

RISH Integra 510

RISH Integra 510 digital metering products replace the need for numerous single function instruments, providing the ideal solution for new or retrofit projects with significant cost savings and reduced wiring times. The range offers a combined ammeter, voltmeter and frequency meter.

The **RISH Integra 510** series provides measurement and display of up to 12 electrical and programmable current transformer ratios via a simple menu driven interface on the front panel. Status of the monitored parameters can be viewed by scrolling through up to 4 screens featuring a high contrast LCD display. The solid state technology is ideal for Genset and other high vibration environments.

Operation:

RISH Integra 510 - Three Phase Ammeter, Voltmeter and Frequency Meter

Ideally suited for genset, feeder panel and low voltage switchgear applications, this integrated unit typically replaces three conventional ammeters, a voltmeter, a selector switch and a frequency meter. **RISH Integra 510** offers programmable current transformer ratios up to 8000 A, and configuration and display of up to 12 electrical parameters. Status information for current per phase and system average, voltage per phase and system average, and system frequency is displayed via 3 screens.

System Input:

Designed for all low voltage switchgear and distribution systems, the **RISH Integra 510** offers programmable CT ratio capability. Direct connected up to 480V AC with 5A CT inputs as standard, with a 1A CT input available as an option.

Features:

- Measurement and display of up to 9 electrical parameters
- High contrast LCD display
- Fully programmable CT ratios
- Industry standard DIN96 case style
- 3 phase 3 or 4 wire options
- Wide operating temperature range
- Vibration resistant solid state technology

Benefits:

- Replaces multiple single function instruments
- Simple menu driven interface
- Significant cost savings
- Reduced wiring times
- 1 % accuracy
- Measures down to 2.5% of nominal input
- Monitoring, and protection of expensive power assets



Compliant With:

- IEC1010-1/BSEN 61010-1 CAT III
- IEC688:1992/BSEN 60688

Applications:

- Switchgear
- Distribution systems
- Generator sets
- Control panels
- Embedded generation
- Utility power monitoring
- Process control
- Motor monitoring
- Feeder panels
- Distribution pillars

Measurement and Display:

RISH Integra 510

Up to 12 electrical parameters can be displayed via 4 screens

- Current L1
Current L2
Current L3
- Volts L1 - N (4 wire only)
Volts L2 - N (4 wire only)
Volts L3 - N (4 wire only)
- Volts L1 - L2
Volts L2 - L3
Volts L3 - L1
- Systems Volts
Systems Current
Systems Frequency



RISHABH

**RISHABH
INSTRUMENTS**

Measure, Control & Record with a Difference

RISHABH INSTRUMENTS PVT. LTD.
F-31, MIDC, Satpur, Nasik - 422 007, India.
Tel.: +91 253 2202160, 2202202, Fax : +91 253 2351064
E-mail: marketing@rishabh-instruments.com,
www.rishabh-instruments.com

RISH Intergra 510

Specification :

Input	
Nominal Input Voltage:	100 - 120V L-L (58-69V L-N) 190 - 240V L-L (110-139V L-N) 380-480V L-L (219-277V L-N)
Max Continuous Input Voltage:	
Max Short Duration Input Voltage:	2 x for 1 sec., repeated 10 times at 10 sec. intervals
Nominal Input Voltage Burden:	0.2 VA approx per line
Nominal Input Current:	1 or 5A AC (RMS)
System CT Primary Values:	0 to 99.99A:1 to 80A, 0 to 999.9A:81 to 800A or 0-9999A:801 to 8000A
Max Continuous Input Current:	120% nominal
Max Short Duration Current Input:	20 x for 1 sec., repeated 5 times at 5 min intervals 10 x for 3 sec., repeated 5 times at 5 min intervals 5 x for 5 sec., repeated 5 times at 5 min intervals
Nominal Input Current Burden:	0.6 VA approx per phase
Auxiliary	
Standard Nominal Supply Voltage:	100-200, 190-240 or 380-480V AC
Auxiliary Volts Tolerance:	Nominal -10% to +20%
AC Supply Frequency Range:	45- 66Hz
AC Supply Burden:	3VA (1.75)
Measuring Ranges	
Voltage (Self Powered):	75 ..125% of nominal
Voltage (Auxiliary Powered):	2.5 .. 120% of nominal
Line to Line Voltage 4 Wire:	0 to 10% difference in phase voltage
Current:	2.5 ..120% of nominal
Reference Conditions	
Ambient Temperature:	23°C
Input Frequency:	45 - 66Hz
Input Waveform:	Sinusoidal (distortion factor <0.005)
AC Auxiliary Supply Waveform:	Sinusoidal (distortion factor <0.05)
Magnetic Field of Origin:	Terrestrial flux
Accuracy	
Voltage:	1% of nominal
Current:	1% of nominal
Frequency:	0.25% of mid frequency
Temperature Coefficient:	0.04%/°C typica / Display update
Display Update Time:	Current & Volts: 7.5 seconds approx
Circuitry Response Time:	<10 seconds to step input
Enclosure	
Enclosure Style:	DIN 96 panel mount
Display:	3 line 4 digit LCD. 10.5mm high characters
Compliant With:	IEC1010-1/BSEN 61010-1 CAT III, IEC688:1992/BSEN 60688, EMC and LVD
Material:	Polycarbonate UL94V-0/V-2
Terminals:	M3.5 captive screw clamp
Fixing:	2 corner clamps and thumb screws
Dielectric Voltage Withstand:	2.2kV RMS 50Hz for 1 minute
Operating Temperature:	-10 to +70°C
Storage Temperature:	-20 to +80°C
Relative Humidity:	0 .. 95% non condensing
Warm-up Time:	1 minute
Shock:	30g in 3 planes
Vibration:	10 .. 15Hz, 1.5mm peak to peak / 15 .. 150Hz @1g
Front of Panel IP Protection:	Ip54
Dimensions:	96mm wide x 96mm high x 112mm deep wide 3.78" wide x 3.78" high x 4.41" deep
Panel Cut Out:	92mm x 92mm, 3.62" x 3.62"



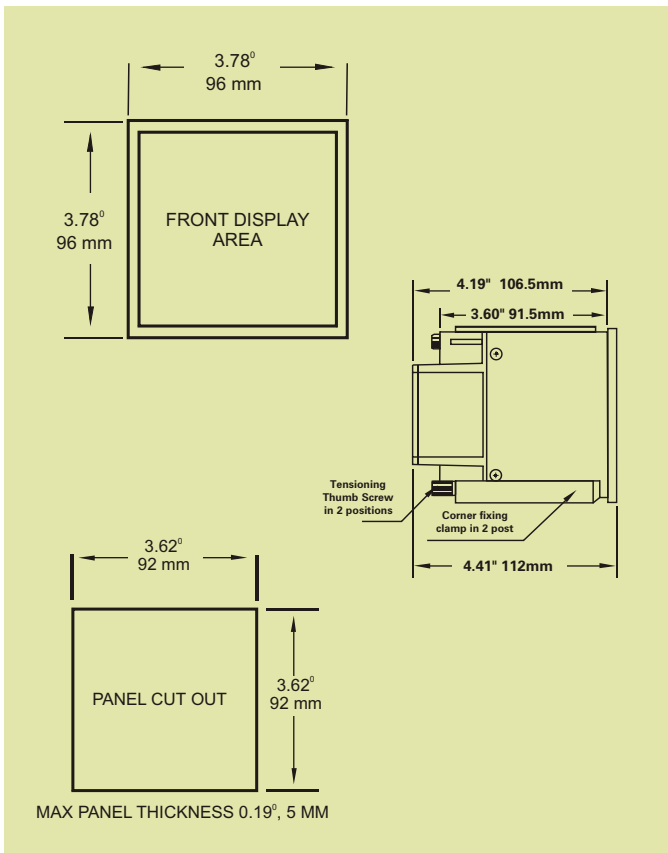
RISHABH

RISHABH
INSTRUMENTS

Measure, Control & Record with a Difference

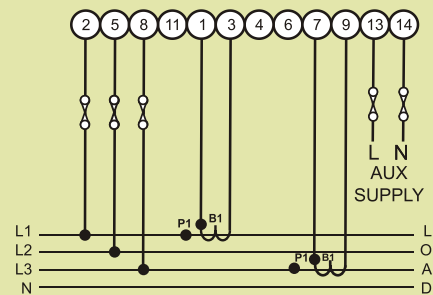
RISHABH INSTRUMENTS PVT. LTD.
F-31, MIDC, Satpur, Nasik - 422 007, India.
Tel.: +91 253 2202160, 2202202, Fax : +91 253 2351064
E-mail: marketing@rishabh-instruments.com,
www.rishabh-instruments.com

Dimensions

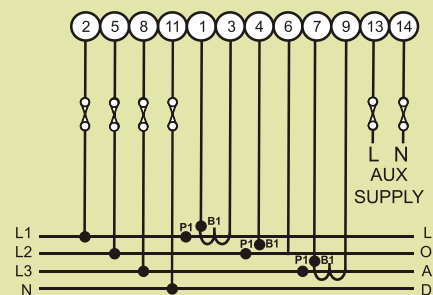


Connections

3 phase 3 wire unbalanced load



3 phase 4 wire unbalanced load



Wiring

Input connections are made directly to shrouded screw clamp terminals. Terminals for both current and voltage connections are sized to accept two #9 AWG (3mm solid or stranded wires). Connections for relay options are via screw clamp connectors. Connectors offer retained wire protection leaves suitable for one #10 AWG (2.5mm) solid or stranded wire.

Auxiliary Supply

The RISH Integra 510 should ideally be powered from a dedicated supply. However the device may be powered from the signal source, provided the source remains within the working range of the chosen auxiliary supply.

Fusing

It is recommended that all voltage lines are fitted with 1 Amp fuses. Safety / Ground Connections For safety reasons, CT secondary connections should be grounded in accordance with local regulations.



RISHABH

RISHABH
INSTRUMENTS

Measure, Control & Record with a Difference

RISHABH INSTRUMENTS PVT. LTD.
F-31, MIDC, Satpur, Nasik - 422 007, India.
Tel.: +91 253 2202160, 2202202, Fax : +91 253 2351064
E-mail: marketing@rishabh-instruments.com,
www.rishabh-instruments.com