

RISHABH *instruments*



<http://www.kontrolkalemi.com/forum/>



**Our calibration lab is accredited in accordance with DIN/ISO/IEC 17025**

**Some of our esteemed customers:**

ABB, Airforce-BRD, Bajaj Auto, BARC, BEL, BHEL, Birla Cellulosic, Birla Copper, BSES, CESC, Controls and Switchgear, Crompton Greaves, Cummins, DMRC, DVC, Enercon, GAIL, GE, GEB, GNFC, GSFC, HAL, Hindalco, HVPNL, Indian Railways, IOCL, IPCL, IPR, KEB, L&T, MPEB, MSEB, NALCO, Naval Dockyard, NDPL, NPC, NTPC, ONGC, PGCIL, Reliance Energy, Reliance Industries Limited, Reliance Infocomm, Schneider, Siemens, Suzlon, Tata Power, TEB and Telco.





**Mr. Narendra Goliya**  
Chairman and Managing Director

“ We continuously provide you with next generation instruments - either developed by us or manufactured with technical know how provided by our partners all over the world.”

Rishabh Instruments Pvt. Ltd., a 22-year young organization that has built its core competence in manufacturing, design and development of Test and Measuring Instruments and Industrial Control Products on strong fundamentals; in terms of people, infrastructure and financials. The company provides a hands-on, value driven, professional environment with people being its most important asset.

Our vision is to be the Number One Global Player within each product category in Electrical & Electronics Test & Measuring Instruments and Industrial Control Products. Being the leader in manufacturing of Analog Panel Meters in the world, the company's vision is to extend this number one global position to all its product segments. It believes in providing world-class products at competitive prices, to customers across the globe keeping them continuously delighted with the philosophy: “ Prices are negotiable, but quality and features are not.”

With best wishes,

**Mr. Narendra Goliya**  
Chairman and Managing Director.



TOOLS AND MOULDS



DIE SECTION

### Rishabh Instruments Company Profile:

Established in 1985 Rishabh Instruments is a 100% EOU managed by founder-promoter Mr. Narendra Goliya (CMD), B.Tech from IIT Mumbai and M.S. from Stanford University - USA. The company is diversified in basic two broad product categories which are, Test and Measuring Instruments and Industrial Control Products. The Rishabh brand has a reputation for Safety, Portability, Ruggedness and Rigid standards of quality. No wonder Rishabh Instruments has a global presence in more than 35 countries.

### Collaboration:

The Company had Technical Collaboration with BBC Metrawatt, Germany for Analog Panel Meters and now has the recognition of being one of the largest manufacturer in the world. The success was replicated with Gossen - Metrawatt, Germany for vast range of Digital Multimeters and Insulation Testers, Tyco Electronics (Crompton Instruments) U.K., for Multi function Instruments and Protective Trip Relays, Gossen Muller Weigert Germany, for Digital Panel Meters, Camille Bauer AG - Switzerland, for Transducers.

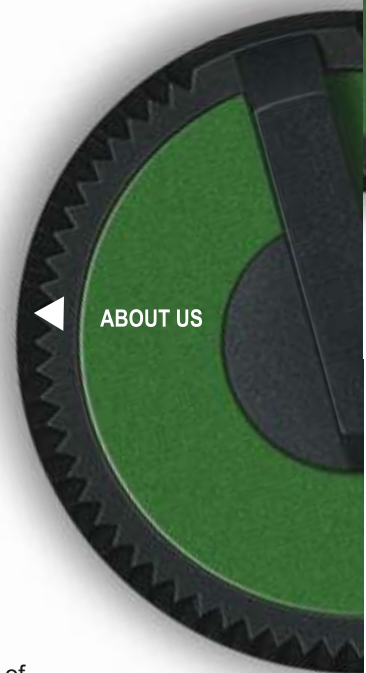
### Quality Standards:

Accredited with ISO 9001-2000 Certification, Rishabh Instruments has world-class facilities to test instruments as per IEC, DIN, IS and ANSI standards. The company's products also have UL, CSA and CE certification. The QA lab is equipped with highly accurate standards for calibration and testing equipments like Datron Wavetek-1271, Fluke 5500A, Zera(RMM), Yokogawa Current & Voltage standards, Vibration Tester, Environment Chamber High Voltage Tester and Insulation Tester from reputed companies in Japan, Germany and Switzerland. The company has a fully flourished NABL accredited laboratory.

### Core Competencies:

Rishabh Instruments' competence in manufacturing is being encashed for the last 20 years by several companies of international repute. The company is focused on Design & Development of next generation products. To expand these activities further, Rishabh has now built a new R & D Center and Tool Room at TRISHALA. It has its own set up of SMT pick and place machines from Germany. The Design and Manufacture of Moulds and Tools department has been evolved from the intrinsic need of the company to have its own moulds and press shop. This enables to deliver quality products not only in time, but also at competitive prices. The world class equipments in-housed are the Deckel Maho-Germany CNC Machine and the Arburg, Germany Moulding machines. To add to this it has state-of-the-art German Technology perpetual Inventory Control KARDEX storage system. As a result all the items, their locations and stocks are known to the ERP system. The company has developed its own software for the Analog meters dial plotting using VC++ and MS Access and Graphtec plotters. Most of Rishabh's Engineers & Managers have worked with our collaborators Design & Development Engineers and have a total experience of over 50 man years. The Company has also embarked upon the journey of SIX SIGMA.

**Rishabh Instruments is a customer focused & Quality conscious organization. These goals are achieved through the medium of Quality Management System & Quality Objectives complying with the ISO 9001:2000 Standards and SIX SIGMA.**





MOULDING MACHINES ARBURG, GERMANY



IN-HOUSE TRAINING







## CONTENTS

## PAGE NO.






- Handheld Digital Multimeter Selection Chart 6-7
- CAT IV - IEC Standard 61010-1 8
- Handheld Digital Multimeters - **RISH Multi Series**
  - RISH Multi11, RISH Multi12S, RISH Multi13S** 9
  - RISH Multi14S, RISH Multi15S, RISH Multi16S,** 10
  - RISH Multi18S, RISH Multi18ir, Storage Adaptor** 11
- Handheld Digital Multimeters - **RISH Max Series** 12
- Digital & Analog Insulation Tester - **RISH Insu Series** 13
- Digital Multimeters & Insulation Tester Accessories 14-15
- Warranty, Post-Warranty and Calibration Services 15



## HANDHELD DIGITAL MULTIMETER SELECTION CHART

FUNCTIONS	<i>RISHMulti 11</i>	<i>RISHMulti 12S</i>	<i>RISHMulti 13S</i>	<i>RISHMulti 14S</i>	<i>RISHMulti 15S</i>	<i>RISHMulti 16S</i>
						
DC Voltage Measurement	10μV...1000V	10μV...1000V	10μV...1000V	10μV...1000V	10μV...1000V	10μV...1000V
Intrinsic Error, VDC	±0.25% rdg.+1D	±0.25% rdg.+1D	±0.25% rdg.+1D	±0.25% rdg.+1D	±0.25% rdg.+1D	±0.1% rdg.+1D
AC Voltage Measurement	1mV... 1000V	1mV...1000V	1mV.... 1000V	1mV.... 1000V	1mV.... 1000V	1mV.... 1000V
Intrinsic Error, VAC	±0.75% rdg.+1D	±0.75% rdg.+1D	±0.75% rdg.+1D	±0.75% rdg.+1D	±0.75% rdg.+1D	±0.75%rdg.+3D
TRMS	–	–	–	–	–	Yes
DC Current Measurement	–	1μA...300mA	1μA...16A	100nA...10A	100nA...10A	100nA...10A
Intrinsic Error, ADC	–	± 1.0% + 2D	± 1.0% + 2D	± 1.0% +2D	± 1.0% +2D	± 0.5% + 2D
AC Current Measurement	–	10μA...300mA	10μA...16A	1μA...10A	1μA...10A	1μA...10A
Intrinsic Error, AAC	–	± 1.5% +2D	± 1.5% +2D	± 1.5% +2D	± 1.5% +2D	± 1.5% +4D
TRMS	–	–	–	–	–	Yes
Resistance Measurement	10mΩ...30MΩ	10mΩ...30MΩ	10mΩ...30MΩ	10mΩ...30MΩ	10mΩ...30MΩ	10mΩ...30MΩ
Intrinsic Error, Resistance	± 0.4% +1D	± 0.4% +1D	± 0.4% +1D	± 0.4% +1D	± 0.4% +1D	± 0.2% +1D
Capacitance Measurement	–	–	–	–	10pF....30μF	10pF....30μF
Intrinsic Error, Capacitance	–	–	–	–	± 1%+ 3D	± 1%+ 3D
Temp. Measurement Pt100/1000	Yes	Yes	Yes	Yes	Yes	Yes
Temp Measurement K- type Thermocouples	–	–	–	–		
Continuity testing	Yes	Yes	Yes	Yes	Yes	Yes
Diode Test	2V	2V	2V	2V	2V	2V
Frequency Measurement	–	–	–	–	0.1Hz..100kHz	0.1Hz..100kHz
Events Counter, Event duration					–	–
Stop watch	–	–	–	–	–	–
Data Hold/MIN-MAX storage	Yes	Yes	Yes	Yes	Yes	Yes
Bar Graph Scale	Yes	Yes	Yes	Yes	Yes	Yes
Digital Display (resolution/counts)	3¾ / 3100	3¾ / 3100	3¾ / 3100	3¾ / 3100	3¾ / 3100	3¾ / 3100
Measurements per second	20 in Analog 2 in Digital	20 in Analog 2 in Digital	20 in Analog 2 in Digital	20 in Analog 2 in Digital	20 in Analog 2 in Digital	20 in Analog 2 in Digital
Bandwidth in Volts (3 to 300V range)	1kHz	1kHz	1kHz	1kHz	1kHz	20kHz
Computer Interface (optional)	–	Yes	Yes	Yes	Yes	Yes
Automatic Blocking Sockets	–	Yes	Yes	Yes	Yes	Yes
Measuring Category	CAT II 1000V CAT III 600V	CATIII - 1000V CAT IV - 600V	CATIII - 1000V CAT IV - 600V	CATIII - 1000V CAT IV - 600V	CATIII - 1000V CAT IV - 600V	CATIII - 1000V CAT IV - 600V
Backlit	-	Optional	Optional	Optional	Optional	Standard
Weight with Batteries	0.35kg	0.35kg	0.35kg	0.35kg	0.35kg	0.35kg
Battery/Service Life	9V/ 750 hrs	9V/ 750 hrs	9V/ 750 hrs	9V/ 750 hrs	9V/ 750 hrs	9V/ 750 hrs
Dimensions in mm (WxHxD)	84X195X35	84X195X35	84X195X35	84X195X35	84X195X35	84X195X35
Warranty	3year	3year	3year	3year	3year	3year
Approvals and certificates	–	CE, CSA	CE, CSA	CE, CSA	CE, CSA	CE, CSA
Software	–	Rishcom 100	Rishcom 100	Rishcom 100	Rishcom 100	Rishcom 100

# HANDHELD DIGITAL MULTIMETER SELECTION CHART

<i>RISHMulti 18S</i>	<i>RISHMulti 18ir</i>	<i>RISHMax 10</i>	<i>RISHMax 12</i>	<i>RISHMax 14</i>	<b>FUNCTIONS</b>
					
10µV...1000V	10µV...1000V	100µV...1000V	100µV...600V	100µV...600V	DC Voltage Measurement
±0.05% rdg.+3D	±0.05% rdg.+3D	±0.5% rdg.+2D	±0.5% rdg.+2D	±0.5% rdg.+3D	Intrinsic Error, VDC
10µV...1000V	10µV...1000V	100µV...1000V	100µV...600V	100µV...600V	AC Voltage Measurement
±0.5% rdg.+30D	±0.5% rdg.+30D	±1% rdg.+5D	±1% rdg.+5D	±1% rdg.+5D	Intrinsic Error, VAC
Yes	Yes	-	-	Yes	TRMS
10nA...10A	10nA...10A	10µA...10A	10µA...10A	10µA...10A	DC Current Measurement
± 0.2% +10D	± 0.05% +10D	± 0.8% + 2D	± 0.8% + 2D	± 0.8% + 2D	Intrinsic Error, ADC
10nA...10A	10nA...10A	10µA...10A	10µA...10A	10µA...10A	AC Current Measurement
± 0.5% +30D	± 0.5% +30D	± 1% +5D	± 1% +5D	± 1% +5D	Intrinsic Error, AAC
Yes	Yes	-	-	Yes	TRMS
10mΩ...30MΩ	10mΩ...30MΩ	100mΩ...40MΩ	100mΩ...40MΩ	100mΩ...40MΩ	Resistance Measurement
± 0.1% +6D	± 0.1% +6D	± 0.8% +2D	± 0.8% +2D	± 0.8% +2D	Intrinsic Error, Resistance
1pF...10000µF	1pF...10000µF	1pF...200µF	1pF...40µF	1pF...40µF	Capacitance Measurement
± 1%+ 3D	± 1%+ 3D	± 0.5%+ 3D	± 3%+ 10D	± 3%+ 10D	Intrinsic Error, Capacitance
Yes	Yes	-	-	-	Temp. Measurement Pt100/1000
-	-	Yes	-	-	Temp Measurement K-type Thermocouples
Yes	Yes	Yes	Yes	Yes	Continuity testing
3V	3V	1V	3V	3V	Diode Test
0.01Hz..100kHz	0.01Hz..100kHz	0.001Hz..500kHz	0.01Hz..400kHz	0.01Hz..400kHz	Frequency Measurement
Yes	Yes	-	-	-	Events Counter, Event duration
Yes	Yes	-	-	-	Stop watch
Yes	Yes	-	Yes	Yes	Data/MIN-RishMax storage
Yes	Yes	-	Yes	Yes	Bar Graph Scale
4¾ / 31000	4¾ / 31000	3¾ / 4000	3¾ / 4000	3¾ / 4000	Digital Display (place/counts)
20 in Analog 2 in Digital	20 in Analog 2 in Digital	- 3 in Digital	20 in Analog 2 in Digital	20 in Analog 2 in Digital	Measurements per second
20kHz	20kHz (mV)	1kHz	500 Hz	500 Hz	Bandwidth in Volts (3 to 300V range)
Yes	Yes	-	-	-	Computer Interface (optional)
Yes	Yes	-	-	-	Automatic Blocking Sockets
CAT II - 1000V CAT III - 600V	CAT II - 1000V CAT III - 600V	CAT II 1000V CAT III 600V	CAT II 1000V CAT III 600V	CAT II 1000V CAT III 600V	Measuring Category
Standard	Standard	-	-	-	Backlit
0.35kg	0.35kg	0.25kg	0.20kg	0.20kg	Weight with Batteries
9V/ 750 hrs	9V/ 750 hrs	2ea1.5V/300hrs	2ea1.5V/300hrs	9V/300hrs	Battery/Service Life
84X195X35	84X195X35	92X154X25	92X154X25	92X154X25	Dimensions in mm (WxHxD)
3year	3year	1year	1year	1year	Warranty
CE, CSA	CE, CSA	-	CE, CSA	CE, CSA	Approvals and certificates
Rishcom 100	Rishcom 100	-	-	-	Software

Using a properly rated test instrument on your projects can mean the difference between completing the task without accident or suffering a serious injury.

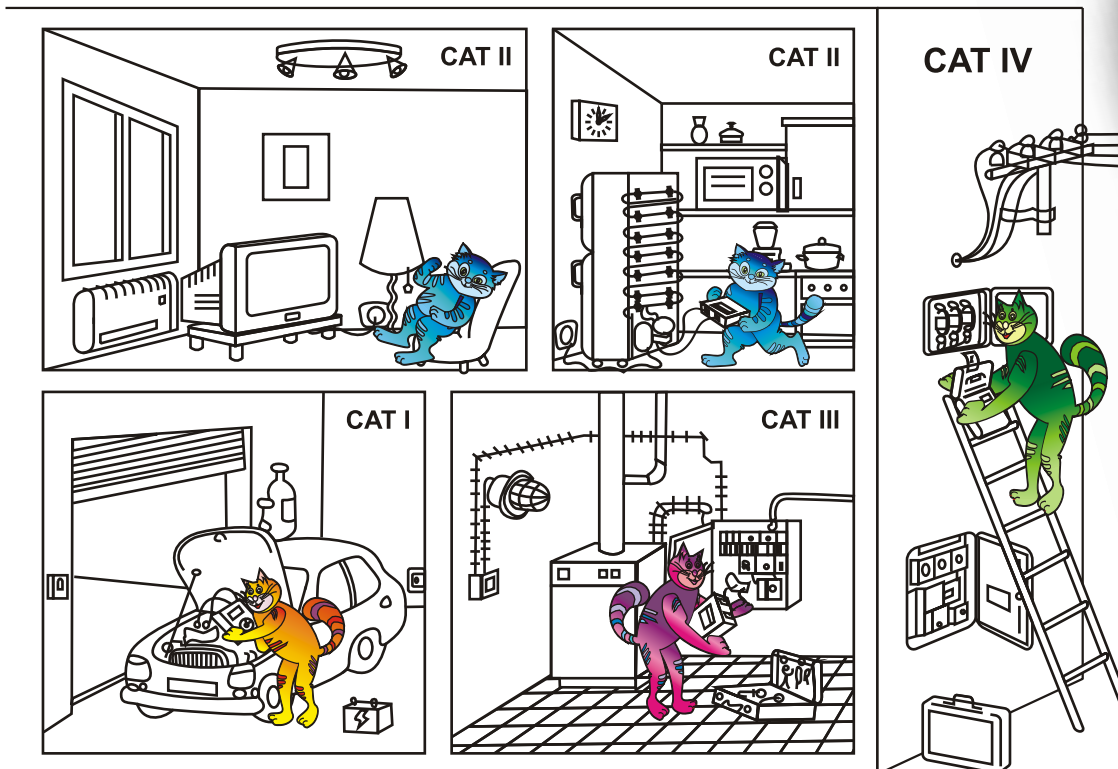
Test instruments that meet the requirements of IEC standard 61010-1, provide transient protection levels far greater than the instrument's maximum rated input. Using a test instrument without this additional protection against transient over voltages can result in serious injury or death.



**CAT I** - rated test instruments are signal-level tools for telecommunications and electronic equipment. Transient voltage risk is limited, but still exists, due to the distances between equipment locations and other equipment located between it and the primary electrical supply. The IEC no longer specifies protection levels for CAT I instruments.

**CAT II** - rated test instruments cover the local level of circuits for fixed or non-fixed power devices. This includes most lighting equipment, appliances and 120V or 240V equipment inside a building.

**CAT III** - rated test instruments can withstand the transient voltage range found on most distribution circuits. These instruments are used primarily on fixed primary feeders or branch circuits. They're separated from CAT IV utility service or other high-voltage source equipment by at least one level or through transformer isolation.



**CAT IV** - rated test instruments are designed for testing on the primary supply source, which also includes 120V or 240V overhead or underground lines that power detached buildings or underground lines that power well pumps. The CAT IV rating covers the highest and most dangerous level of transient overvoltage electricians encounter when working on utility service equipment like exterior transformers.



## 3 ¾ Digital Multimeter, 3100 counts

- Basic Accuracy 0.25 %
- Protective Rubber Holster for rough duty
- Analog scale (Bar Graph)
- Auto Ranging / Manual Mode
- DC Voltage measurement 30.00mV to 1000V
- AC Voltage measurement 3.000V to 1000V
- Resistance measurement 30.00Ω to 30.00MΩ
- Diode continuity
- Temperature measurement with Pt 100/Pt 1000
- Min/Max Value Storage
- Indication of Negative Values on Analog scale
- Overload warning
- Power Economizing circuit



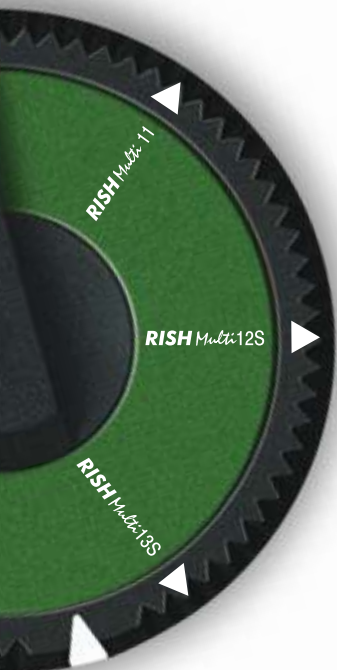
## 3 ¾ Digital Multimeter, 3100 counts

- Basic Accuracy 0.25 %
- Automatic Blocking System (ABS)
- Protective Rubber Holster for rough duty
- Analog scale (Bar Graph)
- Auto Ranging / Manual Mode
- Optional Backlit LCD Display
- Optional: Computer connectivity with attachable interface adaptor using RISHCOM 100 software
- DC Voltage measurement 30.00mV to 1000V
- AC Voltage measurement 3.000V to 1000V
- DC Current measurement 3.000 mA to 300.0mA
- AC current measurement 30.00 mA to 300.0mA
- Direct Display with clip on transformer 1000:1 (Range 30.00A to 300.0A)
- Resistance measurement 30.00Ω to 30.00MΩ
- Diode continuity
- Temperature measurement with Pt 100/Pt 1000



## 3 ¾ Digital Multimeter, 3100 counts

- Basic Accuracy 0.25 %
- Automatic Blocking System (ABS)
- Protective Rubber Holster for rough duty
- Analog scale (Bar Graph)
- Auto Ranging / Manual Mode
- Optional Backlit LCD Display
- Optional: Computer connectivity with attachable interface adapter using RISHCOM 100 software
- DC Voltage measurement 30.00mV to 1000V
- AC Voltage measurement 3.000V to 1000V
- DC Current measurement 3.000 mA to 16A
- AC current measurement 30.00 mA to 10A
- Resistance measurement 30.00Ω to 30.00MΩ
- Diode continuity
- Temperature measurement with Pt 100/Pt 1000





**3 ¾ Digital Multimeter, 3100 counts**

- Basic Accuracy 0.25 %
- Automatic Blocking System (ABS)
- Protective Rubber Holster for rough duty
  - Analog scale (Bar Graph)
  - Auto Ranging / Manual Mode
  - Optional Backlit LCD Display
- Optional: Computer connectivity with attachable interface adaptor using RISHCOM 100 software
- DC Voltage measurement 30.00mV to 1000V
- AC Voltage measurement 3.000V to 1000V
- DC Current measurement 300.0µA to 10A
- AC Current measurement 300.0mA to 10A
- Resistance measurement 30.00Ω to 30.00MΩ
  - Diode continuity
- Temperature measurement with Pt 100/Pt 1000



**3 ¾ Digital Multimeter, 3100 counts**

- Basic Accuracy 0.25 %
- Automatic Blocking System (ABS)
- Protective Rubber Holster for rough duty
  - Analog scale (Bar Graph)
  - Auto Ranging / Manual Mode
  - Optional Backlit LCD Display
- Optional: Computer connectivity with attachable interface adaptor using RISHCOM100 software
- DC Voltage measurement 30.00mV to 1000V
- AC Voltage measurement 3.000V to 1000V
- DC Current measurement 300.0µA to 10.00A
- AC current measurement 300.0mA to 10A
- Resistance measurement 30.00Ω to 30.00MΩ
  - Diode continuity, % Duty Cycle
- Capacitance measurement 30.00nF to 30.00µF
- Frequency measurement 300.0Hz to 100.0kHz
- Temperature measurement with Pt 100/Pt 1000

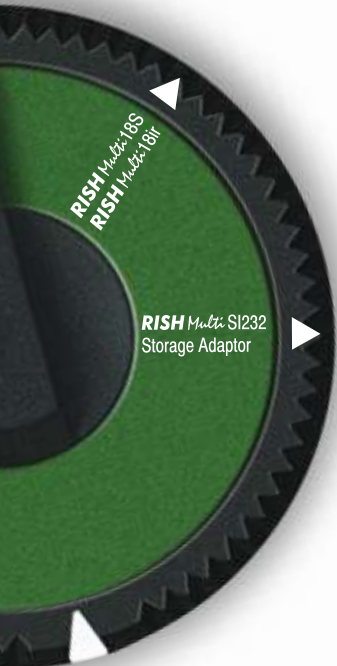


**3 ¾ Digital Multimeter TrueRMS, 3100 counts**

- Basic Accuracy 0.1%
- Automatic Blocking System (ABS)
- Protective Rubber Holster for rough duty
  - Analog scale (Bar Graph)
  - Auto Ranging / Manual Mode
  - Backlit LCD Display
- Optional: Computer connectivity with attachable interface adaptor using RISHCOM 100 software
- DC Voltage measurement 30.00mV to 1000V
- AC Voltage measurement 3.000V to 1000V TRMS measurement
  - DC Current measurement 300.0µA to 10A
  - AC current measurement 3.000mA to 10A
- Resistance measurement 30.00Ω to 30.00MΩ
  - Diode continuity, % Duty Cycle
- Capacitance measurement 30.00nF to 30.00µF
- Frequency measurement 300.0Hz to 100.0 kHz
- Temperature measurement with Pt 100/Pt 1000

## 4 3/4 Digital Multimeter True RMS, 31000 counts

- Basic Accuracy 0.05%
- Automatic Blocking System (ABS)
- Protective Rubber Holster for rough duty
- Analog scale (Bar Graph)
- Auto Ranging / Manual Mode
- Backlit LCD Display
- Optional: Computer connectivity with attachable interface adaptor using RISHCOM 100 software
- DC Voltage measurement 300.00mV to 1000.0V
- AC Voltage measurement 300.00mV to 1000.0V
- DC Current measurement 300.00µA to 10.000A
- AC current measurement 300.00µA to 10.000A
- Resistance measurement 300.00Ω to 30.000MΩ
- Diode Continuity
- Event Counter, Stop-Watch, dB measurement
  - Wide range capacitance measurement 3.000nF to 10000µF
  - Frequency measurement 300.00Hz to 100.00kHz
  - Temperature measurement with Pt 100/Pt 1000



## RDSO approved 18S-ir for analog axle counting system of Indian Railways

### Storage Adaptor - SI232 with RISHCOM 100 Software

- Recording with adjustable sampling from 50ms to 60sec
- Computer connectivity through standard RS232C interface
- Upgradable to multichannel recording system by cascading adaptors
- Can be used Offline (without PC) or Online
- Memory capacity 128kB (approx 100,000 measured values)

### RISHCOM 100 Software

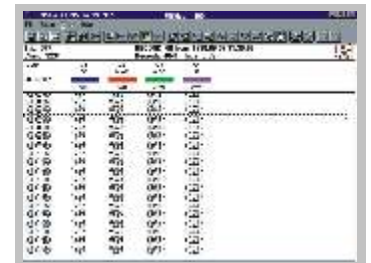
- Online transmission of measuring data PC
- Representation of measured data in four displays (see fig.)
- Analysis of derived parameter through calculator function



Analog Display



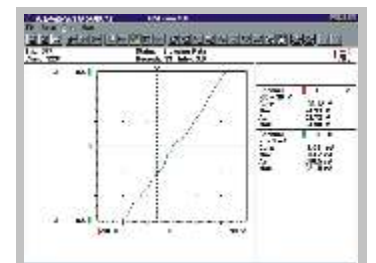
YT Graph



Data Logger



Digital Display



XY Graph



CAT II 1000 V  
CAT III 600 V



**3 ¼ Digital Multimeter, 4000 counts**

- Basic DC Volts Accuracy 0.5%
- DC Voltage measurement 400.0mV to 1000V
- AC Voltage measurement 400.0mV to 1000V
- DC Current measurement 40.00µA to 10.00A
- AC current measurement 40.00mA to 10.00A
- Resistance measurement 400.0Ω to 40.00MΩ
  - Diode continuity, % Duty Cycle
- Capacitance measurement 5.000nF to 200.0µF
- Frequency measurement 10.00Hz to 500.0kHz
- Temperature measurement with K type thermocouple
  - Relative measurement (REL)
    - Energy Saving circuit
    - Overload warning
    - Hold Function facility
- Protective cover for rough operating conditions
- Automatic/manual measuring range selection

CAT II 1000 V  
CAT III 600 V



**3 ¼ Digital Multimeter, 4000 counts**

- Basic DC Volts Accuracy 0.5%
- DC Voltage measurement 400.0mV to 600V
- AC Voltage measurement 400.0mV to 600V
- DC Current measurement 40.00µA to 10.00A
- AC current measurement 40.00mA to 10.00A
- Resistance measurement 400.0Ω to 40.00MΩ
  - Diode and Continuity Testing
- Capacitance measurement 4.000nF to 40.00µF
- Frequency measurement 100.0Hz to 400.0kHz
- Selection of input resistance for voltage measurement
  - Overload warning
  - Hold Function facility
- Protective cover for rough operating conditions
- Automatic/manual measuring range selection
- Power Economising circuit



CAT II 1000 V  
CAT III 600 V



**3 ¼ Digital Multimeter TrueRMS, 4000 counts**

- Basic DC Volts Accuracy 0.5%
- DC Voltage measurement 400.0mV to 600V
- AC Voltage measurement 400.0mV to 600V
- DC Current measurement 40.00µA to 10.00A
- AC current measurement 40.00mA to 10.00A
- Resistance measurement 400.0Ω to 40.00MΩ
  - Diode and Continuity Testing
- Capacitance measurement 4.000nF to 40.00µF
- Frequency measurement 100.0Hz to 400.0kHz
- Selection of input resistance for voltage measurement
  - Overload warning
  - Hold Function facility
- Protective cover for rough operating conditions
- Automatic/manual measuring range selection
- Power Economising circuit

### Digital Insulation Tester 1kV

- Insulation Resistance measurement from 10kΩ to 999MΩ
- Selectable Test Voltages 50V/100V/250V/500V/1000V
- Low Resistance measurement 0.01Ω to 99.9Ω
- Voltage Measurement >25V to 600V AC/DC
- Live Circuit Detection >25V irrespective of function selected
- Automatic Discharge of Capacitive circuits after Test performed
- Storage of Min/Max values
- Storage memory for last 50 readings
- Preselectable limit checks (Go/No Go option) for MΩ
- Preselectable Measurement time for Insulation Resistance Measurement from 10 sec to 5 minutes
- Continuity Testing with programmable Threshold Resistance
- Stop Watch function, Blown Fuse Indication
- Auto power off
- Power supply battery 6 X 1.5 V Cells, IEC LR6



### Digital Insulation Tester 1kV

- Insulation Resistance measurement from 10kΩ to 1999MΩ (2GΩ)
- Selectable Test Voltages 50V/100V/250V/500V/1000V
- Low Resistance measurement 0.01Ω to 99.9Ω
- Voltage measurement >25V to 600V AC/DC
- Optional: Connector Jack for External Mains Adapter, 230VAC/9VDC
- User Selectable Backlit Display
- Storage of Min/Max values, Storage memory for last 50 readings
- Live circuit Detection >25V irrespective of function selected
- Automatic Discharge of Capacitive circuits after test performed
- Preselectable limit checks (Go/No Go option) for MΩ
- Preselectable measurement time for Insulation Resistance
- Lead Resistance Null facility
- Stop Watch function, Blown Fuse Indication
- Auto power off, Low Battery Indication
- Power supply Battery 6 X 1.5 V Cells, IEC LR6



### Analog Insulation Tester 5kV

- Rugged 5kV Insulation Tester from state-of-the-art GERMAN TECHNOLOGY
- Insulation Resistance Measurement from 10kΩ to 1TΩ
- Selectable Test Voltages 100V/250V/500V/1000V/1500V/2000V/2500V/5000V
- Test current is equal to 1mA at Test voltage 100V, 250V, 500V and 1000V
- Voltage Measurement upto 2000V AC/DC
- Easy to read logarithmic scales with dual range
- Conforms to IS2992 (EN 61 557)
- Guard Terminal for elimination of surface current
- Battery Operated or Crank Operated or Mains Operated.
- Permanently connected Test leads with heavy duty insulation
- Green LED indicator to show whether or not battery charge is sufficient
- Automatic Discharge of Capacitive circuits after Test performed
- Checking absence of voltages
- Electrical Safety: Protection class II, IP 52
- Electromagnetic Compatibility (EMC)
- Power Supply 6 X 1.5 V (eveready no.1050 or equivalent R20)
- Dimension 290mm x 250mm x 140mm
- 3.4Kg(Including Battery) & 4.5Kg(Including Battery & Mains Assembly)
- Applications: Insulation Measurement for cables, motors, etc.



Hand Crank Generator

**Current Sensors**



23187023 23187514  
23187500 23187030 23187521



23187522 23187061



23187024 23187511



23187211  
23187210

Product Code	Measuring Range	Cross-Section	Transformation Ratio	Frequency Range	Intrinsic Error $\pm$ (%rdg.+mV/A)
23187023	WZ12A 15 ... 180A <sub>AC</sub>	15 mm dia.	1 mA/A	45...65 ... 400Hz	3%
23187500	WZ12B 10mA ... 100A <sub>AC</sub>	15 mm dia.	0.1 mV/mA	45...65 ... 500Hz	1.5% + 0.1 mA
23187514	WZ12C 1mA ... 15A <sub>AC,DC</sub> 1A ... 150A <sub>AC</sub>	15 mm dia.	1 mV/mA 1 mV/A	45...65 ... 500Hz	3% + 0.15 mA 2% + 0.1 A
23187030	WZ12D 30mA ... 150A <sub>AC</sub>	15 mm dia.	1 mA/A	45...65 ... 500Hz	2.5% + 0.1 mA
23187521	Z3511 4 ... 500A <sub>AC</sub>	30 x 63 mm	1 mA/A	45...65Hz ... 1kHz	3% + 0.4 A
23187522	Z3512 0.5 ... 1000A <sub>AC</sub>	52 mm dia.	1 mA/A	30...45...65Hz ... 5kHz	0.5% ... 0.7%
23187061	Z13B ... 60/600A <sub>AC,DC</sub> 40/400A <sub>AC</sub>	50 mm dia.	10 mV/A 1 mV/A	DC...65Hz ... 10kHz	1.5% 2%
23187024	Z201A ... 30A <sub>AC,DC</sub> 20A <sub>AC</sub>	19 mm dia.	100 mV/A	DC...400Hz ... 10kHz	1%
23187511	Z202A ... 30/300A <sub>AC,DC</sub> 20/200A <sub>AC</sub>	19 mm dia.	10 mV/A 1 mV/A	DC...2kHz...10kHz	1% + 0.03 A 1% + 0.3 A

**Flexible Ampliflex Current Sensors :** Current Sensors for the Measurement of Alternating Current at difficult to access Locations

Product Code	Nominal Current	Loop Length	Sensitivity	Intrinsic Error $\pm$ (%V <sub>output</sub> ,mV)
23187211	AF11A 5... 1kA : 1V	450 mm	1 mV/A	1% + 2mV
23187210	AF033A 5... 30A : 3V 5... 300A : 3V	600 mm	100 mV/A 10 mV/A	1% + 50mV 1% + 5mV

**Voltage Probes (CAT II for Laboratory Use)**



23187101



23187113



23187114

Product Code	Description
23187101	<b>KS30: Probe for up to 1000 V in power installations</b> The high impedance KS30 voltage probe offers additional protection against overvoltages and operator error for measurements at high energy voltage sources.
23187113	<b>HV3: 3kV/3V high-voltage probe (Imported)</b> The HV3 probe is suitable for measurements of up to 3kV. It simultaneously serves as a low pass filter for frequency converter signals.
25200507	<b>HV3: 3kV/3V high-voltage probe (Local make)</b>
23187114	<b>HV30: 30kV/30V high-voltage probe (Imported)</b> The HV30 high voltage probe (VDE approved) can be used for safe measurement of direct voltages of up to 30kV.
25200508	<b>HV30: 30kV/30V high-voltage probe (Local make)</b>

**Temperature Sensors**



25200505

25200506

Product Code	Description
25200505	Pt100 Temperature Probe (-40°C to 400°C)
25200506	Pt1000 Temperature Probe (-50°C to 220°C)

**Probe Sets, Fuses, Miscellaneous**

Product Code	Description
25200501	<b>RISHMulti</b> Probe Set (Standard)
25200502	<b>RISHMulti</b> Probe Set (Fine Tip)
25200503	Crocodile Clip Set
25200509	<b>RISHMulti</b> / <b>RISHInm</b> Carrying Case
25200514	Fuse for <b>RISHInm</b> (500mA/500V)
25200510	Fuse for <b>RISHMulti</b> (1.6A)
25200511	Fuse for <b>RISHMulti</b> (16A)
25200513	Fuse for <b>RISHMax</b> (16A)
25200360	5000AK Hand Crank Generator



**Warranty, Post Warranty and Calibration Services:**



**Warranty Services:**

Rishabh Products are subjected to continuous quality controls, allowing us to provide one year warranty coverage on each product range except Rishmulti series. Only on Digital Multimeters from our Rishmulti series have warranty coverage of 3 years. Any malfunctioning which occurs during the warranty period in the normal course of use and in absence of external influences shall be rectified by us free of cost. Effected product should be returned to us freight paid basis to our service centre; the product will be repaired and returned by us on freight paid basis.



**Post-Warranty Services:**

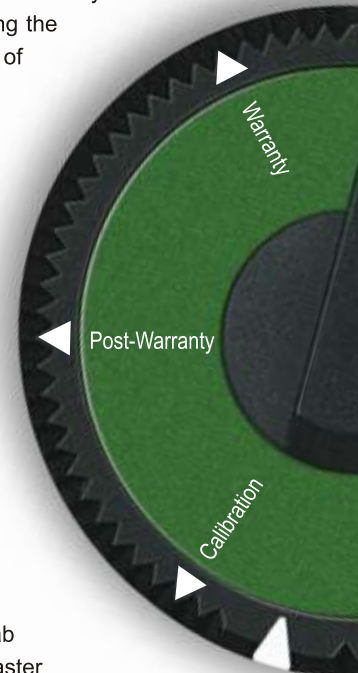
We offer cost-effective after sales-service for many years after the warranty is elapsed. Long-term spare parts availability, service charges, repair services are part of our comprehensive Customer Support Systems, specific answers are given on each post warranty service request received.



**Calibration Services:**

We offer cost effective calibration services. Our calibration lab is equipped with state-of-the-art, accurate and stable master sources and multimeters. Our lab has been audited, pending final accreditation by NABL in accordance with DIN / ISO 17025. Calibration charges are product specific and can be enquired from our service centre. Calibration and re-calibration of our own and other devices.

Recommendation: re-calibration after 1 to 3 years depending upon frequency of use.



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