



Urja Automation Systems

Product Catalogue

DIGITAL | ANALOG | TMI



ELECTRICAL



ELECTRONICS



AUTOMATION



INSTRUMENTATION

www.urjaautomationsystems.com

Compact Split Core CT	3 Phase Nano CT	3 Phase Nano CT with RJ 12 Connection	Resin Cast CT	TW Series
Split Core CT	3 Phase CT's	Single Phase RJ 12 CT	Resin Cast CT - Protection Class	Transformer CT Series
Busbar Type ; Square	Metering CT - Round Type	Wound Primary Type	CT - Protection Class	Summation CT

SALIENT FEATURES:

- Applicable Standard : IEC/61869-1&2
- Type :Wound Primary, Busbar Type, Tape Wound, Protection Type, Split Core, Summation CT, 3 Phase CT, Resin CT and Nano CT
- Accuracy Class : 0.2, 0.2S for laboratory measuring
 - 0.5, 0.5S for accurate measuring
 - 1 for general measurement
 - 3 for indicating measurement
- System Voltage : 720 V Maximum
- Rated Primary Rating : 1 A to 7500 A
- Rated Secondary Output : 5A Standard (1A on request)
- Nano & 3 in 1 CTs with RJ 12 connection with 100 mA output
- Cost effective molded case current transformer
- Various Mounting Options
- Wire Sealable terminal covers
- Unfilled polycarbonate housing (UL 94 V -0)
- Supplied with Individual routine certificates



CAM Switches



- Instrumentation, Changeover, Multistep & Isolator Switches are available
- Current Rating: 6 A, 10 A, 16A, 20A, 25A, 32A, 40A, 63A, 100A & 200A
- Long Mechanical Life
- Type tested from NABL accredited laboratory
- Long Distance Visibility
- Customized name plates
- TNC, Spring Return, Reverse Forward Switches also available
- LMD contacts to address applications demanding the previous operation memory feature (TNC Switch)
- Lock & Key to address the applications demanding complete user safety and to avoid accidental operation (TNC Switch)

Shunts



Exclusive Features :

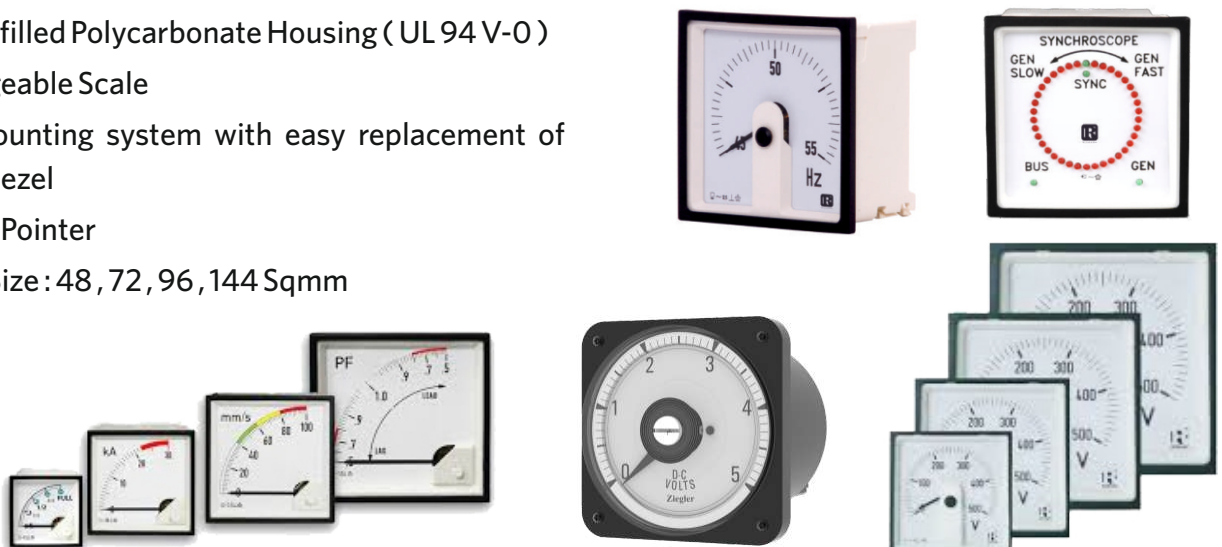
- Superior finish
- High Accuracy Class - 0.5 and 1.0 (Class 0.2 for upto 2500A)
- Isolating Base for lower current rating Shunts (up to 30A primary)
- UL and CE approval
- Primary Current ratings available from 1A to 15000A
- Available secondary with 60mV and 150mV according to
- DIN 43703
- Available secondary with 50mV, 75mV and 100mV as non-standard option



Analog Panel Meters



- 10% Glass filled Polycarbonate Housing (UL 94 V-0)
- Interchangeable Scale
- Unique mounting system with easy replacement of glass and bezel
- Knife Edge Pointer
- Available Size : 48 , 72 , 96 , 144 Sqmm



MULTIMETERS

General purpose Multimeters

- Rishabh iYoung/Rish Max 10/Rishabh 410

Professional Multimeters

- Rish Multi Series (12S/13S/14S/15S/16S)
- Rishabh 6k series (612/613/615/616)

High-End Multimeters

- Rishabh 60k series (6012/6013/6015/6016)
- Rish Multi Series (18S/20)

Exclusive Features :

- Enhanced protection with Automatic terminal blocking system (ABS)
- Assured reliability with 3 years warranty
- Drop proof operation with protective rubber holster
- Designed in a way that allows one-man operation
- Voltage measurement upto 1000V AC/DC & current upto 10 A AC/DC
- Complies to IEC61326, IEC61010-1, CE, IP 50



CLAMP METERS

General Purpose Clamp Meters :

- Rish Clamp ES1000/400 AC

Professional Clamp Meters :

- Rish Clamp 300/1000A AC
- Rish Clamp 300/1000A AC/DC TRMS

High-End Clamp Meters:

- Rish Clamp Power 400/1000A AC/DC TRMS

External CT Accessory

- Rish Clip ON CT 1000/1A, 1000/5A, 300/0.3A



LEAKAGE CLAMP METERS

- Compact size leakage clamp meter
- Current measurement from 1 A to 60A
- Large jaw opening
- Data storage facility upto 99 records
- Complies with CE, CAT protection
- Software facility for reports



CE

EARTH TESTER

- AET 23 Smart Digital Earth Tester
- Rishabh det-10 Earth Tester



INSULATION TESTER

LT 1kV Insulation Testers :

Rish Insu20 & Rish Mit 30

HT 5kV Insulation Testers

Rish Insu 5000 A/AK/AKM/AKMR

5kV/10kV Digital Insulation Tester

Rishabh AIT 501 Smart 5KV Digital Insulation



Exclusive Features :

- Selectable test voltages upto 5000V
- 1TΩ Wide insulation resistance range
- Facility to discharge capacitive circuits automatically
- Facility to operate on Mains, Battery and Hand crank



The Measurement MAESTRO



By Rishabh



Multimeter

- Pocket Type Multimeter
- Classical Nx Multimeter
- Classical Multimeter
- High Accuracy Multimeter
- Classical Plus Multimeter

Clamp Meter

- Classical Clamp Meter
- Classical Nx Clamp Meter
- Classical Nx Clamp Meter
- Smart Mini Clamp Meter

Process Calibrator

- Volt/mA Calibrator
- Volt/mA Calibrator with USB
- Volt/mA & Thermocouple Calibrator
- Thermocouple Calibrator
- RTD Calibrator

Environmental Meter

- Temperature & Humidity Meter
- Anemometer
- Sound Level Meter
- Light Meter
- Thermocouple Temperature Meter
- Moisture Meter
- Coating Thickness Gauge Meter
- Infrared Thermometer
-

Electrical Tester

- Probe Temperature Meter
- Pen R/C Meter For SMD
- Data Logger
- Multi-Function \ LCR Meter With USB
- Non-Contact Digital Tachometer

Testing Tools

- AC Voltage Detector (Non-Contact Type)
- Cable Tracker
- Voltage Tester

Digital Panel Meter



Special Features :

- Available type AC, DC, Current and Voltage, Frequency
- Capacitive Touch Keys (RISH EINE NX)
- RS 485 communication + relay output (RISH EINE NX)
- 1Ph, 3Ph programmable DPM
- Universal Auxiliary Supply
- Enclosure protection for dust and water
- TRMS measurement
- 4 & 4.5 Digit ultra bright LED display
- Accuracy class for AC 1.0 & 0.5 (Optional)
- Accuracy class for DC: 0.5 (EINE +) & 0.1 (4.5 Digit DC meter)
- 4 & 5 digit LED display, digit of 14mm & 20 mm height
- Display range configuration using PD14 Programmer
- Precision of displayed results (decimal point)
- Measurement averaging time
- Re-scaling of indications (individual characteristics)
- Automatic or manual compensation: temperature of cold junction for measurements with thermocouples or wire resistance for PT100 sensors (N24/N25T)
- Casing protection grade: IP65

RISH EINE NX



PROGRAMMABLE AC RISH EINE



BASIC SERIES WITH 4&5 DIGIT DISPLAY (N24 & N25)



Energy Meters

Single Source Energy Meters

- On site programmable 1Ph/3Ph meters
- True RMS Energy meter for energy monitoring
- Active and Apparent energy measurements
- LED & LCD both models available
- Energy as per IEC 62053 with optional RS485
- Panel mounted (96x96mm)

Dual Source Energy Meters

- Energy for Utility and Generator
- True RMS Dual Source Energy Meter
- Onsite programmable with Phase reversal indication
- LED & LCD both models available in 96x96mm size
- Energy as per IEC 62053 with optional Rs485 & Relay

DC Energy Meters

- Measure, display and communicate DC voltage, current, power & energy
- Single/ Multi channel support with RTC based data storage
- Isolated input voltage and current channels
- Load profile analysis with event logging
- Optional RS485 communication & 2 Relay / 4 Relay

RISH EM 1340



RISH EM 3490 SS



RISH EM 2340 DS



RISH EM DC 6000



Basic LED Range

- Capacitive Touch Key
- 1Ph/3Ph meters with On site programmable CT/PT ratios
- TRMS measurement with universal aux supply
- (60-300V AC/DC), (20-60V AC/DC)
- Measures VAF, PF, Power, Energy, Demand etc.
- Class 1 accuracy (Class 0.5 Optional)
- Panel mounted (96x96mm)
- Optional - RS485 communication & Relay output
- Compact VAF 48 X 48mm - CD30/60, CR12 with 0.5 Accuracy
- Optional RS485 MODBUS & Relay output (CR12 only)
- Optional - RS485 MODBUS (CD30/60 only)

Standard LED Range

- 1Ph/3Ph meters with On site programmable CT/PT ratios
- Measures VAF, PF, Power, Energy, Demand, THD etc.
- Optional RS485 (MODBUS) or Ethernet protocol (MODBUS TCP/IP)
- • Optional Analog and Relay output
- Panel mounted (96x96mm)
- UL certified

Standard LCD Range

- On site programmable 1Ph/3Ph, CT/PT ratios
- Measures VAF, PF, Power, Energy, Demand, THD etc.
- True RMS Meter with Phase & Current Reversal Indication
- Energy as per IEC 62053 with optional RS485
- • Optional Relay output
- Panel mounted (96x96mm)

Advanced Touch Screen Graphic Range

- Measures more than 40 electrical parameters
- Touch screen Graphics LCD with custom color setting
- On site programmable CT/PT ratios with phase reversal indication
- Phasor diagram and pictorial representation of Waveform
- Panel Mounted (96x96mm)
- Data logging, PQ Events & RTC (Rish Master 3440iDL)

RISH DELTA ENGRY NX



RISH DELTA POWER NX



RISH DELTA VAF NX



RISH CR 12



RISH MASTER 3430



RISH MASTER 3440



RISH EM 1330



RISH EM 1340



RISH MASTER 3430i



RISH MASTER 3440i



Load Manager

- Big LCD display with Backlit (4 parameters along with 9 digit energy counter)
- Energy as per IEC 62053/IEC 61557-12: Accuracy class 0.2s/0.2 or 0.5s/0.5
- THD and Individual Harmonics measurement upto 31st level
- Relay output can be configured for RTC and timer
- User assignable screens
- Plug and Play RJ12 CT option (Accuracy Class 1)
- Data logging, RTC (Real Time Clock), USB interface
- GSM gateway module
- Communication (MODBUS-RTU, MODBUS- TCP/IP)
- Digital Inputs as status indication, tariff, pulse counter
- Communication - BACnet (LM 1360)

RISH LM1340



RISH LM1380



RISH LM1360



Multi Load Monitor

- Multiple circuit monitoring (4 x 3Ph or 12 x 1Ph) - System Transparency @ a glance with energy saving
- Residual current monitoring and tripping
- Prepaid Tariff based tripping
- Health Monitoring of Three Phase Load
- Data Logging, RTC (Real Time Clock)
- Plug and Play RJ12 CT option, Flexible DIN mounted quick fix modules (RJ00, RJO1, RJO5, RC30)
- Multiple class option (Class 1 or Class 0.5s as per IEC 62053)
- Direct remote access via communication (MODBUS - RTU, MODBUS TCP/IP)
 - Relay Output (optional 2 or 4)
 - THD and Individual Harmonics measurement upto 31st level
- Easy and Cost effective installations
- Direct AC current measurement upto 100A (Without CT connections) (ED Series)
- Self Powered (ED Series)
- Accuracy class B as per 50470-3 (ED Series)

RISH ML 1410



RISH RJO5



RISH RJ00



RISH MD1340



Direct Current AC Energy Meter Series

RISH ED1111



RISH ED2111



RISH ED4311



2G GSM Gateway

- Utility software with GSM module
- MFM communication media - RS 485 MODBUS and 2G internet media with cloud server
- Multiple digital Rishabh Multifunction meters can be configured
- Live data viewing - Complementary (Software - lite.marccloud.live)
- Facility of report generation for data analysis - Paid version (Software - lite.marccloud.live)
- End user can configure or add more slave devices himself as and when required
- Compatible with LM1360, EM1320/30/40 & EM2340



Demand Controller

- Touch screen demand monitor and Max demand controller
- Separate thresholds for each time zone
- User selectable window types - Fixed or Sliding window
- Max demand with date and time stamping
- 4 potential free contacts for Demand control
- Energy class 0.5S as per IEC 62053-22
- Panel mounted (96x96mm)

RISH DMCI



Panel Mount PQA

- Compliance to EN 50160/IEC 61000-4-30 (Class S&A)
 - Measurement of over 500 electrical parameters
 - Individual harmonics measurement for current and voltage upto 51st level
 - Data recording with inbuilt www & FTP server
 - Event capturing such as Voltage Swag/Swell/ Interruption/Flicker/Tariff etc.
-
- Waveform real time display (4 voltages/4 currents)
 - Half cycle RMS measurement (voltage and current)
 - Measurement of voltage, current, harmonics, power, energy, inrush current, flicker and others
 - Current measurement using Flexi clamps from 50A to 5000A
 - Record of events: dips, swells, over voltages
 - Power quality according to EN-50160 standard or user defined limit

ND45



NP45



RISH PQM



Next Generation Power Meters

Power Quality Monitors

- Energy class 0.5S as per IEC Std 62053-22
- Configurable time zones, seasons, tariffs profile, types of days which helps in energy trend analysis
- Individual harmonics upto 56th measurement
- Custom color setting for each phase via display and MODBUS
- Panel mounted (96x96 mm)
- Optional RS485 MODBUS or Ethernet (MODBUS TCP/IP)

RISH EM 3490 DSI



Dual Source Energy Meter

- Important parameters for Utility and Generator for 3Ph networks
- Electrical load monitoring with power quality
- Direct cost calculation for energy for Utility and Generator
- Panel mounted (96x96mm)
- ACCL (Auto Connect Current Limiter)

Isolators

- Measuring ranges configurable with switch and potentiometer
- LED indicator
- Universal (AC/DC) power supply
- Accuracy class 0.2
- DC programmable Isolators
- Unipolar/Bipolar isolating amplifier
- Universal transmitter
- TPS output optional (PI 102 only)

RISH CON TPT



RISH CON SI-101



RISH PI-102



RISH DUCER V604



RISH DUCER TV808



RISH DUCER PT602

- Onsite programmable inputs and outputs
- Electrically isolated inputs, outputs & power supply
- EMC compatible IEC 61326-1
- IEC STD 61010-1:2010

Transducers

- Electrical isolation between all transducer connections
- True RMS (upto 15") with bent characteristics
- PC simulation
- Optional display and RS485 communication
- Type: Current, Voltage, Frequency, Power, Power Factor & Phase Angle Transducers with single and dual output
- Multifunction Transducer with Analog/Digital outputs
- 1Ph/3Ph, 3W/4W
- Applicable standard: IEC 60688
- Self powered option only Rish con 111

RISH CON-P



RISH CON-CA



RISH DUCER M42



RISH CON-V



RISH COM M+



RISH CON-I11



Protection Relays

- Trip relay cum DPM having 4 digit 7 segment LED display
- Dual color LED for fault indication
- Stores last 15 fault
- Configuration via USB based PRKAB
- Pre Alarm function
- Din rail mounting

RISH Relay-1
AC Current



RISH Relay-V
AC Current



RISH Relay-V/Hz
Combined Voltage &
Frequency Relay



RISH Relay-PHR



RISH Relay-AR



RISH Relay-VR



- LED indications for faults
- Self powered (Rish Relay PHR & VR)
- Relay options-1CO & 1CO +1CO (Rish Relay AR & VR only)
- Din rail mounting

- On-site programmable
- Remote Reset using relay contact
- CBCT Open status detection
- Bar graph LED Display (RISH ELPR)
- DIP switch for settings (RISH ELPR Smart+)
- Panel & DIN rail mounted
- CBCT with 600: 1 ratio
- CBCTs are available in different sizes: 38, 57, 70, 120, 210mm

Earth Leakage Relay

RISH ELPR
Smart/Smart+



RISH CBCTs



RISH ELR VI



Power Supply & Battery Charger

- Three protection modes:
- Hiccup mode - Continuous mode - Manual reset
- Protections: Shortcircuit, Overload, Over-Voltage
- Available in 1Ph, 2Ph and 3Ph
- Declared ambient temperature on field i.e. 40°, 50° & 60°C
- Compliance to EN60204-1 & Ingress Protection according to EN 60529
- Din rail mounting
- Compact size
- Available in output ratings of 5, 12, 24 & 48V with current from 1A to 40A
- Efficiency: 91%
- Efficiency: 86%
- Output Ripple < 120mv
- Three Stage Charging - Float, Boost, Bulk
- Boost mode for rapid charging
- Overload Protection, Temperature Protection & Battery Reverse Polarity
- MTBF 5,00,000 Hrs



Digital Panel Meter

OLED Display Digital Meter



N21



N20H Plus



N20/N20 Plus



N20Z/N20Z Plus

Basic Series with Tri-color Display

Advance Series Programmable Digital Meter



N30 Series

Next Generation DPMs N3xx



N31U



N32 Series

Basic Meters

- Measurement of Power network parameters in 4 wire balanced and unbalanced systems
- THD factors for currents and voltage
- Alarm output & pulse output for active energy
- RS485 interface output with MODBUS protocol (Optional)
- Protection grade from the frontal side: IP65
- Individual Harmonics (ND20 only) & THD Measurement
- 3Ph connection through RJ12 connector (ND20CT only)

Advanced Power Quality Monitors

- Configurable alarm outputs
- Analog output 0/4....20mA and PT100 inputs (ND30/ND30 PNET only)
- Data logging in the internal memory 8GB (ND30 & N100 only)
- Digital output RS485 - MODBUS protocol
- Ethernet with MODBUS TCP/IP inbuilt www and FTP server (ND30 only)
- Profinet communication (ND30/NR30 PNET only)
- BACnet communication (ND30/NR30 BACnet only)
- BACnet or MQTT onsite Selectable (ND31 only)

ND10



ND20



ND30



N100



NR30



DIN Rail Mounted Meters

- 12 programmable screens / pages (N43 only)
- Backlit LCD display
- Digital transmission to the master system through the RS485 interface with MODBUS protocol (N27P, N43)
- Modern design suitable for switchgear DIN Rail mountable

N43



N27D



N27P



NS5



Synchronising Unit

- Color graphic display 3.5" TFT
- Range of input signals: 50...150V or 150...400V
- Programmable hysteresis of voltage difference, frequency and phase shift angle
- Ethernet with MODBUS TCP/IP inbuilt www and FTP server
- RS485 with MODBUS RTU protocol



Digital Bargraphs

NA5PLUS - Vertical type 1: Measuring Channels

NA6PLUS - Vertical type 2: Measuring Channels

- Input: Universal Programmable Input
- Output: Analog/Relay/OC
- Digital: RS485 with MODBUS protocol
- Supply: 95...230...253 V AC/DC, 20...24...40 V AC/DC, 20...60 V DC



Recorders

- Universal Programmable Input and Output
- Mathematical functions
- Data archiving on compact flash card - 4GB internal memory
- Remote accessible through web server and MODBUS
- Various form of graphical representation
- Logic channel for connecting input and output
- Inbuilt www and FTP server



KD8
Screen Recorders



KD7
Screen Recorders



PD22
Data Logger



SM61IoT
Data Logger



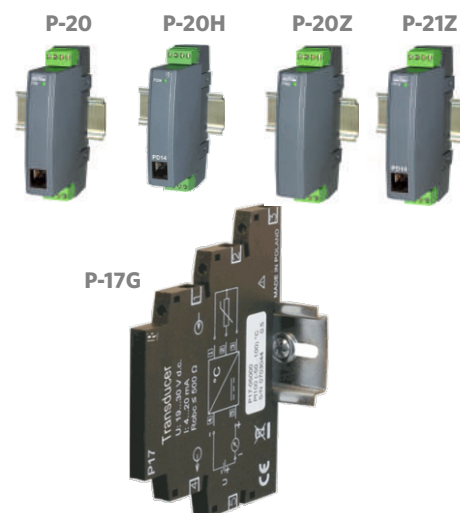
HT20IoT/
HT22IoT



KD6
Screen Recorders

Basic Transducers

- P20 - Transducer of Temperature and Standard Signals
- P20H - Transducer of DC Voltage or Current
- P20Z - Transducer of AC Voltage or AC Current
- P21Z - Transducer of AC Voltage, Current or Frequency
- P17 - Voltage or temperature input
- P17G - Current input
- T23CT-CTDucer AC/DC Input
- Output: 0/4...20 mA, 0...10V or RS485 with MODBUS protocol
- Output signal galvanically isolated from the input and the supply
- Possible programming of following parameters through the PD14 programmer and the free eCon software
- Supplied from a current loop (P17/P17G only)
- Accuracy class 0.2
- Supply voltage: 85...253V AC (45...65 Hz)/DC 20...40V AC (45...65 Hz) / DC



Temperature & Humidity Transducer

- P18 - Temperature & Humidity Transducer without Display
- P18D - Temperature & Humidity Transducer with Display
- P18L Temperature & Humidity Transducer without Display
- P18S - Temperature & Humidity sensor with RS485 output
- P19 - Temperature & Humidity Transducer with built in sensor
- Measurement of physical quantities (dew point, temperature, absolute humidity)
- Analog Output signals (P18 series)
- Memory of maximal and minimal value
- Programming of the measurement averaging time
- RS485 interface (P18D, P19 only)



Advance Transducers with Display and Recording Function

- P30U - Universal input (Standard signals & Temperature input)
- P300-Number of Pulses, Frequency, Rotational speed, Period work-time counter, Encoder
- P30P-1 Phase AC parameters
- P30H-Higher DC current & DC voltage
- Output - Programmable Analog (Current or Voltage)/1 or 2 x relays / Digital RS485
- Linear scaling with individual 21 point characteristics (P30U 7 P300)
- Mathematical functions
- Option with SD card/Ethernet interface and inbuilt 8GB memory



AC Transducers

- P41-1 Phase Transducer of Power Network Parameters
- P43-3 Phase Transducer of Power Network Parameters
- ULT20/21: Level measurement upto 10/15m
- Input signal: AC current and AC voltage
- Outputs: Relay/Analog/Pulse
- RS485 and USB interfaces with MODBUS protocol
- Transducer programming realized by means of a free eCon software



I/O's & Converters



- Converts Analog signal, Digital & Pulse input to MODBUS communication.
- Available in various models with respect input/output



- Easy installation of drivers
- Compact size



Our Product Range



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