



Thousand Hundred Industrial CO.,LTD.

Customer Part No.		Date Of Issue:	
T.H. Part No.	RCCxxxixxxxx	T.H. Sample No.	Rxxxx

Product Appearance:



- 3 Rogowski Coil Probes
- Three-phase integrator
- One switching power supply

Introduction:

RCCXXXi is applied on three-phase DIN-35 with 1A output signal. The device can monitor up to 11K Vac and nominal current- 50kA. The key characteristics of the product are the flexibility of the coil and uninterrupted power installation which makes it easier to be installed around bus bars and multiple conductors.

The integrator is installed in distribution box with 1 module DIN-RAIL enclosure and powered directly from the mains.

The sensitivity of Rogowski coils is very dependent on the uniformity of the winding, position of the conductor(s) as well as the magnetic fields from external conductors. We will recommend using the most compatible window size with the input wire diameter.

Advantages

- Simple installation (especially in limited space).
- Wide dynamic current range.
- No magnetic saturation.
- No open circuit danger, overload danger. Intrinsically safe.
- Wide bandwidth.
- Low current measurable.
- High protection class IP68.

Applications

- Power meters.
- Energy sub-meters.
- Power quality monitoring condition monitoring.
- Distributed measurement systems.
- Lighting current.
- Electric furnace.
- Harmonic management.
- Relay Protection.

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Performance Characteristics (@ $f_p=50\text{Hz}$, $T_A=25^\circ\text{C}$, unless otherwise noted):

Part Name:	RCCXXxi055B0	RCCXXxi080B0	RCCXXxi105B0	RCCXXxi180B0
Window size(mm):	55	80	105	180
Coil Circumference (mm):	197	300	378	576
Rated Current:	100A,200A,300A, 400A,600A,800A 1000A	800A,1000A, 2000A,4000A, 5000A,6000A	600A,800A,1000A, 2000A,4000A, 5000A,6000A	800A,1000A,2000A, 4000A,5000A, 8000A,10000A
Current Range:	100A to 10000A etc.			
Rated Output:	1A AC rms			
Frequency:	50/60 Hz			
Accuracy:	0.5% typical at (1%($\geq 10\text{A}$) to 110% of rated current @25°C)			
Linearity Err.:	$\pm 0.2\%$ of reading(10% to 120% of range)			
Phase Shift:	$\leq 0.5^\circ$			
Output at 0A (zero drift):	$\leq 0.01\text{A}$			
Temperature drift:	200ppm/°C			
Measuring resistance (RL):	0.5Ω (each phase)			
Weight(g):	436	456	466	530
Integrator Mechanical Dimensions:	112mm*99.5mm*23mm			
SMPS Mechanical Dimensions:	90mm*58.4mm*17.5mm			
Switching Power Supply:	85~264V AC (power supplied by one SMPS with rated input 85-264 Vac to rated output 12Vdc, 15W)			
Operating Temp. of Rogowski Coil:	-20°C to 70°C			
Operating Temp. of Integrator:	-25°C to 75°C			
Terminals:	5.08-4P			
Output Cable:	2000±50mm AWM 21885 22AWG x 2C (Orange)			
Safety:	UL2808 & CSA C22.2 No.61010-1 1000V CATIII, Non-Service Entrance 600V CATIV, Service Entrance Pollution Degree 2, Indoor Use			
Checklist:	Rogowski coil 2 pcs Integrator 1 set SMPS 1 set			

Note1: To prevent any damage to the Flexible Probe, please pull on the coil less than 2.5kgs.

Note2: Conductor Position Err. @ with cable > 15mm between the clip with mechanism.

Note3: The current waveform being measured is Sine Wave.

Note4: Use in the condition of under 80% RH of humidity, no condensation.

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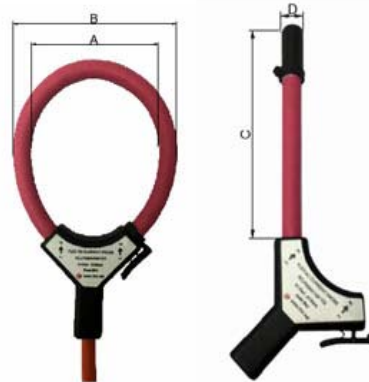
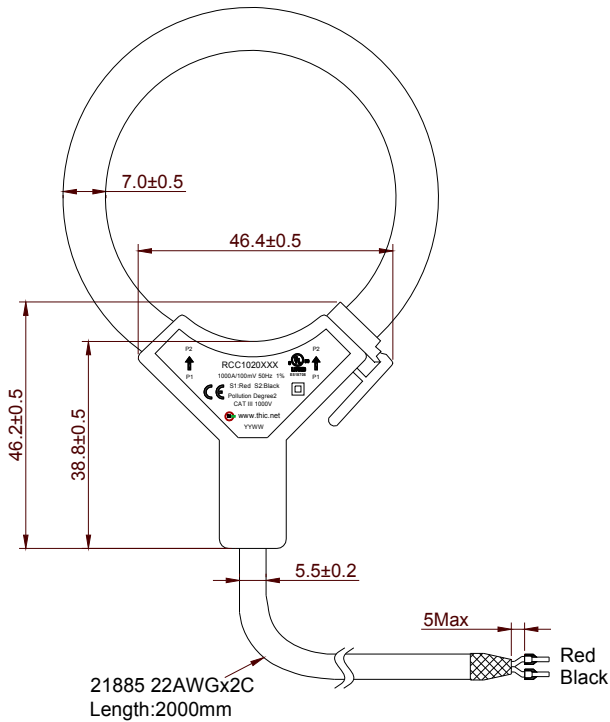


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Mechanical Dimensions (Unit: mm):

Rogowski Coil:



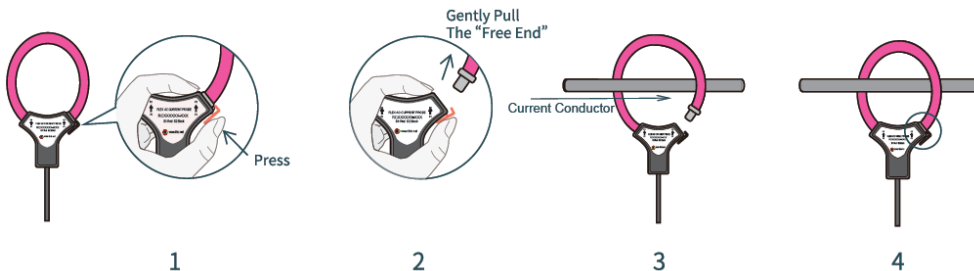
Part Name	A	B	C	D
RCC1020055B0	55	69	197	8.8
RCC1020080B0	80	94	300	8.8
RCC1020105B0	105	119	378	8.8
RCC1020180B0	180	194	576	8.8

Position Sensitivity:



Part Name	RCCXXXiXXXB0
Conductor Position	Typical Err.
● Adjacent to the inside coil edge	< 1%
● Adjacent to the clip together mechanism	< 2%
● Central in the coil loop	< 0.2%

Rogowski Coil Installation Guide:



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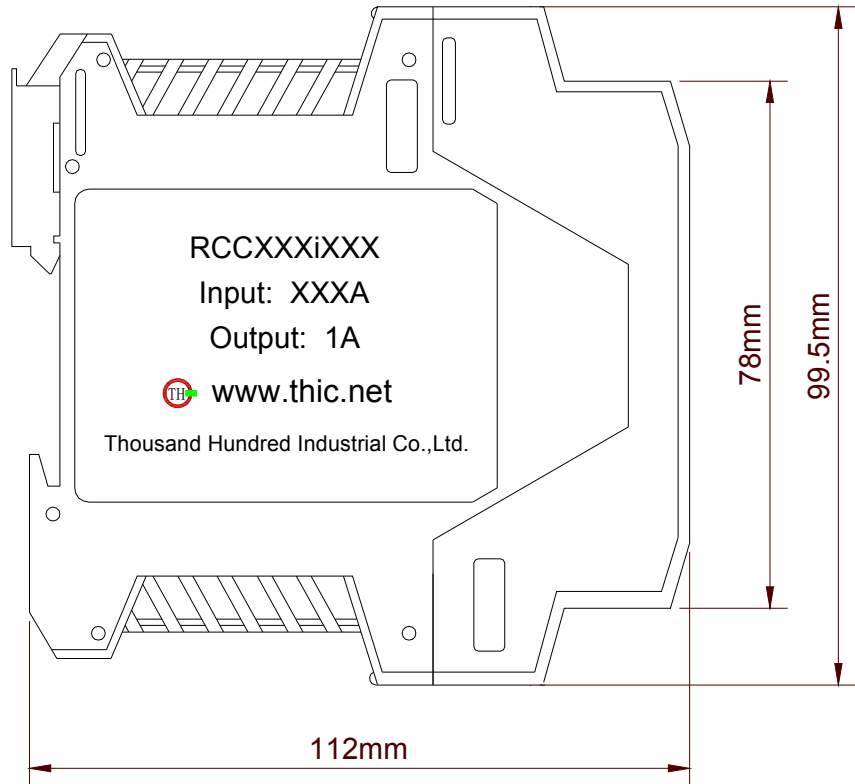
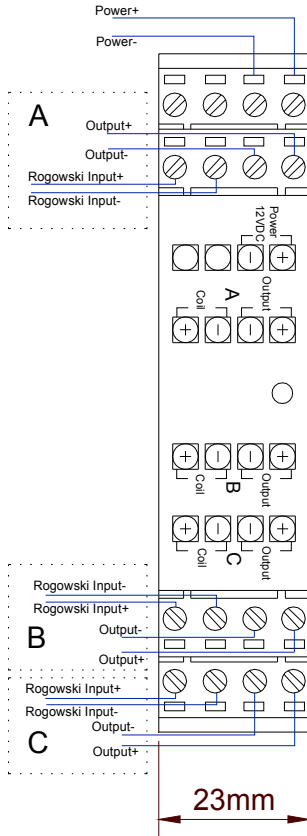


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Connection :

Integrator:



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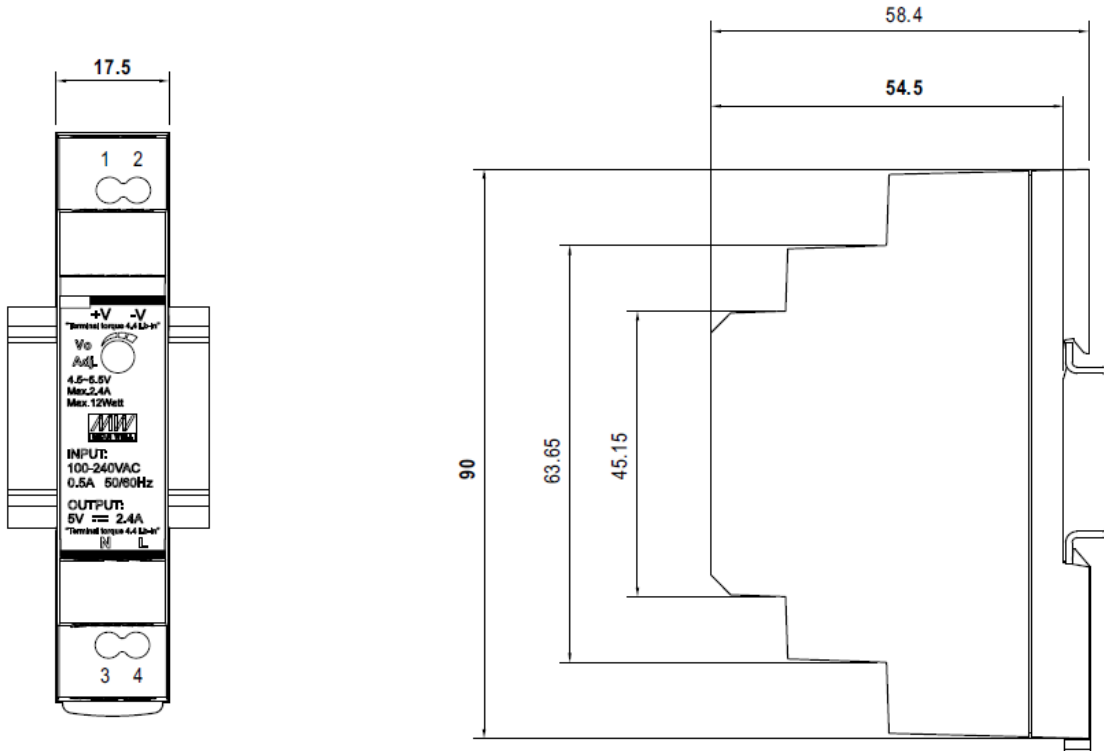
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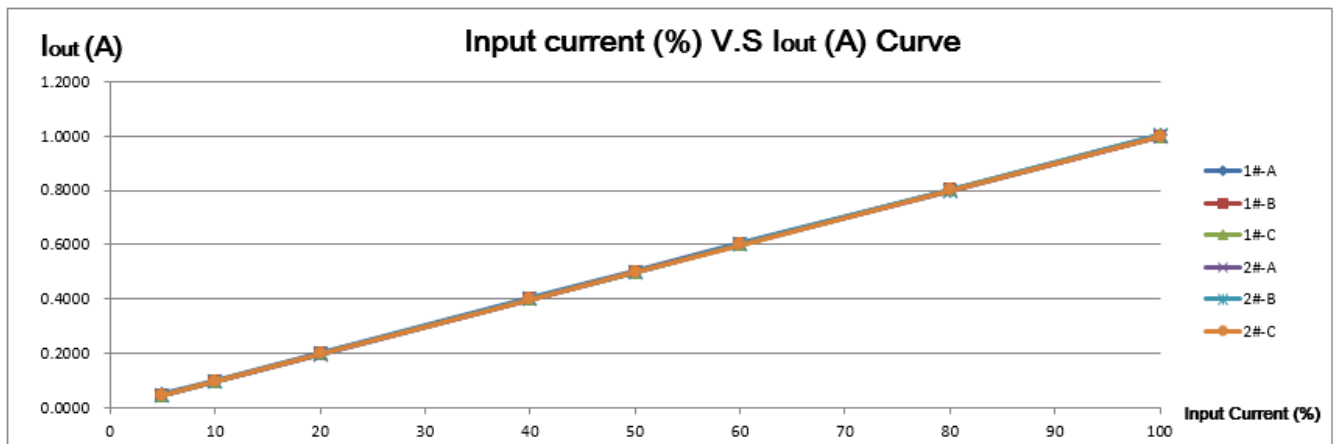
Switching Power Supply(Unit: mm):



ADMISSIBLE DIN-RAIL: TS35/7.5 or TS35/15

Pin No.	Function	Pin No.	Function
1	Power+	3	AC/N
2	Power-	4	AC/L

Output Curve:



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Safety and warning notes

In order to guarantee safe operation of the transducer and to be able to make proper use of all features and functions,

please read these instructions thoroughly! Safe operation can only be guaranteed if the transducer is used for the purpose it

has been designed for and within the limits of the technical specifications. Ensure you get up-to-date technical information that can be found in the latest associated datasheet under www.thic.net

1. **Warning:** If the equipment is used in a manner not specified by Thousand Hundred Industrial Company, the protection provided by the equipment may be impaired.
2. **Warning:** To reduce the risk of electric shock, always open or disconnect circuit from power-distribution system (or service) of building before installing or servicing current transformers.
3. The Current transformers may not be installed in equipment where they exceed 75 percent of the wiring space of any cross-sectional area within the equipment.
4. Restrict installation of current transformer in an area where it would block ventilation openings.
5. Restrict installation of current transformer in area of breaker arc venting.
6. Not suitable for Class 2 wiring methods.
7. Not intended for connection to Class 2 equipment.
8. Secure current transformer and route conductors so that they do not directly contact live terminals or bus.

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