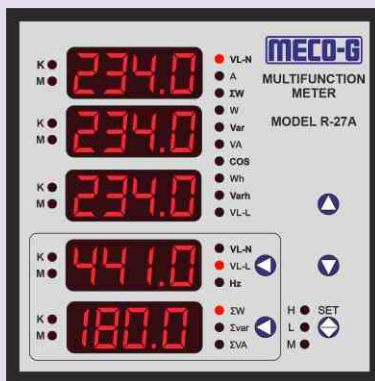
The Quality policy is based on the fundamentals below:-

- Innovation and continuous improvements in products, processes and services to create opportunities for growth.
- Consistently delivering quality product and services and on time at affordable cost to customers with no exceptions.
- Product safety.
- Take ownership of any issue and address them in a timely manner.
- Commitment to comply to applicable product, legal, statutory and regulatory requirements.
- Commitment to continuously improve effectiveness of our "Quality Management Systems", by periodically assessing our systems and processes and taking appropriate corrective and preventive actions.
- Develop employees to achieve 100% satisfaction of internal and external customers.

Affordable, Accurate, Precise & Reliable instruments... since 1982!

Pioneers and Experts in Test and Measuring Instruments...

**GOLIYA INSTRUMENTS PRIVATE LTD.
MUMBAI**



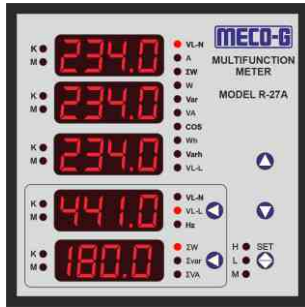
DIGITAL MULTIFUNCTION METERS

Affordable, Accurate, Precise & Reliable instruments... since 1982

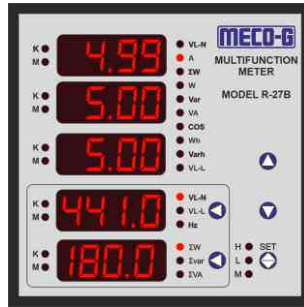
Pioneers and Experts in Test and Measuring Instruments...

THINK METERS, THINK MECO-G

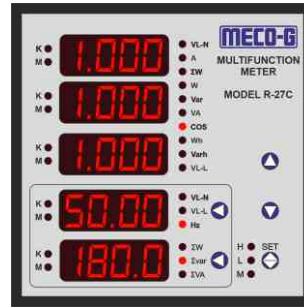
**GOLIYA INSTRUMENTS PRIVATE LTD.
MUMBAI**



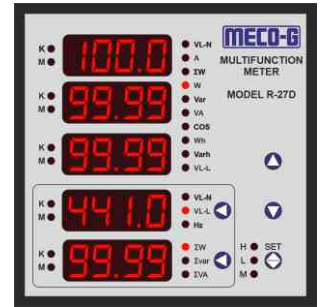
R-27A



R-27B



R-27C



R-27D

R-27 series multifunction network instruments can measure more than 50 electrical parameters in the electrical circuit. All measurements are in T-RMS

It has 2-channel electrical energy pulse outputs, 4-channel switching value inputs and RS 485 communication output with modbus protocol. 4 channel switching value outputs or 4 channel transmitting outputs are also available.

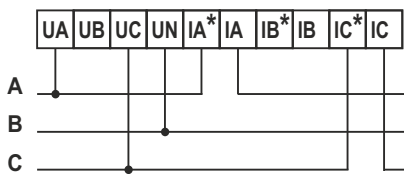
MEASURING PARAMETERS:

- Phase - Neutral Voltage (VL_N)
- Phase - Phase Voltage (VL_L)
- Phase - Current (A)
- Total Current (ΣA)
- Active Power (W)
- Reactive Power (var)
- Apparent Power (VA)
- Power Factor (Cos ϕ)
- Active Electric Energy (Wh)
- Reactive Electric Energy (varh)
- Average Phase - Neutral Voltage (VL_N)
- Average Phase - Phase Voltage (VL_L)
- Frequency (Hz)
- Total Active Power (ΣW)
- Total Reactive Power (Σvar)
- Total Apparent Power (ΣVA)
- Max. Value (H)
- Min. Value (L)
- Demand Value (M)

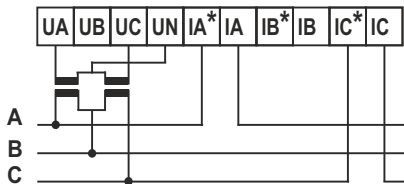
MODEL	Four Channel Transmitting Output	Four Channel Switching Output	Four Channel Switching Value Output	RS-485 Interface	Two Channel Energy Pulse Output	Four Channel Switching Value Input
R-27A	NO	NO	NO	NO	NO	NO
R-27B	NO	NO	NO	YES	YES	YES
R-27C	NO	NO	YES	YES	YES	YES
R-27D	YES	YES	NO	YES	YES	YES

CONNECTION DIAGRAM

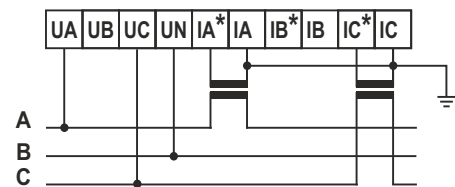
3 Phase 3 Wire



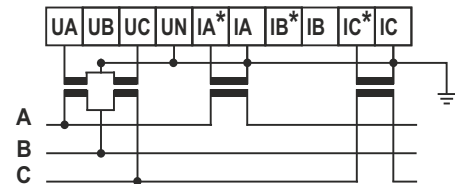
Voltage input without P.T.
Current input without C.T.



Voltage input with P.T.
Current input without C.T.



Voltage input without P.T.
Current input with C.T.

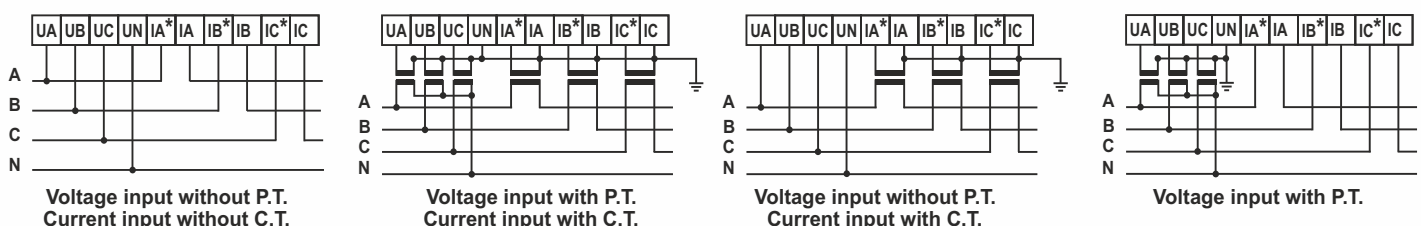


Voltage input with P.T.
Current input with C.T.

INPUT	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 / 5AAC
		Over load	Continuous: 1.2x, Instantaneous: 20x <1seconds
		Impedance	<20mΩ
Frequency		45-65Hz	
OUTPUT	Electric	Output Mode	Two channel open-collector optical coupling pulse output
Energy	Pulse	Constant	Active 10000 imp/kwh
		Start	Reactive 10000 imp/kvarh 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
	Analog	Channels	Four Channels
	Output	Output Mode	0-20mA, 4-20mA, Programmable
		Load Ability	<400W
	Switching	Channels	Four Channels
	Value	Output Mode	Normally open relay contact output
		Load Ability	AC 240 V /1A
Switching Value Input		Four dry contact input modes	
DISPLAY		7 SEGMENT BRIGHT RED LED DISPLAY, FIVE ROWS	
ACCURACY	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%	
SUPPLY	Auxillary Supply	AC/DC 85~264 V, <5VA	
SAFETY	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.	
OPERATING CONDITION	Temperature	Operating : -10° ~ 50° C	
		Storage: -25° ~ 70° C	
	Humidity	< 85% RH, free of moisture and gas	

CONNECTION DIAGRAM

3 Phase 4 Wire



Note: A=R phase , B=Y phase , C=B phase , N= Neutral



**WITH IN-BUILT
RS-485**

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

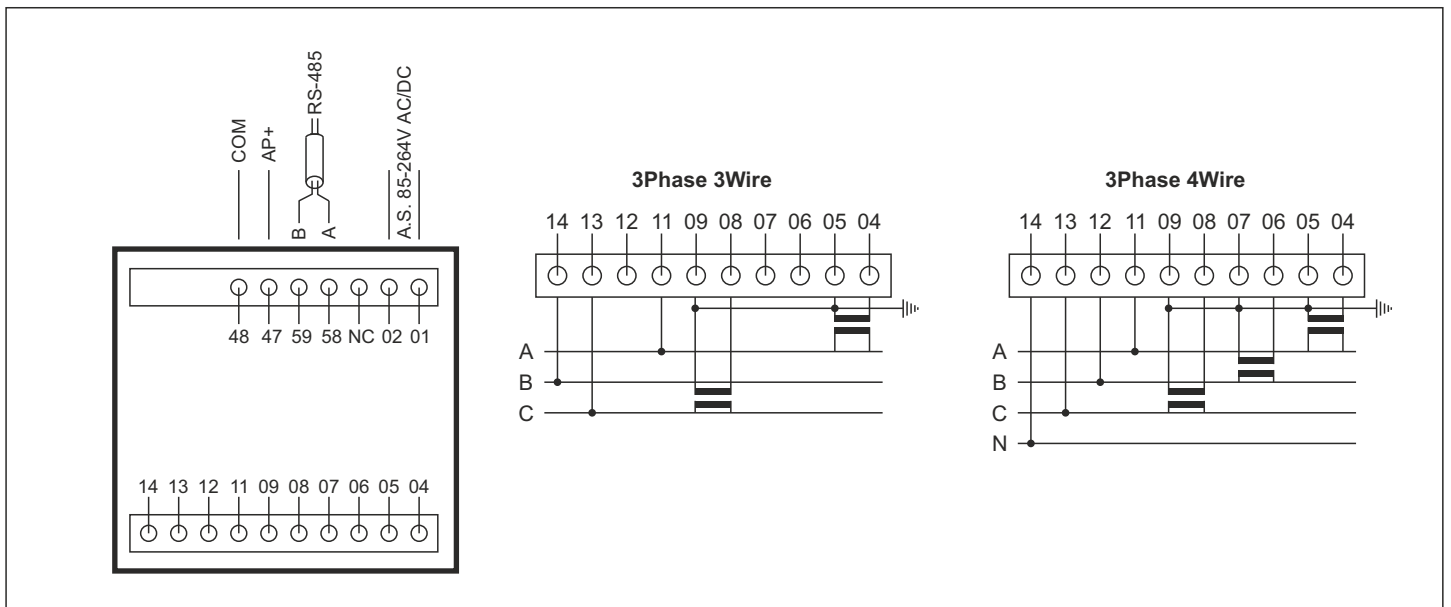
- VOLTAGE (V)
- CURRENT (A)
- ACTIVE POWER (W)
- REACTIVE POWER (VAR)
- APPARENT POWER (VA)
- POWER FACTOR (Cosφ)
- ACTIVE ELECTRIC ENERGY (WH)
- REACTIVE ELECTRIC ENERGY (varH)
- FREQUENCY (Hz)

Specification:

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

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

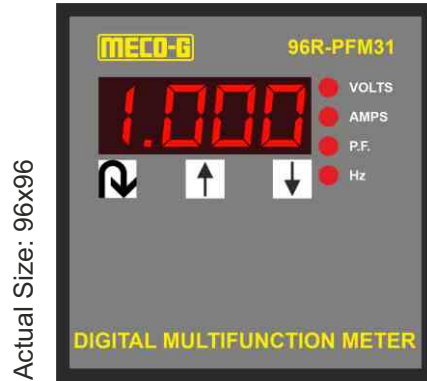
INPUT	Network		1Phase, 3 Phase 3 Wire, 3 Phase 4 Wire
	Volts	Rated Value	110VAC / 230VAC / 440VAC
		Over Load	Continuous: 1.2x, Instantaneous: 2x <20seconds
		Consumption	<1VA / Phase.
		Impedance	>500KΩ
	Current	Rated Value	1A / 5A AC
		Over load	Continuous: 1.2x, Instantaneous: 20x <1seconds
Impedance		<20mΩ	
Frequency		45-65Hz	
OUTPUT	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
DISPLAY	7 SEGMENT BRIGHT RED LED DISPLAY, FIVE ROWS		
ACCURACY	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%
SUPPLY	Auxillary Supply	AC/DC 85~264 V, <5VA	
SAFETY	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.	
OPERATING CONDITION	Temperature		Operating : -10° ~ 50° C Storage: -25° ~ 70° C
	Humidity		< 85% RH, free of moisture and gas





Actual Size: 96x48

Model: R-PFM11



Actual Size: 96x96

Model: 96R-PFM31

Introduction:

MECO-G has introduced a unique 4-in-1 meter for the first time. It has simultaneous measurements of Volt, Current, Frequency and Power Factor (Single Phase and three phase balanced load). This reduces the cost of using 4 separate meters and saves space on the panel. Wiring of cables is also reduced thus effecting tremendous saving in cost.

Special Features:

- * 4-in-1 Display
- * Rescaleable Facility for Volts, Amps, Frequency.
- * High Accuracy and Stability.
- * Small, Compact in size
- * Mirco controller based design.

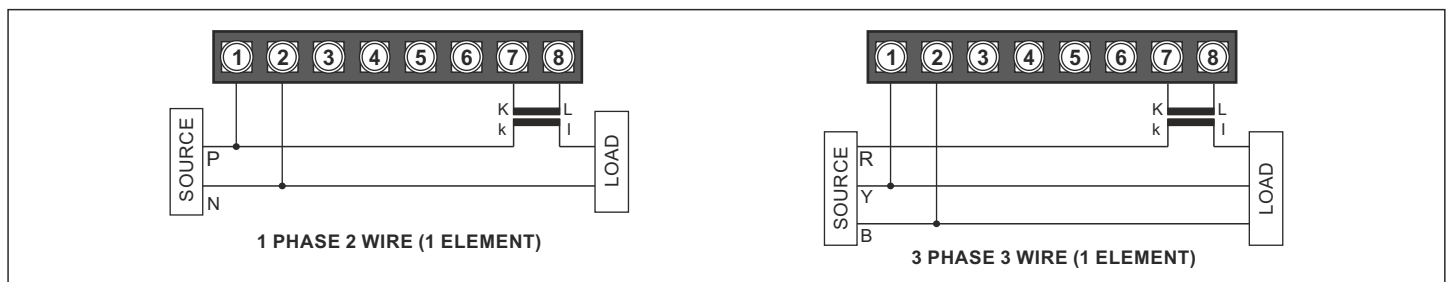
Specification:

Measuring Method :TRMS using Micro controller
Sampling Time :2.5 Samples Per Second
Display Type :Red LED Super Bright Display
Maximum Display Resolution :9999 Counts
Resolution :0.001 to 1 Count Depending on range
Polarity Indication :“-” is indicated for Negative Input
Decimal Selection :Auto
Over Range Indication :“1” or “-1”
Maximum Overload :Voltage: 1.2 times continuous
 :Current: 2 times continuous
Frequency Response :50-60Hz Standard. **Upto 400Hz optional.**
Environment :Calibration: 27°± 5°C
 :Operating: 0° ~ 50°C, RH < 95%
 :Storage: -10° ~ 60°C, RH < 95%

VA Burden (Typical) : <5VA
Dielectric Strength : 3kV at 50Hz for 1 min. between input and Power terminals.
 : 3kV at 50Hz for 1 min. between all terminals to case.
Aux. Supply : Self Powered

TYPE	MODEL
Single Phase One Element	R-PFM11 / 96R-PFM11
Three Phase One Element (Balanced Load)	R-PFM31 / 96R-PFM11

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





96R-VAF11



96R-VAF34

Introduction:

MECO-G has introduced a unique, low-cost meter for the first time. It has simultaneous display for Voltage, Current, Frequency, Rpm and Hours. This reduces the cost of using 6 separate meters and saves space on the panel. Cable wiring is also reduced, effecting huge saving in cost. Running time of generators is displayed in hours. Two separate models for Single Phase and Three Phase - Four Wire are available

Special Features:

- * 3 Separate Displays for Volts Amps, Frequency / RPM
- * Hour Display
- * Multiplier for Voltage, Current, frequency to display PT, CT primary values and RPM.

- * Small, Compact in size
- * Rescaleable Facility for Volts, Amps, Frequency.
- * Micro controller based design
- * High Accuracy and Stability.

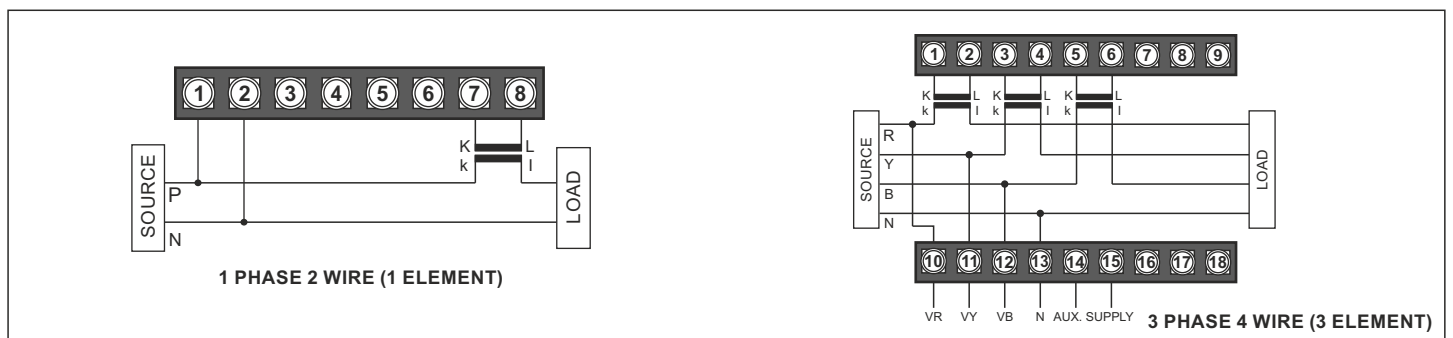
Specification:

Measuring Method :TRMS using Micro controller
Sampling Time :2.5 Samples Per Second
Display Type :Red LED Super Bright Display
Maximum Display :9999 Counts
Resolution :0.001 to 1 Count Depending on range
Polarity Indication :“-” is indicated for Negative Input
Decimal Selection :Auto
Over Range Indication :“1” or “-1”
Maximum Overload :Voltage: 1.2 times continuous
:Current: 2 times continuous
Frequency Response :50-60Hz Standard. **Upto 400Hz optional.**
Environment :Calibration: 27°± 5°C
:Operating: 0° ~ 50°C, RH < 95%
:Storage: -10° ~ 60°C, RH < 95%

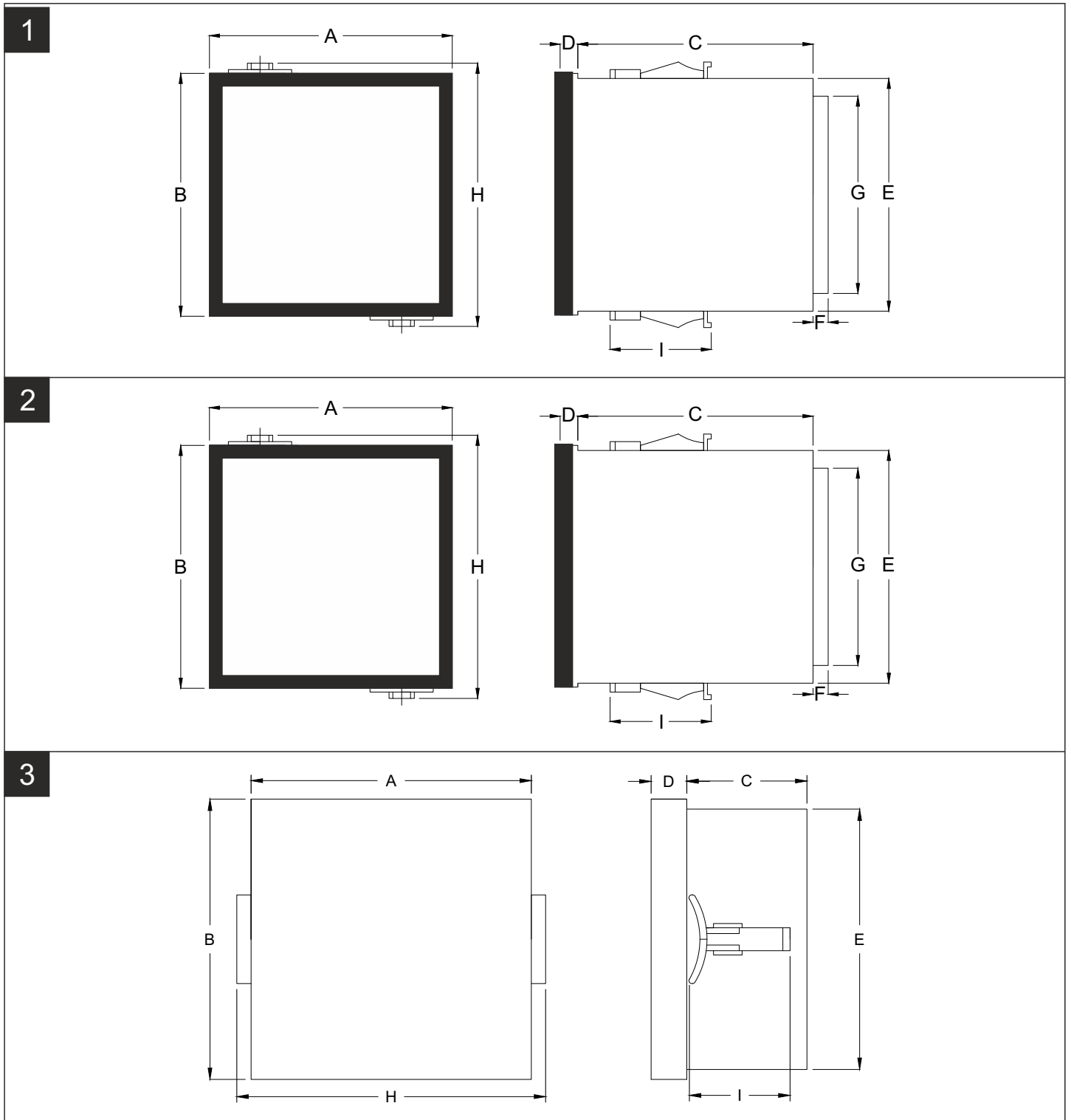
VA Burden (Typical) : <5VA
Dielectric Strength : 2kV at 50Hz for 1 min.
between input and Power terminals.
: 2kV at 50Hz for 1 min.
between all terminals to case.
Aux. Supply : Self Powered

TYPE	MODEL
Single Phase One Element	96R-VAF11
Three Phase Four Wire Three Element (Balanced Load)	96R-VAF34

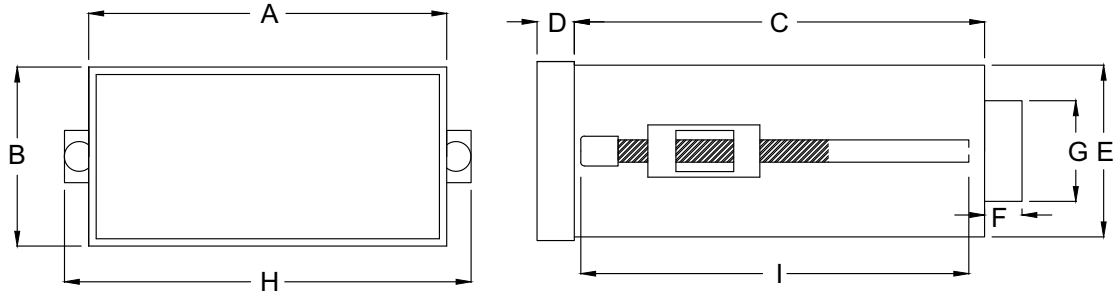
DISPLAY	RANGE	ACCURACY
Voltage (V)	0-110, 230, 440V (Any One) @ 50Hz	± 0.3% + 4dpts.
Ampere (A)	0-1A / 5A (Any One)	± 0.3% + 4dpts.
Frequency (Hz)	40-99.99 Hz	± 0.1Hz
Time	0-99.99 Hrs	-



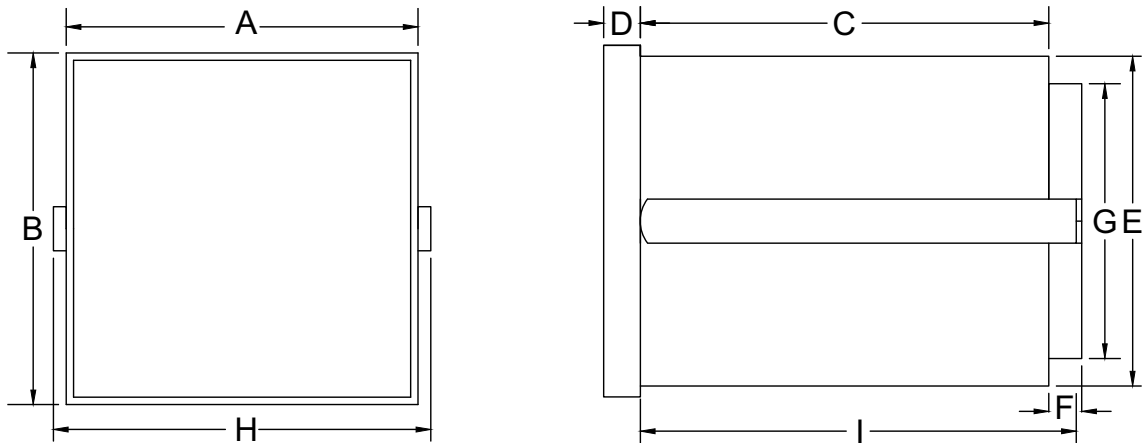
Sr.	MODEL	Dimensions in mm (+ 0.80 mm)									
		A	B	C	D	E	F	G	H	I	PANEL CUTOUT
1	R-27A	96	96	76	7.0	90.0	6	78	102	40	92 x 92
2	R-27 B / C / D	96	96	93	7.0	90.0	6	78	104	40	92 x 92
3	R-18B	98	98	40	12.5	90.0			108	36	92 x 92
4	R-PFM11 / R-PFM31	96	48	110	10	45.0	10	27	109	104	92 x 45
5	96R-VAF11 / 96R-PFM11 / 96R-PFM31	96	96	111.5	10	90.0	9	75	104	119	92 x 92
6	96R-VAF34	96	96	85	10	90.0	9	75	108	54	92 x 92



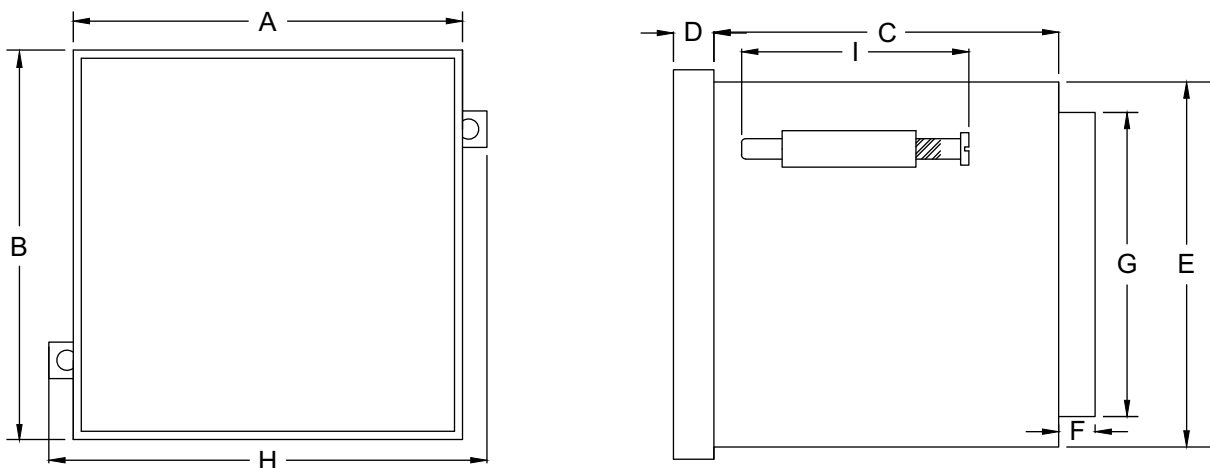
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6



CURRENT TRANSDUCER TEST REPORT

ELECTRONICS REGIONAL TEST LABORATORY (WEST) DEPARTMENT OF INFORMATION TECHNOLOGY		REPORT NO. ERTL (W)/ 2007 E&S 261	
SUBJECT: TESTING OF CURRENT TRANSDUCER		DATE 29/10/2007	PAGE 1
			OF 7

1. SCOPE

1.1 Service Request No : ERTL (W)/20071513 Dated 13th Sept, 2007

1.1.1 Service Request finalised on : 13th Sept, 2007

1.2 Requested by (Name and address of organisation) : GOLIYA INSTRUMENTS PVT. LTD.,
311, BHARAT INDL. ESTATE,
T.J. ROAD,
SEWREE, MUMBAI 400 015

1.3 Description Qty Manufacturer Type No. Serial No.

Current Transducer, 01 No. GOLIYA R-CMT 3478/07
Input: 0-5 A AC,
Output: 4-20 mA DC,
Class: 0.5,
INSTRUMENTS
PVT. LTD

1.4 Test specifications Type Testing as per IS 12784: 1989
(Reaffirmed 1993)

1.5 Lab Ambient Temperature : (25 ±2) deg.C
Humidity : (55 ±5) % RH

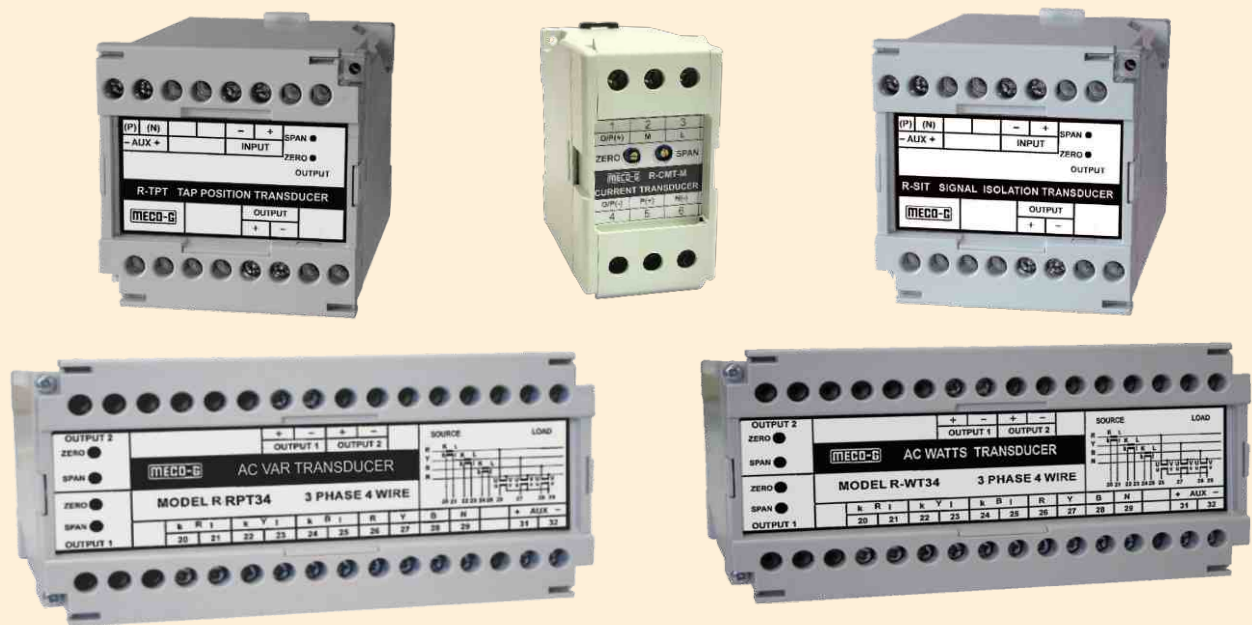
1.6 Test Equipment used:

1. Calibrator (S&C/138)
2. High Voltage Tester (E&S/66)
3. Impulse Voltage Tester (COM/209)
4. Energy Meter Test Bench (E&S/128)
5. High Resistance Meter (COM/200)
6. D.M.M. (E&S/132)
7. Scope Meter (E&S/125)
8. Magnetic Influence Jig

1.7 Environmental Simulators used 1. WT Thermal Chamber (ENV/45)

Released by _____





POWER LINE TRANSDUCERS

Affordable, Accurate, Precise & Reliable instruments... since 1982

Pioneers and Experts in Test and Measuring Instruments...

THINK METERS, THINK MECO-G

**GOLIYA INSTRUMENTS PRIVATE LTD.
MUMBAI**

MECO-G Power Line Transducers are designed for AC Power Line parameters like Voltage, Current, Watt, Var, Frequency, DC Isolation and Signal Isolation, TAP Position and Temperature.

These reliable and accurate Transducers are in applications in all sectors of the power and process industry since over 35 years. These Transducers give a load independent and isolated DC output directly proportional to the input parameters.

MECO-G Transducers are widely used for automation and control of power and process systems as well as for local and remote monitoring of the electrical parameters at every stage of electricity generation, transmission and distribution. They are ideal for SCADA, energy management, telemetering, data-logging as well as central monitoring systems.

MECO-G Transducers are generally designed to comply to the requirements of I.S. 12784:1989 (Reaffirmed in 1993).

All MECO-G Transducers pass through a stringent manufacturing and in-house quality control process consisting of vibration, burn-in and calibration tests to ensure complete reliability and accuracy during continuous operation.

GENERAL SPECIFICATIONS

Accuracy	± 0.5% of Span (standard), ± 0.2% of Span (Optional)
Accuracy Range	0 to 120%
Zero Adjustment	± 2% of Span (min.)
Span Adjustment	± 10% of Span (min.)
Response Time	< 0.25s for 0 to 90% of Output
Output Ripple	< 0.5% of Full Scale, 0.2% RMS
Overload - Continuous	Voltage : 1.2 x In.
	Current : 2 x In.
Overload - Short Duration (1 sec.)	Voltage : 2.0 x In.
	Current : 20 x In.
Stability	± 0.25% Per Annum, Non Cumulative
Environmental Conditions	As Per IS 12784:1989
Operating Temperature	0 to 50°C, Rh < 95%
Storage Temperature	-20 to 70°C, RH
Temperature Coefficient	0.03%/°C
Isolation	Complete (Input/Output/Auxiliary/Case)
Insulation Resistance	>100MΩ at 500VDC
Self Powered (optional)	Max.Variation of ± 20% in input Voltage
Dielectric Strength	2KV for 1 min. (Standard), 4KV (Optional) across Casing - Input / Output / Auxiliary Input - Output, Input - Auxiliary, Output - Auxiliary, Output - Output (Optional - Subject to technical feasibility)
Impulse Test	4.5KV, 1/40μS (W/o Dewing)
Casing	Flame Retardant, Poly-Carbonate (UL 94V-0), Self Extinguishing, Non Dripping, DIN Rail cum Wall Mounting Casing
Applicable Standards	Electrical Measuring Transducers for Converting AC Electrical Quantities into DC Electrical Quantities : General Purpose Transducer (IS12784:1989)

TYPES


- AC Current (Average / TRMS)
- AC Voltage (Average / TRMS)
- Frequency
- Active Power (Watts)
(1P & 3P - Balanced or Unbalanced System)
- Reactive Power (VAR)
(1P & 3P - Balanced or Unbalanced System)
- DC Isolation for Voltage & Current
- Tap Position
- Temperature

SALIENT FEATURES

- Reliable & Rugged Static Circuits
- Low Ripple in Output Signal
- Flame Retardant Case
- Fast Response Time
- Bi-Directional Inputs for Import / Export
- Dual Output
- Self-Powered, AC, DC Auxiliary Supply
- Din Rail Mounting
- Bi-Directional Outputs

ORDERING INFORMATION:

Model, Input Type, Input Range, Input Voltage, Input Current, PTR, CTR, Frequency, Auxiliary Supply, Output 1, Output 2 and Optional.

Sr.		Auxiliary Power Supply				Input	Type of Output						Isolation					
		110V / 230V / 440V AC	24V / 48V / 110V / 220V DC	(19-90V AC / DC) (85-265V AC / DC)	Self Powered		Bi Directional	Single	Dual	Dual Isolated	Bi-Directional	Asymmetrical / Symmetrical	Zero & Span Adjustment	2KV Between Input / Output / Aux. / Case	4KV Between* Input / Output / Aux. / Case	2KV Between Output 1 / Output 2		
1	AC CURRENT (Average / TRMS)	*	*	*	*	NA	*	*	*	*	*	*	*	*	*	*	*	Subject to technical feasibility. Please inquire with sales@goliyainstruments.com
2	AC VOLTAGE (Average / TRMS)	*	*	*	*	NA	*	*	*	*	*	*	*	*	*	*	*	
3	AC CURRENT (3PHASE, 4 WIRE)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
4	AC VOLTAGE (3 PHASE, 4 WIRE)	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
5	W / KW / MW (1PHASE, 2WIRE, 1 ELEMENT) - TRMS	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
6	W / KW / MW (3PHASE, 3WIRE, 2 ELEMENT) - TRMS BALANCED & UNBALANCED LOAD	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
7	W / KW / MW (3PHASE, 4WIRE, 3 ELEMENT) - TRMS BALANCED & UNBALANCED LOAD	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
8	VAR / KVAR / MVAR (1PHASE, 2WIRE, 1 ELEMENT) - TRMS	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
9	VAR / KVAR / MVAR (3PHASE, 3WIRE, 2 ELEMENT) - TRMS BALANCED & UNBALANCED LOAD	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
10	VAR / KVAR / MVAR (3PHASE, 4WIRE, 3 ELEMENT) - TRMS BALANCED & UNBALANCED LOAD	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
11	FREQUENCY TRANSDUCER	*	*	*	*	NA	*	*	*	*	*	*	*	*	*	*	*	
12	DC ISOLATION / SIGNAL ISOLATION TRANSDUCER	*	*	*	NA	*	*	*	*	*	*	*	*	*	*	*	*	
13	TEMPERATURE TRANSDUCER	*	*	*	NA	NA	*	*	*	*	*	*	*	NA	*	*	*	
14	TAP POSITION TRANSDUCER	*	*	*	NA	NA	*	*	*	*	*	*	*	NA	*	*	*	

Note : * Indicates choice of Standard / Optional. Please Specify your requirement of all Standard / Optional specifications clearly at the time of ordering. NA denotes not available.



R-CMT-M



R-CMT, R-CMT-TRMS



R-CMT34

MECO-G AC Current Transducers measures and convert a sinusoidal AC Current signal into a standard industrial DC signal which is directly proportional to the measured input signal. These transducers provide an output which are load independent and isolated from the input. These outputs are accurate, reliable, consistent and stable and are suitable for Telemetry for remote, local as well as Central Monitoring Systems, Data-loggers, PLC's, SCADA systems and control applications.

GENERAL SPECIFICATIONS

Accuracy	± 0.5% (Standard), ± 0.2% (Optional) of Rated output
Output Ripple	0.2% RMS
Response	Less than 0.5 Sec.
Frequency	50/60 Hz (Standard), Upto 400Hz (Optional)
Zero Adj.	± 2% Min.
Span Adj.	± 10% Min.
Operating Temp.	0-50°C (RH<90%) (Non Condensing)
Storage Temp.	-20°C to 70°C (Non Condensing)
Overload Continuous	2x Rated Current, 1.2x Rated Voltage
Breakdown Impulse Voltage	1x40µs 4.5 KV (without dewing.)
Temperature Coefficient	0.03% / °C.
Dielectric Withstand Voltage	2KV for 1 min. (Standard), 4KV (Optional) across Casing - Input / Output / Auxiliary
Insulation Resistance	>100 MΩ at 500VDC

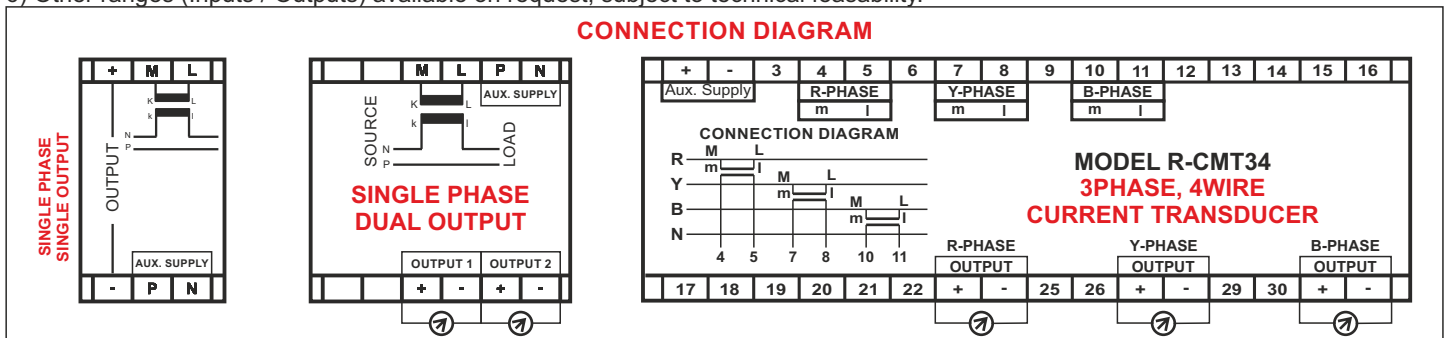
MODEL	TYPE
R-CMT-M	Current - Average (Mini) (SINGLE OUTPUT ONLY)
R-CMT	Current - Average
R-CMT-TRMS	Current - TRMS
R-CMT34	Current - 3Phase 4Wire

AC INPUT		AUXILIARY POWER SUPPLY		DC OUTPUT RANGES					
Range	0-1A (Direct) 0-5A (Direct) CTR --/1A CTR --/5A	0-110 / 220VAC ± 10% 50/60 Hz Approx. 85-264V AC/DC ± 10% 19-90V AC/DC ± 10% 0-24 / 48 VDC ± 10% 2Watts Approx. 0-110V DC ±10% 2 Watts Approx. 0-220V DC ± 10% 2 Watts Approx.		Current		Voltage			
Measuring Range	0-1.2x Input	Output	Load	Output	Load	Output	Load		
Burden	<0.5VA	0-1mA	≤10kΩ	0-1V	≥1kΩ	0-5mA	≤2kΩ	0-5V	≥5kΩ
		0-10mA	≤1kΩ	1-5V	≥5kΩ	0-20mA	≤500Ω	0-10V	≥10kΩ
		4-20mA	≤500Ω	2-10V	≥10kΩ				

Note:

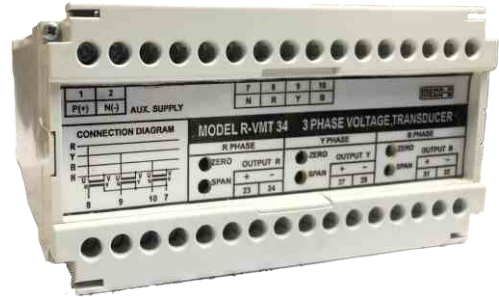
- 1) AC Current Transducers without separate auxiliary supply (Self Powered) can be supplied with fixed load.
- 2) Two wire transducers with auxiliary supply 24VDC and output 4-20mADC are available.
- 3) Asymmetrical / Symmetrical output transducers are available.
- 4) Dual Non-isolated Outputs available on request.
- 5) Other auxiliary Power supplies available, subject to technical feasibility
- 6) Other ranges (Inputs / Outputs) available on request, subject to technical feasibility.

CONNECTION DIAGRAM





R-VMT, R-VMT-TRMS



R-VMT34

MECO-G AC Voltage Transducers measures and convert a sinusoidal AC Voltage signal into a standard industrial DC signal which is directly proportional to the measured input signal. These transducers provide an output which are load independent and isolated from the input. These outputs are accurate, reliable, consistent and stable and are suitable for Telemetry for remote, local as well as Central Monitoring Systems, Data-loggers, PLC's, SCADA systems and control applications.

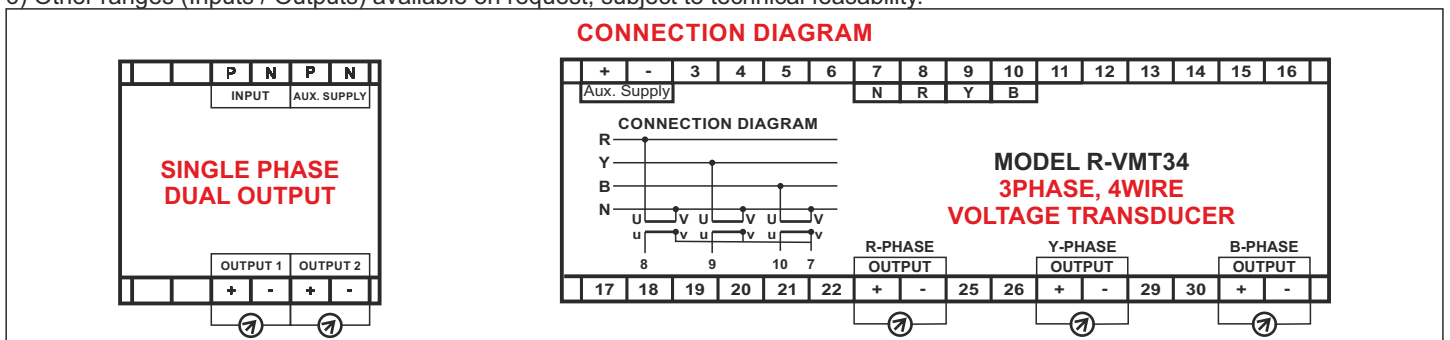
GENERAL SPECIFICATIONS

Accuracy	± 0.5% (Standard), ± 0.2% (Optional) of Rated output
Output Ripple	0.2% RMS
Response	Less than 0.5 Sec.
Frequency	50/60 Hz (Standard), Upto 400Hz (Optional)
Zero Adj.	± 2% Min.
Span Adj.	± 10% Min.
Operating Temp.	0-50°C (RH<90%) (Non Condensing)
Storage Temp.	-20°C to 70°C (Non Condensing)
Overload Continuous	2x Rated Current, 1.2x Rated Voltage
Breakdown Impulse Voltage	1x40µs 4.5 KV (without dewing.)
Temperature Coefficient	0.03% / °C.
Dielectric Withstand Voltage	2KV for 1 min. (Standard), 4KV (Optional) across Casing - Input / Output / Auxiliary
Insulation Resistance	>100 MΩ at 500VDC

MODEL	TYPE
R-VMT	Voltage - Average
R-VMT-TRMS	Voltage- TRMS
R-VMT34	Voltage - 3Phase 4Wire

AC INPUT		AUXILIARY POWER SUPPLY		DC OUTPUT RANGES			
Range				Current		Voltage	
	0-63.5VAC	0-110 / 220VAC ± 10% 50/60 Hz Approx.		Output	Load	Output	Load
	0-110VAC	85-264V AC/DC ± 10%		0-1mA	≤10kΩ	0-1V	≥1kΩ
	0-230VAC	19-90V AC/DC ± 10%		0-5mA	≤2kΩ	0-5V	≥5kΩ
	0-300VAC	0-24 / 48 VDC ± 10% 2Watts Approx.		0-10mA	≤1kΩ	1-5V	≥5kΩ
	0-500VAC	0-110V DC ±10% 2 Watts Approx.		0-20mA	≤500Ω	0-10V	≥10kΩ
	PTR Available	0-220V DC ± 10% 2 Watts Approx.		4-20mA	≤500Ω	2-10V	≥10kΩ
Burden	<0.5VA						

- Note:
- 1) AC Voltage Transducers without separate auxiliary supply (Self Powered) can be supplied.
 - 2) Two wire transducers with auxiliary supply 24VDC and output 4-20mADC are available.
 - 3) Asymmetrical / Symmetrical output transducers are available.
 - 4) Dual Non-isolated Outputs available on request.
 - 5) Other auxiliary Power supplies available, subject to technical feasibility
 - 6) Other ranges (Inputs / Outputs) available on request, subject to technical feasibility.





R-FT

MECO-G AC Frequency Transducers measures and convert a sinusoidal AC Frequency signal into a standard industrial DC signal which is directly proportional to the measured input signal. These transducers provide an output which are load independent and isolated from the input. These outputs are accurate, reliable, consistent and stable and are suitable for Telemetry for remote, local as well as Central Monitoring Systems, Data-loggers, PLC's, SCADA systems and control applications.

GENERAL SPECIFICATIONS

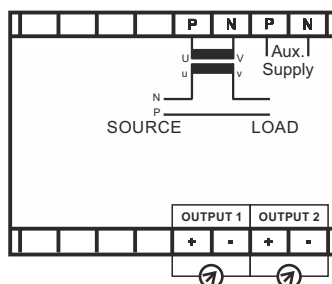
Accuracy	± 0.5% (Standard), ± 0.2% (Optional) of Rated output
Output Ripple	0.2% RMS
Response	Less than 0.5 Sec.
Frequency	50/60 Hz
Zero Adj.	± 2% Min.
Span Adj.	± 10% Min.
Operating Temp.	0-50°C (RH<90%) (Non Condensing)
Storage Temp.	-20°C to 70°C (Non Condensing)
Overload Continuous	2x Rated Current, 1.2x Rated Voltage
Breakdown Impulse Voltage	1x40µs 4.5 KV (without dewing.)
Temperature Coefficient	0.03% / °C.
Dielectric Withstand Voltage	2KV for 1 min. (Standard), 4KV (Optional) across Casing - Input / Output / Auxiliary
Insulation Resistance	>100 MΩ at 500VDC

MODEL	TYPE
R-FT	Frequency Transducer

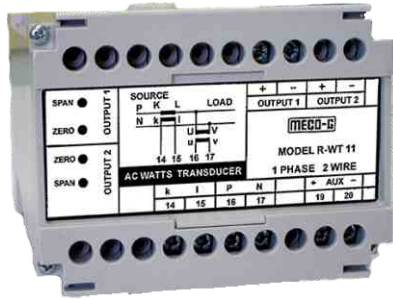
AC INPUT		AUXILIARY POWER SUPPLY		DC OUTPUT RANGES			
Frequency Input	45-55Hz	0-110 / 220VAC ± 10% 50/60 Hz Approx.		Current		Voltage	
	40-60Hz	85-264V AC/DC ± 10%		Output	Load	Output	Load
	55-65Hz	19-90V AC/DC ± 10%		0-1mA	≤10kΩ	0-1V	≥1kΩ
	45-65Hz	0-24 / 48 VDC ± 10% 2Watts Approx.		0-5mA	≤2kΩ	0-5V	≥5kΩ
	360-440Hz	0-110V DC ±10% 2 Watts Approx.		0-10mA	≤1kΩ	1-5V	≥5kΩ
Voltage Input	0-63.5 / 110 / 230 440V	0-220V DC ± 10% 2 Watts Approx.		0-20mA	≤500Ω	0-10V	≥10kΩ
				4-20mA	≤500Ω	2-10V	≥10kΩ

- Note:
- 1) AC Frequency Transducers without separate auxiliary supply (Self Powered) can be supplied.
 - 2) Asymmetrical / Symmetrical output transducers are available.
 - 3) Other auxiliary Power supplies available, subject to technical feasibility
 - 4) All input ranges are suitable with PTR.
 - 5) Other ranges (Inputs / Outputs) available on request, subject to technical feasibility.

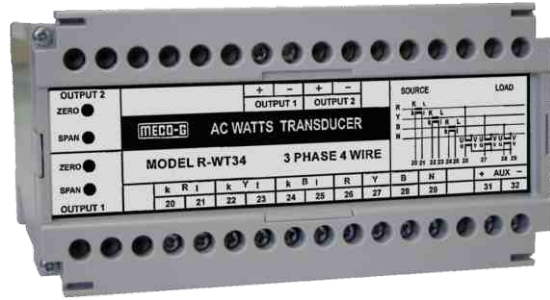
CONNECTION DIAGRAM



AC POWER (WATT) TRANSDUCER (1PHASE, 3PHASE 3 WIRE, 3PHASE 4 WIRE)



R-WT11



R-WT33, R-WT34

MECO-G AC Power (Watt) Transducers measures watts of 1Phase, 3Phase 3Wire, 3Phase 4 wire in balanced and unbalanced load and convert the signal into a standard industrial DC signal which is directly proportional to the measured input signal. These transducers provide an output which are load independent and isolated from the input. These outputs are accurate, reliable, consistent and stable and are suitable for Telemetry for remote, local as well as Central Monitoring Systems, Data-loggers, PLC's, SCADA systems and control applications.

GENERAL SPECIFICATIONS

Accuracy	± 0.5% (Standard), ± 0.2% (Optional) of Rated output
Output Ripple	0.2% RMS
Response	Less than 0.5 Sec.
Frequency	50/60 Hz
Zero Adj.	± 2% Min.
Span Adj.	± 10% Min.
Operating Temp.	0-50°C (RH<90%) (Non Condensing)
Storage Temp.	-20°C to 70°C (Non Condensing)
Overload Continuous	2x Rated Current, 1.2x Rated Voltage
Breakdown Impulse Voltage	1x40µs 4.5 KV (without dewing.)
Temperature Coefficient	0.03% / °C.
Dielectric Withstand Voltage	2KV for 1 min. (Standard), 4KV (Optional) across Casing - Input / Output / Auxiliary
Insulation Resistance	>100 MΩ at 500VDC

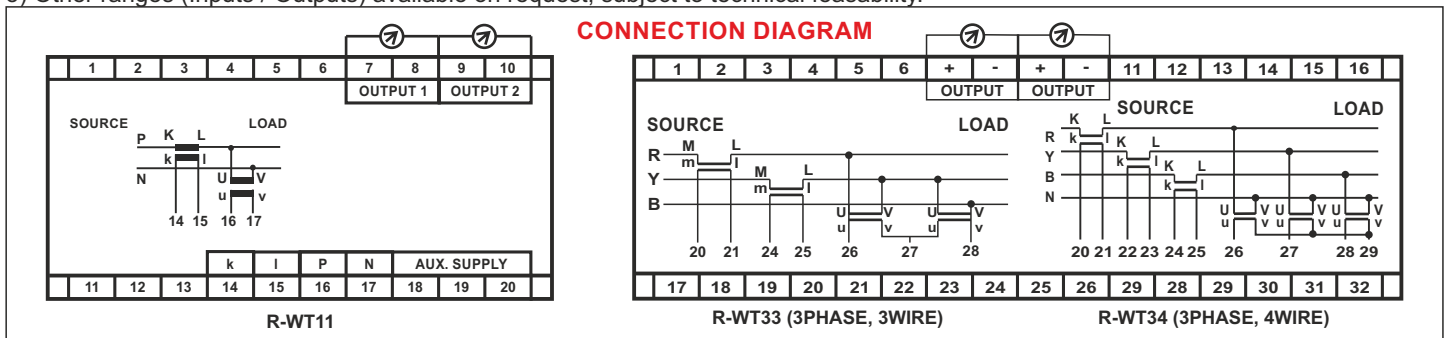
MODEL	TYPE
R-WT11	Watt - Single Phase - TRMS
R-WT33	Watt - 3 Phase, 3 Wire (Balanced & Unbalanced Load) -TRMS
R-WT34	Watt - 3 Phase, 4 Wire (Balanced & Unbalanced Load) -TRMS

AC INPUT	
Voltage	0-63.5 / 100 / 110V 230 / 415 / 440VAC
Current	0-1 / 5 AAC
Frequency	50 / 60 Hz
Power Factor	0 (Lag) - 1 - 0(Lead)
Burden - Voltage	<6mA / Phase
Burden - Current	<0.5VA / Phase

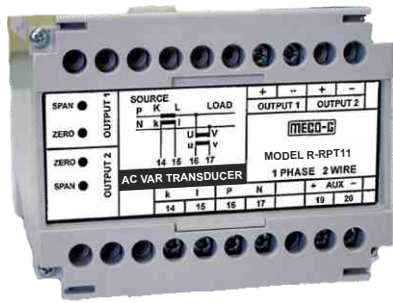
AUXILIARY POWER SUPPLY	
0-110 / 220VAC ± 10% 50/60 Hz Approx.	
85-264V AC/DC ± 10%	
19-90V AC/DC ± 10%	
0-24 / 48 VDC ± 10% 2Watts Approx.	
0-110V DC ±10% 2 Watts Approx.	
0-220V DC ± 10% 2 Watts Approx.	

DC OUTPUT RANGES			
Current		Voltage	
Output	Load	Output	Load
0-1mA	≤10kΩ	0-1V	≥1kΩ
0-5mA	≤2kΩ	0-5V	≥5kΩ
0-10mA	≤1kΩ	1-5V	≥5kΩ
0-20mA	≤500Ω	0-10V	≥10kΩ
4-20mA	≤500Ω	2-10V	≥10kΩ
4-12-20mA	≤500Ω		

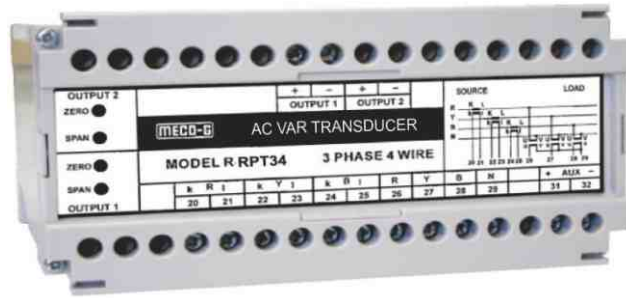
- Note:
- 1) AC Power (Watt) Transducers without separate auxiliary supply (Self Powered) can be supplied.
 - 2) Asymmetrical / Symmetrical output transducers are available.
 - 3) Other auxiliary Power supplies available, subject to technical feasibility
 - 4) All input ranges are suitable with CTR and PTR.
 - 5) Other ranges (Inputs / Outputs) available on request, subject to technical feasibility.



AC REACTIVE POWER (VAR) TRANSDUCER (1PHASE, 3PHASE 3 WIRE, 3PHASE 4 WIRE)



R-RPT11



R-RPT33 , R-RPT34

MECO-G AC Reactive Power (VAR) Transducers measures VAR of 1Phase, 3Phase 3Wire, 3Phase 4 wire in balanced and unbalanced load and convert the signal into a standard industrial DC signal which is directly proportional to the measured input signal. These transducers provide an output which are load independent and isolated from the input. These outputs are accurate, reliable, consistent and stable and are suitable for Telemetry for remote, local as well as Central Monitoring Systems, Data-loggers, PLC's, SCADA systems and control applications.

GENERAL SPECIFICATIONS

Accuracy	± 0.5% (Standard), ± 0.2% (Optional) of Rated output
Output Ripple	0.2% RMS
Response	Less than 0.5 Sec.
Frequency	50/60 Hz
Zero Adj.	± 2% Min.
Span Adj.	± 10% Min.
Operating Temp.	0-50°C (RH<90%) (Non Condensing)
Storage Temp.	-20°C to 70°C (Non Condensing)
Overload Continuous	2x Rated Current, 1.2x Rated Voltage
Breakdown Impulse Voltage	1x40µs 4.5 KV (without dewing.)
Temperature Coefficient	0.03% / °C.
Dielectric Withstand Voltage	2KV for 1 min. (Standard), 4KV (Optional) across Casing - Input / Output / Auxiliary
Insulation Resistance	>100 MΩ at 500VDC

MODEL	TYPE
R-RPT11	Var - Single Phase - TRMS
R-RPT33	Var - 3 Phase, 3 Wire (Balanced & Unbalanced Load) -TRMS
R-RPT34	Var - 3 Phase, 4 Wire (Balanced & Unbalanced Load) -TRMS

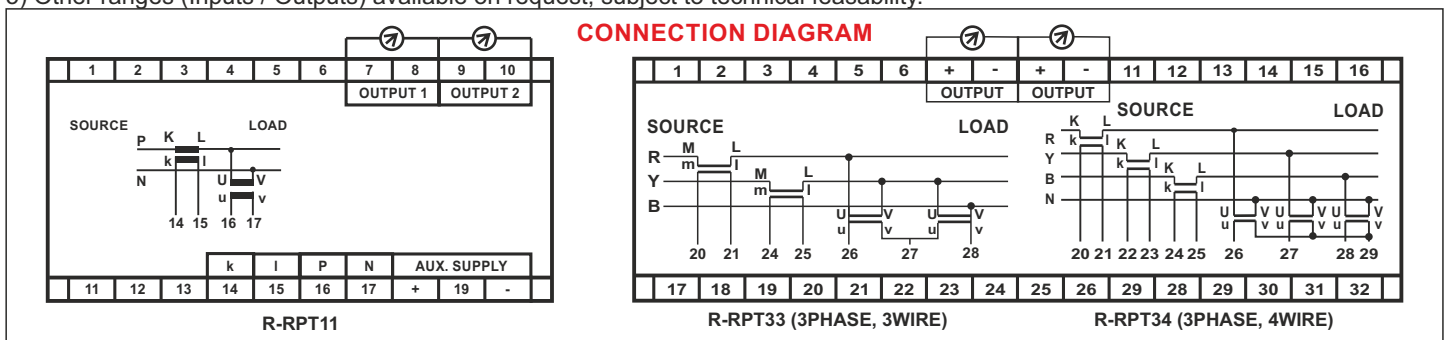
AC INPUT	
Voltage	0-63.5 / 100 / 110 230 / 415 / 440VAC
Current	0-1 / 5 AAC
Frequency	50 / 60 Hz
Power Factor	0 (Lag) - 1 - 0(Lead)
Burden - Voltage	<6mA / Phase
Burden - Current	<0.5VA / Phase

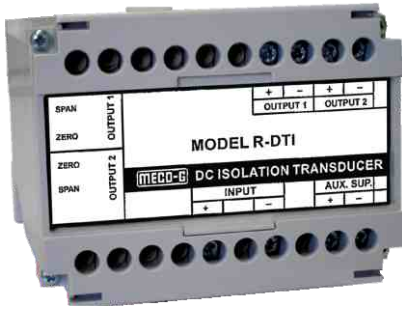
AUXILIARY POWER SUPPLY	
0-110 / 220VAC ± 10% 50/60 Hz Approx.	85-264V AC/DC ± 10%
19-90V AC/DC ± 10%	0-24 / 48 VDC ± 10% 2Watts Approx.
0-110V DC ±10% 2 Watts Approx.	0-220V DC ± 10% 2 Watts Approx.

DC OUTPUT RANGES			
Current		Voltage	
Output	Load	Output	Load
0-1mA	≤10kΩ	0-1V	≥1kΩ
0-5mA	≤2kΩ	0-5V	≥5kΩ
0-10mA	≤1kΩ	1-5V	≥5kΩ
0-20mA	≤500Ω	0-10V	≥10kΩ
4-20mA	≤500Ω	2-10V	≥10kΩ
4-12-20mA	≤500Ω		

Note:

- 1) AC Reactive Power (VAR) Transducers without separate auxiliary supply (Self Powered) can be supplied.
- 2) Asymmetrical / Symmetrical output transducers are available.
- 3) Other auxiliary Power supplies available, subject to technical feasibility
- 4) All input ranges are suitable with CTR and PTR.
- 5) Other ranges (Inputs / Outputs) available on request, subject to technical feasibility.





R-DTI



R-SIT

MECO-G DC Isolation / Signal Isolation transducers measures DC Voltage or Current and convert the signal into a standard industrial DC signal which is directly proportional to the measured input signal. These transducers provide an output which are load independent and isolated from the input. These outputs are accurate, reliable, consistent and stable and are suitable for Telemetry for remote, local as well as Central Monitoring Systems, Data-loggers, PLC's, SCADA systems and control applications.

GENERAL SPECIFICATIONS

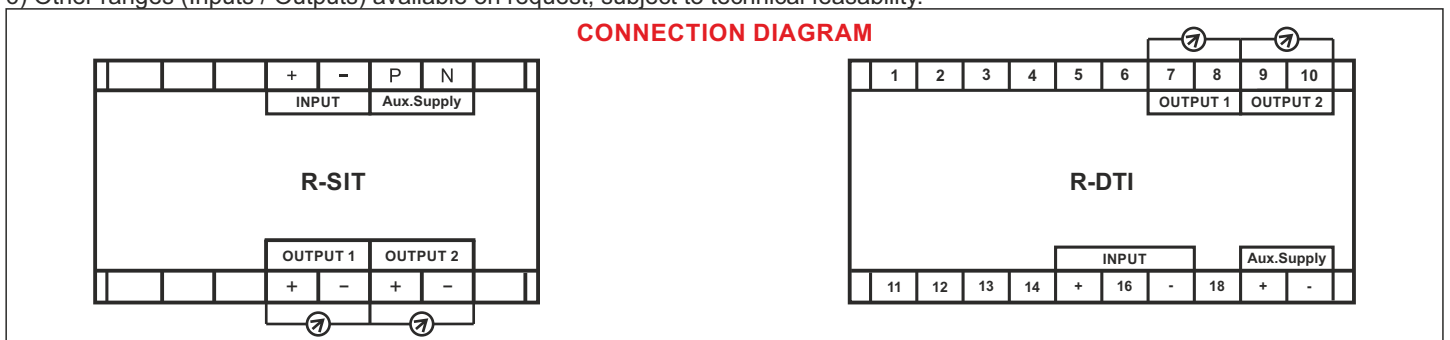
Accuracy	$\pm 0.5\%$ (Standard), $\pm 0.2\%$ (Optional) of Rated output for R-DTI $\pm 0.5\%$ of Rated output for R-SIT
Output Ripple	0.2% RMS
Response	Less than 0.5 Sec.
Zero Adj.	$\pm 2\%$ Min.
Span Adj.	$\pm 10\%$ Min.
Operating Temp.	0-50°C (RH<90%) (Non Condensing)
Storage Temp.	-20°C to 70°C (Non Condensing)
Overload Continuous	2x Rated Current, 1.2x Rated Voltage
Breakdown Impulse Voltage	1x40 μ s 4.5 KV (without dewing.)
Temperature Coefficient	0.03% / °C.
Dielectric Withstand Voltage	2KV for 1 min. (Standard), 4KV (Optional) across Casing - Input / Output / Auxiliary
Insulation Resistance	>100 M Ω at 500VDC

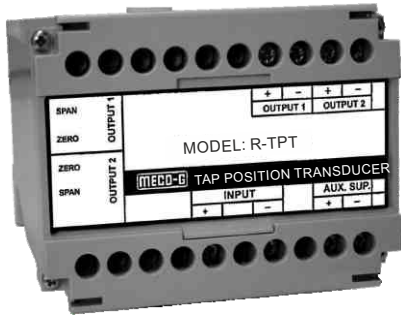
MODEL	TYPE
R-SIT	Signal Isolation Transducer (Positive Input Signal)
R-DTI	DC Isolation Transducer (Negative and Positive Input Signal)

DC INPUT		AUXILIARY POWER SUPPLY		DC OUTPUT RANGES			
Voltage	0-50/ 60 / 75 / 100mV	0-110 / 220VAC $\pm 10\%$ 50/60 Hz Approx.		Current		Voltage	
	0-1 / 5 / 10 / 1-5V	85-264V AC/DC $\pm 10\%$		Output	Load	Output	Load
	2-10 / 1000V	19-90V AC/DC $\pm 10\%$		0-1mA	$\leq 10k\Omega$	0-1V	$\geq 1k\Omega$
Current	0-1 / 5 / 10 / 20mA	0-24 / 48 VDC $\pm 10\%$ 2Watts Approx.		0-5mA	$\leq 2k\Omega$	0-5V	$\geq 5k\Omega$
	2-10 / 4-20mA	0-110V DC $\pm 10\%$ 2 Watts Approx.		0-10mA	$\leq 1k\Omega$	1-5V	$\geq 5k\Omega$
	1ADC / 5ADC	0-220V DC $\pm 10\%$ 2 Watts Approx.		0-20mA	$\leq 500\Omega$	0-10V	$\geq 10k\Omega$
Burden - Voltage	10k Ω / Voltage			4-20mA	$\leq 500\Omega$	2-10V	$\geq 10k\Omega$
Burden - Current	100mV			4-12-20mA	$\leq 500\Omega$		

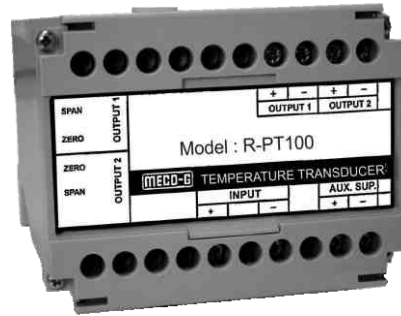
- Note:
- 1) Bi-Directional Inputs eg. (-75) - 0 - (+75)mV available. (R-DTI Only)
 - 2) Bi-Directional Outputs eg. 4-12-20mADC also available.
 - 3) Asymmetrical / Symmetrical output transducers are available.
 - 4) Other auxiliary Power supplies available, subject to technical feasibility
 - 5) All input ranges are suitable with Shunts.
 - 6) Other ranges (Inputs / Outputs) available on request, subject to technical feasibility.

CONNECTION DIAGRAM





R-TPT



R-PT100

MECO-G Tap Position Transducers and Temperature Transducer measures the resistance and convert the signal into a standard industrial DC signal which is directly proportional to the measured input signal. These transducers provide an output which are load independent and isolated from the input. These outputs are accurate, reliable, consistent and stable and are suitable for Telemetry for remote, local as well as Central Monitoring Systems, Data-loggers, PLC's, SCADA systems and control applications.

GENERAL SPECIFICATIONS

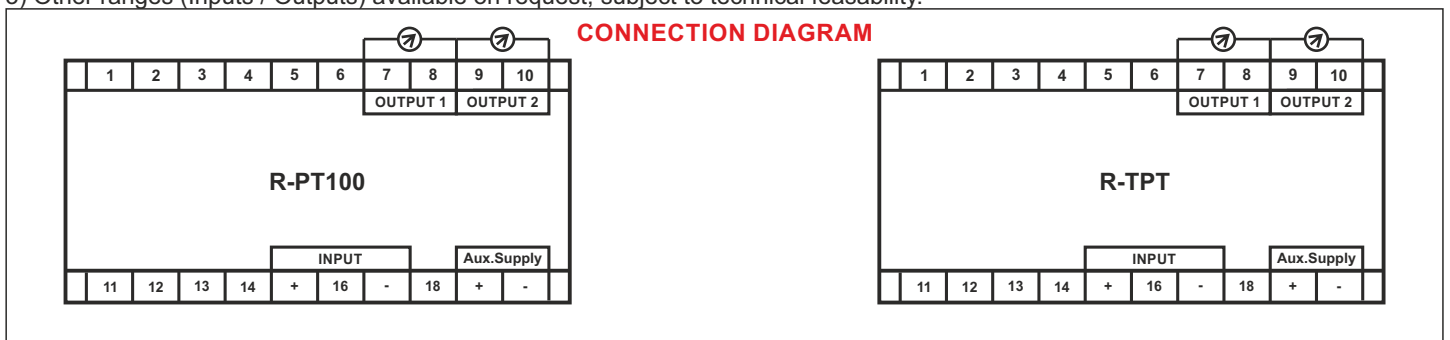
Accuracy	± 0.5% (Standard)
Output Ripple	0.2% RMS
Response	Less than 0.5 Sec.
Zero Adj.	± 2% Min.
Span Adj.	± 10% Min.
Operating Temp.	0-50°C (RH<90%) (Non Condensing)
Storage Temp.	-20°C to 70°C (Non Condensing)
Overload Continuous	2x Rated Current, 1.2x Rated Voltage
Breakdown Impulse Voltage	1x40µs 4.5 KV (without dewing.)
Temperature Coefficient	0.03% / °C.
Dielectric Withstand Voltage	2KV for 1 min. (Standard), 4KV (Optional) across Casing - Input / Output / Auxiliary
Insulation Resistance	>100 MΩ at 500VDC

MODEL	TYPE
R-TPT	Tap Position Transducer
R-PT100	Temperature Transducer

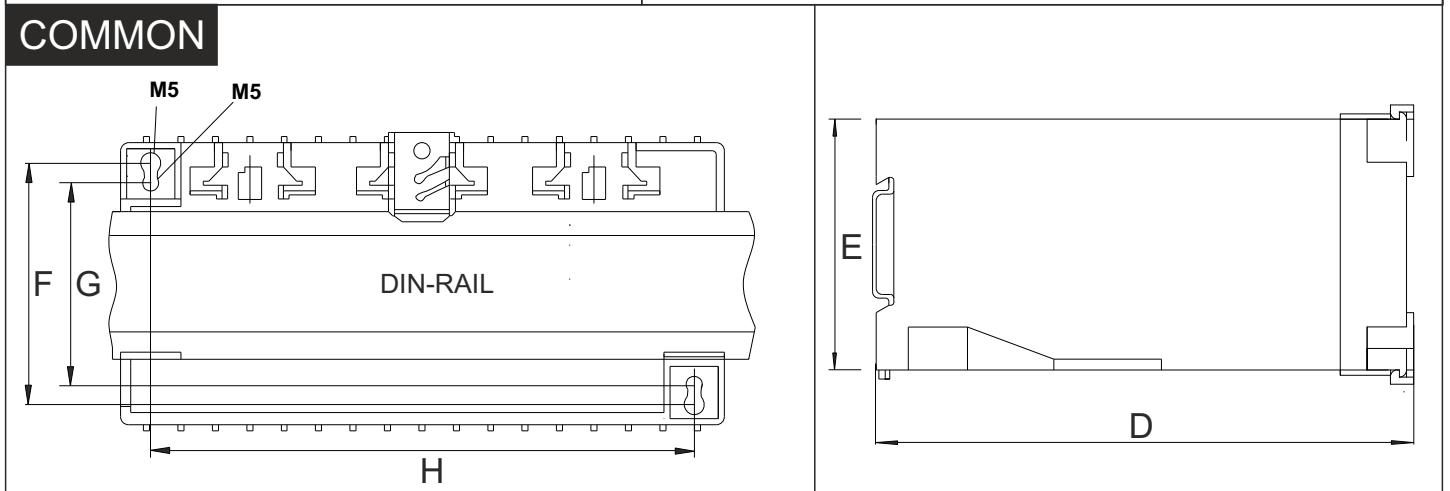
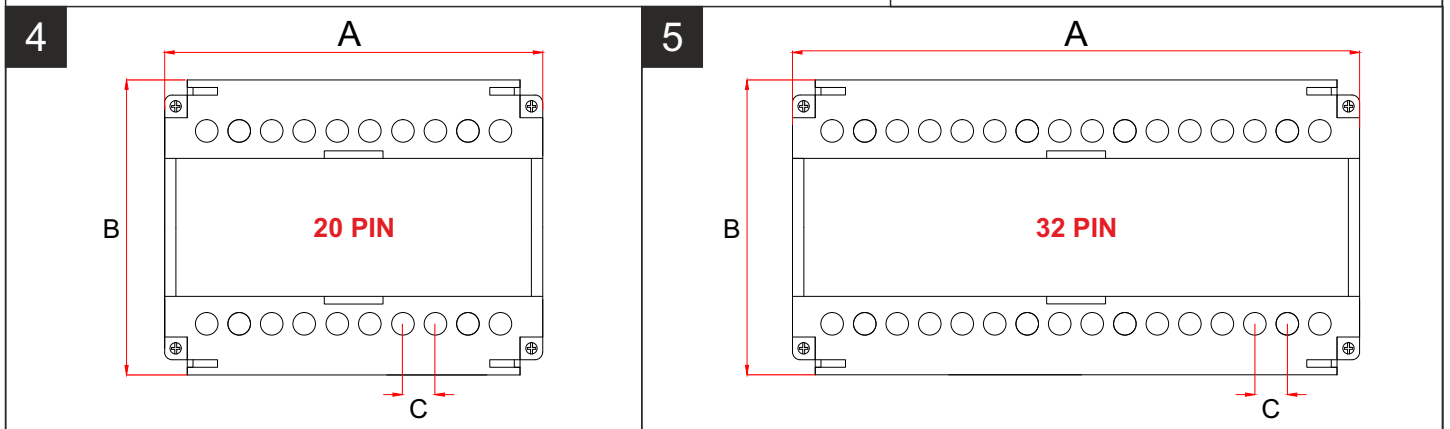
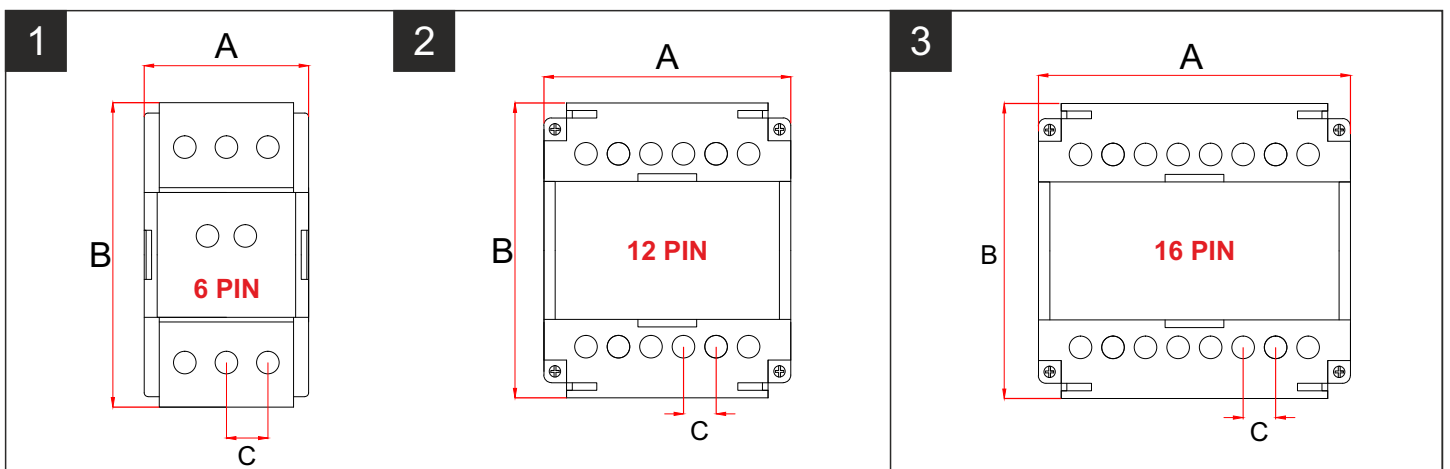
INPUT	AUXILIARY POWER SUPPLY		DC OUTPUT RANGES			
	R-TPT		Current		Voltage	
Potentiometric Resistance input from transformer tap position. Upto 99 transformer taps 100 KΩ max	0-110 / 220VAC ± 10% 50/60 Hz Approx. 85-264V AC/DC ± 10% 19-90V AC/DC ± 10% 0-24 / 48 VDC ± 10% 2Watts Approx.		Output	Load	Output	Load
R-PT100 Resistive Input from PT-100 sensor	0-110V DC ±10% 2 Watts Approx. 0-220V DC ± 10% 2 Watts Approx.		0-1mA	≤10kΩ	0-1V	≥1kΩ
			0-5mA	≤2kΩ	0-5V	≥5kΩ
			0-10mA	≤1kΩ	1-5V	≥5Ω
			0-20mA	≤500Ω	0-10V	≥10kΩ
			4-20mA	≤500Ω	2-10V	≥10kΩ

Note:

- 1) Asymmetrical / Symmetrical output transducers are available.
- 2) Other auxiliary Power supplies available, subject to technical feasibility.
- 3) Other ranges (Inputs / Outputs) available on request, subject to technical feasibility.



DWG REF.	MODEL	All Dimensions in mm							
		A	B	C	D	E	F	G	H
1	R-CMT - M	43.5	80.5	11	71	75	67	-	35.5
2	R-CMT / VMT - SINGLE O/P R-CMT / VMT (DUAL O/P)	65	78	8.6	119.5	70	59	49.4	50
3	R-FT , R-SIT	82.4	78	8.6	119.5	70	59	49.4	67.4
4	R-WT11, R-RPT11, R-DTI R-PT100 , R-TPT	100	78	8.6	119.5	70	59	49.4	85
5	R-VMT34, R-CMT34 R-WT33 , R-WT34 R-RPT33, R-RPT34	150	78	8.6	119.5	70	59	49.4	135



VOLTAGE TRANSDUCER TEST REPORT

ELECTRONICS REGIONAL TEST LABORATORY (WEST) DEPARTMENT OF INFORMATION TECHNOLOGY	REPORT NO. ERTL (W)/ 2007 E&S 262		
SUBJECT: TESTING OF VOLTAGE TRANSDUCER	DATE 29/10/2007	PAGE 1	OF 7

1. SCOPE

1.1 Service Request No : ERTL (W)/20071513 Dated 13th Sept, 2007

1.1.1 Service Request finalised on : 13th Sept, 2007

1.2 Requested by : GOLIYA INSTRUMENTS PVT. LTD.,
(Name and address of organisation) 311, BHARAT INDL. ESTATE,
T.J. ROAD,
SEWREE, MUMBAI 400 015

1.3 Description	Qty	Manufacturer	Type No.	Serial No.
Voltage Transducer, Input: 0-230 V AC, Output: 4-20 mA DC, Class: 0.5,	01 No.	GOLIYA INSTRUMENTS PVT. LTD	R-VMT	3479/07

1.4 Test specifications : Type Testing as per IS 12784: 1989
(Reaffirmed 1993)

1.5 Lab Ambient : Temperature : (25 ±2) deg.C
Humidity : (55 ±5) % RH

1.6 Test Equipment used:

1. Calibrator (S&C/138)
2. High Voltage Tester (E&S/66)
3. Impulse Voltage Tester (COM/209)
4. Energy Meter Test Bench (E&S/128)
5. High Resistance Meter (COM/200)
6. D.M.M. (E&S/132)
7. Scope Meter (E&S/125)
8. Magnetic Influence Jig

1.7 Environmental Simulators used : 1. WT Thermal Chamber (ENV/45)

Released by _____





DIGITAL PANEL METERS AND MODULES

Affordable, Accurate, Precise & Reliable instruments... since 1982

Pioneers and Experts in Test and Measuring Instruments...

THINK METERS, THINK MECO-G

**GOLIYA INSTRUMENTS PRIVATE LTD.
MUMBAI**



MECO-G offers a complete range of Digital Panel Meters and Modules suitable for every industry application. These Digital Panel Meters are available in various display's sizes, resolutions, choice of inputs, choice of auxiliary power, accuracies, sizes etc. The design of these meters are time tested and are manufactured from components procured directly from the original manufactures thus offering good precision, accuracy and reliability. All MECO-G digital panel meters pass through a stringent manufacturing and in-house quality control process consisting of burn-in, ultrasonic cleaning and calibration test to ensure smooth operation and working of your processes at your plant.

FEATURES

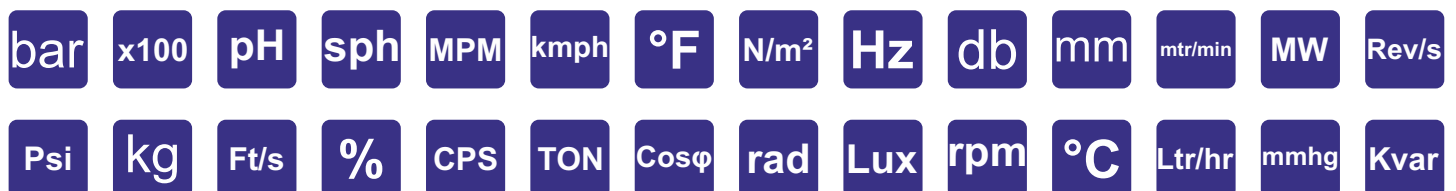
- * Re-Scaleable Display
- * Snap Fit Antiglare Bezel
- * Field Selectable Decimal Point
- * Super Bright Clear Display
- * Easy Screw-able / Snap fit Mounting Clamps
- * Short Depth
- * Easy to screw terminals
- * Re-Scalable Dip Switch

GENERAL SPECIFICATION

Measuring Method	:Dual Slope A/D Conversion, Multiplication of Pulse Width & Pulse Moulation, Micro-controller
Sampling Time	:2.5 Samples Per Second
Display Type	:Red LED Super Bright Display
Casing Material	:ABS plastic for modules, 96x48 / 96x96 / 144x144mm. MS for 72x144 / 96x288mm.
Maximum Display Resolution	:3½ , 4, 4½ Digits
Polarity Indication	:“-” is indicated for Negative Input
Decimal Selection	:Factory Set / Field Selectable (Subject to Technical Feasibility)
Maximum Overload	:Voltage: 1.2 times continuous & Current: 2 times continuous
Frequency Response	:50/60Hz. Upto 1KHz optional. (Subject to Technical Feasibility)
Accuracy	:±0.05% to 0.5% depending on the Range and Display Type
Aux. Power Supply	:110V AC / DC, 230V AC / DC, 440VAC, 19-90VAC / DC, 5VDC / 24VDC / 48VDC, 85-264V AC / DC, Self-Powered. Other Aux. Supply also available (Subject to Technical Feasibility)
VA Burden (Typical)	:Voltage - <0.1VA Current - < 0.5VA Aux. Supply - <5VA
Dielectric Strength	:2kV at 50Hz for 1 min. between input and power terminals. 3kV at 50Hz for 1 min. between all terminals to Case.
Environment	:Calibration: 27°± 5°C :Operating: 0° ~ 50°C, RH < 95% :Storage: -10° ~ 60°C, RH < 95%
Dimension Standards	:Case as per DIN 43700 Snap-Fit Bezel as per DIN 43718 Terminal Block: Thermoplastic (UL 94V-0) with Tin Plated Brass Terminals

INPUTS & ANNUNCIATORS

Input	: AC, DC, TRMS, AMPERE, VOLTAGE, WATTS, VAR, FREQUENCY
Annunciators	: Standard: VOLTAGE, AMPERE, WATTS, VAR, FREQUENCY Special: °C, RPM, kg, %, MPM, kmph etc.



The above specified ranges are available in DC input.

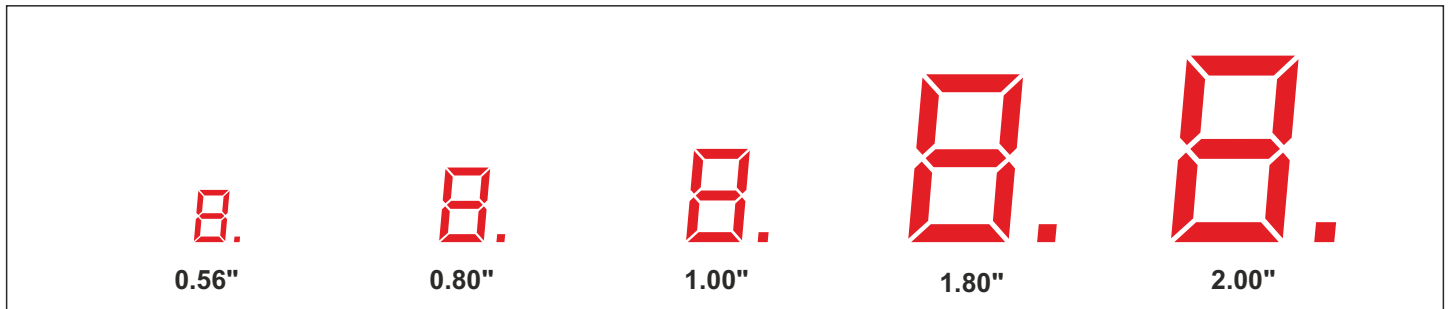
Model	Digits			Aux. Power Supply			Size					
	3½	4	4½	AC	DC	SELF POWERED*	48x96	96x96	144x144	72x144	96x288	
xxR-3501	*			*	*	*	*	*	*	*	*	*
xxR-3501E		*		*	*	*	*	*		*	*	*
xxR-3501T	*			*	*	*	*	*	*	*	*	*
xxR-4500			*	*	*	*	*	*	*	*	*	*
xxR-4500T			*	*	*	*	*	*		*	*	*
xxR-4050AN / BN		*		*	*	*	*	*	*	*	*	*
xxR-3501D	*			*	*	*		*	*			
xxR-4500D			*	*	*	*		*	*			
xxR-4050AND/BND		*		*	*	*		*	*			
xxR-3501A34	*			*	*			*				
xxR-3501V33/V34	*			*	*	*		*				
xxR-DWM11/33/34	*			*	*	*		*	*			
xxR-DVM11/33/34	*			*	*	*		*	*			
RC-135	*				*							

*Self Powered instruments are subject to technical feasibility. Kindly contact on sales@goliyainstruments.com for confirmation

DIGITS



DISPLAY HEIGHT (1:2 Ratio)

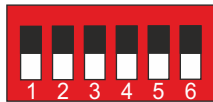


DIP SWITCH CHART AND PHOTO

1 2 3 4 5 6* SWITCH SETTING FOR DISPLAY FROM 10.0 ~ 1600 SWITCH POSITION

ON	1	2	3	4	5	6
100	ON	ON	ON	ON	ON	ON
150	ON	ON	ON	ON	ON	ON
200	ON	ON	ON	ON	ON	ON
250	OFF	OFF	ON	ON	ON	ON
300	ON	ON	ON	ON	ON	ON
400	ON	ON	ON	ON	ON	ON
500	ON	ON	ON	ON	ON	ON
600	ON	ON	ON	ON	ON	ON
750	ON	ON	ON	ON	ON	ON
800	ON	ON	ON	ON	ON	ON
1000	ON	ON	ON	ON	ON	ON
1200	ON	ON	ON	ON	ON	ON
1250	ON	ON	ON	ON	ON	ON
1500	ON	ON	ON	ON	ON	ON
1600	ON	ON	ON	ON	ON	ON

* FOR DECIMAL POINT SET SWITCH 6 ON. e.g.
FOR DISPLAY 250, SWITCH 1,2 AND 6 ARE OFF
FOR DISPLAY 25.0, SWITCH 1,2 ARE OFF. 6 IS ON





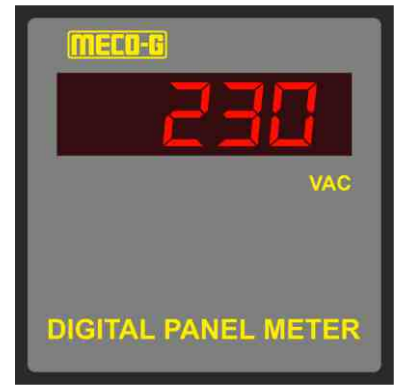
R-3501



72144R-3501



96R-3501



144R-3501

FEATURES

- * Digit Display: 1999
- * Rescaleable AAC, mADC & mVDC Ranges
- * Easy-to-wire, screw-type terminals

GENERAL SPECIFICATION

Measuring Method :Dual Slope A/D Conversion
Sampling Time :2.5 Samples Per Second
Display Type :Red LED Super Bright Display
Maximum Display :3½ dgt. 1999 Counts
Resolution :0.001 to 1 Count Depending on range
Polarity Indication :“-” is indicated for Negative Input
Decimal Selection :Field Selectable (Optional)
Over Range Indication :“1” or “-1”
Maximum Overload :Voltage: 1.2 times continuous
:Current: 2 times continuous
Frequency Response :50-60Hz. **Upto 1KHz optional.**
Environment :Calibration: 27°± 5°C
:Operating: 0° ~ 50°C, RH < 95%
:Storage: -10° ~ 60°C, RH < 95%

- * Outside Dimensions according to DIN standards (96x48mm), (96x96mm), (144x144mm), (72x144mm) (96x288mm)

VA Burden (Typical) : <2.5VA
Dielectric Strength : 2kV at 50Hz for 1 min. between input and Power terminals.
: 3kV at 50Hz for 1 min. between all terminals to case.
Accuracy **VDC** : ± 0.1% Rdg. ± 2 dgts.
VAC : ± 0.5% Rdg. ± 5 dgts.
ADC : ± 0.3% Rdg. ± 2 dgts.
AAC : ± 0.5% Rdg. ± 5 dgts.
Aux. Power Supply : 110V AC / DC, 230V AC / DC, 19-90VAC / DC, 5VDC / 24VDC / 48VDC, 85-264V AC/DC ±10% @50 / 60Hz

DIRECT INPUT: DC or AC or TRMS			DIRECT INPUT: AC or DCmV / V / mA Input		
MEASURING RANGE	INPUT IMPEDANCE	RESOLUTION	MEASURING RANGE	INPUT IMPEDANCE	DISPLAY RANGE
199.9µA	1KΩ	0.1µA	0-50mV	1MΩ	Scaleable 10.0~1600A or as per Customer requirement. (Kindly mention at time of ordering)
1.999mA	100Ω	0.001mA	0-60mV	1MΩ	
19.99mA	10Ω	0.01mA	0-75mV	1MΩ	
199.9mA	1Ω	0.1mA	0-100mV	1MΩ	
1.999A	0.1Ω	0.001A	0-5V	1MΩ	
5A/20A	0.01Ω	0.01A	1-5V	1MΩ	
199.9mV	1MΩ	0.1mV	0-10V	1MΩ	
1.999V	1MΩ	0.001V	0-1mA	100Ω	
19.99V	1MΩ	0.01V	4-20mA	10Ω	
199.9V	1MΩ	0.1V	CTR: --/1A (AC/TRMS)	0.1Ω	
750V	1MΩ	1V	CTR: --/5A (AC/TRMS)	0.01Ω	
1000V (DC ONLY)	1MΩ	1V			

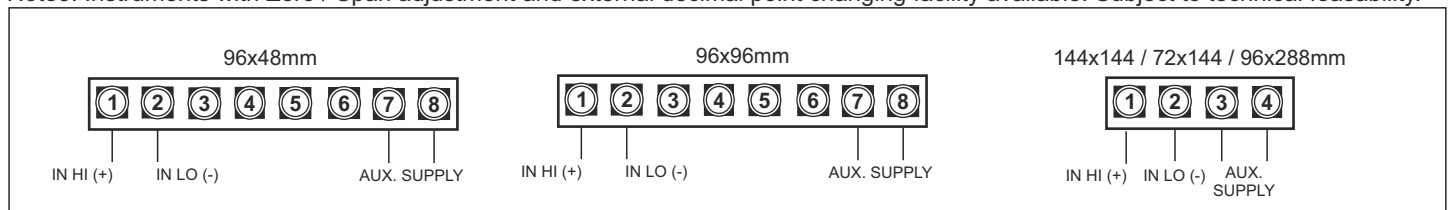
Note1: Data Hold Facility Available.

Note2: Other Aux. Supply available. (Subject to Technical Feasibility)

Note3: Instruments with Larger display height of 1", 1.8", 2.0" etc also available.

Note4: Instruments with variable displays i.e. RPM / mm / mm/min etc. also available.

Note5: Instruments with Zero / Span adjustment and external decimal point changing facility available. Subject to technical feasibility.

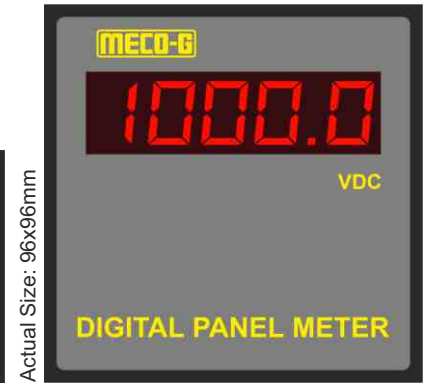




R-4500



96288R-4500



96R-4500

FEATURES

- * Digit Display: 19999
- * Easy-to-wire, screw-type terminals

- * Outside Dimensions according to DIN standards (96x48mm), (96x96mm), (144x144mm), (72x144mm) (96x288mm)

GENERAL SPECIFICATION

Measuring Method :Dual Slope A/D Conversion
Sampling Time :2.5 Samples Per Second
Display Type :Red LED Super Bright Display
Maximum Display :4½ dgt. 19999 Counts
Resolution :0.0001 to 1 Count Depending on range
Polarity Indication :“-” is indicated for Negative Input
Decimal Selection :Factory Set
Over Range Indication :“0000”
Maximum Overload :Voltage: 1.2 times continuous
:Current: 2 times continuous
Frequency Response :50-60Hz. **Upto 1KHz optional.**
Environment :Calibration: 27°± 5°C
:Operating: 0° ~ 50°C, RH < 95%
:Storage: -10° ~ 60°C, RH < 95%

VA Burden (Typical) : <2.5VA
Dielectric Strength : 2kV at 50Hz for 1 min. between input and Power terminals.
: 3kV at 50Hz for 1 min. between all terminals to case.
Accuracy **VDC** : ± 0.05% Rdg. ± 2 dgts.
VAC : ± 0.1% Rdg. ± 5 dgts.
ADC : ± 0.1% Rdg. ± 2 dgts.
AAC : ± 0.1% Rdg. ± 5 dgts.
Aux. Power Supply : 110V AC / DC, 230V AC / DC, 19-90VAC / DC, 5VDC / 24VDC / 48VDC, 85-264VAC/DC / 440VAC ±10% @50 / 60Hz

DIRECT INPUT: DC or AC or TRMS			DIRECT INPUT: AC or DCmV / V / mA Input		
MEASURING RANGE	INPUT IMPEDANCE	RESOLUTION	MEASURING RANGE	INPUT IMPEDANCE	DISPLAY RANGE
199.99µA	1KΩ	0.01µA	0-50mV	1MΩ	As per Customer requirement. (Kindly mention at time of ordering) Subject to Technical Feasibility
1.9999mA	100Ω	0.0001mA	0-60mV	1MΩ	
19.999mA	10Ω	0.001mA	0-75mV	1MΩ	
199.99mA	1Ω	0.01mA	0-100mV	1MΩ	
1.9999A	0.1Ω	0.0001A	0-5V	1MΩ	
5A/20A	0.01Ω	0.001A	1-5V	1MΩ	
199.99mV	1MΩ	0.01mV	0-10V	1MΩ	
1.9999V	1MΩ	0.0001V	0-1mA	100Ω	
19.999 V	1MΩ	0.001V	4-20mA	10Ω	
199.99V	1MΩ	0.01V	CTR: --/1A (AC/TRMS)	0.1Ω	
750.0V	1MΩ	0.1V	CTR: --/5A (AC/TRMS)	0.01Ω	
1000.0V (DC only)	1MΩ	0.1V			

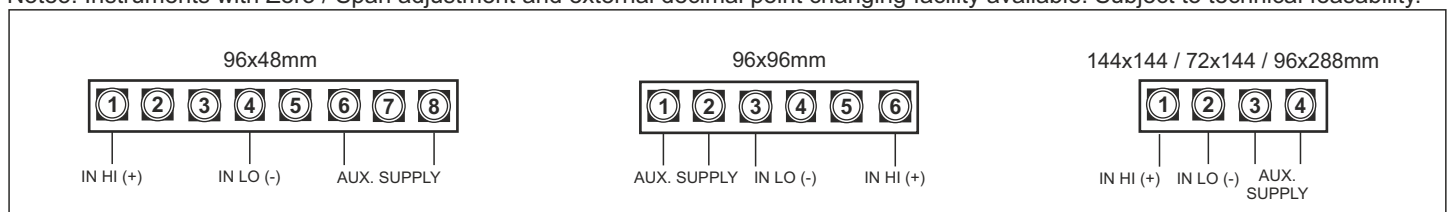
Note1: Data Hold Facility Available.

Note2: Other Aux. Supply available. (Subject to Technical Feasibility)

Note3: Instruments with Larger display height of 1", 1.8", 2.0" etc also available.

Note4: Instruments with variable displays i.e. RPM / mm / mm/min etc. also available.

Note5: Instruments with Zero / Span adjustment and external decimal point changing facility available. Subject to technical feasibility.





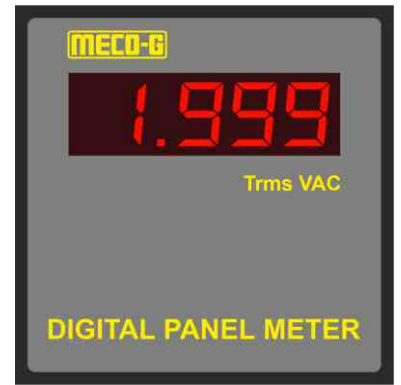
R-3501T



72144R-3501T



96R-3501T



144R-3501T

FEATURES

- * Digit Display: 1999
- * Rescaleable AAC, mADC & mVDC Ranges
- * Easy-to-wire, screw-type terminals

- * Outside Dimensions according to DIN standards (96x48mm), (96x96mm), (144x144mm), (72x144mm) (96x288mm)

GENERAL SPECIFICATION

Measuring Method :RMS to DC and Dual Slope A/D Conversion
Sampling Time :2.5 Samples Per Second
Display Type :Red LED Super Bright Display
Maximum Display :3½ dgt. 1999 Counts
Resolution :0.001 to 1 Count Depending on range
Polarity Indication :Auto Polarity
Decimal Selection :Field Selectable (Optional)
Over Range Indication :“1” or “-1”
Maximum Overload :Voltage: 1.2 times continuous
 :Current: 2 times continuous
Frequency Response :50-60Hz. **Upto 1KHz optional.**
Environment :Calibration: 27°± 5°C
 :Operating: 0° ~ 50°C, RH < 95%
 :Storage: -10° ~ 60°C, RH < 95%

VA Burden (Typical) : <2.5VA
Dielectric Strength : 2kV at 50Hz for 1 min. between input and Power terminals.
 : 3kV at 50Hz for 1 min. between all terminals to case.
Accuracy **VAC** : ± 0.5% Rgd. ± 5 dgts.
AAC : ± 0.5% Rgd. ± 5 dgts.
Aux. Power Supply : 110V AC / DC, 230V AC / DC, 19-90VAC / DC, 5VDC / 24VDC / 48VDC, 85-264V AC/DC ±10%@50 / 60Hz

DIRECT INPUT			DIRECT INPUT		
MEASURING RANGE	INPUT IMPEDANCE	RESOLUTION	MEASURING RANGE	INPUT IMPEDANCE	DISPLAY RANGE
1.999mA	100Ω	0.001mA	1A	0.1Ω	Scaleable 10.0~1600A or as per Customer requirement. (Kindly mention at time of ordering)
19.99mA	10Ω	0.01mA	5A	0.01Ω	
199.9mA	1Ω	0.1mA	CTR: --/1A (AC TRMS)	0.1Ω	
1.999A	0.1Ω	0.001A	CTR: --/5A (AC TRMS)	0.01Ω	
5A	0.01Ω	0.01A			
1.999V	1MΩ	0.001V			
19.99V	1MΩ	0.01V			
199.9V	1MΩ	0.1V			
750V	1MΩ	1V			

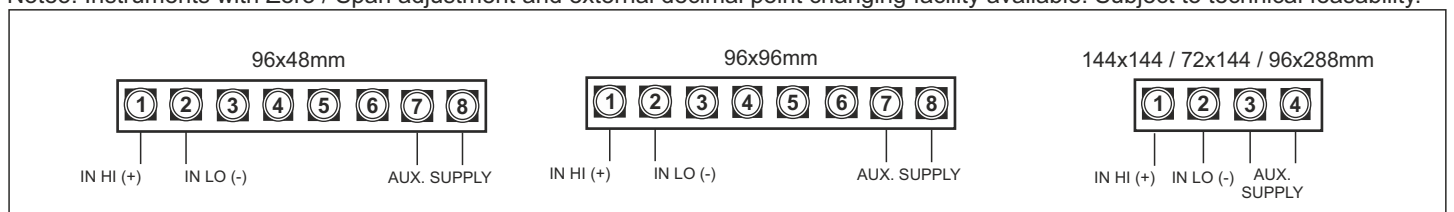
Note1: Data Hold Facility Available.

Note2: Other Aux. Supply available. (Subject to Technical Feasibility)

Note3: Instruments with Larger display height of 1", 1.8", 2.0" etc also available.

Note4: Instruments with variable displays i.e. RPM / mm / mm/min etc. also available.

Note5: Instruments with Zero / Span adjustment and external decimal point changing facility available. Subject to technical feasibility.

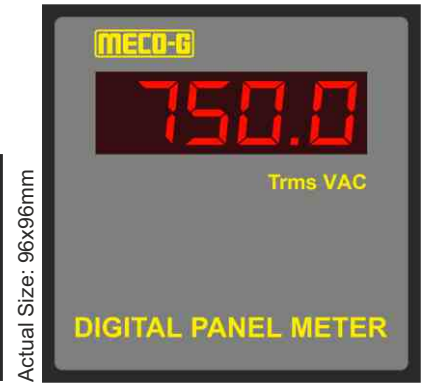




R-4500T



96288R-4500T



96R-4500T

FEATURES

- * Digit Display: 19999
- * Easy-to-wire, screw-type terminals

- * Outside Dimensions according to DIN standards (96x48mm), (96x96mm), (72x144mm), (96x288mm)

GENERAL SPECIFICATION

Measuring Method	:RMS to DC and Dual Slope A/D Conversion	VA Burden (Typical)	: <2.5VA
Sampling Time	:2.5 Samples Per Second	Dielectric Strength	: 2kV at 50Hz for 1 min. between input and Power terminals.
Display Type	:Red LED Super Bright Display		: 3kV at 50Hz for 1 min. between all terminals to case.
Maximum Display	:4½ dgt. 19999 Counts	Accuracy	VAC : ± 0.5% Rgd. ± 5 dgts.
Resolution	:0.0001 to 1 Count Depending on range	AAC	: ± 0.5% Rgd. ± 5 dgts.
Polarity Indication	:Auto Polarity	Aux. Power Supply	: 110V AC / DC, 230V AC / DC, 19-90VAC / DC, 5VDC / 24VDC / 48VDC, 85-264V AC/DC ±10%@50 / 60Hz
Decimal Selection	:Field Selectable (Optional)		
Over Range Indication	:“0000”		
Maximum Overload	:Voltage: 1.2 times continuous :Current: 2 times continuous		
Frequency Response	:50-60Hz. Upto 1KHz optional.		
Environment	:Calibration: 27°± 5°C :Operating: 0° ~ 50°C, RH < 95% :Storage: -10° ~ 60°C, RH < 95%		

DIRECT INPUT			DIRECT INPUT		
MEASURING RANGE	INPUT IMPEDANCE	RESOLUTION	MEASURING RANGE	INPUT IMPEDANCE	DISPLAY RANGE
1.9999mA	100Ω	0.0001mA	1A	0.1Ω	As per Customer requirement. (Kindly mention at time of ordering) Subject to Technical Feasibility
19.999mA	10Ω	0.001mA	5A	0.01Ω	
199.99mA	1Ω	0.01mA	CTR: --/1A (AC TRMS)	0.1Ω	
1.9999A	0.1Ω	0.0001A	CTR: --/5A (AC TRMS)	0.01Ω	
5A	0.01Ω	0.001A			
1.9999V	1MΩ	0.0001V			
19.999V	1MΩ	0.001V			
199.99V	1MΩ	0.01V			
750.0V	1MΩ	0.1V			

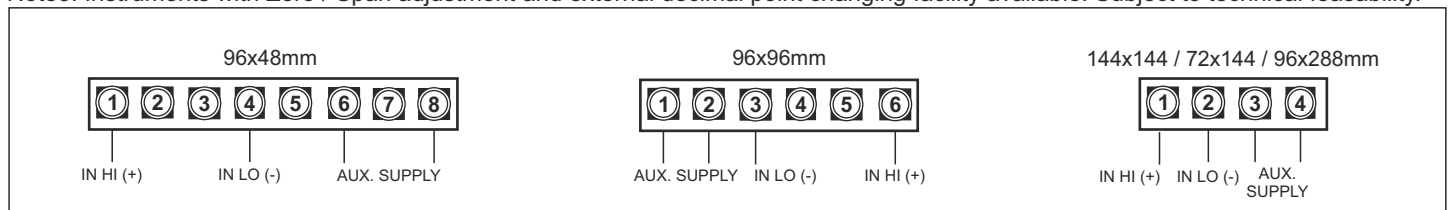
Note1: Data Hold Facility Available.

Note2: Other Aux. Supply available. (Subject to Technical Feasibility)

Note3: Instruments with Larger display height of 1", 1.8", 2.0" etc also available.

Note4: Instruments with variable displays i.e. RPM / mm / mm/min etc. also available.

Note5: Instruments with Zero / Span adjustment and external decimal point changing facility available. Subject to technical feasibility.





R-3501E AAC



R-3501E VAC



96R-3501E AAC



96R-3501E VAC

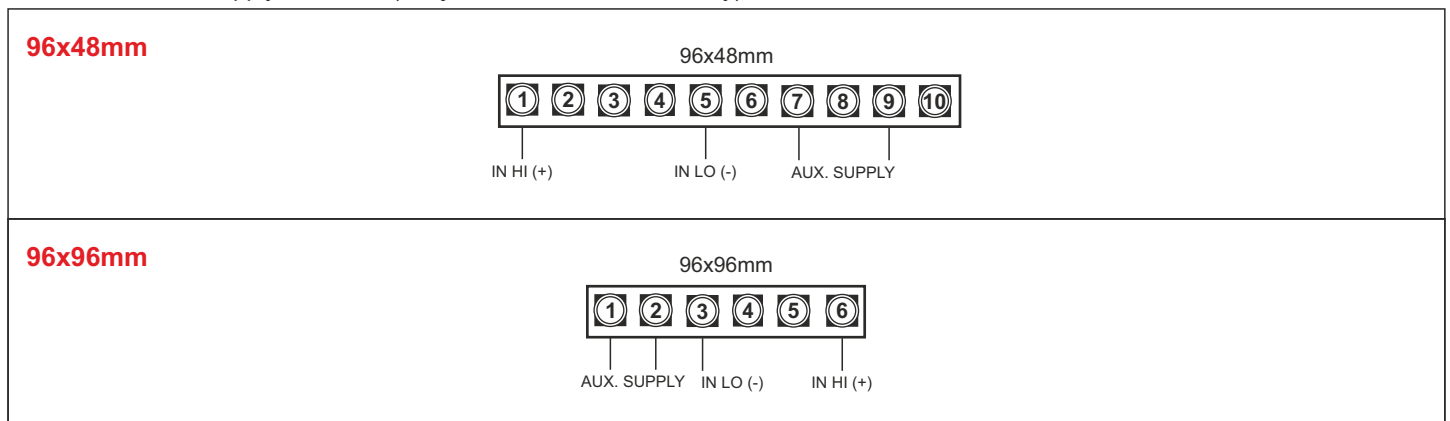
MECO - G has introduced new low cost digital panel meters in size 48x96 and 96x96mm. These instruments can measure AC Volts, AC Current. They are designed using micro controller based technology. They display full 4 digits. Re-scaling is done by the push switches on the front. No dip switches are used. These instruments are available in 0-1AAC, 5AAC, 20AAC & 0-750V AC. They offer more resolution than conventional instruments. They are easy to use. Programming for CT multiplier is done very easily by the switches on the front of the instrument. Auxiliary supply 110V, 230V, 440V AC or 85-264V AC/DC (any one to avoid confusion and damage to the instrument) is available.

The price of these instruments is comparable to the cost of analog meters, with much better features, accuracies and resolution.

Measuring Method	:TRMS using Micro controller	VA Burden (Typical)	: <2.5VA
Sampling Time	:3 Samples Per Second	Dielectric Strength	: 2kV at 50Hz for 1 min. between input and Power terminals.
Display Type	:Red LED Super Bright Display		: 3kV at 50Hz for 1 min. between all terminals to case.
Maximum Display	:4digit / 9999 Counts		
Resolution	:0.001 to 1 Count Depending on range		
Polarity Indication	:Auto Polarity		
Over Range Indication	: "1" or "-1"		
Maximum Overload	:Voltage: 1.2 times continuous :Current: 2 times continuous		
Frequency Response	:50-60Hz. Upto 400Hz optional.		
Environment	:Calibration: 27°± 5°C :Operating: 0° ~ 50°C, RH < 95% :Storage: -10° ~ 60°C, RH < 95%		

MODEL	INPUT	RANGE	ACCURACY	AUX. SUPPLY
R-3501E	AC	A	± (0.5% + 2dgts)	110V / 230V AC/DC or 85-264V AC/DC (Any One)
96R-3501E		A		
		V		

Note1: Other Aux. Supply available. (Subject to Technical Feasibility)

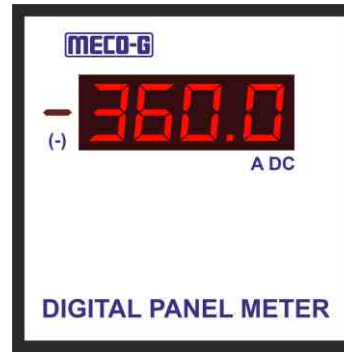




R-3501E ADC



R-3501E VDC



96R-3501E ADC



96R-3501E VDC

MECO - G has introduced new low cost digital panel meters in size 48x96 and 96x96mm. These instruments can measure DC Volts and DC Current. They are designed using micro controller based technology. They display full 4 digits. Re-scaling is done by the push switches on the back of the panel. No dip switches are used. These instruments are available in various ranges offering better resolution than conventional instruments. They are easy to use. Programming for Shunt multiplier is done very easily by a switch on the underneath of the instrument. Auxiliary supply 85-264V AC/DC, 110V, 230V, 440V AC or DC (any one to avoid confusion and damage to the instrument) is available.

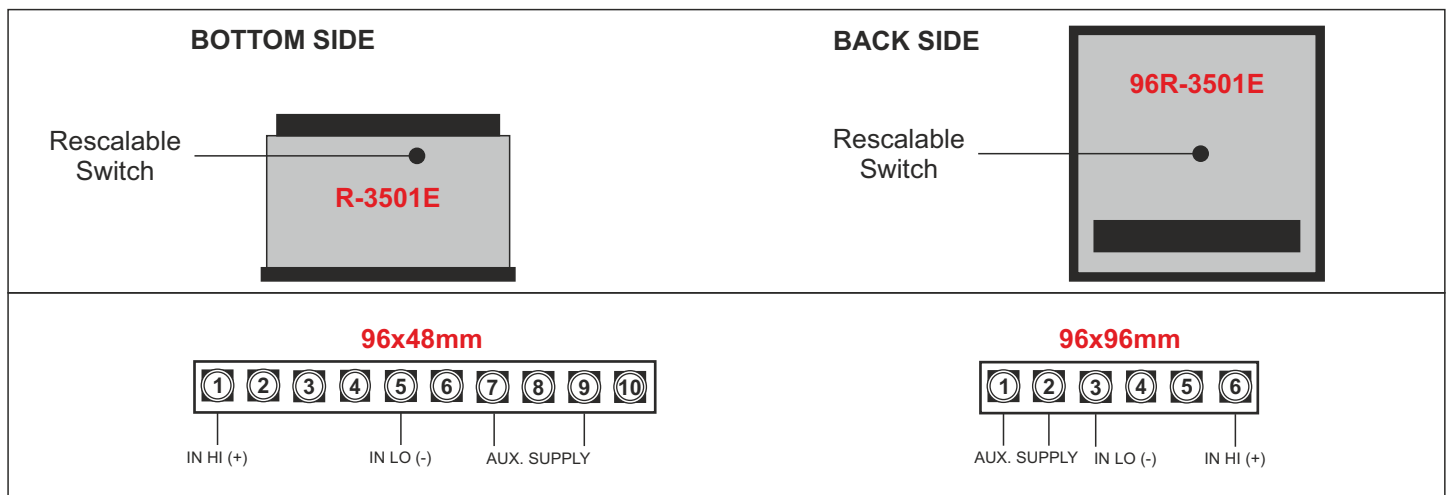
The price of these instruments is comparable to the cost of analog meters, with much better features, accuracies and resolution.

- Measuring Method** :TRMS using Micro controller
- Sampling Time** :3 Samples Per Second
- Display Type** :Red LED Super Bright Display
- Maximum Display** :4digit / 9999 Counts
- Resolution** :0.001 to 1 Count Depending on range
- Polarity Indication** :“-” is indicated for Negative Input
- Decimal Selection** :Auto
- Over Range Indication** :“0L”
- Maximum Overload** :Voltage: 1.2 times continuous
:Current: 2 times continuous
- Environment** :Calibration: 27°± 5°C
:Operating: 0° ~ 50°C, RH < 95%
:Storage: -10° ~ 60°C, RH < 95%

- VA Burden (Typical)** : <2.5VA
- Dielectric Strength** : 2kV at 50Hz for 1 min. between input and Power terminals.
: 3kV at 50Hz for 1 min. between all terminals to case.

MODEL	INPUT	RANGE	ACCURACY	AUX. SUPPLY
R-3501E 96R-3501E	DC	mV 0-50,60,75 (Rescalable)	± (0.5% + 2dgts)	110V / 230V AC/DC or 85-264V AC/DC (Any One)
		mV/V 0-200mV, 2V, 200V, 1000V		
		mA 0-2mA, 20mA, 200mA		
		A 0-2A, 5A, 20A		

Note1: Other Aux. Supply available. (Subject to Technical Feasibility)





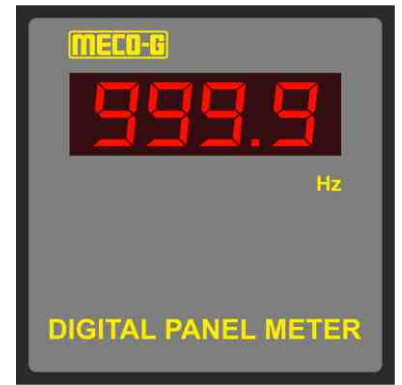
R-4050AN / BN



72144R-4050 AN / BN



96R-4050AN / BN



144R-4050AN / BN

MECO - G has introduced new low cost frequency digital panel meters in size 48x96, 96x96mm, 72x144mm, 144x144mm and 96x288mm. These instruments can measure frequency. They are designed using micro controller based technology. They display full 4 digits. They offer more resolution than conventional instruments. They are easy to use. Auxiliary supply 110V, 230V or 440V AC (any one to avoid confusion and damage to the instrument) is available. (R-4050BN Series)

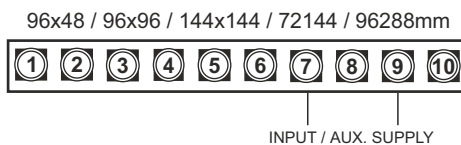
The price of these instruments is comparable to the cost of analog meters, with much better features, accuracies and resolution.

Measuring Method :TRMS using Micro controller
Sampling Time :Approx. 0.1 Seconds Typically
Display Type :Red LED Super Bright Display
Maximum Display Resolution :4digit / 9999 Counts
Decimal Selection :Auto
Maximum Overload Environment :Voltage: 1.2 times continuous
:Calibration: 27°± 5°C
:Operating: 0° ~ 50°C, RH < 95%
:Storage: -10° ~ 60°C, RH < 95%

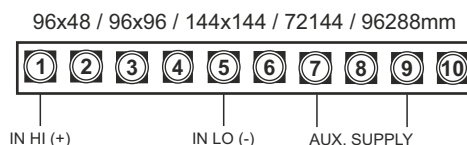
VA Burden (Typical) : <2.5VA
Dielectric Strength : 2kV at 50Hz for 1 min. between input and Power terminals.
: 3kV at 50Hz for 1 min. between all terminals to case.

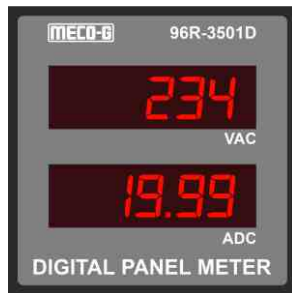
MODEL	INPUT RANGE	MEASURING RANGE	RESOLUTION	INPUT IMPEDANCE	AUX. SUPPLY
R-4050AN 96R-4050AN 144R-4050AN 72144R-4050AN 96288R-4050BN	110 / 230 / 440V	10.00 ~ 99.99Hz	0.01Hz	≥ 1MΩ	Same As Input
R-4050BN 96R-4050BN 144R-4050BN 72144R-4050BN 96288R-4050BN	10 - 1000VAC	10.00 ~ 999.9Hz	0.10Hz	≥ 1MΩ	110V / 230V / 440V (Any One)

R-4050AN Series

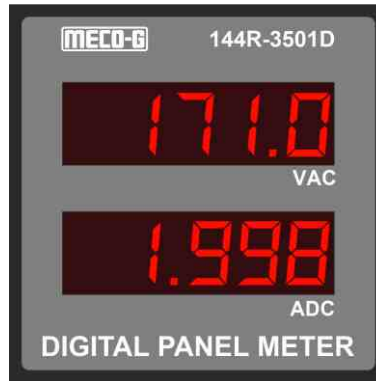


R-4050BN Series





96R-3501D



144R-3501D

FEATURES

- * Digit Display: 1999
- * Rescaleable AAC & mVDC Ranges
- * Easy-to-wire, screw-type terminals

- * Outside Dimensions according to DIN standards (96x96mm), (144x144mm)
- * Low Cost Unit

GENERAL SPECIFICATION

Measuring Method :Dual Slope A/D Conversion
Sampling Time :2.5 Samples Per Second
Display Type :Red LED Super Bright Display
Maximum Display :3 1/2 dgt. 1999 Counts
Resolution :0.001 to 1 Count Depending on range
Polarity Indication :“-” is indicated for Negative Input
Decimal Selection :Field Selectable (Optional)
Over Range Indication :“1” or “-1”
Maximum Overload :Voltage: 1.2 times continuous
 :Current: 2 times continuous
Frequency Response :50-60Hz. **Upto 1KHz optional.**
Environment :Calibration: 27± 5°C
 :Operating: 0° ~ 50°C, RH < 95%
 :Storage: -10° ~ 60°C, RH < 95%

VA Burden (Typical) : <2.5VA
Dielectric Strength : 2kV at 50Hz for 1 min. between input and Power terminals.
 : 3kV at 50Hz for 1 min. between all terminals to case.
Accuracy **VDC** : ± 0.1% Rdg. ± 2 dgts.
VAC : ± 0.5% Rdg. ± 5 dgts.
ADC : ± 0.3% Rdg. ± 2 dgts.
AAC : ± 0.5% Rgd. ± 5 dgts.
Aux. Power Supply : 110V AC / DC, 230V AC / DC, 19-90VAC / DC, 5VDC / 24VDC / 48VDC, 85-264V AC/DC ±10% @50 / 60Hz

DIRECT INPUT: DC or AC or TRMS			DIRECT INPUT: AC or DCmV / V / mA Input		
MEASURING RANGE	INPUT IMPEDANCE	RESOLUTION	MEASURING RANGE	INPUT IMPEDANCE	DISPLAY RANGE
199.9µA	1KΩ	0.1µA	0-50mV	1MΩ	Scaleable 10.0~1600A or as per Customer requirement. (Kindly mention at time of ordering)
1.999mA	100Ω	0.001mA	0-60mV	1MΩ	
19.99mA	10Ω	0.01mA	0-75mV	1MΩ	
199.9mA	1Ω	0.1mA	0-100mV	1MΩ	
1.999A	0.1Ω	0.001A	0-5V	1MΩ	
5A/20A	0.01Ω	0.01A	1-5V	1MΩ	
199.9mV	1MΩ	0.1mV	0-10V	1MΩ	
1.999V	1MΩ	0.001V	0-1mA	100Ω	
19.99V	1MΩ	0.01V	4-20mA	10Ω	
199.9V	1MΩ	0.1V	CTR: --/1A (AC/TRMS)	0.1Ω	
750V	1MΩ	1V	CTR: --/5A (AC/TRMS)	0.01Ω	10.0 - 1600A
1000V (DC ONLY)	1MΩ	1V			

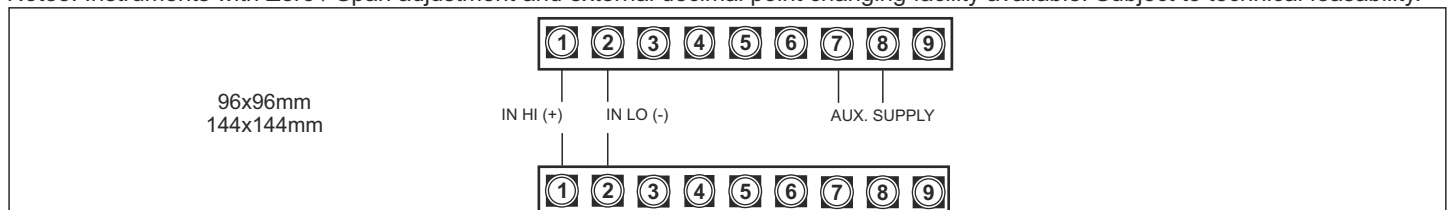
Note1: Data Hold Facility Available.

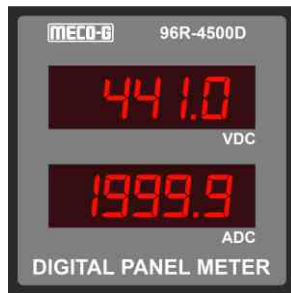
Note2: Other Aux. Supply available. (Subject to Technical Feasibility)

Note3: Instruments with Larger display height of 1", 1.8", 2.0" etc also available.

Note4: Instruments with variable displays i.e. RPM / mm / mm/min etc. also available.

Note5: Instruments with Zero / Span adjustment and external decimal point changing facility available. Subject to technical feasibility.





96R-4500D



144R-4500D

FEATURES

- * Digit Display: 19999
- * Easy-to-wire, screw-type terminals

- * Outside Dimensions according to DIN standards (96x96mm), (144x144mm)

GENERAL SPECIFICATION

Measuring Method :Dual Slope A/D Conversion
Sampling Time :2.5 Samples Per Second
Display Type :Red LED Super Bright Display
Maximum Display :4½ dgt. 19999 Counts
Resolution :0.0001 to 1 Count Depending on range
Polarity Indication :“-” is indicated for Negative Input
Decimal Selection :Factory Set
Over Range Indication :“0000”
Maximum Overload :Voltage: 1.2 times continuous
:Current: 2 times continuous
Frequency Response :50-60Hz. **Upto 1KHz optional.**
Environment :Calibration: 27± 5°C
:Operating: 0° ~ 50°C, RH < 95%
:Storage: -10° ~ 60°C, RH < 95%

VA Burden (Typical) : <2.5VA
Dielectric Strength : 2kV at 50Hz for 1 min. between input and Power terminals.
: 3kV at 50Hz for 1 min. between all terminals to case.
Accuracy **VDC** : ± 0.05% Rdg. ± 2 dgts.
VAC : ± 0.1% Rdg. ± 5 dgts.
ADC : ± 0.1% Rdg. ± 2 dgts.
AAC : ± 0.1% Rgd. ± 5 dgts.
Aux. Power Supply : 110V AC / DC, 230V AC / DC, 19-90VAC / DC, 5VDC / 24VDC / 48VDC, 85-264VAC/DC / 440VAC ±10% @50 / 60Hz

DIRECT INPUT: DC or AC or TRMS			DIRECT INPUT: AC or DCmV / V / mA Input		
MEASURING RANGE	INPUT IMPEDANCE	RESOLUTION	MEASURING RANGE	INPUT IMPEDANCE	DISPLAY RANGE
199.99µA	1KΩ	0.01µA	0-50mV	1MΩ	As per Customer requirement. (Kindly mention at time of ordering) Subject to Technical Feasibility
1.9999mA	100Ω	0.0001mA	0-60mV	1MΩ	
19.999mA	10Ω	0.001mA	0-75mV	1MΩ	
199.99mA	1Ω	0.01mA	0-100mV	1MΩ	
1.9999A	0.1Ω	0.0001A	0-5V	1MΩ	
5A/20A	0.01Ω	0.001A	1-5V	1MΩ	
199.99mV	1MΩ	0.01mV	0-10V	1MΩ	
1.9999V	1MΩ	0.0001V	0-1mA	100Ω	
19.999 V	1MΩ	0.001V	4-20mA	10Ω	
199.99V	1MΩ	0.01V	CTR: --/1A (AC/TRMS)	0.1Ω	
750.0V	1MΩ	0.1V	CTR: --/5A (AC/TRMS)	0.01Ω	
1000.0V (DC only)	1MΩ	0.1V			

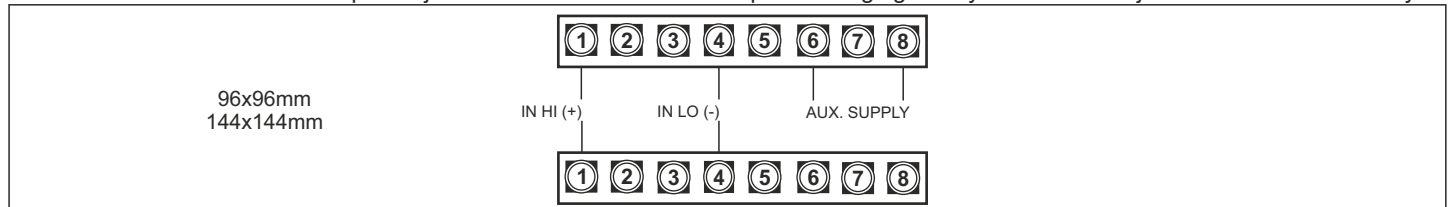
Note1: Data Hold Facility Available.

Note2: Other Aux. Supply available. (Subject to Technical Feasibility)

Note3: Instruments with Larger display height of 1", 1.8", 2.0" etc also available.

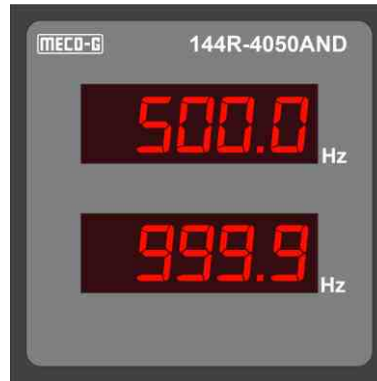
Note4: Instruments with variable displays i.e. RPM / mm / mm/min etc. also available.

Note5: Instruments with Zero / Span adjustment and external decimal point changing facility available. Subject to technical feasibility.





96-R4050BND



144R-4050AND

FEATURES

MECO - G has introduced new low cost frequency digital panel meters in size 96x96 and 144x144mm. These instruments can measure frequency. They are designed using micro controller based technology. They display full 4 digits. They offer more resolution than conventional instruments. They are easy to use.

Auxiliary supply 110V, 230V or 440V AC (any one to avoid confusion and damage to the instrument) is available. (R-4050BN Series)

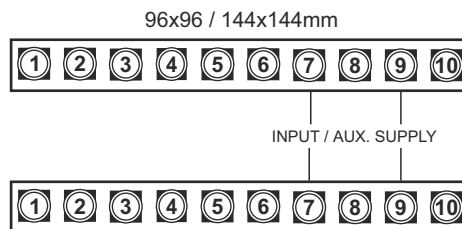
The price of these instruments is comparable to the cost of analog meters, with much better features, accuracies and resolution.

Measuring Method :TRMS using Micro controller
Sampling Time :Approx. 0.1 Seconds Typically
Display Type :Red LED Super Bright Display
Maximum Display :4digit / 9999 Counts
Resolution :0.01Hz
Decimal Selection :Auto
Maximum Overload Environment :Voltage: 1.2 times continuous
:Calibration: 27°± 5°C
:Operating: 0° ~ 50°C, RH < 95%
:Storage: -10° ~ 60°C, RH < 95%

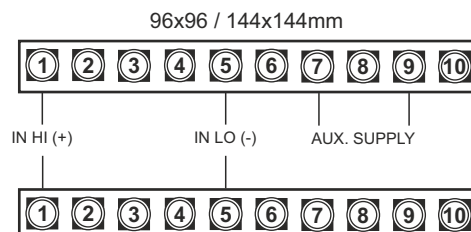
VA Burden (Typical) : <2.5VA
Dielectric Strength : 2kV at 50Hz for 1 min. between input and Power terminals.
: 3kV at 50Hz for 1 min. between all terminals to case.

MODEL	INPUT RANGE	MEASURING RANGE	RESOLUTION	INPUT IMPEDANCE	AUX. SUPPLY
96R-4050AND 144R-4050AND	110 / 230 / 440V	10.00 ~ 99.99Hz	0.01Hz	≥ 1MΩ	Same As Input
96R-4050BND 144R-4050BND	10 - 1000VAC	10.00 ~ 999.9Hz	0.10Hz	≥ 1MΩ	110V / 230V / 440V (Any One)

R-4050AND Series

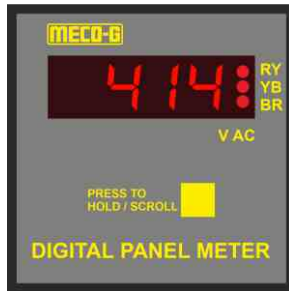


R-4050BND Series

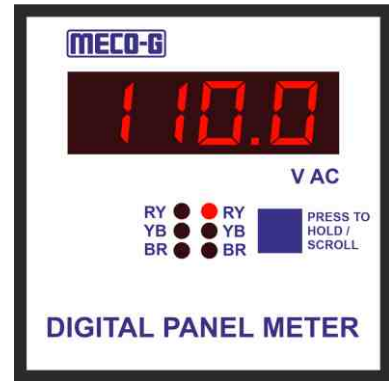




96R-3501A34



96R-3501V33



144R-3501V34

FEATURES

- 3 1/2 Digit Bright Red Led Display
- Auto scrolling to display Three Phase Current, Voltage
- Hold to display individual phase

- Glowing Led indicates Phase being Measured R-Y-B, RY-YB-BR & RN-YN-BN
- Din standard size: 96x96mm, 144x144mm.

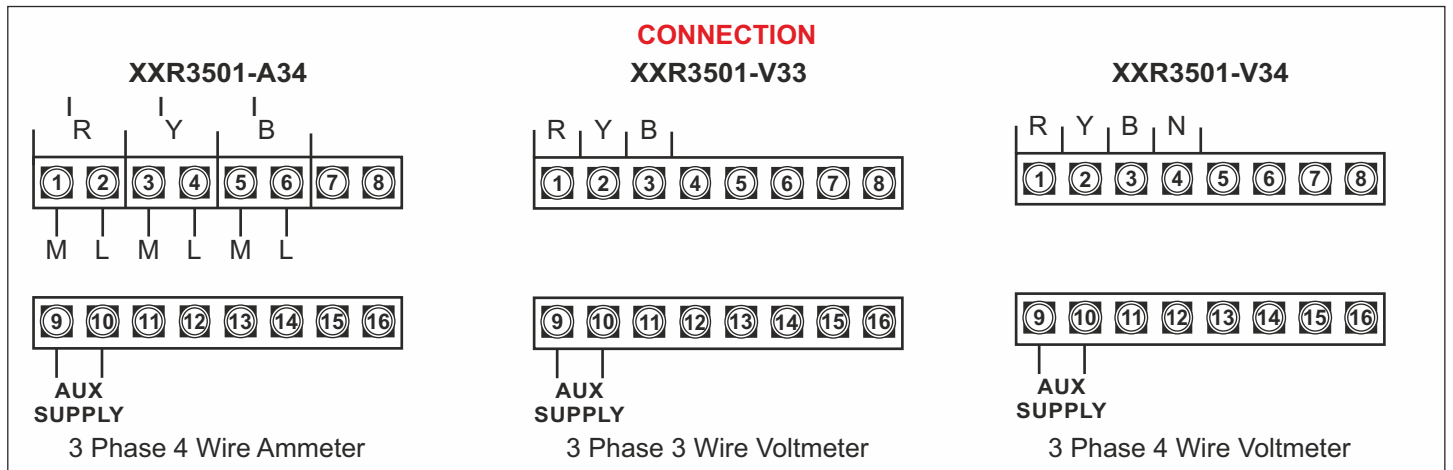
GENERAL SPECIFICATION

- Measuring Method** :Dual Slope A/D Conversion
- Sampling Time** :2.5 Samples Per Second
- Display Type** :Red LED Super Bright Display
- Maximum Display** :1999 Counts
- Resolution** :0.001 to 1 Count Depending on range
- Polarity Indication** :“-” is indicated for Negative Input
- Frequency Response** :50-60Hz Standard. **Upto 400Hz optional.**
- Over Range Indication** :“1” or “-1”
- Maximum Overload** :Voltage: 1.2 times continuous
:Current: 2 times continuous
- Environment** :Calibration: 27°± 5°C
:Operating: 0° ~ 50°C, RH < 95%
:Storage: -10° ~ 60°C, RH < 95%

- VA Burden (Typical)** : <2.5VA
- Dielectric Strength** : 2kV at 50Hz for 1 min. between input and Power terminals.
: 3kV at 50Hz for 1 min. between all terminals to case.
- Accuracy** : ± 0.5% Rdg. ± 2 dgts.
- Aux. Power Supply** : 110V AC / DC, 230V AC / DC, 19-90VAC / DC, 24VDC / 48VDC, 85-264V AC/DC ±10% @50 / 60Hz

	MODEL	RANGE	DISPLAY	AUX. SUPPLY
AMMETER *	96R3501-A34	0-1,5 A (any one)	R-Y-B	110V or 230V AC/DC or 85-264V AC/DC (Any One)
	144R3501-A34			
VOLTMETER (3PH. 3WIRE)	96R3501-V33	0-63.5, 110, 230, 440,750V (any one)	RY-YB-BR	
	144R3501-V33		RY-YB-BR, RN-YN-BN	

*Display for current ranges can be scaled to show primary C.T.Current from 10.0 A to 1600A with decimal point select. Ordering Information: Model, Input Range, CTR / PTR (if any), Scale Display, Aux. Supply, Accuracy.





96DVM



96DWM



144DVM



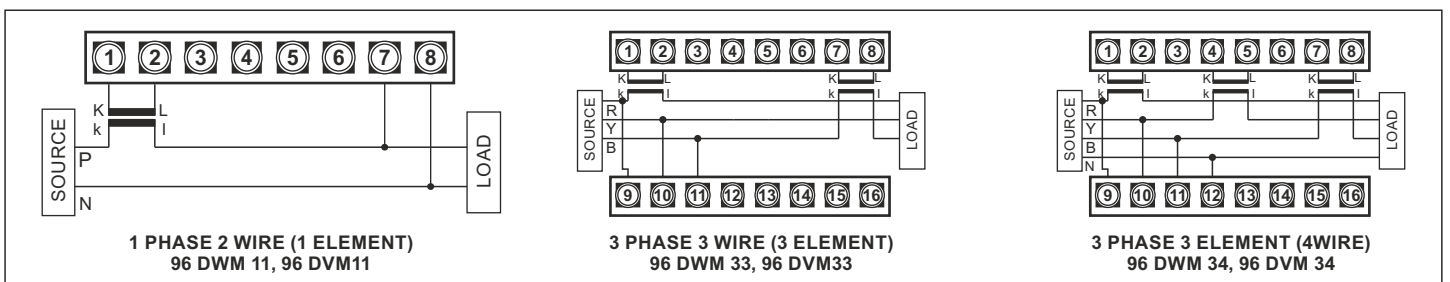
144DWM

MECO-G rescaleable digital Watt & Var meters for measuring Active & Reactive Power are available with rescaleable DIP Switch. These meters can be used for balanced and unbalanced load. They can be scaled For CTR Values from 10.0~1600/1A or 10.0~1600/5A. They are supplied with Big Terminals for Robust connections. They are available in size 96x96mm, 144x144mm and other sizes on request (subject to technical feasibility).

GENERAL SPECIFICATIONS

Measuring Method	: Multiplication of Pulse Width Modulation	VA Burden (Typical)	: <2.5VA
Sampling Time	: 2.5 Samples Per Second	Dielectric Strength	: 2kV at 50Hz for 1 min. between input and Power terminals.
Display Type	: Red LED Super Bright Display		: 3kV at 50Hz for 1 min. between all terminals to case.
Maximum Display	: 3½ Digit, 1999 Counts		
Resolution	: 0.001 to 1 Count Depending on range	Accuracy	: ± 0.5% Rdg. ± 2 dgts.
Polarity Indication	: "-" is indicated for Export of Power	Aux. Power Supply	: 110V AC / DC, 230V AC / DC, 19-90VAC / DC, 24VDC / 48VDC, 85-264V AC/DC
Over Range Indication	: "1" or "-1"		: ±10% @ 50 / 60Hz / Self-Powered
Maximum Overload	: Voltage: 1.2 times continuous : Current: 2 times continuous		
Frequency Response	: 50Hz Standard.		
Maximum Overload	: Voltage: 1.2 times continuous : Current: 2 times continuous		
Environment	: Calibration: 27° ± 5°C, Operating: 0° ~ 50°C, RH < 95%, Storage: -10° ~ 60°C, RH < 95%		

	MODEL	PHASE	ELEMENT	VOLTAGE (ANY ONE)	CURRENT (ANY ONE)	FREQUENCY	P.F.	
WATTMETERS								
	96DWM11	SINGLE	1	63.5V / 110V	1 / 2 / 2.5	50Hz	0.2 LAG - 1 - 0.2 LEAD	
	144DWM11	PHASE		230V / 440V	5AAC			
	96DWM11L*			600V	CTR --/1A			
	144DWM11L*			(P-N)	CTR --/5A			
	96DWM33	3PHASE	2	110 /				
	144DWM33	3WIRE		440V (P-P)				
	96DWM34	3PHASE	3					
	144DWM34	4WIRE						
VARMETERS								
	96DVM11	SINGLE	1	63.5V /	1 / 2 / 2.5	50Hz		
	144DVM11	PHASE		230V (P-N)	5AAC			
	96DVM33	3PHASE	2	110 /	CTR --/1A			
	144DVM33	3WIRE		440V (P-P)	CTR --/5A			
	96DVM34	3PHASE	3					
	144DVM34	4WIRE						



* - CALIBRATED AT P.F. 0.2LAG



RC-135

General Specifications

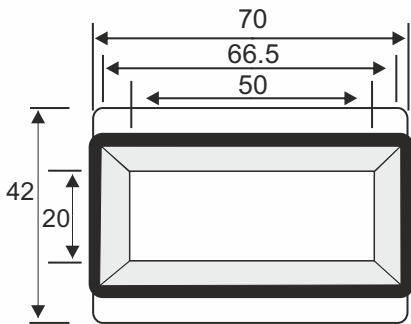
Measuring Method :Dual Slope A/D Conversion
Sampling Time :2.5 Samples Per Second
Display Type :Red LED Super Bright Display
Maximum Display :1999 Counts
Resolution :0.001 to 1 Count Depending on range
Polarity Indication :“-” is indicated for Negative Input
Over Range Indication :“1” or “-1”
Maximum Overload :Voltage: 1.2 times continuous
 :Current: 2 times continuous
Environment :Calibration: 27°± 5°C
 :Operating: 0° ~ 50°C, RH < 95%
 :Storage: -10° ~ 60°C, RH < 95%

VA Burden (Typical) : <1 VA
Dielectric Strength : 2kV at 50Hz for 1 min.
 between input and Power terminals.
 : 3kV at 50Hz for 1 min.
 between all terminals to case.

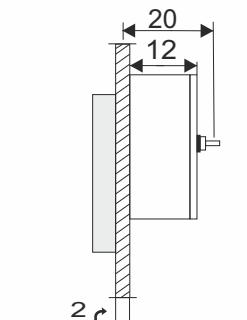
Range	Models	Input	Accuracy	Aux. Supply
DC	mV	0-200mV	± 0.5% of Full Scale	5VDC ± 10%
	V	0-2, 20, 200V		
	µA	0-200µA		
	mA	0-2, 20, 200mA		

Note: Power supply ground and input IN-LO signal must not be shorted. When using with a shunt, one end of the shunt must be connected to ground side of the supply and not the high voltage side of the supply.

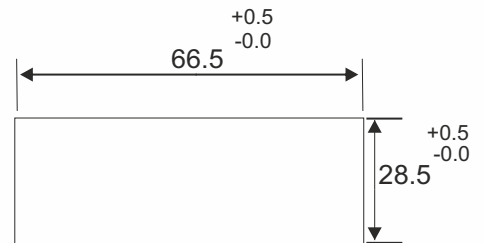
DIMENSIONS



FRONT VIEW

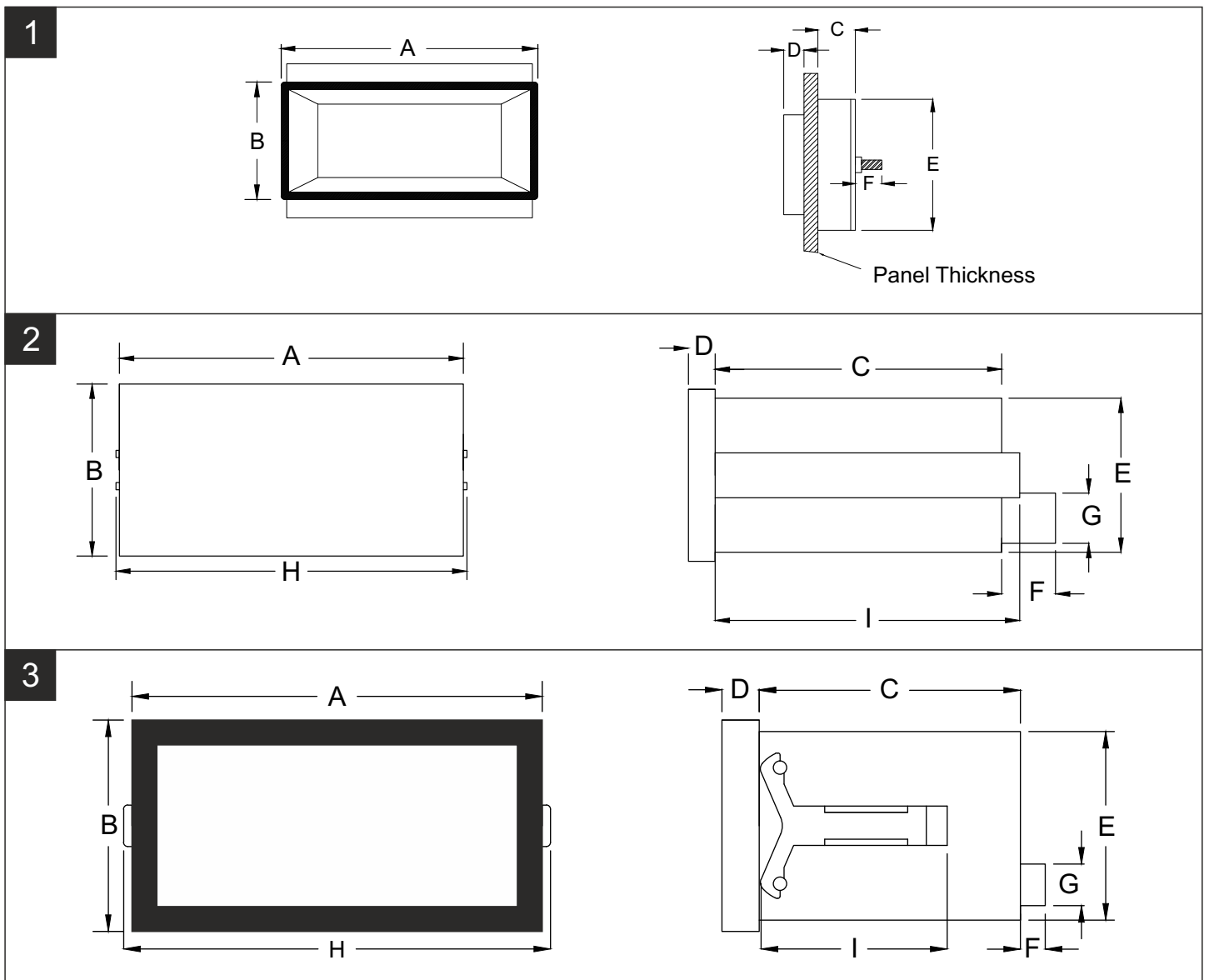


PANEL THICKNESS SIDE VIEW

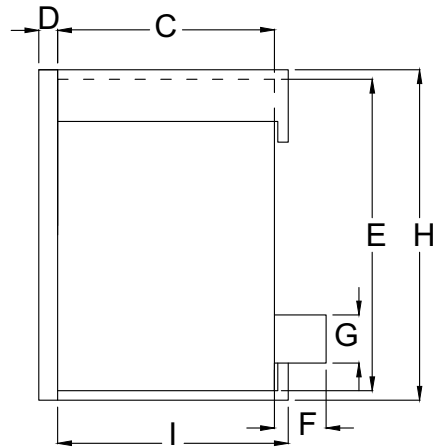
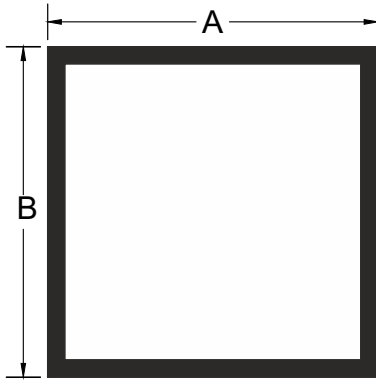


PANEL CUTOUT

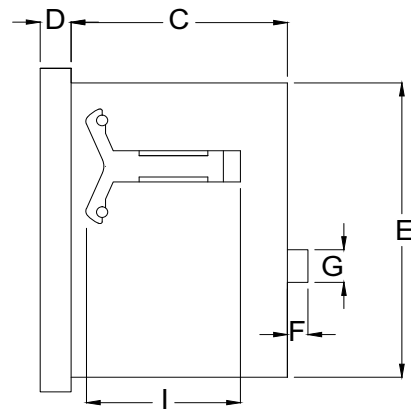
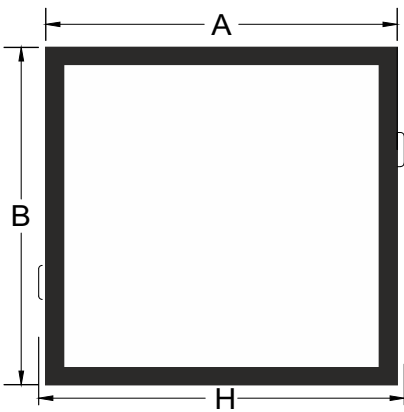
Sr.	MODEL	Dimensions in mm (+ 0.80 mm)									PANEL CUTOUT
		A	B	C	D	E	F	G	H	I	
1	RC-135	70	32	12	6.5	42	8.5	-	-	-	66.5 x 28.5
2	R-3501 / R-4500	96	48	80	7.5	43	15	14	98	85	45 x 92
3	R-3501E / R-4050AN / R-4050BN	99	51	63	9	45.5	6	10	103	45	92 x 47
4	96R-3501 / 96R-4500 / 96R-3501E 96R-3501V33 / 96R3501V34	96	96	63	5.5	90.5	15	14	96	67	92 x 92
5	96R-4050AN / 96R-4050BN	99	99	63	9	90	6	10	104	45	92 x 92
6	96R-3501D / 96R-4500D / 96R-3501A34	96	96	111.5	10	90	9	75	104	119	92 x 92
7	96-DWM11 / 96-DVM11	96.5	97	64	11	91	8.5	75	104	72.5	92 x 92
8	96-DWM33 / 96-DWM34 96-DVM33 / 96-DVM34	96	96	150	12	90	10	66	108	104	92 x 92
9	144R-3501 / 144R-4500 / 144DWM11 144R-3501V33/34, 144R-3501A34	144	144	52	7.5	136	9	10	142	55	138 x 138
10	144R-3501D / 144R-4500D / 144R-4050D 144R-DWM33/34, 144R-DVM33/34	144	144	90	8	136	5	8	150	70	138 x 138
11	72144 R-3501 / 72144 R-4500	144	72.5	111.5	9.5	67	15	14	158	100	142 x 69
12	96288 R-3501 / 96288 R-4500	288	97	110	10	94	15	14	294	104	95 x 280



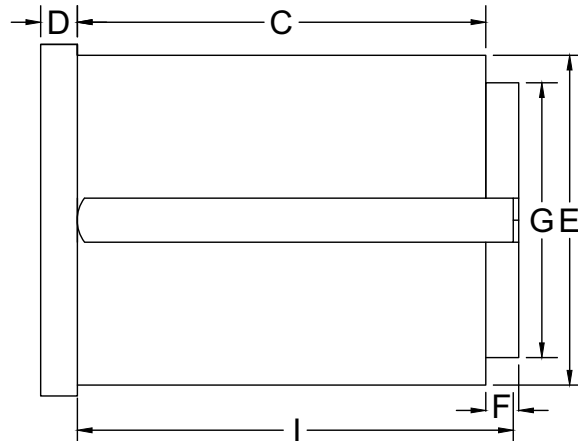
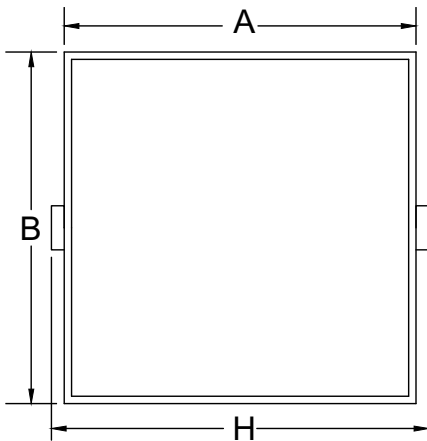
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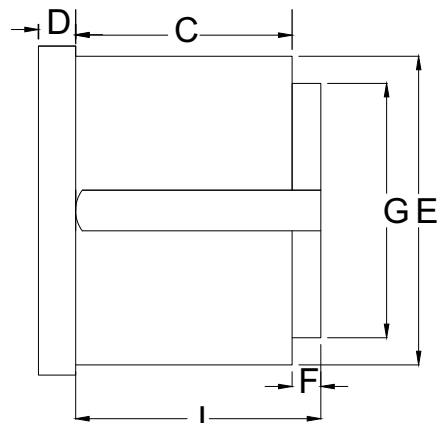
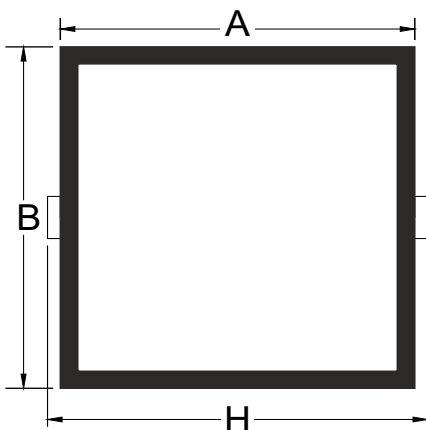
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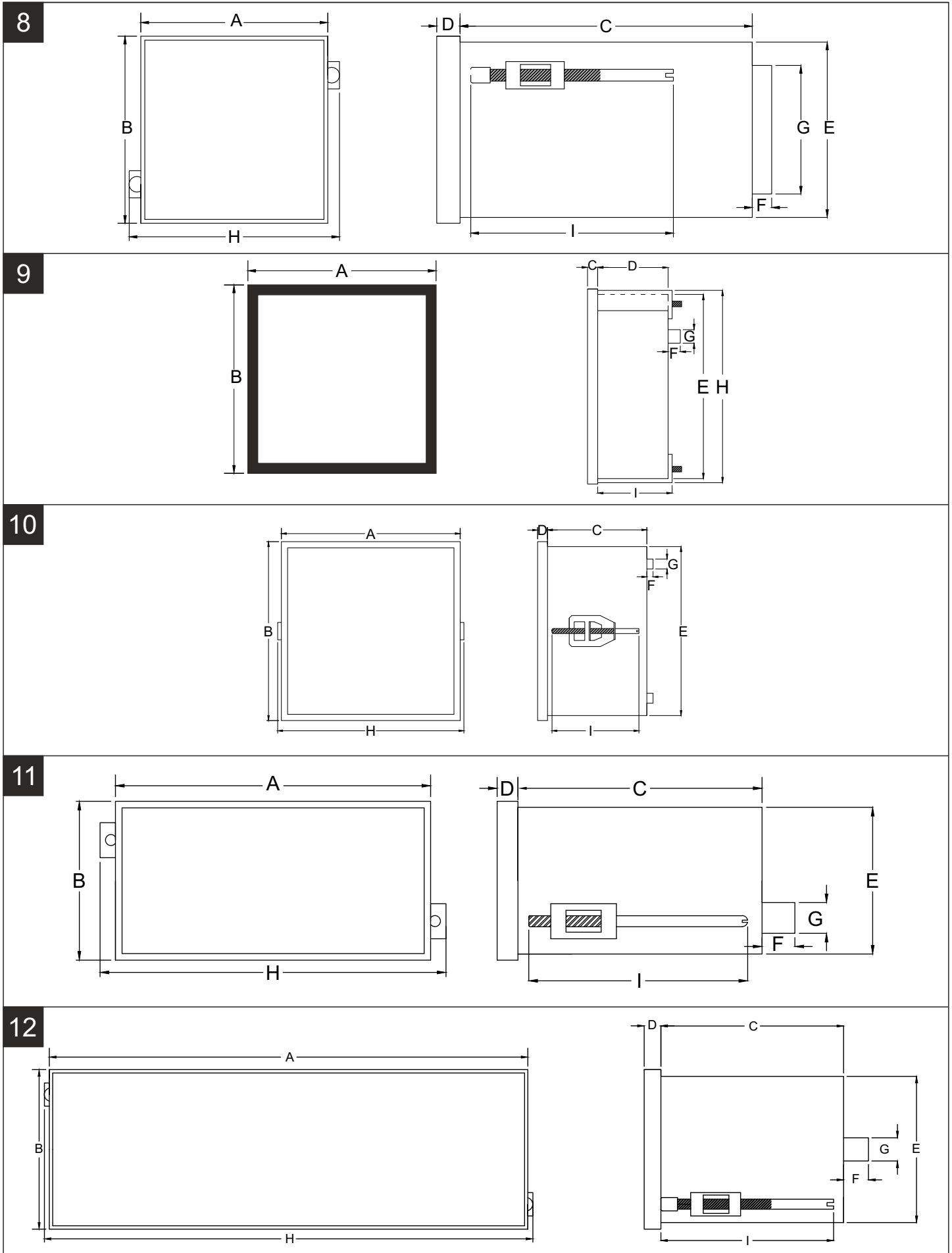


6



7







CERTIFICATE

This is to Certify that the Management System of
GOLIYA INSTRUMENTS PVT. LTD.

311, Bharat Industrial Estate, T.J.Road, Sewree,
Mumbai – 400 015, Maharashtra, INDIA

has been audited and found to comply with the requirements of:

ISO 9001:2015
(Quality Management System)

For the Scope of activities described below:

Design, Manufacture and Supply of Electrical and Electronics Measuring
Instruments & Power Line Transducers

Certificate No.: IN80709A

<i>Date of initial registration</i>	<i>Date of this Certificate</i>	<i>Surv. audit on or before/ Certificate expiry</i>	<i>Recertification Due</i>
<i>24 August 2017</i>	<i>12 October 2022</i>	<i>23 August 2023</i>	<i>23 August 2023</i>

Validity of this certificate is subject to successful completion of surveillance audit on or before due date,
in case surveillance audit not conducted this certificate shall be suspended/cancelled.



Director

For verification and updated information concerning the present certificate visit to www.lmscert.com

This Certificate is the property of LMS Certification Limited and shall be returned immediately when demanded.



LMS Certification Limited
Labrynth Business Centre, 43 Middle Hill Gate, Stockport,
Great Manchester, England-SK1 3DG
Phone :+44 208 935 5094
Company No.: 11029176
Visit :- www.lmscert.com
E-mail :- info@lmscert.com



LMS/FM/001/Q/REV06



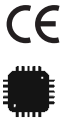
INTELLIGENT POWER FACTOR CONTROLLERS

Affordable, Accurate, Precise & Reliable instruments... since 1982

Pioneers and Experts in Test and Measuring Instruments...

THINK METERS, THINK MECO-G

**GOLIYA INSTRUMENTS PRIVATE LTD.
MUMBAI**



Model: R-APFC 06



Model: R-APFC 12

INTRODUCTION:

MECO-G has introduced a unique 8-in-1 meter for the first time. It has simultaneous measurements of Volt, Current, Frequency, Power Factor (LAG / LEAD), KVAR and Temperature with Alarm function in all the Ranges. This reduces the cost of using 4 separated meters and saves space on the panel. Wiring of cables is also reduced thus effecting tremendous saving in cost.

The instrument works on the principal of First-In-First-Out (FIFO) method, making sure the relay contacts are used more evenly to extend the life of relay contacts thus making the correction of Power Factor more accurate.

FEATURES:

- * Micro controller based design to give accurate correction of Power Factor.
- * Automatic K/C value calculating.
- * Multiple data display, including Power Factor (Lag/Lead), KVAR value, Voltage, Current, Frequency and Temperature.
- * KVAR value can be set directly for each stage. Each stage can have different KVAR values, enabling precise control.
- * Capacitor connection is cyclical, using First In First Out principle and is used according to average utilization principle Prolonging the relay contact life.
- * Alarm relay output. Can be set to give alarm for abnormal Voltage, Current, KVAR, Power Factor, Frequency and Temperature.
- * CT and PT value can be set to display real KVAR, Voltage and Current value.

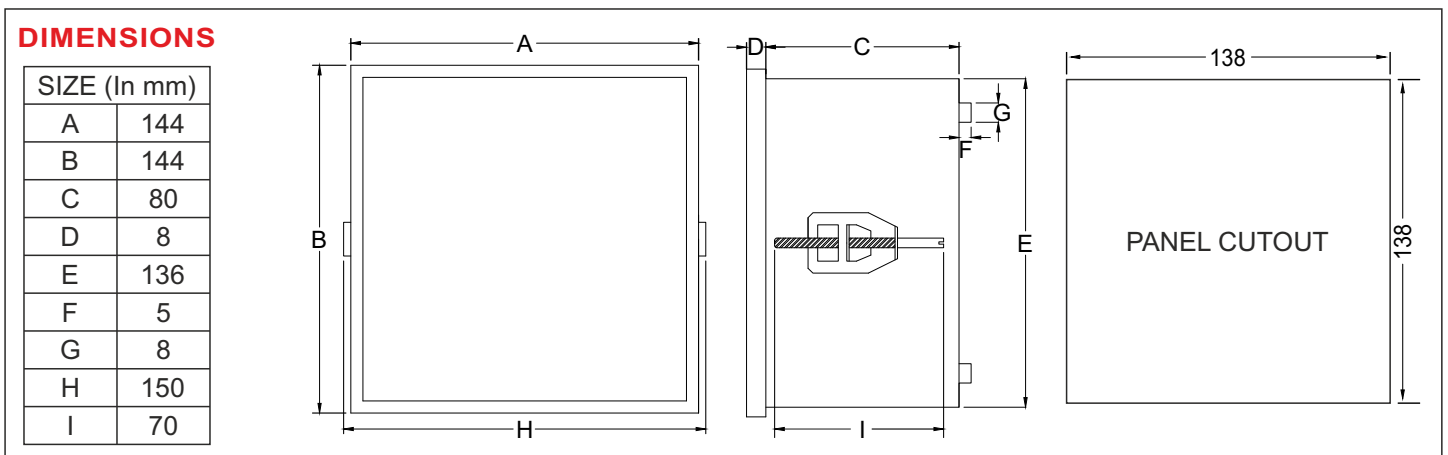
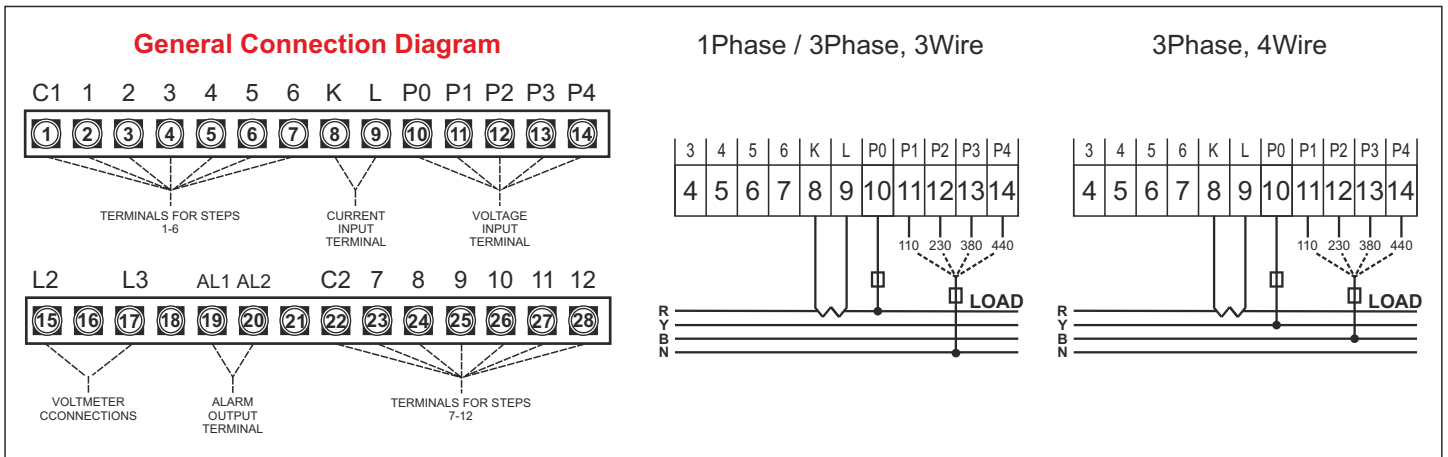
SPECIFICATION

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

VA Burden (Typical) : <15VA
Dielectric Strength : 2kV at 50Hz for 1 min. between input and Power terminals.
: 2kV at 50Hz for 1 min. between all terminals to case.
Aux. Supply : Self Powered.

TYPE	MODEL
6 STAGES / RELAYS	R-APFC06
12 STAGES / RELAYS	R-APFC12

Working Voltage	110V / 230V / 380V / 440V ± 10%, 15VA Max.		
Phase (Panel Set)	1Phase / 3Phase		
Input Current	5A (CTR can be set directly on the panel)		
No. Of Relays	6 Relays		
Programmable Alarm Output	High and Low alarm with LED blinking and alarm on relay output		
Output Relay Capacity	AC 220V / DC30V 3A		
Installable Capacity	0-250KVAR / Stage		
Capacitor Relay Contacts Switching Mode	Relay contacts are connected on First-In-First-Out (FIFO) Principal so that the relay contacts may be used more evenly. This extends the life of relay contacts. (The relay contacts with no capacitors will not be connected.)		
Delay Time	10-240 seconds - programmable. (To be set by the user)		
Mode of Operation	Automatic / Manual		
Power Out Memory	All the data stored is preserved for atleast 2 months in the Event of a power failure.		
	Ranges	Specifications	Accuracy
	Voltage (V)	110 / 230 / 380 / 440V	± 0.5% of rdg.+2dgts
	Current (A)	0-5A	± 0.5% of rdg.+2dgts
	Power Factor (P.F.)	0.00~1.00 (Lag / Lead)	± 2° Electrical
	KVAR	0-9999KVAR	± 0.5% of rdg.+2dgts
	Frequency (Hz)	40-70 Hz	± 0.05 Hz
	Temperature (°C / °F)	0-70°C	± 1.0°C
Phase Order Alarm	Error Message displayed.		
Operating Condition	Temperature: -0°C ~ 55°C, Relative Humidity: 0-90%RH. Non condensing.		





भारत सरकार
Government of India
सूक्ष्म, लघु एवं मध्यम उद्यम मंत्रालय
Ministry of Micro, Small and Medium Enterprises



UDYAM REGISTRATION CERTIFICATE



UDYAM REGISTRATION NUMBER	UDYAM-MH-19-0071060																												
NAME OF ENTERPRISE	M/S GOLIYA INSTRUMENTS PRIVATE LTD																												
TYPE OF ENTERPRISE *	MICRO																												
MAJOR ACTIVITY	MANUFACTURING																												
SOCIAL CATEGORY OF ENTREPRENEUR	GENERAL																												
NAME OF UNIT(S)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>S.No.</th> <th>Udyog Aadhaar Memorandum</th> <th colspan="3">Unit(s) Name</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>MH19A0004870</td> <td colspan="3">GOLIYA INSTRUMENTS PVT LTD</td> </tr> </tbody> </table>				S.No.	Udyog Aadhaar Memorandum	Unit(s) Name			1	MH19A0004870	GOLIYA INSTRUMENTS PVT LTD																	
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1	MH19A0004870	GOLIYA INSTRUMENTS PVT LTD																											
OFFICAL ADDRESS OF ENTERPRISE	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Flat/Door/Block No.</th> <th>311</th> <th>Name of Premises/ Building</th> <th colspan="2">BHARAT INDUSTRIAL ESTATE</th> </tr> </thead> <tbody> <tr> <td>Village/Town</td> <td>SEWREE WEST</td> <td>Block</td> <td colspan="2">311</td> </tr> <tr> <td>Road/Street/Lane</td> <td>T.J. ROAD</td> <td>City</td> <td colspan="2">MUMBAI</td> </tr> <tr> <td>State</td> <td>MAHARASHTRA</td> <td>District</td> <td colspan="2">MUMBAI , Pin 400015</td> </tr> <tr> <td>Mobile</td> <td>9930309930</td> <td>Email:</td> <td colspan="2">sales@goliyainstruments.com</td> </tr> </tbody> </table>				Flat/Door/Block No.	311	Name of Premises/ Building	BHARAT INDUSTRIAL ESTATE		Village/Town	SEWREE WEST	Block	311		Road/Street/Lane	T.J. ROAD	City	MUMBAI		State	MAHARASHTRA	District	MUMBAI , Pin 400015		Mobile	9930309930	Email:	sales@goliyainstruments.com	
Flat/Door/Block No.	311	Name of Premises/ Building	BHARAT INDUSTRIAL ESTATE																										
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State	MAHARASHTRA	District	MUMBAI , Pin 400015																										
Mobile	9930309930	Email:	sales@goliyainstruments.com																										
DATE OF INCORPORATION / REGISTRATION OF ENTERPRISE	18/03/1982																												
DATE OF COMMENCEMENT OF PRODUCTION/BUSINESS	18/03/1982																												
NATIONAL INDUSTRY CLASSIFICATION CODE(S)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>SNo.</th> <th>NIC 2 Digit</th> <th>NIC 4 Digit</th> <th>NIC 5 Digit</th> <th>Activity</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>27 - Manufacture of electrical equipment</td> <td>2790 - Manufacture of other electrical equipment</td> <td>27900 - Manufacture of other electrical equipment</td> <td>Manufacturing</td> </tr> </tbody> </table>				SNo.	NIC 2 Digit	NIC 4 Digit	NIC 5 Digit	Activity	1	27 - Manufacture of electrical equipment	2790 - Manufacture of other electrical equipment	27900 - Manufacture of other electrical equipment	Manufacturing															
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1	27 - Manufacture of electrical equipment	2790 - Manufacture of other electrical equipment	27900 - Manufacture of other electrical equipment	Manufacturing																									
DATE OF UDYAM REGISTRATION	07/07/2021																												

* In case of graduation (upward/reverse) of status of an enterprise, the benefit of the Government Schemes will be availed as per the provisions of Notification No. S.O. 2119(E) dated 26.06.2020 issued by the M/o MSME.

Disclaimer: This is computer generated statement, no signature required. Printed from <https://udyamregistration.gov.in> & Date of printing:- 07/07/2021

For any assistance, you may contact:

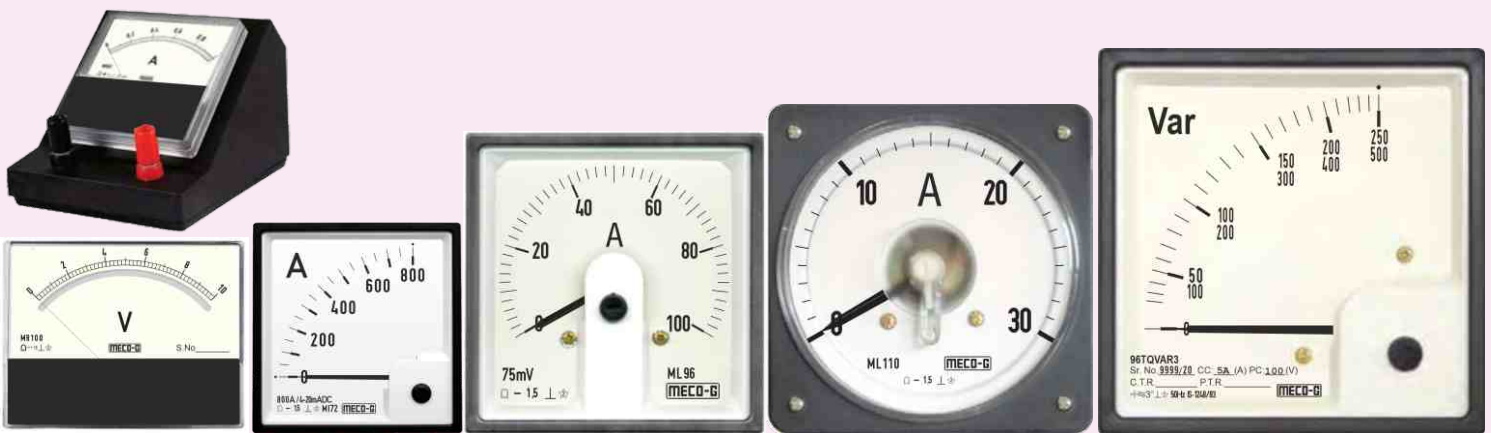
1. District Industries Centre: MUMBAI CITY (MAHARASHTRA)
2. MSME-DI: MUMBAI (MAHARASHTRA)

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ANALOG PANEL AND SWITCHBOARD INSTRUMENTS

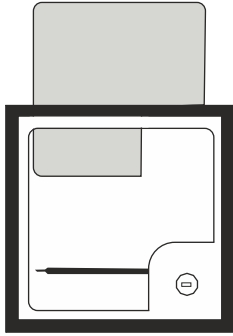
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Pioneers and Experts in Test and Measuring Instruments...

THINK METERS, THINK MECO-G

**GOLIYA INSTRUMENTS PRIVATE LTD.
MUMBAI**

MOVING IRON ANALOG AC PANEL METERS AMMETERS / VOLTMETERS (DIN TYPE)



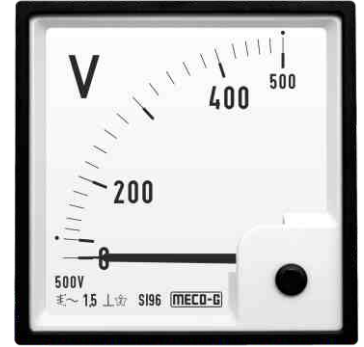
INTERCHANGEABLE SCALE



FRONT BEZEL COLOUR

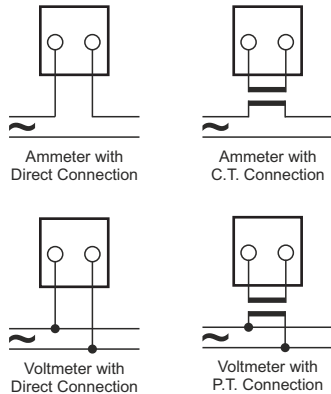


SI-72



SI-96

CONNECTION DIAGRAM



Model

Description

Movement Type
Accuracy

Self consumption
Operating Voltage

Test Voltage
Construction & Design
Scale

Bezel
Casing/Housing
Glass Faceplate
Mounting Clamps

Temperature Conditions

Terminal Protection

SI-48, SI-72, SI-96, S144

Moving iron meter of 90° deflection with interchangeable scale
(SI-72 & SI-96 ONLY)

Moving iron spring-mounted jewel bearing suspension
±1.5% (regular), ±1.0% (Optional), ±2.5% (suppressed), ±1.5%
(Optional - Suppressed) of full scale as IS 1248, EN60051

Ammeters (Up-to 5AAC) : 0.6VA, Voltmeters (Up-to 500VAC) : 5VA
600V RMS max

2.5KV for 1 minute at 50Hz
According to IS 1248, EN60051
According to DIN 43802

Black ABS, dimensions as per DIN 43718
Black ABS, dimensions as per DIN 43700

Antiglare (Optional)

Ergonomic easy mountable clamps and nuts for easy installation on
switchboards, Panels, etc.

-10°C ~ + 55°C, RH <90% (Operating)

-10°C ~ + 70°C, RH <90% (Storing) as per EN 60051

Back cover for IP20 terminal protection as per IS 2147 (Optional)

Voltmeters			Ammeters					
Input			1x Input		2x Input		6x Input	
Direct	with PT Ratio & Scale		Direct	with CT	Direct	with CT	Direct	with CT
15V	PTR/63.5V	4KV/--	25mA	CTR/1A	1/2A	CTR/1A	1/6A	CTR/1A
30V	PTR/110V	5KV/--	100mA	CTR/5A	5/10A	CTR/5A	5/30A	CTR/5A
60V	PTR/230V	6KV/--	500mA	10/--	10/20A	10/20/--	10/60A	10/60/--
75V	PTR/250V	7.5KV/--	1A	15/--	15/30A	15/30/--	15/90A	15/90/--
100V	PTR/400V	10KV/--	5A	20/--	20/40A	20/40/--	20/120A	20/120/--
110V	PTR/440V	11KV/--	10A	25/--	25/50A	25/50/--	25/150A	25/150/--
125V		15KV/--	15A	30/--	30/60A	30/60/--	30/180A	30/180/--
150V		20KV/--	20A	40/--	40/80A	40/80/--	40/240A	40/240/--
200V		30KV/--	25A	50/--	50/100A	50/100/--	50/300A	50/300/--
250V	1KV/--	40KV/--	30A	75/--	60/120A	75/150/--	60/360A	75/450/--
300V	1.2KV/--	50KV/--	40A	100/--	75/150A	100/200/--	75/450A	100/600/--
500V	1.5KV/--	60KV/--	50A	150/--	80/160A	150/300/--	80/480A	150/900/--
600V	2KV/--	70KV/--	60A	250/--	100/200A	250/500/--	100/600A	250/1500/--
750V	2.5KV/--	75KV/--	75A	400/--		400/800/--		400/2400/--
800V	3KV/--	80KV/--	80A	500/--		500/1000/--		500/3000/--
1000V	3.5KV/--	100KV/--	100A	1000/--		1000/2000/--		1000/6000/--
				1500/--		1500/3000/--		1500/9000/--
		and higher		and higher		and higher		and higher

Notes

- All Instruments Calibrated @ 50Hz. (Up-to 1KHz on request)
- Meters with accuracy class 1.0% available.
- Terminal protection back cover also available.
- Rubber Gasket available for Vibration.
- Only Dials without Instruments also available. (Vice-Versa)
- Double Stamping / Non-standard marking available.
- Red Marking available.
- Meters with Various band markings (Yellow / Red / Green)
- Front Bezel available in Blue & Orange colours (Optional).
- Test Certificate can be provided for instrument (On Request)



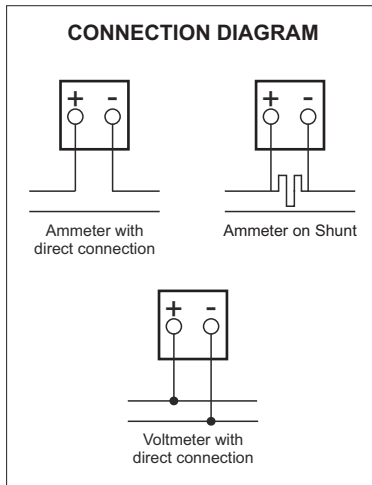
FRONT BEZEL COLOUR



MI-72



MI-96



Model

Description
Movement Type

Accuracy
Sensitivity
Operating Voltage
Test Voltage
Construction & Design
Scale
Bezel
Casing/Housing
Glass Faceplate
Mounting Clamps

Temperature Conditions

Terminal Protection

MI-48, MI-72, MI-96, M144

Moving coil meter of 90° deflection
Moving coil with center magnetic core, spring-mounted bearing jewel suspension
±1.5% (regular) of Full Scale as per IS 1248, EN60051
1000Ω/V (Voltmeter), 200Ω/V (Ammeter)
600V RMS max
2.5KV for 1 minute at 50Hz
According to IS 1248, EN 60051
According to DIN 43802
ABS, dimensions as per DIN 43718
ABS, dimensions as per DIN 43700
Antiglare (Optional)
Ergonomic easy mountable clamps and nuts for easy installation on switchboards, Panels, etc.
-10°C ~ + 55°C, RH <90% (Operating)
-10°C ~ + 70°C, RH <90% (Storing) as per EN 60051
Back cover for IP20 terminal protection as per IS 2147 (Optional)

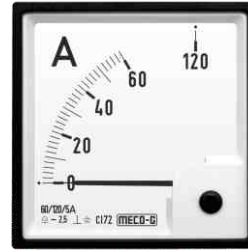
Voltmeters			Ammeters					
Input			Input					
mV	V		μA	mA		A	With Shunt	
50mV	1V	125V	100μA	1mA	125mA	1A	--A/50mV	75A/75mV
60mV	1.5V	150V	150μA	1.5mA	150mA	1.5A	--A/60mV	100A/75mV
75mV	2V	200V	200μA	2mA	200mA	2A	--A/75mV	125A/75mV
100mV	2.5V	250V	300μA	2.5mA	250mA	2.5A	--A/100mV	150A/75mV
150mV	3V	300V	400μA	3mA	300mA	3A		200A/75mV
250mV	4V	400V	500μA	4mA	400mA	4A		250A/75mV
300mV	5V	500V	600μA	5mA	500mA	5A	5A/75mV	300A/75mV
400mV	6V	600V	750μA	6mA	600mA	6A	6A/75mV	400A/75mV
500mV	7.5V	750V	800μA	10mA	750mA	7.5A	10A/75mV	500A/75mV
600mV	10V	800V		15mA		10A	15A/75mV	600A/75mV
750mV	15V	1000V		20mA		15A	20A/75mV	750A/75mV
	20V			25mA		20A	25A/75mV	800A/75mV
	25V			30mA		25A	30A/75mV	1000A/75mV
	30V			40mA		30A	40A/75mV	1250A/75mV
	40V			50mA		40A	50A/75mV	1500A/75mV
	50V			75mA		50A	60A/75mV	2000A/75mV
	75V			100mA		60A		3000A/75mV
	100V							and higher

Notes

1. Voltmeters with sensitivity 10K Ohms / V available
2. Center Zero Scale instruments available
3. Meters with accuracy class 1.0% available.
4. Terminal protection back cover also available.
5. Rubber Gasket available for Vibration proof.
6. Only Dials without Instruments also available. (Vice-Versa)
7. Zero supp. for 4-20mA DC, 0-5VDC & 0-10VDC available.
8. Double Stamping / Non-standard marking available.
9. Red Marking available
10. Meters with Various band markings (Yellow / Red / Green)
11. Front Bezel available in Blue & Orange colours (Optional).
12. Test Certificate can be provided for instrument (On Request)



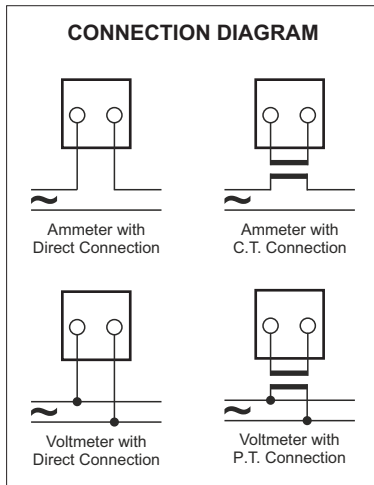
FRONT BEZEL COLOUR



CI-72



CI-96



Model

Description
Movement Type

Accuracy
Sensitivity
Operating Voltage
Test Voltage
Construction & Design
Scale
Bezel
Casing/Housing
Glass Faceplate
Mounting Clamps

Temperature Conditions

Front Protection
Terminal Protection

CI-72, CI-96, C-144

Moving coil meter of 90° deflection with AC rectifier.
Moving coil with central magnetic core, spring-mounted bearing jewel suspension
±1.5% (regular) of Full Scale as per IS 1248: EN60051
1000Ω/V (Voltmeter), 200Ω/V (Ammeter)
600V RMS max
2.5KV for 1 minute at 50Hz
According to IS 1248:EN60051
According to DIN 43802
ABS, dimensions as per DIN 43718
ABS, dimensions as per DIN 43700
Antiglare Glass
Ergonomic easy mountable clamps and nuts for easy installation on switchboards, Panels, etc.
-10°C ~ + 55°C, RH <90% (Operating)
-10°C ~ + 70°C, RH <90% (Storing) as per EN 60051
IP52 protection as per IS 2147
Back cover for IP20 terminal protection as per IS 2147 (Optional)

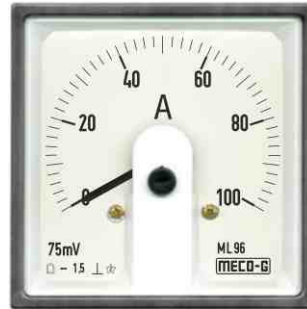
Voltmeters			Ammeters					
Input			1x Input		2x Input		6x Input	
Direct	with PT Ratio & Scale		Direct	with CT	Direct	with CT	Direct	with CT
15V	PTR/63.5V	4KV/--	10mA	CTR/1A	1/2A	CTR/1A	1/6A	CTR/1A
30V	PTR/110V	5KV/--	15mA	CTR/5A	5/10A	CTR/5A	5/30A	CTR/5A
60V	PTR/230V	6KV/--	20mA	10/--	10/20A	10/20/--	10/60A	10/60/--
75V	PTR/250V	75KV/--	50mA	15/--	15/30A	15/30/--	15/90A	15/90/--
100V	PTR/400V	10KV/--	75mA	20/--	20/40A	20/40/--	20/120A	20/120/--
110V	PTR/440V	11KV/--	100mA	25/--	25/50A	25/50/--	25/150A	25/150/--
125V		15KV/--	150mA	30/--	30/60A	30/60/--	30/180A	30/180/--
150V		20KV/--	200mA	40/--		40/80/--		40/240/--
200V		30KV/--	250mA	50/--		50/100/--		50/300/--
250V	1KV/--	40KV/--	300mA	75/--		75/150/--		75/450/--
300V	1.2KV/--	50KV/--	1A	100/--		100/200/--		100/600/--
500V	1.5KV/--	60KV/--	5A	150/--		150/300/--		150/900/--
600V	2KV/--	70KV/--	10A	250/--		250/500/--		250/1500/--
750V	2.5KV/--	75KV/--	15A	400/--		400/800/--		400/2400/--
1000V	3KV/--	80KV/--	20A	500/--		500/1000/--		500/3000/--
	3.5KV/--	100KV/--	25A	1000/--		1000/2000/--		1000/6000/--
			30A	1500/--		1500/3000/--		1500/9000/--
		and higher		and higher		and higher		and higher

Notes

- All Instruments Calibrated @ 50Hz.
- Meters with accuracy class 1.0% available.
- Terminal protection back cover also available.
- Rubber Gasket available for Vibration.
- Only Dials without Instruments also available. (Vice-Versa)
- Double Stamping / Non-standard marking available.
- Red Marking available.
- Meters with Various band markings (Yellow / Red / Green)
- Front Bezel available in Blue & Orange colours.
- Test Certificate can be provided for instrument (On Request)



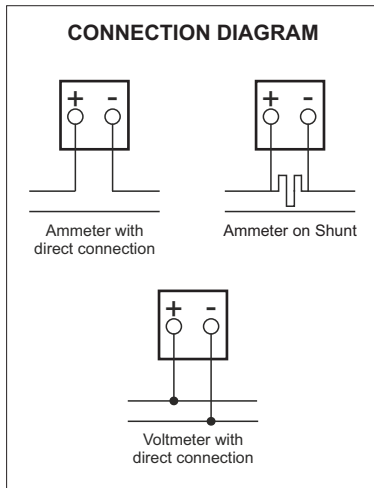
ML-72, ML-144



ML-96



ML-110



Model

Description
Movement Type

Accuracy

Sensitivity
Operating Voltage
Test Voltage

Construction & Design
Scale
Bezel
Casing/Housing
Glass Faceplate
Mounting Clamps

Temperature Conditions

Front Protection

ML-72, ML-96, ML-144, ML-110

Moving coil meter of 240° deflection
Moving coil with center magnetic core, spring-mounted bearing jewel suspension
±1.5% (regular) of Full Scale as per IS 1248, EN60051 for ML-96, ML-144, ML-110
±2.5% (regular) of Full Scale as per IS 1248, EN60051 for ML-72
1000Ω/V (Voltmeter), 200Ω/V (Ammeter)
600V RMS max
2.5KV for 1 minute at 50Hz
According to IS 1248, EN 60051
According to DIN 43802
ABS, dimensions as per DIN 43718
ABS, dimensions as per DIN 43700
Antiglare (Optional)
Ergonomic easy mountable clamps and nuts for easy installation on switchboards, Panels, etc.
-10°C ~ + 55°C, RH <90% (Operating)
-10°C ~ + 70°C, RH <90% (Storing) as per EN 60051
IP52 protection as per IS 2147

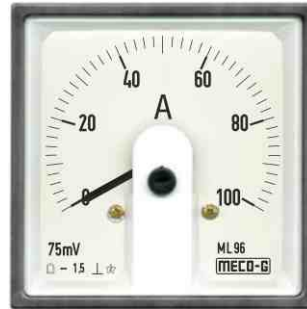
Voltmeters			Ammeters				
Input			Input				
mV	V		mA		A	With Shunt	
50mV	1V	125V	1mA	125mA	1A	--A/50mV	75A/75mV
60mV	1.5V	150V	1.5mA	150mA	1.5A	--A/60mV	100A/75mV
75mV	2V	200V	2mA	200mA	2A	--A/75mV	125A/75mV
100mV	2.5V	250V	2.5mA	250mA	2.5A	--A/100mV	150A/75mV
150mV	3V	300V	3mA	300mA	3A		200A/75mV
250mV	4V	400V	4mA	400mA	4A		250A/75mV
300mV	5V	500V	5mA	500mA	5A	5A/75mV	300A/75mV
400mV	6V	600V	6mA	600mA	6A	6A/75mV	400A/75mV
500mV	7.5V	750V	10mA	750mA	7.5A	10A/75mV	500A/75mV
600mV	10V	800V	15mA		10A	15A/75mV	600A/75mV
750mV	15V	1000V	20mA		15A	20A/75mV	750A/75mV
	20V		25mA		20A	25A/75mV	800A/75mV
	25V		30mA		25A	30A/75mV	1000A/75mV
	30V		40mA		30A	40A/75mV	1250A/75mV
	40V		50mA			50A/75mV	1500A/75mV
	50V		75mA			60A/75mV	2000A/75mV
	75V		100mA				3000A/75mV
	100V						and higher

Notes

1. Voltmeters with sensitivity 10K Ohms / V available
2. Center Zero Scale instruments available
3. Meters with accuracy class 1.0% available.
4. Rubber Gasket available for Vibration proof.
5. Only Dials without Instruments also available. (Vice-Versa)
6. Zero supp. for 4-20mA DC, 0-5VDC & 0-10VDC available.
7. Double Stamping / Non-standard marking available.
8. Red Marking available
9. Meters with Various band markings (Yellow / Red / Green)
10. Test Certificate can be provided for instrument (On Request)



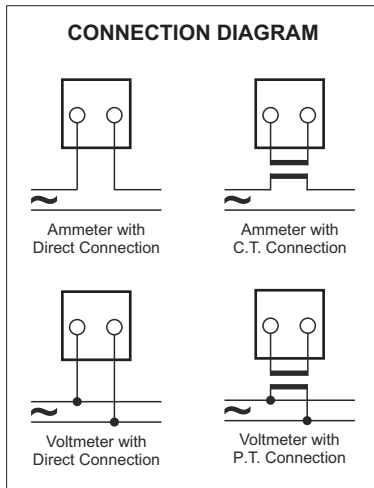
MLC-72, MLC-144



MLC-96



MLC-110



Model

Description
Movement Type

Accuracy

Sensitivity
Operating Voltage

Test Voltage
Construction & Design

Scale
Bezel
Casing/Housing

Glass Faceplate
Mounting Clamps

Temperature Conditions

Front Protection

MLC-72, MLC-96, MLC-144, MLC-110

Moving coil meter of 240° deflection with AC rectifier.
Moving coil with central magnetic core, spring-mounted bearing jewel suspension
±1.5% (regular) of Full Scale as per IS 1248, EN60051 for MLC-96, MLC144, MLC-110
±2.5% (regular) of Full Scale as per IS 1248, EN60051 for MLC-72
1000Ω/V (Voltmeter), 200Ω/V (Ammeter)
600V RMS max
2.5KV for 1 minute at 50Hz
According to IS 1248:EN60051
According to DIN 43802
ABS, dimensions as per DIN 43718
ABS, dimensions as per DIN 43700
Antiglare Glass
Ergonomic easy mountable clamps and nuts for easy installation on switchboards, Panels, etc.
-10°C ~ + 55°C, RH <90% (Operating)
-10°C ~ + 70°C, RH <90% (Storing) as per EN 60051
IP52 protection as per IS 2147

Voltmeters			Ammeters					
Input			1x Input		2x Input		6x Input	
Direct	with PT Ratio & Scale		Direct	with CT	Direct	with CT	Direct	with CT
15V	PTR/63.5V	4KV/--	1A	CTR/1A	1/2A	CTR/1A	1/6A	CTR/1A
30V	PTR/110V	5KV/--	5A	CTR/5A	5/10A	CTR/5A	5/30A	CTR/5A
60V	PTR/230V	6KV/--		10/--	10/20A	10/20/--	10/60A	10/60/--
75V	PTR/250V	75KV/--		15/--	15/30A	15/30/--	15/90A	15/90/--
100V	PTR/400V	10KV/--		20/--	20/40A	20/40/--	20/120A	20/120/--
110V	PTR/440V	11KV/--		25/--	25/50A	25/50/--	25/150A	25/150/--
125V		15KV/--		30/--	30/60A	30/60/--	30/180A	30/180/--
150V		20KV/--		40/--		40/80/--		40/240/--
200V		30KV/--		50/--		50/100/--		50/300/--
250V	1KV/--	40KV/--		75/--		75/150/--		75/450/--
300V	1.2KV/--	50KV/--		100/--		100/200/--		100/600/--
500V	1.5KV/--	60KV/--		150/--		150/300/--		150/900/--
600V	2KV/--	70KV/--		250/--		250/500/--		250/1500/--
750V	2.5KV/--	75KV/--		400/--		400/800/--		400/2400/--
1000V	3KV/--	80KV/--		500/--		500/1000/--		500/3000/--
	3.5KV/--	100KV/--		1000/--		1000/2000/--		1000/6000/--
				1500/--		1500/3000/--		1500/9000/--
		and higher		and higher		and higher		and higher

Notes

1. All Instruments Calibrated @ 50Hz.
2. Meters with accuracy class 1.0% available
3. Rubber Gasket available for Vibration.
4. Only Dials without Instruments also available. (Vice-Versa)
5. Double Stamping / Non-standard marking available.
6. Red Marking available.
7. Meters with Various band markings (Yellow / Red / Green)
8. Test Certificate can be provided for instrument (On Request)

ELECTRODYNAMOMETER SWITCHBOARD TYPE WATT / VAR / POWER FACTOR (P.F.) METER



96SQW1



96SQF1



96TQF3



96TQVAR3

Model SQW1, SQW3, DQW3, TQW3, DQVAR3, TQVAR3, SQF1, SQF3, DQF3, TQF3 (96x96, 144x144)

Description Electrodynamometer of 90° deflection

Movement Type Electrodynamometer with spring-mounted jewel bearing suspension

Accuracy 1. Watt-meters & Var-meters: ±1.5% (Regular) of Full Scale as per IS 1248: EN60051
2. Watt-meters & Var-meters: ±1.0% (Optional) of Full Scale as per IS 1248: EN60051
3. Power Factor meters: ± 3° (Regular) of Full Scale as per BS89, IEC 51.
4. Power Factor meters: ± 2° (Optional) of Full Scale as per BS89, IEC 51.

Insulation Resistance Over 20MΩ at 500VDC

Operating Voltage 600V RMS max

Test Voltage 2.0KV for 1 minute at 50Hz

Construction & Design According to IS 1248:EN60051

Scale According to DIN 43802

Bezel Black ABS, dimensions as per DIN 43718

Casing/Housing Black Ferro-Magnetic, dimensions as per DIN 43700

Glass Faceplate Antiglare Glass (Optional)

Mounting Clamps Ergonomic easy mountable clamps and nuts for easy installation on switchboards, Panels, etc.

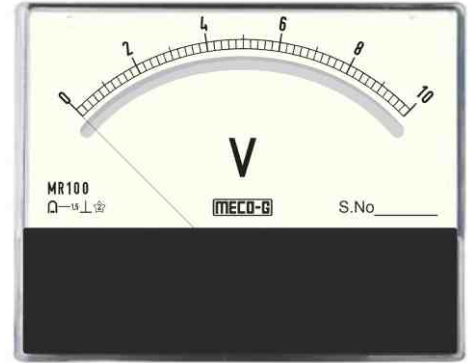
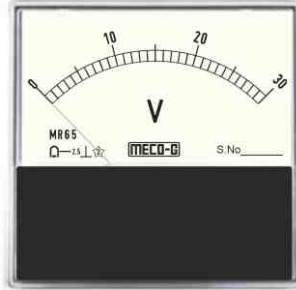
Temperature Conditions -10°C ~ + 55°C, RH <90% (Operating)
-10°C ~ + 70°C, RH <90% (Storing) as per EN 60051

SIZE IN MM				96x96mm	144x144mm
SCALE LENGTH (mm)				90mm	140mm
SYSTEM	ELEMENT	CURRENT RANGE (Amps)	VOLTAGE RANGE (Volts)	MODEL	
WATT METERS					
1Phase	1	0.5, 1, 2.5, 5, 10A	75, 100, 125, 150 250, 300, 500, 600V	96SQW1	144SQW1
3Phase Balanced Load Only	1	1A or 5A	110V or 440V	96SQW3	N.A.
3Phase, 3 Wire Balanced or Unbalanced Load	2	1A or 5A	110V or 440V	96DQW3	144DQW3
3Phase, 4 Wire Balanced or Unbalanced Load	3	1A or 5A	110V or 440V	96TQW3	144TQW3
VAR METERS					
3Phase, 3 Wire Balanced or Unbalanced Load	2	1A or 5A	110V or 440V	96DQVAR3	144DQVAR3
3Phase, 4 Wire Balanced or Unbalanced Load	3	1A or 5A	110V or 440V	N.A.	144TQVAR3
POWER FACTOR METERS					
1Phase	1	1A or 5A	110V or 250V or 500V	96SQF1	144SQF1
3Phase Balanced Load Only	1	1A or 5A	110V or 440V	96SQF3	144SQF3
3Phase, 3 Wire Balanced or Unbalanced Load	2	1A or 5A	110V or 440V	96DQF3	144DQF3
3Phase, 4 Wire Balanced or Unbalanced Load	3	1A or 5A	110V or 440V	96TQF3	144TQF3

FOR CONNECTION DIAGRAM AND DIMENSIONS KINDLY REFER PAGE NO. 80 & 81

RECTANGULAR SIZE MOVING IRON / COIL / AC RECTIFIER TYPE PANEL METERS EDUCATIONAL DESK STAND METERS

CE



SR, MR, CR SERIES (EDM)

SR65, MR65, CR65

SR100, MR100, CR100

Model	SR-65, SR-100	MR-65, MR-100
Description	Moving iron meter of 90° deflection	Moving coil meter of 90° deflection
Movement Type	Moving iron spring-mounted jewel bearing suspension	Moving coil meter of 90° deflection with AC rectifier. (CR)
Accuracy	±1.5% (regular), ±2.5% (suppressed) of full scale as per, IS 1248, EN60051	±1.5% for MR (regular), ±2.5% for CR of Full Scale as per IS 1248, EN60051
Self consumption	Ammeters (Up-to 5AAC), 0.6VA, Voltmeters (Up-to 600VAC) 5VA	200Ω/V (Ammeter) 1000Ω/V (Voltmeter),
Operating Voltage	600V RMS max	Voltage 600V RMS max
Test Voltage	2.5KV for 1 minute at 50Hz	2.5KV for 1 minute at 50Hz
Construction & Design	According to IS 1248, EN60051	According to IS 1248, EN 60051
Scale	According to DIN 43802	According to DIN 43802
Casing/Housing	Clear Polycarbonate Cover with Black label	Clear Polycarbonate Cover with Black label dimensions
Mounting Clamps	Dimensions as per DIN 43700	as per DIN 43700
Temperature Conditions	Ergonomic easy mountable clamps and nuts for easy installation on switchboards, Panels, etc.	Ergonomic easy mountable clamps and nuts for easy installation on switchboards, Panels, etc.
	-10°C ~ + 55°C, RH <90% (Operating)	-10°C ~ + 55°C, RH <90% (Operating)
	-10°C ~ + 70°C, RH <90% (Storing)	-10°C ~ + 70°C, RH <90% (Storing)
	as per EN 60051	as per EN 60051

AC Ranges : SR, CR Series

Voltmeters			Ammeters					
Input			1x Input		2x Input		6x Input	
Direct	with PT Ratio & Scale		Direct	with CT	Direct	with CT	Direct	with CT
15V	PTR/63.5V	4KV/--	10mA	CTR/1A	1/2A	CTR/1A	1/6A	CTR/1A
30V	PTR/110V	5KV/--	15mA	CTR/5A	5/10A	CTR/5A	5/30A	CTR/5A
60V	PTR/230V	6KV/--	20mA	10/--	10/20A	10/20/--	10/60A	10/60/--
75V	PTR/250V	75KV/--	50mA	15/--	15/30A	15/30/--	15/90A	15/90/--
100V	PTR/400V	10KV/--	75mA	20/--	20/40A	20/40/--	20/120A	20/120/--
110V	PTR/440V	11KV/--	100mA	25/--	25/50A	25/50/--	25/150A	25/150/--
125V		15KV/--	150mA	30/--	30/60A	30/60/--	30/180A	30/180/--
150V		20KV/--	200mA	40/--		40/80/--		40/240/--
200V		30KV/--	250mA	50/--		50/100/--		50/300/--
250V	1KV/--	40KV/--	300mA	75/--		75/150/--		75/450/--
300V	1.2KV/--	50KV/--	1A	100/--		100/200/--		100/600/--
500V	1.5KV/--	60KV/--	5A	150/--		150/300/--		150/900/--
600V	2KV/--	70KV/--	10A	250/--		250/500/--		250/1500/--
	2.5KV/--	75KV/--	15A	400/--		400/800/--		400/2400/--
	3KV/--	80KV/--	20A	500/--		500/1000/--		500/3000/--
	3.5KV/--	100KV/--	25A	1000/--		1000/2000/--		1000/6000/--
			30A	1500/--		1500/3000/--		1500/9000/--
		and higher		and higher		and higher		and higher

DC RANGES: MR SERIES

Voltmeters			Ammeters					
Input			Input					
mV	V		μA	mA		A	With Shunt	
50mV	1V	125V	100μA	1mA	125mA	1A	--A/50mV	75A/75mV
60mV	1.5V	150V	150μA	1.5mA	150mA	1.5A	--A/60mV	100A/75mV
75mV	2V	200V	200μA	2mA	200mA	2A	--A/75mV	125A/75mV
100mV	2.5V	250V	300μA	2.5mA	250mA	2.5A	--A/100mV	150A/75mV
150mV	3V	300V	400μA	3mA	300mA	3A		200A/75mV
250mV	4V	400V	500μA	4mA	400mA	4A		250A/75mV
300mV	5V	500V	600μA	5mA	500mA	5A	5A/75mV	300A/75mV
400mV	6V	600V	750μA	6mA	600mA	6A	6A/75mV	400A/75mV
500mV	10V	750V	800μA	10mA	750mA	7.5A	10A/75mV	500A/75mV
600mV	15V	800V		15mA		10A	15A/75mV	600A/75mV
750mV	20V	1000V		20mA		15A	20A/75mV	750A/75mV
	25V			25mA		20A	25A/75mV	800A/75mV
	30V			30mA		25A	30A/75mV	1000A/75mV
	40V			40mA		30A	40A/75mV	1250A/75mV
	50V			50mA		40A	50A/75mV	1500A/75mV
	75V			75mA		50A	60A/75mV	2000A/75mV
	100V			100mA		60A		3000A/75mV
								and higher

CE



SR, MR, CR- 65 (EDM)



SR, MR, CR- 100 (EDM)

MODEL	XX-65 EDM	XX-100 EDM
ACCURACY	± 2.5% of Full Scale	± 1.5% of Full Scale
SCALE	SCALE	SCALE

MECO-G Educational Desk Stand Meters are ideal for laboratory use. These meters are made of unbreakable ABS desk stand with two or three terminals and are fitted with SR65, SR100, MR65, MR100, CR65 or CR100.

FOR SR / CR SERIES

Notes

1. All Instruments Calibrated @ 50Hz. (Up-to 1KHz on request)
2. Meters with accuracy class 1.0% available.
3. Terminal protection back cover also available.
4. Rubber Gasket available for Vibration.
5. Double Stamping / Non-standard marking available.
6. Red Marking available.
7. Meters with Various band markings (Yellow / Red / Green)
8. Test Certificate can be provided for instrument (On Request)

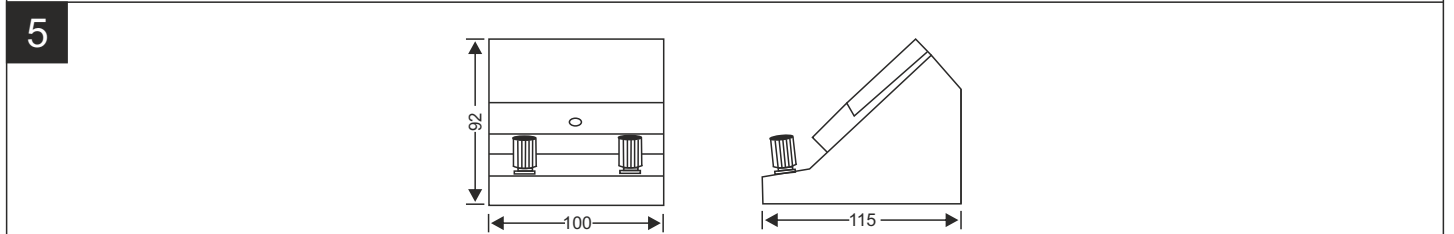
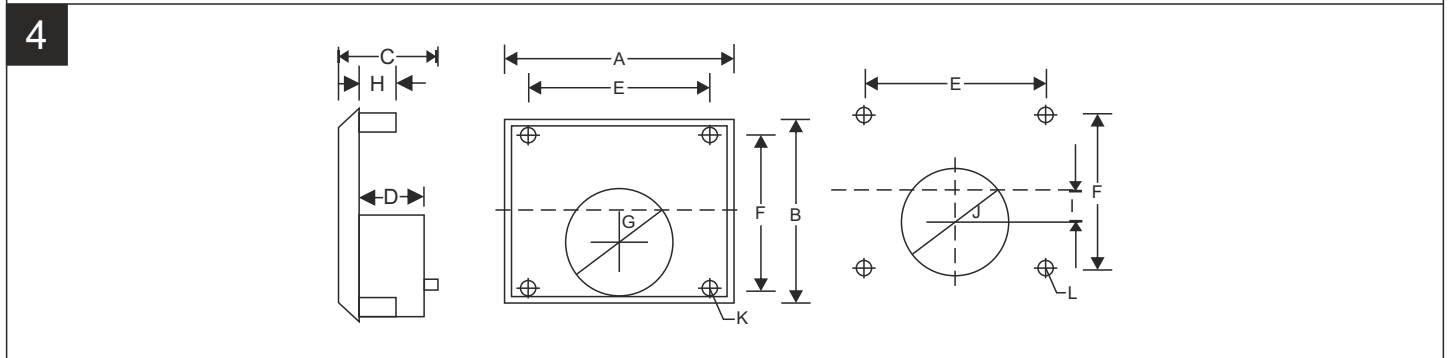
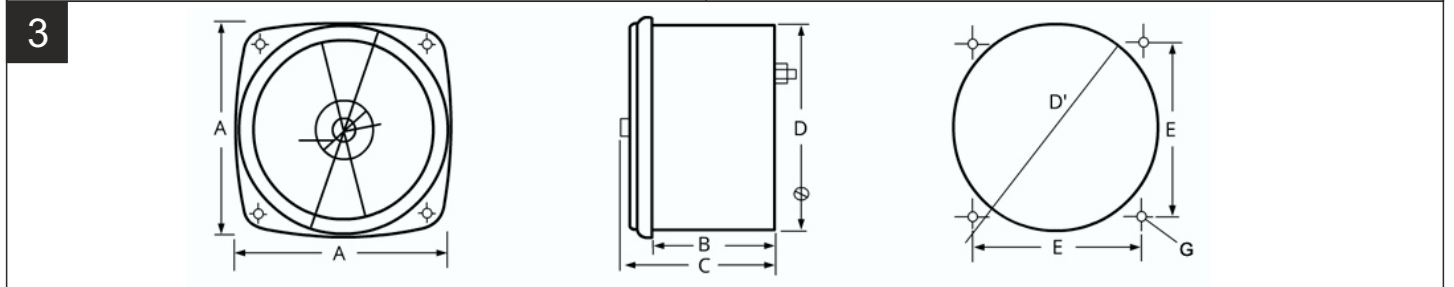
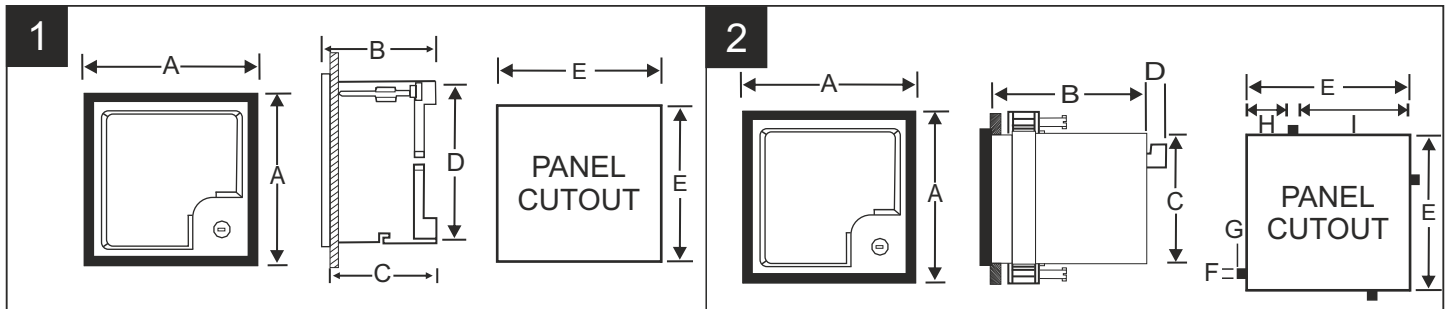
FOR MR SERIES

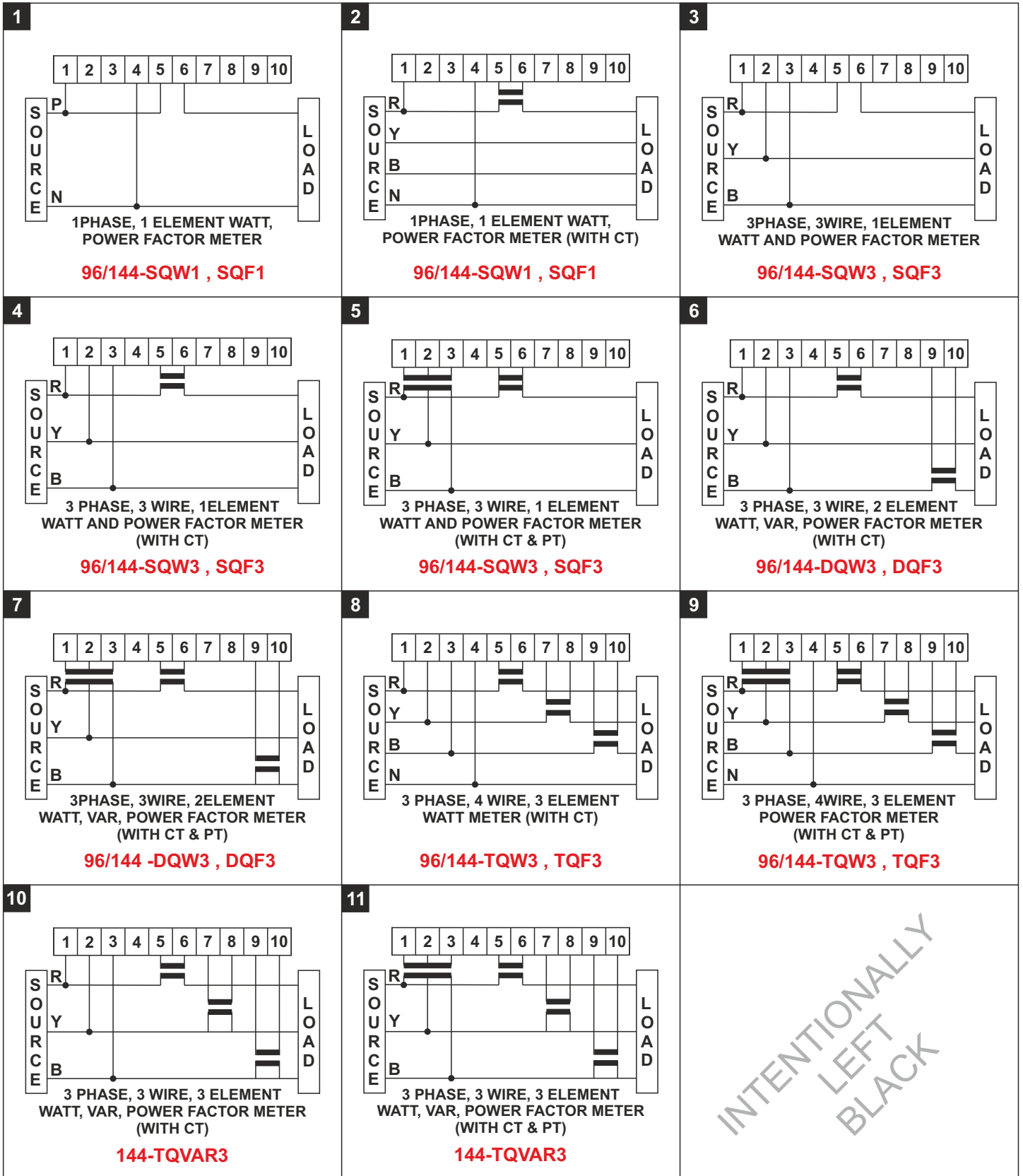
Notes

1. Voltmeters with sensitivity 10K Ohms / V available
2. Center Zero Scale instruments available
3. Meters with accuracy class 1.0% available.
4. Terminal protection back cover also available.
5. Rubber Gasket available for Vibration proof.
6. Zero supp. for 4-20mA DC, 0-5VDC & 0-10VDC available.
7. Double Stamping / Non-standard marking available.
8. Red Marking available
9. Meters with Various band markings (Yellow / Red / Green)
10. Test Certificate can be provided for instrument (On Request)

MODEL	SCALE	DRAWING	A	B	C	D	E	F	G	H	I
	LENGTH	REFERENCE									
SI-72, MI-72, CI-72, ML-72, MLC-72	60	1	72	58	53	66	68	-	-	-	-
SI-96, MI-96, CI-96, ML-96, MLC-96	90	1	96	64	59	90	92	-	-	-	-
96-SQW1, SQF1, SQF3	90	2	96	77	90	11.5	92	7	1.5	24.5	64.5
96-DQW3, DQVAR3, DQF3, TQW3	90	2	96	127	90	11.5	92	7	1.5	24.5	64.5
96-TQF3	90	2	96	98	90	-	92	7	1.5	24.5	64.5
ML-110, MLC-110	105	3	110	99	75	98	100	-	-	-	-
SI-144, ML-144, MLC-144	140	1	144	90	136	-	138	7	1.5	24.5	64.5
144-SQW1	140	2	144	90	136	-	138	7	1.5	24.5	64.5
144-SQF1, SQF3, DQW3, DQVAR3	140	2	144	135	136	-	138	7	1.5	24.5	64.5
144-DQF3, TQW3, TQVAR3	140	2	144	174	136	-	138	7	1.5	24.5	64.5
144-TQF3	140	2	144	135	136	-	138	7	1.5	24.5	64.5

MODEL	SCALE	DRAWING	A	B	C	D	E	F	G	H	I	J	K	L
	LENGTH	REFERENCE												
	(mm)													
MR-65	68	4	80	80	33	22	64	64	64	12	-	67	4BA	4.5
MR-100	80	4	106	84	40	27	60	66	66	13	7	65	4BA	4.5







**MOVING IRON AC PANEL
METERS COMPLY WITH
REGULATIONS OF
C.E. AS PER EMI / EMC TEST
(EN 50082 -2)**

&

**SAFETY REQUIREMENTS FOR
ELECTRICAL EQUIPMENTS FOR
MEASUREMENT, CONTROL
& LABORATORY USE.
(IEC 1010 -1 1990 +
2ND AMENDMENT 1995)**

GOLIYA INSTRUMENTS PVT. LTD.

316 / 311, Bharat Industrial Estate, T.J. Road Sewree, MUMBAI - 400 015, INDIA

Tel: 91-22-24149657, 24179467, Fax: 91-22-24130747

Email: sales@goliyainstruments.com Web: www.goliyainstruments.com



PORTABLE ANALOG AND DIGITAL INSTRUMENTS

Affordable, Accurate, Precise & Reliable instruments... since 1982

Pioneers and Experts in Test and Measuring Instruments...

THINK METERS, THINK MECO-G

**GOLIYA INSTRUMENTS PRIVATE LTD.
MUMBAI**



R-3501P



R-4050BP



R-4500P

Portable Digital Ammeters, Voltmeters and Frequency meters are designed for AC, DC and True RMS measurements. These instruments are more rugged, reliable and accurate than analog meters. They are light in weight, compact in size and stylish in design. They do not have any moving parts. Display is bright Red LED's. There is no confusion of anti parallax scale.

A Single instrument covers a wide range, (as compared to analog meters) reducing the number of instruments required, thus saving cost and space. These instruments are much lighter in weight and easy to carry. These instruments are ideal for educational institutes, laboratories, research institutes etc.

SALIENT FEATURES

- 3 ½ Digit Bright Red LED Display.1999(max) for Volt & Ampere.
- 4 ½ Digit Bright Red LED Display.19999(max) for Volt & Ampere.
- 4 Digit Bright Red LED Display. 9999(max) for Frequency meters.
- Light, Compact Sleek Design.
- Accurate Readings.
- High resolution as compared to analog instruments.
- No moving parts thus eliminating friction, wear and tear and enhancing life of instruments.
- Distinct reading eliminating ambiguity in readings.
- Auxiliary supply 230V AC.(Availability of other ranges is subject to technical feasibility)

VOLTMETER & AMMETERS

Model	R-3501P, R-4500P
Measuring Method	Dual Slope A/D Conversion
Sampling Time	2.5 Samples Per Second
Display Type	14.2mm (0.56") Red LED Super Bright Display
Maximum Display	1999 Counts (3½ dgt.) 19999 Counts (4½ dgt.)
Resolution	0.001 to 1 Count Depending on range
Polarity Indication	"-" is indicated for Negative Input. No indication for Positive Input.
Power Source	230VAC ± 10% (50-60Hz)
Over Range Indication	"1" is displayed in MSD for 3½ dgt. "0000" flashes in MSD for 4½ dgt.
Power consumption	<5VA
Dielectric Strength	AC 2KV for 1 min. between input and power terminals
Maximum Overload	Voltage: 1.2 times continuous Current: 2 times continuous
Frequency Response	50-60Hz (Standard) for Ammeters, Voltmeters. Upto 1KHz (Optional)
Environment	Calibration: 27°± 5°C Operating: 0° ~ 50°C, RH ≤90 % non condensing. Storage: -10° ~ 60°C, RH ≤90 % non condensing.

FREQUENCY METER

Model	R-4050BP
Measuring Method	Micro Controller based
Sampling Time	About 0.1 seconds.
Display Type	14.2mm (0.56") Red LED Super Bright Display
Maximum Display	9999 Counts (4 dgt.)
Resolution	0.01 to 1 Count Depending on range
Power Source	230VAC ± 10% (50-60Hz)
Over Range Indication	"-1" or "1" is displayed.
Power consumption	<5VA
Dielectric Strength	AC 2KV for 1 min. between input and power terminals
Environment	Calibration: 27°± 5°C Operating: 0° ~ 50°C, RH ≤90 % non condensing. Storage: -10° ~ 60°C, RH ≤90 % non condensing.

MODEL: R-3501P VOLTMETERS AND AMMETERS (3½ DIGIT DISPLAY)

MODEL: R-4500P VOLTMETERS AND AMMETERS (4½ DIGIT DISPLAY)

DIRECT INPUT DC / AC / TRMS (SINGLE RANGES)

3½ Digits			4½ Digits		
RANGES	INPUT IMPEDANCE	RESOLUTION	RANGES	INPUT IMPEDANCE	RESOLUTION
199.9 µA	1 KΩ	0.1 µA	199.99 µA	1 KΩ	0.01 µA
1.999 mA	100Ω	0.001 mA	1.9999 mA	100Ω	0.0001 mA
19.99 mA	10Ω	0.01 mA	19.999 mA	10Ω	0.001 mA
199.9 mA	1Ω	0.1 mA	199.99 mA	1Ω	0.01 mA
1.999 A	0.1Ω	0.001 A	1.9999 A	0.1Ω	0.0001 A
5/19.99 A	0.01Ω	0.01 A	5/19.999 A	0.01Ω	0.001 A
199.9 mV	≥ 1MΩ	0.1 mV	199.99 mV	≥ 1MΩ	0.01 mV
1.999 V	≥ 1MΩ	0.001 V	1.9999 V	≥ 1MΩ	0.0001 V
19.99 V	≥ 1MΩ	0.01 V	19.999 V	≥ 1MΩ	0.001 V
199.9 V	≥ 1MΩ	0.1 V	199.99 V	≥ 1MΩ	0.01 V
600 V	≥ 1MΩ	1 V	600 V	≥ 1MΩ	0.1 V

DIRECT INPUT DC / AC / TRMS (DUAL RANGES)

	RANGES
VOLTAGE	0-200mV / 2V, 0-2V / 20V, 0-20V / 200V, 0-200V / 600V
AMPERE	0-200µA / 2mA, 0-2mA / 20mA, 0-20mA / 200mA, 0-200mA / 2A, 0-2A / 20A

ACCURACIES FOR MODEL R-3501P & R-4500P

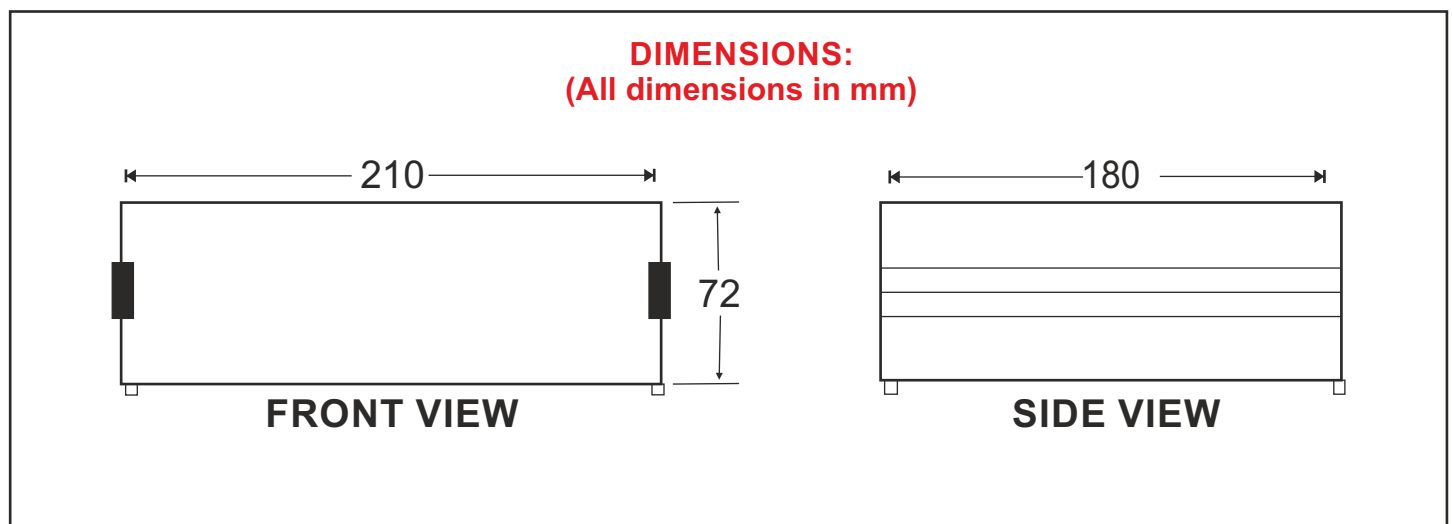
INPUT RANGE	SINGLE RANGE	DUAL RANGE
DC VOLTS	± (0.1%rdg+2 dgts)	± (0.5% rdg+2 dgts)
DC AMPS	± (0.3%rdg+2 dgts)	± (0.5% rdg+2 dgts)
AC VOLTS	± (0.5% rdg+3 dgts)	± (0.8% rdg+3 dgts)
AC AMPS	± (0.5%rdg+3 dgts)	± (0.8% rdg+3 dgts)

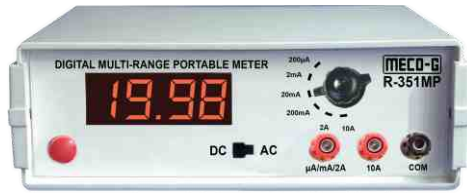
Other ranges available on request. (Subject to Technical Feasibility)

MODEL: R-4050BP FREQUENCY METER (4 DIGIT DISPLAY)

INPUT	RANGE	RESOLUTION	INPUT IMPEDANCE	ACCURACY
10-500VAC	99.99Hz	0.01Hz	≥ 1MΩ	0.1Hz
	999.9Hz	0.1Hz	≥ 1MΩ	1.0Hz

Other ranges available on request. (Subject to Technical Feasibility)





R-351MP

Portable Multi Range Digital Ammeters and Voltmeters are designed for both AC and DC measurements in the same instrument, thus eliminating the need of multiple instruments. These instruments are more rugged, reliable and accurate than analog meters. They are light in weight, compact in size and stylish in design. They do not have any moving parts. Display is bright Red LED's. There is no confusion of anti parallax scale.

A Single instrument covers a wide range, (as compared to analog meters) reducing the number of instruments required, thus saving cost and space. These instruments are much lighter in weight and easy to carry. These instruments are ideal for educational institutes, laboratories, research institutes etc.

SALIENT FEATURES

- 3 ½ Digit Bright Red LED Display.1999(max) for Volt & Ampere.
- Light, Compact Sleek Design.
- Accurate Readings.
- High resolution as compared to analog instruments.
- No moving parts thus eliminating friction, wear and tear and enhancing life of instruments.
- Distinct reading eliminating ambiguity in readings.
- Auxiliary supply 230V AC.(Availability of other ranges is subject to technical feasibility)

VOLTMETER & AMMETERS

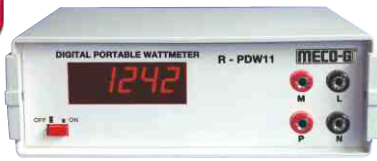
Model	R-351MP
Measuring Method	Dual Slope A/D Conversion
Sampling Time	2.5 Samples Per Second
Display Type	14.2mm (0.56") Red LED Super Bright Display
Maximum Display	1999 Counts (3½ dgt.)
Resolution	0.001 to 1 Count Depending on range
Polarity Indication	"-" is indicated for Negative Input. No indication for Positive Input.
Power Source	230VAC ± 10% (50-60Hz)
Over Range Indication	"1" is displayed in MSD for 3½ dgt.
Power consumption	<5VA
Dielectric Strength	AC 2KV for 1 min. between input and power terminals
Maximum Overload	Voltage: 1.2 times continuous Current: 2 times continuous
Frequency Response	50-60Hz (Standard) for Ammeters, Voltmeters. Upto 1KHz (Optional)
Environment	Calibration: 27° ± 5°C Operating: 0° ~ 50°C, RH ≤90 % non condensing. Storage: -10° ~ 60°C, RH ≤90 % non condensing.

DIRECT INPUT DC / AC

Ampere			Voltage		
RANGES	INPUT IMPEDANCE	RESOLUTION	RANGES	INPUT IMPEDANCE	RESOLUTION
199.9 μA	1 KΩ	0.1 μA	199.9 mV	≥ 1MΩ	0.1 mV
1.999 mA	100Ω	0.001 mA	1.999 V	≥ 1MΩ	0.001 V
19.99 mA	10Ω	0.01 mA	19.99 V	≥ 1MΩ	0.01 V
199.9 mA	1Ω	0.1 mA	199.9 V	≥ 1MΩ	0.1 V
1.999 A	0.1Ω	0.001 A	750 V	≥ 1MΩ	1 V
10.00 A	0.01Ω	0.01 A	1000 V (DC)	≥ 1MΩ	1 V

TYPE	MODE	RANGES	ACCURACY	AUX. SUPPLY
VOLTAGE	DC & AC	0- 2V, 20V, 200V, 750VAC / 1000VDC	± 0.5% Rdg. ± 5 dgts.	230VAC
AMPERE	DC & AC	0-200μA , 2mA, 20mA, 200mA, 2A, 10A*		

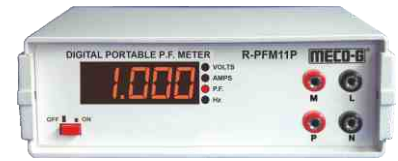
* Do not input current greater than 10A for more than thirty seconds



R-PDW11



R-PDW34P



R-PFM11P

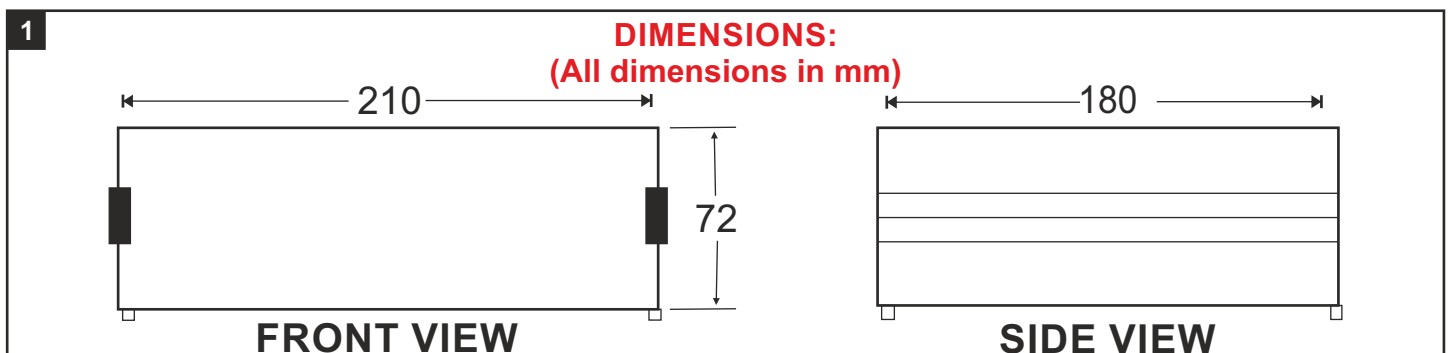
Portable Digital Watt, VAR and P.F. meters are designed for AC True RMS measurements. Single phase Portable Digital Wattmeters can measure power in single phase systems with unity Power Factor (P.F.=1.0) and Low Power Factor (P.F. = 0.2). These instruments are more rugged, reliable and accurate than analog meters. They are light in weight, compact in size and stylish in design. They do not have any moving parts. Display is bright Red LED's. There is no confusion of anti-parallax scale.

A Single instrument covers a wide range, (as compared to analog meters) reducing the number of instruments required, thus saving cost and space. These instruments are much lighter in weight and easy to carry. These instruments are ideal for educational institutes, laboratories, research institutes etc.

SALIENT FEATURES

- 3 ½ Digit Bright Red LED Display. 1999(max) for Low Power Factor Wattmeters
- 4 ½ Digit Bright Red LED Display. 19999(max) for Unity Power Factor Wattmeters.
- 4 Digit Bright Red LED Display. 9999(max) for Power Factor Meters.
- Light, Compact Sleek Design.
- Accurate Readings.
- High resolution as compared to analog instruments.
- No moving parts thus eliminating friction, wear and tear and enhancing life of instruments.
- Distinct reading eliminating ambiguity in readings.
- Auxiliary supply 230V AC. (Availability of other ranges is subject to technical feasibility)

Model	R-PDWxx, R-PDVARxx, R-PFMxxP SERIES
Measuring Method	Dual Slope A/D Conversion Micro-controller based (R-PFMxxP Series)
Sampling Time	2.5 Samples Per Second.
Display Type	14.2mm (0.56") Red LED Super Bright Display
Maximum Display	1999 Counts (3½ dgt.) 19999 Counts (4½ dgt.) 9999 Counts (4 Digits) (R-PFMxxP Series)
Resolution	0.001 to 1 Count Depending on range
Polarity Indication	"-" is indicated for Negative Input. No indication for Positive Input.
Power Source	230VAC ± 10% (50-60Hz)
Over Range Indication	"1" is displayed in MSD for 3½ dgt. "0000" flashes in MSD for 4½ dgt. "-1" or "1" is displayed for 4 digit meter (R-PFMxxP series)
Power consumption	<5VA
Dielectric Strength	AC 2KV for 1 min. between input and power terminals
Maximum Overload	Voltage: 1.2 times continuous Current: 2 times continuous
Frequency Response	50Hz
Environment	Calibration: 27° ± 5°C Operating: 0° ~ 50°C, RH ≤ 90 % non condensing. Storage: -10° ~ 60°C, RH ≤ 90 % non condensing.



MODEL: R-PDW SERIES ACTIVE POWER (WATT) METERS (3½ & 4½ DIGIT DISPLAY)

WATT METERS					
SYSTEM	ELEMENT	CURRENT	VOLTAGE	ACCURACY	MODEL
		(Any One)	(Any One)		
SINGLE PHASE	1	0-1A, 2A, 2.5A,	0-75,100,125,150,	±0.5% of Full Scale	R-PDW11 / R-PDW11L
3PHASE, 3 WIRE	2	3A, 4A, 5A, 10A	250,300,500,600V		R-PDW33
3PHASE, 4 WIRE	3		63.5,110,230,440V		R-PDW34

MODEL: R-PDVAR SERIES REACTIVE POWER (VAR) METERS (3½ & 4½ DIGIT DISPLAY)

VAR METERS					
SYSTEM	ELEMENT	CURRENT	VOLTAGE	ACCURACY	MODEL
		(Any One)	(Any One)		
SINGLE PHASE	1	0-1A or 5A	0-75,100,125,150,	±0.5% of Full Scale	R-PDVAR11
3PHASE, 3 WIRE	2		250,300,500,600V		R-PDVAR33
3PHASE, 4 WIRE	3		63.5,110,230,440V		R-PDVAR34

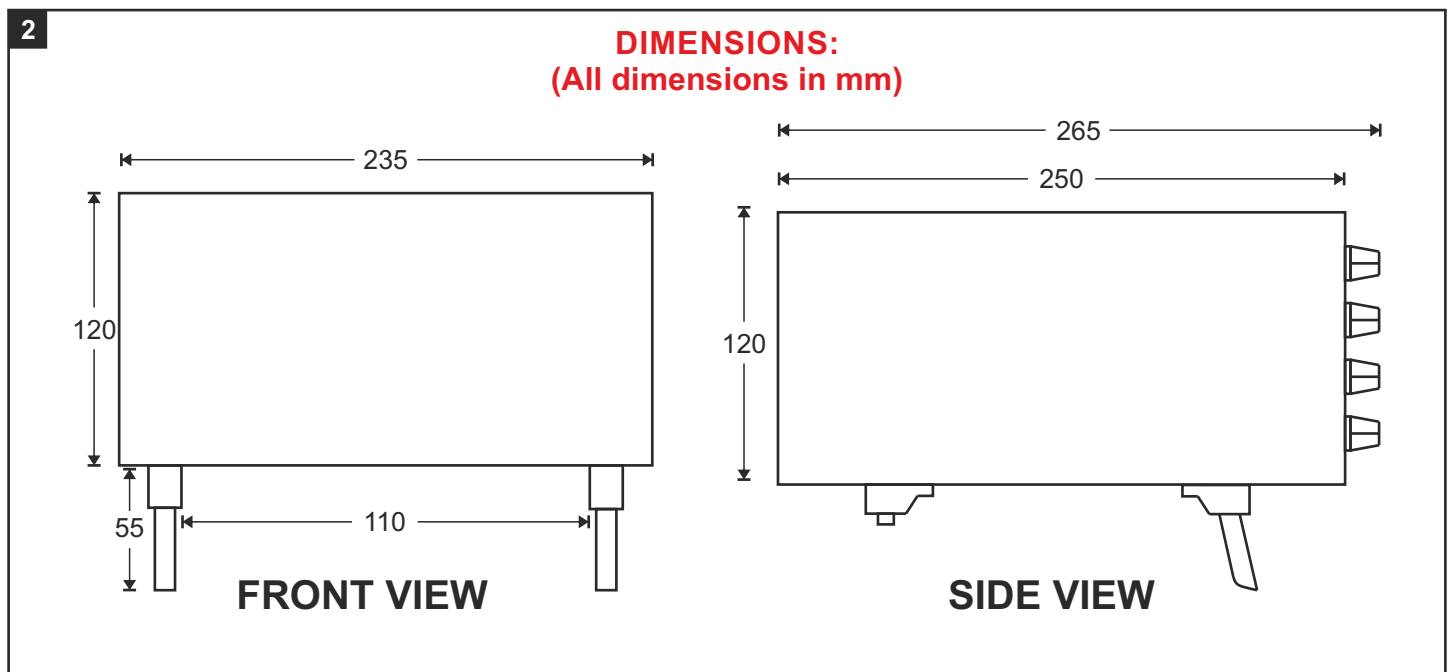
MODEL: R-PFM_{xx}P SERIES POWER FACTOR (P.F.) METERS (4 DIGIT DISPLAY)

P.F. METERS			
DISPLAY	RANGES	ACCURACY	MODEL
CURRENT	0-1A or 5A (Any One)	± 0.3% ± 4Digits	SINGLE PHASE ONE ELEMENT
VOLTAGE	63.5,110,230,440V (Any One)	± 0.3% ± 4Digits	
FREQUENCY	40-99.99Hz	± 0.1Hz	R-PFM34P
POWER FACTOR	0.2 (LEAD) - 1.0 - 0.2 (LAG)	± 2° ELECTRICAL	THREE PHASE ONE ELEMENT

Other ranges available on request. (Subject to Technical Feasibility)

ALL OUR DIGITAL PORTABLE WATT / VAR / P.F. METERS ARE WITH EXTERNAL AUX. SUPPLY OF 230VAC

- Note:-
- 1) For model R-PDW11, R-PDW11L, R-PDVAR11, R-PFM11P and R-PFM31P kindly refer the dimension 1 on page no. 3
 - 2) For model R-PDW33, R-PDW34, R-PDVAR33, R-PFM34 kindly refer the dimension 2 mentioned below.





Portable Ammeters & Voltmeters are designed for the use in laboratories, field & test room where precision measurement is required. These portable instruments can be used in precision research laboratories where carefully controlled atmospheric conditions are secured, in educational institutions where possible misuses exist and in factories where these instruments are important for making calibration check on switchboard and panel instruments.

SALIENT FEATURES:-

- Knife edge Pointer & Anti-parallax mirror scale.
- Shock resistant Pivot jewel movement. The pivots are made from carbon steel hard chrome plated and are mounted in spring loaded sapphire jewels. This ensures shock resistance due to vibrations in transit and minimum friction during use.
- Tough Bakelite Case: The complete body of the instrument is made from superior grade of Bakelite and ABS. Unique design makes it strong in construction and at the same time provides very high insulation.
- Dust Proof: The moment is placed in a separate compartment making it completely dust proof, thus ensuring long life & years of trouble free service.
- Minimized Heating of Voltmeters or less internal heating due to low VA-loss: The resistance of Voltmeters are housed separately in a ventilated compartment making heating problems negligible.
- Quick Response due to unique damping.

Model	MOVING IRON AC INSTRUMENT(MIACP)
Description	Moving iron meter of 90° deflection
Movement Type	Moving iron spring-mounted jewel bearing suspension.
Accuracy	±1.0% (Regular), ± 0.5% (Precision Grade - Optional) of full scale as per IS 1248, EN60051
Self consumption	Ammeters (Up-to 5AAC), 0.6VA, Voltmeters (Up-to 500VAC) 5VA
Operating Voltage	600V RMS max
Test Voltage	2KV for 1 minute at 50Hz
Scale Length	Knife-edge Pointer with 140mm Length (approx)
Scale	Anti-parallax Mirror Scale
Casing/Housing	Bakelite Housing with ABS bottom base.
Temperature Conditions	-10°C ~ + 55°C, RH <90% (Operating), -10°C ~ + 70°C, RH <90% (Storing)

MOVING IRON AC INSTRUMENTS ⚡

*Rated Accuracy : Class 1.0% of Full Scale value as per IS 1248/84, between 20% - 100% of scale.

Range	A.C. VOLTMETERS	A.C. AMMETERS
Single	0-15, 30V, 60V, 75V, 100V, 125V, 150V, 250V, 300V, 500V, 600V	0-50mA, 100mA, 250mA, 500mA, 1A, 2A, 5A, 10A, 20A, 25A, 30A, 40A, 50A, 60A, 75A, 100A
Double	0-15/30V, 30/60V, 62.5/125V, 75/150V, 125/250V, 150/300V, 250/500V, 300/600V	0-1/2A, 2.5/5A, 5/10A, 15/30A, 25/50A, 50/100A
Triple	0-30/60/120V, 75/150/300V, 62.5/125/250V, 125/250/500V, 150/300/600V	0-1/3/10A, 3/10/30A, 5/10/25A, 10/30/100A, 10/25/50A, 25/50/100A
Multiple	75/150/300/600V	0-1/3/10/30/100A, 5/10/25/50/100A

Carrying Case for the Bakelite Portable Meters are available as an optional accessory. To ensure longer service, the instrument should be preferably be housed in a carrying case, when stored or being transported in the field.

Model	MOVING COIL AC RECTIFIER TYPE INSTRUMENT (MCACP)
Description	Moving coil meter of 90° deflection with AC rectifier.
Movement Type	Moving coil with central magnetic core, spring-mounted bearing jewel suspension
Accuracy	±2.5% (regular) of full scale as per IS 1248, EN60051
Sensitivity	1000Ω/V (Voltmeter), 200Ω/V (Ammeter)
Operating Voltage	600V RMS max
Test Voltage	2KV for 1 minute at 50Hz
Scale Length	Knife-edge Pointer with 140mm Length (approx)
Scale	Anti-parallax Mirror Scale
Casing/Housing	Bakelite Housing with ABS bottom base.
Temperature Conditions	-10°C ~ + 55°C, RH <90% (Operating), -10°C ~ + 70°C, RH <90% (Storing)

MOVING COIL AC RECTIFIER TYPE INSTRUMENTS

*Rated Accuracy : Class 2.5% of Full Scale value as per IS 1248/84, between 20% - 100% of scale.

Range	A.C. VOLTMETERS	A.C. AMMETERS
Single	0-7.5V, 10V, 15V, 30V, 60V, 75V, 125V, 150V, 300V, 500V, 600V	0-10mA, 15mA, 20mA, 25mA, 50mA, 75mA, 100mA, 200mA, 250mA, 300mA, 500mA, 750mA 0-1A, 2A, 2.5A, 5A, 10A, 15A, 20A, 25A, 30A, (With built in CT)
Double	0-7.5/15V, 15/30V, 30/60V, 75/150V, 125/250V, 150/300V, 250/500V, 300/600V	
Triple	0-7.5/15/30V, 15/30/60V, 30/75/150V, 75/150/300V, 125/250/500V, 150/300/600V	

Model	MOVING COIL DC INSTRUMENT (MCDCP)
Description	Moving coil meter of 90° deflection.
Movement Type	Moving coil with central magnetic core, spring-mounted bearing jewel suspension
Accuracy	±1.0% (regular), 0.5% (Precision Grade - Optional) of full scale as per IS 1248, EN60051
Sensitivity	1000Ω/V (Voltmeter), 200Ω/V (Ammeter)
Test Voltage	2KV for 1 minute at 50Hz
Scale Length	Knife-edge Pointer with 140mm Length (approx)
Scale	Anti-parallax Mirror Scale
Casing/Housing	Bakelite Housing with ABS bottom base.
Temperature Conditions	-10°C ~ + 55°C, RH <90% (Operating), -10°C ~ + 70°C, RH <90% (Storing)

MOVING COIL DC INSTRUMENTS

*Rated Accuracy : Class 1.0% of Full Scale value as per IS 1248/84, between 10% - 100% of scale.

Ranges	D.C. VOLTMETERS	D.C. AMMETERS
Single	0-50mV, 75mV, 100mV, 150mV, 250mV, 500mV, 750mV, 1V, 3V, 7.5V, 10V, 15V, 30V, 60V, 75V, 100V, 150V, 250V, 300V, 500V, 600V	0-1mA, 2mA, 5mA, 10mA, 20mA, 50mA, 100mA, 200mA, 500mA, 750mA, 1A, 2A, 2.5A, 5A, 10A, 20A, 25A, 30A, 40A, 50A
Double	0-50/100mV, 75/150mV, 125/250mV, 150/300mV, 250/500mV, 300/600mV, 500/1000mV, 1.5/3V, 5/10V, 7.5/15V, 15/30V, 30/60V, 75/150V, 125/250V, 150/300V, 250/500V, 300/600V	0-1/2mA, 2.5/5mA, 5/10mA, 10/20mA, 15/30mA, 25/50mA, 50/100mA, 75/150mA, 100/200mA, 150/300mA, 250/500mA, 300/600mA, 500/1000mA, 1/2A, 2.5/5A, 5/10A, 10/20A, 15/30A, 25/50A
Triple	0-50/100/200mV, 75/150/300mV, 125/250/500mV, 150/300/600mV, 250/500/1000mV, 1.5/3/7.5V, 3/7.5/15V, 7.5/15/30V, 15/30/75V, 30/75/150V, 75/150/300V, 125/250/500V, 150/300/600V	
Multiple	0-50/100/250/500mV, 75/150/300/600mV, 125/250/500/1000mV, 1.5/3/7.5/15V, 3/7.5/15/30V, 7.5/15/30/60V, 15/30/75/50V, 30/75/150/300V, 75/150/300/600V, 0.3/1/3/10V, 3/10/30/100V, 30/100/300/600V	0.1/0.3/1/3mA, 1/3/10/30mA, 10/30/100/300mA, 0.1/0.3/1/3A, 1/3/10/30A

Meters with Centre '0' also available

Other ranges available on request. (Subject to Technical Feasibility)

FOR DIMENSIONS KINDLY REFER PAGE NO. 92



Portable WATT / VAR / POWER FACTOR type instruments are Electrodynamicometer type instruments. Single phase Portable Digital Wattmeters can measure power in single phase systems with unity Power Factor (P.F.=1.0) and Low Power Factor (P.F. = 0.2) They can be used in Single phase, Three Phase Three Wire and Three Phase Four Wire system and are designed to be used in horizontal positions. These instruments are ideal for educational institutions.

Model	SPW1, SPLW, DPW3, DPVAR3, SPF1, SPF3, DPF3
Description	Electrodynamometer of 90° deflection
Movement Type	Electrodynamo moment with spring-mounted jewel bearing suspension
Accuracy	<ol style="list-style-type: none"> 1. Watt-meters are of $\pm 1.0\%$ of Full Scale as per IS 1248: EN60051. (Single Phase) 2. Watt-meters of $\pm 0.5\%$ (Optional) of Full Scale as per IS 1248: EN60051. (Single Phase) 3. Watt-meters of $\pm 1.5\%$ of Full Scale as per IS 1248: EN60051 for SPLW. 4. Watt-meters of $\pm 1.0\%$ (Optional) of Full Scale as per IS 1248: EN60051 for SPLW. 5. Power Factor meters: $\pm 3^\circ$ (Regular) of Full Scale as per BS89, IEC 51 6. Power Factor meters: $\pm 2^\circ$ (Optional) of Full Scale as per BS89, IEC 51. 7. Watt-meters & Var-meters are of $\pm 1.5\%$ of Full Scale as per IS 1248: EN60051 for Three Phase. 8. Watt-meters & Var-meters are of $\pm 1.0\%$ (Optional) of Full Scale as per IS 1248: EN60051 for Three Phase.
Insulation Resistance	Over 20M Ω at 500VDC
Test Voltage	2KV for 1 minute at 50Hz
Scale Length	Knife-edge Pointer with 140mm Length (approx)
Scale	Anti-parallax Mirror Scale
Casing/Housing	Bakelite Housing with ABS bottom base.
Temperature Conditions	-10°C ~ + 55°C, RH <90% (Operating), -10°C ~ + 70°C, RH <90% (Storing)

POWER FACTOR METERS

MODEL	PHASE	ELEMENT	CURRENT	VOLTAGE
SPF1	1 PHASE	1	0.5/1A, 1/2A, 2.5/5A 5/10A, 10/20A	62.5/125/250V, 75/150/300V 125/250/500V, 150/300/600V
SPF3	3PHASE BALANCED LOAD	1	1A or 5A	110V or 440V
DPF3	3PHASE 3 WIRE BALANCED LOAD	2	0.5/1A, 1/2A, 2.5/5A 5/10A, 10/20A	62.5/125V, 110/440V 125/250V, 250/500V 300/600V

Carrying Case for the Bakelite Portable Meters are available as an optional accessory. To ensure longer service, the instrument should be preferably be housed in a carrying case, when stored or being transported in the field.

WATT-METERS

MODEL	PHASE	ELEMENT	CURRENT (Any One)	VOLTAGE (Any One)
SPW1 P.F. = 1.0	1 PHASE	1	0.5, 1, 2, 2.5, 5, 10A	75, 100, 150, 200, 250, 300, 500, 600V
				75/150V, 150/300V, 250/500V 300/600V
				75/150/300V, 125/250/500V 150/300/600V
SPLW P.F. = 0.2	1 PHASE LOW POWER FACTOR WATTMETER	1	0.5/1A, 1/2A, 2.5/5A 5/10A, 10/20A, 15/30A	75, 100, 150, 200, 250, 300, 500, 600V
				75/150V, 150/300V, 250/500V 300/600V
				75/150/300V, 125/250/500V 150/300/600V
DPW3	3 PHASE 3 WIRE BALANCED AND UNBALANCED LOAD	2	0.5/1A, 1/2A, 2.5/5A 5/10A, 10/20A, 15/30A	62.5/125, 110/440V, 125/250V 150/300V, 250/500V, 300/600V

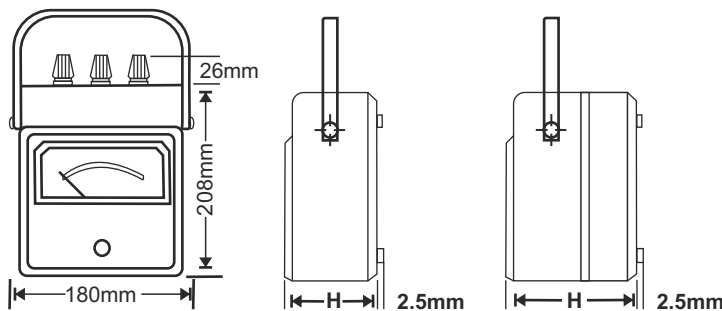
VAR METERS

MODEL	PHASE	ELEMENT	CURRENT (Any One)	VOLTAGE (Any One)
DPVAR3	3 PHASE 3 WIRE BALANCED AND UNBALANCED LOAD	2	0.5/1A, 1/2A, 2.5/5A 5/10A, 10/20A, 15/30A	62.5/125, 110/440V, 125/250V 150/300V, 250/500V, 300/600V

Note:

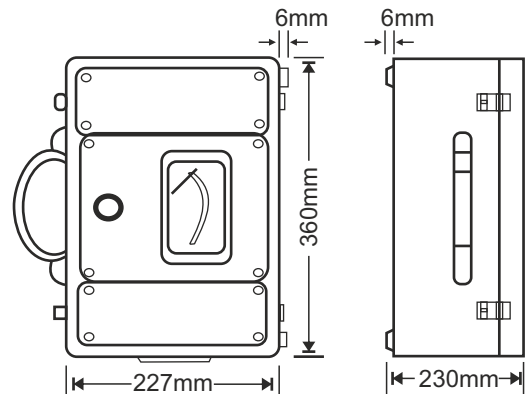
1. All Watt-meters are calibrated at $\text{COS}\phi = 1$ and Var-meters are calibrated at $\text{SIN}\phi = 1$. (Standard)
2. All Low Power Factor Watt-meters are calibrated at $\text{COS}\phi = 0.2$ Lag.
3. Centre-Zero Watt / Var meters can be supplied on request.
4. Dual Scale Watt / Var meters can be supplied on request.
5. Watt-meters with reversible switch also available on request.
6. Other Voltage and Current ranges can be supplied on request, subject to technical feasibility.

DIMENSIONS



MODEL	HEIGHT (H)
MIACP / MCACP / MCDPC	98mm
SPW1 / SPLW / SPF1 / SPF3	98mm
DPW3 / DPVAR3	145mm

BAKELITE CASE



MODEL: DPF3

WOODEN CASE



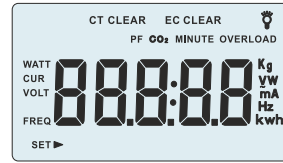
POWER QUALITY ANALYZERS

Affordable, Accurate, Precise & Reliable instruments... since 1982!

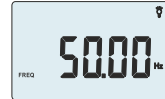
Pioneers and Experts in Test and Measuring Instruments...

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MUMBAI**

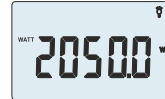
Preliminary
Data



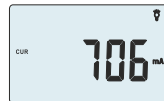
VOLTAGE (V)



FREQUENCY(Hz)



WATT (W)



CURRENT (A)



CARBON EMISSION (CO2)



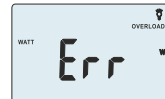
POWER FACTOR (P.F.)



TOTAL ENERGY (KWH)



TOTAL USAGE TIME (MIN)



OVERLOAD

Model: R-PG99

“MECO-G” POWERGUARD is a product which can be widely used because of its portability and light weight which makes it simple to use and easy to handle.

Measures

- * Power (W)
- * Power Factor (P.F.)
- * Current (mA)
- * Voltage (V)
- * Frequency (Hz)
- * Total Usage Time (min)
- * Total Used Energy (KWh)
- * Carbon Emission (CO2 in kg)

Features

- * Smart Three Pin International Socket
- * Large LCD Display with Backlight
- * Blinking LCD to indicate Alarm when KW is over threshold
- * Counts Co2 generated by Electrical Equipment (0.555kg Co2 is generated using 1KWh Energy)

General Specification

- * Accuracy: Class 1.0
- * Power Consumption: Less than 1W
- * Input: 230V, 50Hz
- * Working Temperature: 0°C ~ 45°C
- * Dimension: 60 x 55.7 x 120mm
- * Weight: 130.0gms (Approx.)

Functions	Input Range	Display Format
Power (W)	0.2 ~ 1W	XXX.XX W
	01 ~ 5W	
	5 ~ 2200W	
Power Factor (P.F.)	For 0.2 ~ 5W	X.XXX P.F.
	For 5 ~ 10W	
	For 10 ~ 2200W	
Current (mA)	0.02 ~ 10A	XX.XXX mA
Voltage (V)	180 ~ 260V	XXX.XX V
Frequency (Hz)	Hz	XX.XX Hz
Total Usage Time (min)	Minutes	XXXXX MIN
Total Used Energy (kWh)	For 5 ~ 2200 W	XXXXX kWh
Co2	CO2 (kg)	XXXX.X kg
Applications	This PowerGuard can be used in Houses, Schools, Offices, Shops, Laboratories etc. Teaching, Demonstration & Testing of Electrical Consumption of Household / Office appliances.	



R-27AP



R-27BP

MECO-G R-27 series is a portable multifunction power quality analyser / energy auditor / network instrument which can measure more than 50 electrical parameters in the electrical circuit.

It can measure in Single Phase, Three Phase - Three Wire and Three Phase - Four Wire systems.

Being a portable multifunction meter, it reduces the cost of procuring multiple portable equipments which are bulky in weight and also costly in price.

Model R-27BP is available with RS-485 communication interface.

This product can be used widely at Laboratories, Testing Facilities, Schools, Engineering Institutions etc, Energy Audit, Appliance Testing etc.

- Average Phase - Neutral Voltage (VL_N)
- Average Phase - Phase Voltage (VL_L)
- Frequency (Hz)
- Total Active Power (ΣW)
- Total Reactive Power (Σvar)
- Total Apparent Power (ΣVA)
- Max. Value (H)
- Min. Value (L)
- Demand Value (M)
- Phase - Neutral Voltage (VL_N)
- Phase - Phase Voltage (VL_L)
- Phase - Current (A)
- Total Current (ΣA)
- Active Power (W)
- Reactive Power (var)
- Apparent Power (VA)
- Power Factor (Cos ϕ)
- Active Electric Energy (Wh)
- Reactive Electric Energy (varh)

INPUT	Network		1Phase, 3 Phase 3 Wire, 3 Phase 4 Wire
		Rated Value	AC 110V, 230V, 440 V
	Volts	Over Load	Continuous :1.2 times, Instantaneous: 2 times <20s
		Consumption	< 1 VA each Phase
		Impedance	>500k Ω
		Rated Value	AC 1A, 5A
	Current	Over load	Continuous: 1.2 times, Instantaneous: 20 times <1s
		Impedance	<20m Ω
	Frequency		45 ~65 Hz.
DISPLAY			7 SEGMENT BRIGHT RED LED DISPLAY, FIVE ROWS
ACCURACY	Volts, Current		$\pm(0.5\%FS + 2dgt)$
	Watts, Var, KVA		$\pm(0.5\%FS + 2dgt)$
	Frequency		± 0.1 Hz
	Power Factor		± 0.01 PF
	Active Energy		$\pm 0.5\%$
	Reactive Energy		$\pm 2.0\%$
SUPPLY	Auxillary Supply		230VAC
SAFETY	AC BREAKDOWN		Bet.Input or Output and Supply : 2KV 50Hz /1 min.
	VOLTAGE		Bet .Input & Output :1KV 50Hz /1 min.
	INS. RESISTANCE		Bet.Input / Output / Supply and casing: 20M Ω @500V DC.
OPERATING	TEMPERATURE		OPERATING : -10° ~ 50° C
CONDITION			STORAGE: -25° ~ 70° C
	HUMIDITY		< 85% RH, free of moisture and gas



R-18BP

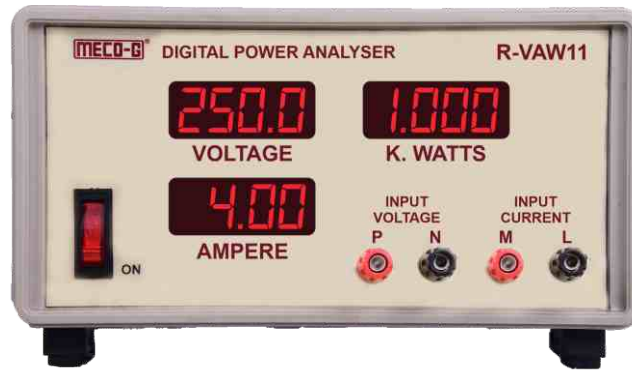
R-18BP series portable multifunction power quality analyser / energy auditor network instruments can measure electrical parameters in the electrical circuit.

It can measure in Single Phase, Three Phase - Three Wire and Three Phase - Four Wire systems.

Being a portable multifunction meter, it reduces the cost of procuring multiple portable equipments which are bulky in weight and also costly in price.

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.

INPUT	Network		1Phase, 3 Phase 3 Wire, 3 Phase 4 Wire
	Volts	Rated Value	110VAC / 230VAC / 440VAC
		Over Load	Continuous: 1.2x, Instantaneous: 2x <10seconds
		Consumption	<1VA / Phase.
		Impedance	>300KΩ
	Current	Rated Value	1A / 5A AC
		Over load	Continuous: 1.2x, Instantaneous: 10x <5seconds
		Consumption	<0.4 VA / Phase
	Impedance	<20mΩ	
	Frequency		45-65Hz
OUTPUT	Electric	Output Mode	Bi Directional active and reactive electric energy
	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	
DISPLAY			7 SEGMENT BRIGHT RED LED DISPLAY, THREE ROWS
ACCURACY	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%
SUPPLY	Auxillary Supply		AC/DC 85~264 V, <5VA
SAFETY	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.
OPERATING CONDITION	Temperature		Operating : -10° ~ 50° C
			Storage: -25° ~ 70° C
	Humidity		< 90% RH, free of moisture and gas



R-VAW11

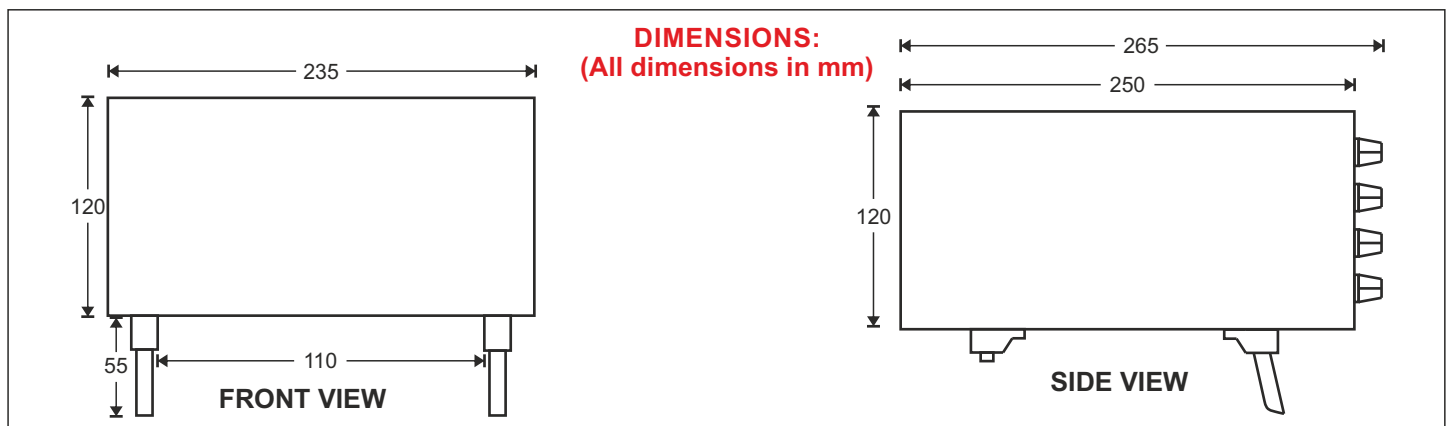
MECO-G R-VAW11 series is a portable multifunction power quality analyser / energy auditor instrument which can measure more than voltage, ampere and watts of a given instrument. It can measure in Single Phase system only. Being a portable multifunction meter, it reduces the cost of procuring multiple portable equipments which are bulky in weight and also costly in price.

This product can be used widely at Laboratories, Testing Facilities, Schools, Engineering Institutions etc, Energy Audit, Appliance Testing etc.

GENERAL SPECIFICATIONS

- | | | | |
|------------------------------|---|----------------------------|---|
| Measuring Method | : Multiplication of Pulse Width & Height | VA Burden (Typical) | : <2.5VA |
| Sampling Time | : 2.5 Samples Per Second | Dielectric Strength | : 2kV at 50Hz for 1 min. between input and Power terminals. |
| Display Type | : Red LED Super Bright Display | | : 3kV at 50Hz for 1 min. between all terminals to case. |
| Maximum Display | : 3½ Digit, 1999 Counts | Accuracy | : ± 0.5% Rdg. ± 2 dgts. |
| Resolution | : 0.001 to 1 Count Depending on range | Aux. Power Supply | : 230V AC ±10% @ 50 / 60Hz |
| Polarity Indication | : "-" is indicated for Export of Power | | |
| Over Range Indication | : "1" or "-1" | | |
| Maximum Overload | : Voltage: 1.2 times continuous
: Current: 2 times continuous | | |
| Frequency Response | : 50Hz. | | |
| Maximum Overload | : Voltage: 1.2 times continuous
: Current: 2 times continuous | | |
| Environment | : Calibration: 27°± 5°C, Operating: 0° ~ 50°C, RH < 95%, Storage: -10° ~ 60°C, RH < 95% | | |

DIRECT INPUT: AC V Input			DIRECT INPUT: AC A Input		
MEASURING RANGE	INPUT IMPEDANCE	RESOLUTION	MEASURING RANGE	INPUT IMPEDANCE	DISPLAY RANGE
199.9mV	1MΩ	0.1mV	1A	0.1Ω	1.000A
1.999V	1MΩ	0.001V	5A	0.01Ω	5.00A
19.99V	1MΩ	0.01V	CTR: --/1A (AC/TRMS)	0.1Ω	(Kindly mention at time of ordering)
199.9V	1MΩ	0.1V			
750V	1MΩ	1V	CTR: --/5A (AC/TRMS)	0.01Ω	
1000V	1MΩ	1V			



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TO OBTAIN WARRANTY SERVICE, CONTACT YOUR NEAREST “MECO-G” AUTHORIZED DEALER OR SEND THE PRODUCT, WITH PROOF OF PURCHASE AND DESCRIPTION OF THE DIFFICULTY, POSTAGE AND INSURANCE PREPAID, TO “MECO-G”. “MECO-G” ASSUMES NO RISK FOR DAMAGE IN TRANSIT. “MECO-G” WILL, AT ITS OPTION, REPAIR OR REPLACE THE DEFECTIVE PRODUCT FREE OF CHARGE. HOWEVER, IF “MECO-G” DETERMINES THAT THE FAILURE WAS CAUSED BY MISUSE, ALTERED, NEGLECTED, OR DAMAGED BY ACCIDENT OR ABNORMAL CONDITIONS OF OPERATION OR HANDLING, YOU WILL BE BILLED FOR THE REPAIR.

“MECO-G’S” WARRANTY DOES NOT APPLY TO ACCESSORIES, IC’S, FUSES, FUSIBLE RESISTORS, SPARK GAPS, BATTERIES OR ANY PRODUCT WHICH, IN “MECO-G’S” OPINION, HAS BEEN MISUSED, ALTERED, NEGLECTED, CONTAMINATED OR DAMAGED BY ACCIDENT OR ABNORMAL CONDITIONS OF OPERATION OR HANDLING.

“MECO-G” AUTHORIZED DEALER SHALL EXTEND THIS WARRANTY ON NEW AND UNUSED PRODUCTS TO END-USER CUSTOMERS ONLY BUT HAVE NO AUTHORITY TO EXTEND A GREATER OR DIFFERENT WARRANTY ON BEHALF OF “MECO-G”.

“MECO-G’S” WARRANTY OBLIGATION IS LIMITED, AT OPTION, FREE OF CHARGE REPAIR, OR REPLACEMENT OF A DEFECTIVE PRODUCT WHICH IS RETURNED TO A “MECO-G” AUTHORIZED SERVICE CENTER WITHIN THE WARRANTY PERIOD.

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Pioneers and Experts in Test and Measuring Instruments...

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MUMBAI**



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SINCE 1982

An ISO 9001-2015 Certified Company



Representative / Dealer



CATALOG 2022-2023

GOLIYA INSTRUMENTS PRIVATE LTD.

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Email: sales@goliyainstruments.com Web: www.goliyainstruments.com