



ANALOG / DIGITAL PANEL METERS AND TRANSDUCERS FOR NUCLEAR POWER PROJECTS



+60 YEARS
ONE MISSION



Reliable



Long-Lasting



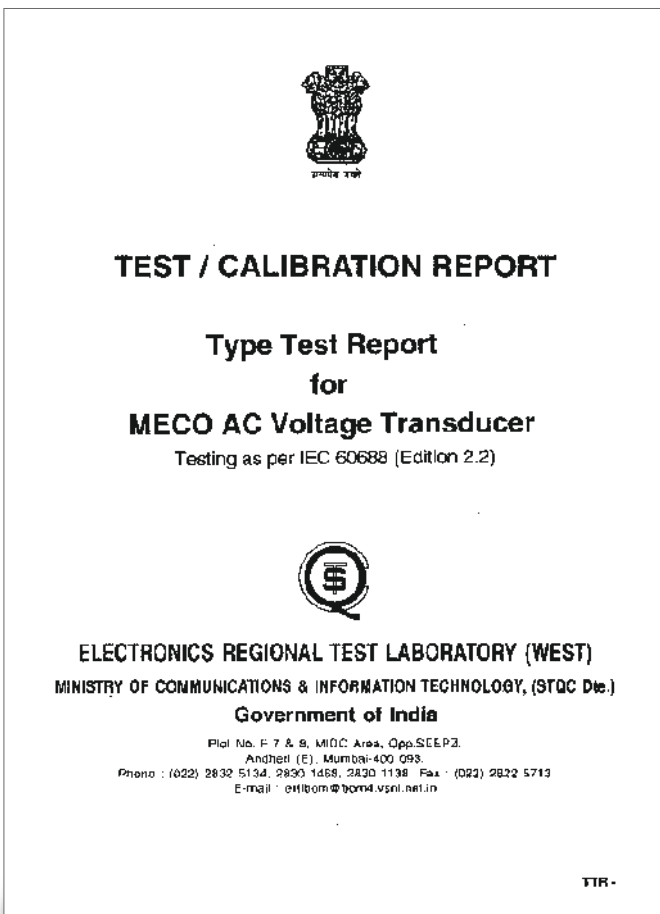
Affordable



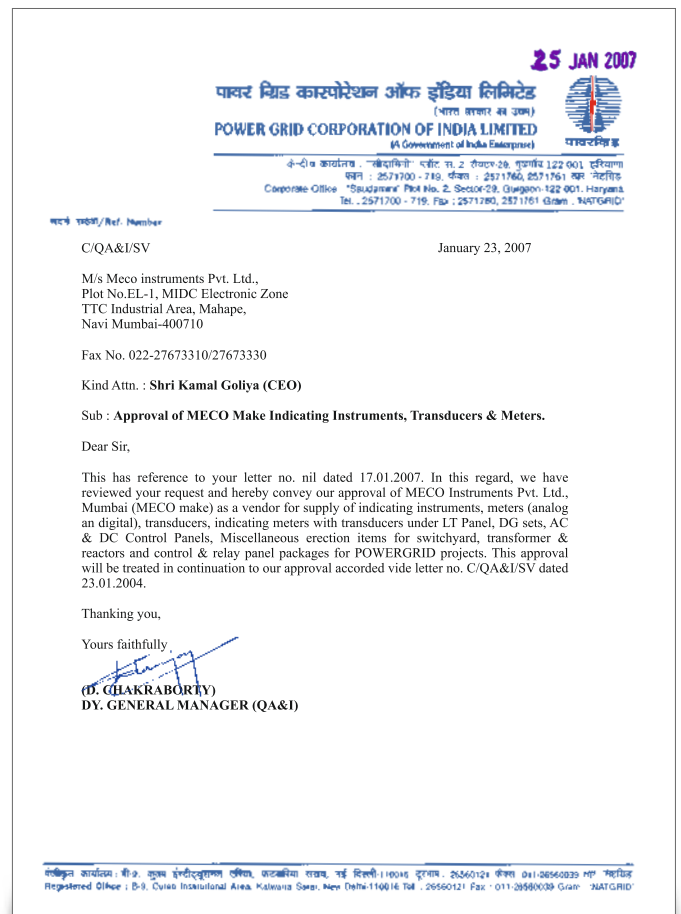
ISO 9001:2015 CERTIFICATE



EIL APPROVAL



STQC TYPE TEST REPORT



PGCIL APPROVAL



ML96

DC Moving Coil 240° DIN Analog Panel Meter - Low Range Area Radiation Monitor (LRARM)	
Model	ML96
Size	96 x 96 mm
Full Scale Deflection	240°
Range Input	1 - 5V DC
Scale 1	1 - 1000 μSv/hr
Scale 2	0.01 - 10 μSv/hr
Accuracy	±1% of Full Scale
Standard	Construction & Design : IS1248 ; EN 60051 Scale : DIN 43802
Movement Type & Working Principle	Moving Coil with Central Magnetic Core; Spring Mounted Bearing Jewel Suspension
Test Voltage	2.5KV AC for 1 Minute at 50Hz
Operating Voltage	600 V RMS max.
Sensitivity	1000Ω / V
Casing	ABS Case with Glass Front

Dimensions (mm)

Scale Length	155		
A	96		
B	48		
C	90		
D	92		
E	13		
F	22		



ML96

DC Moving Coil 240° DIN Analog Panel Meter – Accessible Area Radiation Monitor (AARM)	
Model	ML96
Size	96 x 96 mm
Full Scale Deflection	240°
Range Input	0 - 5V DC
Scale 1	0.0001 - 0.1 mSv/hr
Scale 2	0.001 - 1 mSv/hr
Accuracy	±1.5% of Full Scale
Standard	Construction & Design : IS1248 ; EN 60051 Scale : DIN 43802
Movement Type & Working Principle	Moving Coil with Central Magnetic Core; Spring Mounted Bearing Jewel Suspension
Test Voltage	2.5KV AC for 1 Minute at 50Hz
Operating Voltage	600 V RMS max.
Sensitivity	1000Ω / V
Casing	ABS Case with Glass Front

Dimensions (mm)

Scale Length	155		
A	96		
B	48		
C	90		
D	92		
E	13		
F	22		



ML96

DC Moving Coil 240° DIN Analog Panel Meter – Shut Down Radiation Monitor	
Model	ML96
Size	96 x 96 mm
Full Scale Deflection	240°
Range Input	0 – 5V DC
Scale	0.01 – 10 ³ mSv/hr
Accuracy	±1.5% of Full Scale
Standard	Construction & Design : IS1248 ; EN 60051 Scale : DIN 43802
Movement Type & Working Principle	Moving Coil with Central Magnetic Core; Spring Mounted Bearing Jewel Suspension
Test Voltage	2.5KV AC for 1 Minute at 50Hz
Operating Voltage	600 V RMS max.
Sensitivity	1000Ω / V
Casing	ABS Case with Glass Front

Dimensions (mm)

Scale Length	155	
A	96	
B	48	
C	90	
D	92	
E	13	
F	22	



ML96

DC Moving Coil 240° DIN Analog Panel Meter – Wide Range Area Radiation Monitor	
Model	ML96
Size	96 x 96 mm
Full Scale Deflection	240°
Range Input	0 - 5V DC
Scale	1 - 10 ⁵ mSv/hr
Accuracy	±1.5% of Full Scale
Standard	Construction & Design : IS1248 ; EN 60051 Scale : DIN 43802
Movement Type & Working Principle	Moving Coil with Central Magnetic Core; Spring Mounted Bearing Jewel Suspension
Test Voltage	2.5KV AC for 1 Minute at 50Hz
Operating Voltage	600 V RMS max.
Sensitivity	1000Ω / V
Casing	ABS Case with Glass Front

Dimensions (mm)

Scale Length	155		
A	96		
B	48		
C	90		
D	92		
E	13		
F	22		



ML96

DC Moving Coil 240° DIN Analog Panel Meter - Frisker Contamination Monitor (FCM)	
Model	ML96
Size	96 x 96 mm
Full Scale Deflection	240°
Range Input	0 – 5V DC
Scale	0 – 10 CPS
Accuracy	±1.5% of Full Scale
Standard	Construction & Design : IS1248 ; EN 60051 Scale : DIN 43802
Movement Type & Working Principle	Moving Coil with Central Magnetic Core; Spring Mounted Bearing Jewel Suspension
Test Voltage	2.5KV AC for 1 Minute at 50Hz
Operating Voltage	600 V RMS max.
Sensitivity	1000Ω / V
Casing	ABS Case with Glass Front

Dimensions (mm)

Scale Length	155	
A	96	
B	48	
C	90	
D	92	
E	13	
F	22	



ML96

DC Moving Coil 240° DIN Analog Panel Meter – High Range Area Radiation Monitor (HRARM)	
Model	ML96
Size	96 x 96 mm
Full Scale Deflection	240°
Range Input	1 – 5V DC
Scale	0.01 – 10 ³ mSv/hr
Accuracy	±1.5% of Full Scale
Standard	Construction & Design : IS1248 ; EN 60051 Scale : DIN 43802
Movement Type & Working Principle	Moving Coil with Central Magnetic Core; Spring Mounted Bearing Jewel Suspension
Test Voltage	2.5KV AC for 1 Minute at 50Hz
Operating Voltage	600 V RMS max.
Sensitivity	1000Ω / V
Casing	ABS Case with Glass Front

Dimensions (mm)

Scale Length	155		
A	96		
B	48		
C	90		
D	92		
E	13		
F	22		



ML96

DC Moving Coil 240° DIN Analog Panel Meter – Shut Down Area Radiation Monitor	
Model	ML96
Size	96 x 96 mm
Full Scale Deflection	240°
Range Input	0 - 5V DC
Scale	1 - 10 ⁵ mR/hr
Accuracy	±1% of Full Scale
Standard	Construction & Design : IS1248 ; EN 60051 Scale : DIN 43802
Movement Type & Working Principle	Moving Coil with Central Magnetic Core; Spring Mounted Bearing Jewel Suspension
Test Voltage	2.5KV AC for 1 Minute at 50Hz
Operating Voltage	600 V RMS max.
Sensitivity	1000Ω / V
Casing	ABS Case with Glass Front

Dimensions (mm)

Scale Length	155	
A	96	
B	48	
C	90	
D	92	
E	13	
F	22	



ML96

DC Moving Coil 240° DIN Analog Panel Meter – Wide Range Area Radiation Monitor	
Model	ML96
Size	96 x 96 mm
Full Scale Deflection	240°
Range Input	0 - 5V DC
Scale	0.1 - 10 ⁴ R/hr
Accuracy	±1% of Full Scale
Standard	Construction & Design : IS1248 ; EN 60051 Scale : DIN 43802
Movement Type & Working Principle	Moving Coil with Central Magnetic Core; Spring Mounted Bearing Jewel Suspension
Test Voltage	2.5KV AC for 1 Minute at 50Hz
Operating Voltage	600 V RMS max.
Sensitivity	1000Ω / V
Casing	ABS Case with Glass Front

Dimensions (mm)

Scale Length	155	
A	96	
B	48	
C	90	
D	92	
E	13	
F	22	



TRPI-48
4-20mA / 0-20mA / 0-10V



TRPI-48 (IP-65)
4-20mA / 0-20mA / 0-10V



TRPI-48 (IP-65)
[Mounting & Protection]

General Description

MECO 4 Digit Triple Range Programmable Process Indicator having three input ranges in the same meter. These input ranges are programmable by the user. The display from -1999 to 9999 is also User Programmable. Thus the user has a wide choice of inputs and displays which makes this meter truly flexible and versatile for applications in Process Industry, Automation, Refinery Plants, Variable Drives, Process Equipment etc.

Features

- IP-65 Protection on Front (Optional)
- 3 Input Ranges in One Meter (User Programmable)
- Decimal Point : Selectable
- 9999 Count (Max.) High Resolution Display
- User Programmable Display -1999 to 9999
- Zero & Span Adjustment through Software
- High Accuracy Across the Entire Range

Specifications

- | | | | |
|-------------------------------|--|-----------------------------------|--|
| ■ Maximum Display | 0.56" / 14.2mm 4 Digit, 9999 (Max), 7 Segment 0.56" LED Display | ■ VA Burden | Auxillary : ≤ 1.5VA
Voltage Input : ≤ 0.5VA
Current Input : ≤ 0.5VA |
| ■ Input Signal | 4 - 20mA DC, 0 - 20mA DC & 0 - 10V DC (User Programmable) | ■ Environmental Conditions | 0 to 55°C, <70% RH (Operation)
-10 to 70°C, <70% RH (Storage)
27°C ± 5°C (Calibration) |
| ■ Display Range | -1999 To 9999 [Scale Display can be set from -1999 to 9999] | ■ Dielectric Strength | 2.5KV @ 50Hz for 1 minute between Input-Auxiliary & Case-Terminals |
| ■ Display Stability | Within ± 2 Digits | ■ Impulse Withstand | 3.5kV, 1.2 / 50μ seconds |
| ■ Resolution | 0.001 - 1 Count depending on Range / Scale Display | ■ Case / Housing Material | Black Polycarbonate, Dimension as per DIN 43700 / Refer Below Table |
| ■ Overload Indication | -OL- | ■ Connectors | Terminal Block : Nylon 66, 33% G/F, Black (UL 94V - 0) with Tin Plated Brass Terminals |
| ■ Underload Indication | -UL- (for 4-20mA DC only) | ■ Faceplate / Lens | Red Transparent Polycarbonate Antiglare Faceplate with Annunciators |
| ■ Sampling Rate | 3 Samples / Second | ■ IP-65 Cover | Polycarbonate [TRPI-48 (IP-65)] |
| ■ Response Time | 250ms | ■ Gasket | EPDM Rubber [TRPI-48 (IP-65)] |
| ■ Maximum Overload | Voltage : 1.2 Times Continuous
Current : 1.2 Times Continuous | | |
| ■ Mounting Clamps | Sturdy, Moulded Polyacetal [TRPI-48] & Polycarbonate [TRPI-48 (IP-65)], with Suitable Hardware | | |

Model	Input	Triple Range (User Programmable)	Programmable Display Key	Aux Supply (Any One Only)	Accuracy
TRPI-48 / TRPI-48 (IP-65)	DC	4 - 20mA, 0 - 20mA & 0 - 10V	✓	85-265V AC / DC (Standard) OR 24V & 48V DC (Optional)	± 0.5% of FSD

Ordering Information : Model, Input Range, Auxiliary Supply, Scale Display & IP-65 Protection (Optional)

Note : Default Input Range and Default Scale Display is 4 - 20mA DC.

Standard : As per IS 13875 & IS / IEC 60529 : 2001 (RA 2019)

Terminal Connection



Dimensions (mm)

Models	TRPI-48	TRPI-48 (IP-65)
Front	48 x 96	54.5 x 102.5
Depth (Behind Bezel)	59	59
Panel Cut-Out	44 ^(+0.5, -0.0) x 92 ^(+0.8, -0.0)	44 ^(+0.5, -0.0) x 92 ^(+0.8, -0.0)



SMP35SW



SMP9635SW

Features

- High Accuracy Across the Entire Range
- User Programmable Display (CT Primary / PTR / Shunt Value)
- 9999 Count (Max) High Resolution Display
- Auto Selection of Decimal Point

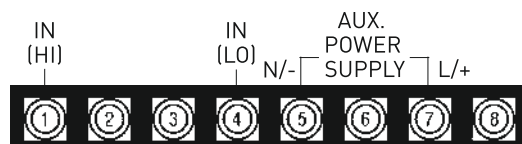
Specifications

- | | | | |
|---------------------------------|---|-----------------------------------|---|
| ■ Measuring Method | TRMS Using Microcontroller | ■ Sampling Rate | 3 Samples / Second . |
| ■ Display Type | 0.56" / 14.2 mm Red LED Super Bright Display | ■ Response Time | 250ms |
| ■ Maximum Display | 4 Digit / 9999 (Max.) Counts | ■ Environmental Conditions | 0°C to + 55°C, < 70% RH (Operation)
-10°C to + 70°C, < 70% RH (Storage)
27°C ±5°C (Calibration) |
| ■ Display Stability | Within ±2 Digit | ■ Dielectric Strength | 2.5KV @ 50Hz for 1 minute between Input - Auxiliary & Case -Terminals |
| ■ Resolution | 0.001 to 1 Count Depending on Range / Scale Display | ■ Impulse Withstand | 3.5KV, 1.2 / 50 micro second |
| ■ Decimal Point | Auto Selection | ■ Case / Housing Material | DIN Black ABS, Dimension as per DIN 43700 |
| ■ Over Range Indication | " Or " | ■ Faceplate / Lens | Red Antiglare Face Plate with Annunciators |
| ■ Under Range Indication | NA | ■ Mounting Clamps | Sturdy, Moulded ABS with Suitable Hardware |
| ■ Maximum Overload | Voltage : 1.2 Times Continuous
Current : 1.5 Times Continuous | ■ Connectors / Terminal | Terminal Block : Thermoplastic (UL94V-0) with Tin Plated Brass Terminal |
| ■ VA Burden (Typical) | Auxiliary : ≤ 1.5VA
Voltage Input : ≤ 1.0VA
Current Input : ≤ 1.0VA | | |
| ■ Frequency Response | 40 - 400Hz | | |

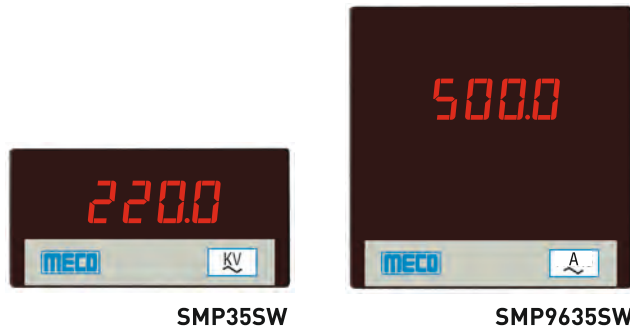
Model	Input		Range (Any One Only)	Programmable Display Key Inside Facia	Aux Supply (Any One Only)	Accuracy
SMP35SW / SMP9635SW	DC	mV	0 - 75 (Shunt Operated)	✓[*]	85 -265V AC/DC @50/60Hz OR 19-90V AC/DC @50/60Hz (Optional)	±0.5% of FSD
			0 - 200	-		
		V	0 - 2, 20, 200	-		
			0 - 1000	-		
		mA	0 - 2, 20 , 200	-		
		A	0 - 2, 5, 20	-		
		Re-Scaleable	4 - 20mA, 0 - 20mA, 0 - 10V	✓		
	AC	V	0 - 110 (PTR Operated)	✓[#]		
			0 - 2, 20, 200, 750	-		
		mA	0 - 200, 500	-		
			0 - 1 (CT Operated)	✓[*]		
		A	0 - 5 (CT Operated)	✓[*]		
			0 - 20 (Direct)	-		

Standard : As per IS 13875

Terminal Connection



SMP35SW / SMP9635SW



User Programmable PTR Display Value (Using Internal Key Inside Facia)

Sr.	Ratio	PTR (KV AC)	Sr.	Ratio	PTR (KV AC)	Sr.	Ratio	PTR (KV AC)	Sr.	Ratio	PTR (KV AC)
1	1	0.110	5	30	3.300	9	300	33.00	13	2000	220.0
2	3.77	0.415	6	60	6.600	10	600	66.00	14	4000	440.0
3	4	0.440	7	100	11.00	11	1000	110.0	-	-	-
4	20	2.200	8	200	22.00	12	1200	132.0	-	-	-

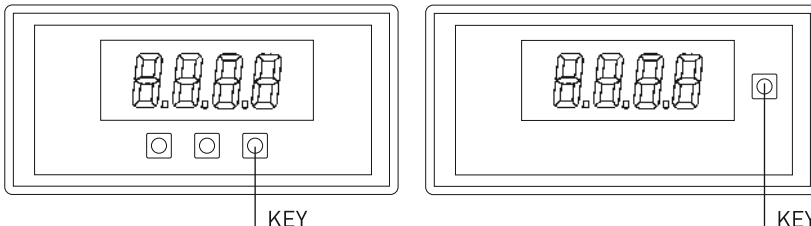
* User Programmable CT Primary / Shunt Display Value (Using Internal Key Inside Facia)

CT Primary / Shunt Display Value								
1	25	70	150	350	700	1500	4000	8000
5	30	75	175	400	750	1600	5000	9000
10	40	80	200	450	800	2000	6000	-
15	50	100	250	500	1000	2500	7000	-
20	60	125	300	600	1200	3000	7500	-

Dimensions (mm)		
Model	SMP35SW	SMP9635SW
Front	48 x 96	96 x 96
Depth (Behind Bezel)	88	90
Panel Cut-Out	44 ^(+0.5, -0.0) x 92 ^(+0.8, -0.0)	92 ^(+0.8, -0.0) x 92 ^(+0.8, -0.0)

Ordering Information : Model, Input, Range, CTR / PTR (if any), Scale Display & Aux. Supply.

NOTE : This is an Upgraded Version of SMP35S



KEY

For Setting CTP / Shunt / PTR

- Power on DPM
- Remove Front Facia
- Press Key on Display Card once
- Meter will Show Present Set Display Value
- Press-Release until the Desired Value is Displayed

For Setting Please Refer Instruction Manual
For Range Input 4-20mA DC / 0-20mA DC / 0-10V DC



Introduction

MECO Power Line Transducers were designed by MICRO DENSHI CORPORATION of Japan for AC Power Line parameters like Voltage, Current, Wattage, Var, Power Factor, Frequency, DC Isolation and TAP Position.

These reliable and accurate Transducers are in applications in all sectors of the power and process industry since over 25 years.

These Transducers give a load independent and isolated DC output directly proportional to the input parameters.

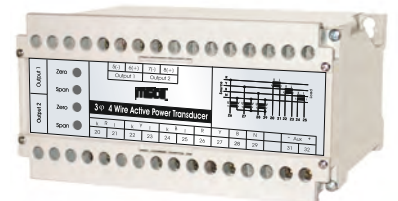
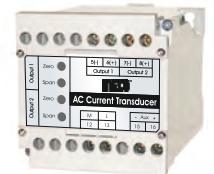
MECO Transducers are widely used for automation and control of the power and process systems as well as for local and remote monitoring of the electrical parameters at every stage of electricity generation, transmission & distribution. They are ideal for SCADA, energy management, telemetering, data-logging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

MECO Transducers are generally designed to comply to the requirements of IEC 688 / EN 60688, EN 61010-1, EN 61326-1 and I.S. 12784 (Part 1). All MECO 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 the continuous operation.

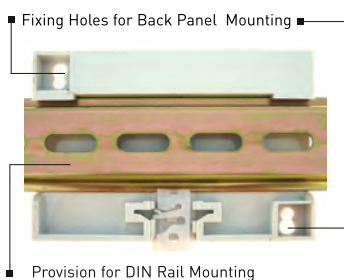
MECO Transducers can also be supplied mounted in Panel with complete wiring and accessories upto termination point for applications in various industries like Power Utilities, SEB's, Cement, Steel, Aluminum, Chemicals, Fertilizers, Sugar, Petrochemicals etc.

Features

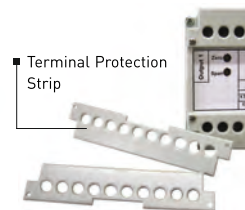
- Terminal Protection Cover
- Reliable & Rugged Static Circuits
- Low Ripple in Output Signal
- Flame Retardant Polycarbonate Case
- Choice of Multiple Asymmetrical Outputs
- Wide Choice of Suppressed Ranges
- Open and Short Circuit Protection for Outputs
- Dual Output (Non Isolated)
- Self-Powered, AC, DC, SMPS Auxiliary Supply
- Din Rail Mounting
- Bi-Directional Outputs
- Fast Response Time
- Bi-Directional Inputs for Import / Export



DIN Rail cum Back Panel Mounting



Terminal Protection Strip



Reliable, Rugged & Static Electronic Circuit using High Stability Components



Flame Retardant Polycarbonate (UL94V-0) Self Extinguishing, Non Drip Casing

Types

- AC Current (Average / TRMS)
- AC Voltage (Average / TRMS)
- Frequency
- Active Power (TRMS) (1 P & 3P - Balanced or Unbalanced System)
- Reactive Power (TRMS) (1 P & 3P - Balanced or Unbalanced System)
- Power Factor (Zero Crossing / TRMS) (1 P & 3P - Balanced or Unbalanced System)
- DC Isolation for Voltage & Current
- Tap Position / OLTC



Welcome to MECO



Sales & Marketing Department



Product Display Gallery



Store & Material Handling



SMT & Reflow Machine



Quality Control



Meter Assembly Line



Factory Automation



Enviromental & Burn-In Chambers



World Class Calibrating Equipment



Production Line



Vibration Test



Outgoing QC



Training & Seminars



Awards

PRODUCT PROFILE

PANEL & SWITCHBOARD INSTRUMENTS

- Multifunction Meters / Transducers
- 1 Phase / 3 Phase Power & Energy Meters
- 1 Phase Appliance Tester
- Power Guard
- VIF / VAF Meters
- Digital Panel Meters and Modules
- Power Line Transducers
- Digital Process Indicator with IP-65
- Educational Desk Stand Meters
- Analog Panel & Switchboard Meters

ENVIRONMENT TESTING INSTRUMENTS

- Laser Distance Meter
- Infrared Thermometers
- Air Flow Anemometer
- Lux / Sound Level Meter
- Humidity & Temperature Meters
- Long Probe Thermometer
- Tachometer
- Coating Thickness Gauge
- Break Fluid Tester
- Combustible Gas Leak Detector

POWER & HARMONIC ANALYZERS

- Power & Harmonic Analyzer
- Clamp-On Harmonics & Leakage Testers
- 3Φ / 1Φ Clamp-On Power & Energy
- Clamp-On CT's / Flexible Ct's

SOLAR ANALYZER

- Solar Module Analyzer

TESTING & MEASURING INSTRUMENTS

- Digital Multimeters
- Digital Clampmeters
- Insulation Testers
- Digital Multi-Range Portable Meters
- LCR Meters
- Clamp-On Earth / Ground Resistance Testers
- Leakage Current Testers
- Non-contact Voltage Detector
- Digital Earth Resistance Tester
- Milli Ohm / Micro Ohm Meters
- Transformer Turns Ratio Meter
- Phase Sequence Indicators
- Inverter Analyzer

AUTOMOTIVE METER & BATTERY TESTERS

- Multifunction Automotive Meter
- Battery Capacity (IR) Tester / Meter
- Vehicle Battery System Meters
- Digital Battery (Load) Meter
- Motor Cycle / Two Wheeler / Electrical System Battery Meter
- Digital Automotive Meter

CALIBRATING EQUIPMENT

- Universal Calibrator
- Multifunction Calibrator
- AC Multifunctional Power Calibrator
- Multifunctional Process Calibrator
- Standard Current Coil
- H.V. Decade Resistance Box

ISO 9001-2015 Certified Company

MECO INSTRUMENTS PRIVATE LTD.

📍 EL-1, MIDC Electronic Zone, TTC Industrial Area, Mahape, Navi Mumbai - 400710, Maharashtra, INDIA

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SCAN ME



Website