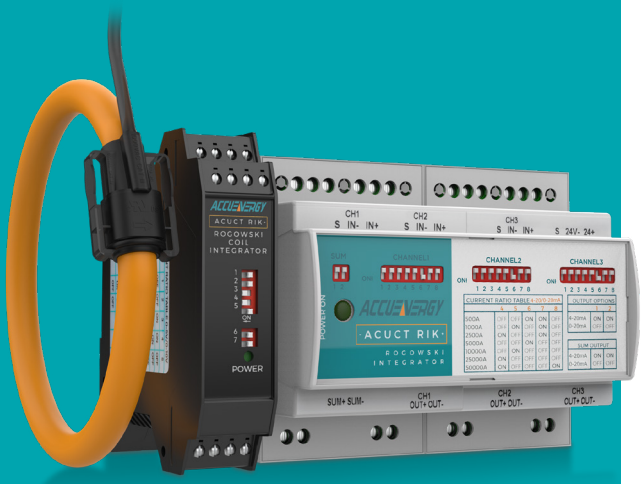
RIK mA

4-20mA / 0-20mA Rogowski Integrator

Datasheet



Rogowski Coil and Power supply sold separately

The RIK mA provides integrated automation systems and process control systems the option to use Rogowski coils to supply a 4-20mA or 0-20mA nominal output. Ideal for measuring in crowded panels or around large busbars, the Rogowski Integrator accommodates loads up to 60,000A AC and includes high-performance Rogowski sensors in one of four standard lengths.

Features

- Available in either a three-phase or single-phase & compatible with both 50/60Hz systems
- Seven field-configurable CT ratios: 500A, 1kA, 2.5kA, 5kA, 10kA, 25kA, 50kA
- The rope-style current transformer flexes to fit into tight electrical panels
- The 4-20mA or 0-20mA rated output is compatible with any device with a mA nominal current transformer input
- 2.5A to 50,000A current sensing range accommodates nearly any application
- CT ratios can be configured independently for each channel

Specifications

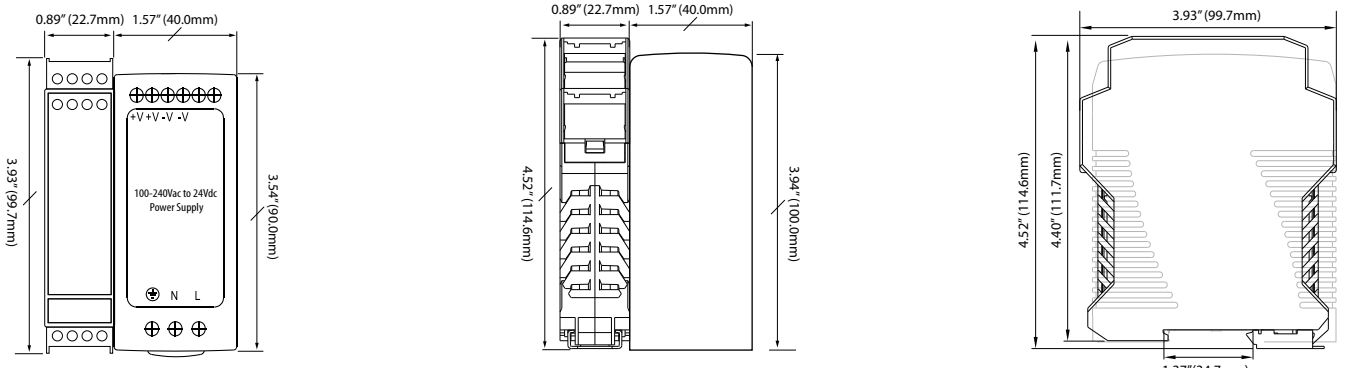
RATED CURRENT	
Current Range	2.5A - 60000A
Sensing Range	500A, 1000A, 2500A, 5000A, 10000A, 25000A, 50000A User Selectable
Integrator Output	4-20mAdc or 0-20mAdc (field selectable)
Integrator Accuracy	±1% Full Scale Error
MECHANICAL/ENVIRONMENTAL	
Integrator Kit Size	Single Phase: 62.7mm x 99.7mm x 114.6mm 2.46" x 3.93" x 4.52" Three Phase: 146.3mm x 90.5mm x 100.0mm 5.76" x 3.56" x 3.94"
Input/Output Wire Connection	14 - 30 AWG
Operating Temperature	-20°C ~ 55°C -4°F ~ 131°F
Operating Humidity	Non-condensing, 0 to 95% RH
Integrator Enclosure Material	ABS, UL 94V-0
Mounting	DIN TS-35/7.5 or 15 (DIN 43880) or Panel
ELECTRICAL	
Measurement Channels	1 (single-phase) or 3 (three-phase)
Channel Cross Talk	<-60dB
Frequency Range	45Hz to 65Hz
Response Time	<10ms
Burden	1.8VA/channel
Maximum Output Impedance	50mΩ
Power Supply	100-240Vac
Supply Voltage	24Vdc ±5%
Supply Current	40mAdc @ 24Vdc
SAFETY/COMPLIANCE	
Certifications	CE, RoHS, UL Listed (E359521)
ROGOWSKI COIL (Sold Separately):	
Window Size	RCT16-1000 - 106.0mm (4.17") RCT24-1000 - 178.0mm (7.01") RCT36-1000 - 271.0mm (10.67") RCT47-1000 - 369.0mm (14.53")
Length of Coil	RCT16-1000 - 400.0mm (15.75") RCT24-1000 - 600.0mm (23.62") RCT36-1000 - 900.0mm (35.43") RCT47-1000 - 1200.0mm (47.24")
Coil Material	Orange thermoplastic rubber UL 94V-0 rated flame retardant
Lead Wires	1000V UL Style 20940, 26AWG
Wire Polarity	White=Positive, Brown=Negative, Bare=Shield
Phase Orientation	Arrow Points Towards Load

Integrator's Current Range Settings

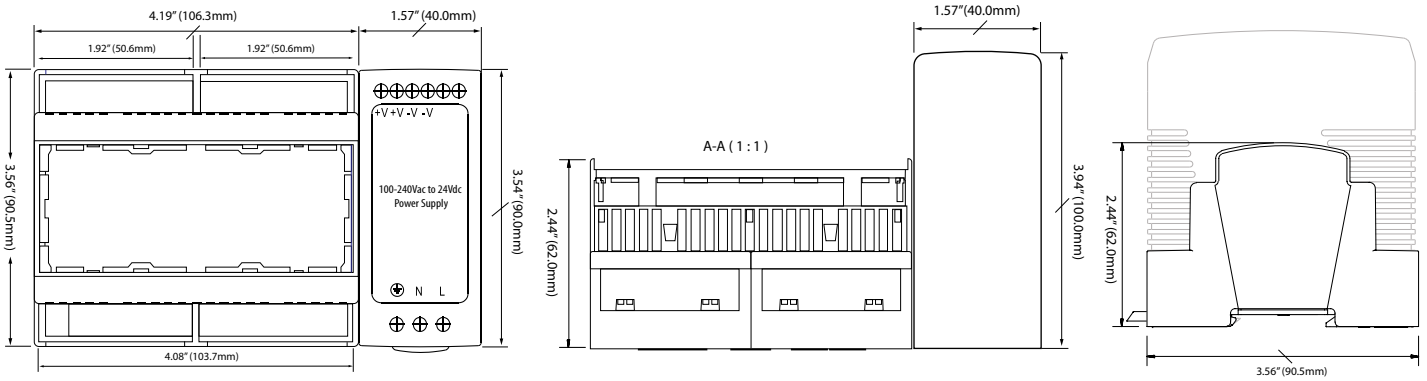
PRIMARY INPUT (A_{RMS})	SENSING RANGE (A)	OUTPUT
500	2.5 to 600	4-20mA or 0-20mA @500A
1000	5 to 1200	4-20mA or 0-20mA @1000A
2500	12.5 to 3000	4-20mA or 0-20mA @2500A
5000	25 to 6000	4-20mA or 0-20mA @5000A
10000	50 to 12000	4-20mA or 0-20mA @10000A
25000	125 to 30000	4-20mA or 0-20mA @25000A
50000	250 to 60000	4-20mA or 0-20mA @50000A

Dimensions

Single Phase Rogowski Integrator



3 Phase Rogowski Integrator



** Power supply sold separately*

Ordering Information

Integrator	*Model*		*Integrator Output*		*Channels*
Ordering Example	**RIK**	**-**	**mA**	**-**	**3**
	RIK		mA		1
					3

Power Supply Unit	*Model*
Ordering Example	**AcuLink-RIK-PSU**
	AcuLink-RIK-PSU: 24Vdc Output

Mod-Tronic Instruments Ltd.
1-800-794-5883
www.mod-tronic.com
sales@mod-tronic.com

Revision Date: January 2024 Version: 1.0.3
Specs Subject To Change Without Notice.