RōCoil TCA-5™

The DENT RōCoil TCA-5 delivers the flexibility and ease-of-installation of the RōCoil current sensors to applications using power meters with 5A current transformer inputs. Used with standard RōCoil flex CTs, the TCA-5 is a three-channel integrating transconductance amplifier that translates the electrical output signal from the RōCoil current sensor to a 5 amp AC current, emulating a traditional current sensing transformer.

The RōCoil TCA-5 is a DIN rail or panel mounted device requiring an external 48 VDC power supply. The RōCoil TCA-5 has four selectable current ranges: 500, 1K, 2.5K, and 5K amps and selectable frequency for both 50 and 60 Hz systems.

KEY SPECIFICATIONS

Input Measurement Voltage	0—655 mV (RMS)
Reference Conductor Current Range	0.5—5000 Amps (80 dB Signal Range)
Output Current	0—5.00 Amps (RMS)
RōCoil Sensing Ranges	500, 1K, 2.5K, 5K Amp (user selectable)
Maximum Burden	1.25 VA per channel
Maximum Output Impedance	50 m-ohms
Measurement Channels	3 (3-phase or single-phase)*
Frequency	50/60 Hz (user selectable)
Accuracy	+/- 1%**
Channel Cross Talk	< 60 dB
Maximum Operating Temperature	40 °C (104 °F)

POWER REQUIREMENTS

TCA Supply Voltage	48 VDC +/- 10%, 30 Watts
TCA Supply Current	0.6 Amps DC @ 48 VDC

Accessories

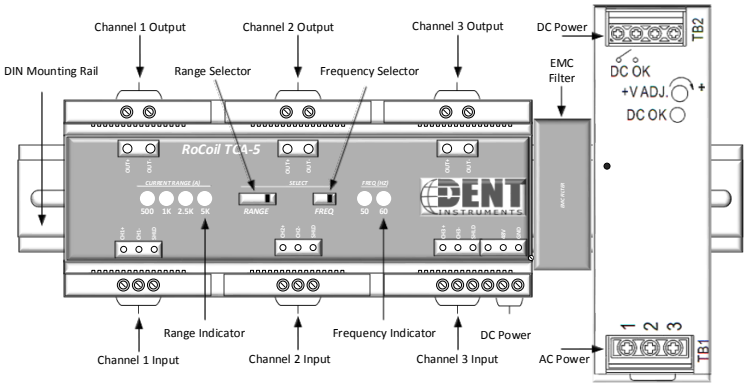
AC/DC Power Supply, 48 VDC	Low Voltage: 120/240 VAC High Voltage: 400/500 VAC
Mounting Rail	TS35/7 DIN Rail

DIMENSIONS/MOUNTING

Width—Base Unit Width—As Assembly	15.7 cm (6.2") 25.0 cm (9.8")
Height—Base Unit Height—As Assembly	9.0 cm (3.5") 12.6 cm (5.0")
Mounting	TS35/7 DIN Rail or Panel
Input Wire Connection	18—28 AWG
Output Wire Connection	12—18 AWG (length dependent)

**Only 4.5 Amps are available on single-phase loads if all three channels are on the same phase.*

***All accuracies specified at 20°C (±2°C) with RōCoil™ centered on conductor with unity power factor.*



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Current Range Setting	Min Current @ 1% Error	Max Current
500 A	5 A	500 A
1000 A	10 A	1000 A
2500 A	25 A	2500 A
5000 A	50 A	5000 A

RōCoil TCA-5™ PART NUMBERS

Part Number	Description
TCA-5-AO	RōCoil TCA-5™. For use with DENT RōCoil CTs. Does not include power supply or RōCoil CTs. (Not UL Listed unless used with DENT Instruments' supplied Power Supply—see below).
TCA-5-HV-KIT	RōCoil TCA-5. For use with DENT RōCoil CTs. Includes 48 VDC High Voltage (400/500 VAC) power supply for use on 480V 3-phase services (line-to-line) , wiring harness, and TS35/7 DIN rail. Does not include RōCoil CTs.
TCA-5-LV-KIT	RōCoil TCA-5. For use with DENT RōCoil CTs. Includes 48 VDC Low Voltage (120/240 VAC) power supply for use on residential 1-phase services & 208V 3-phase, wiring harness, and TS35/7 DIN rail. Does not include RōCoil CTs.
TCA-HV-POWER	48 VDC High Voltage power supply for use on 3-phase services. Use with RōCoil TCA-5.
TCA-LV-POWER	48 VDC Low Voltage power supply for use on single-phase services. Use with RōCoil TCA-5.

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All specifications subject to change without notice.