

RōCoil TCA-5TM



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

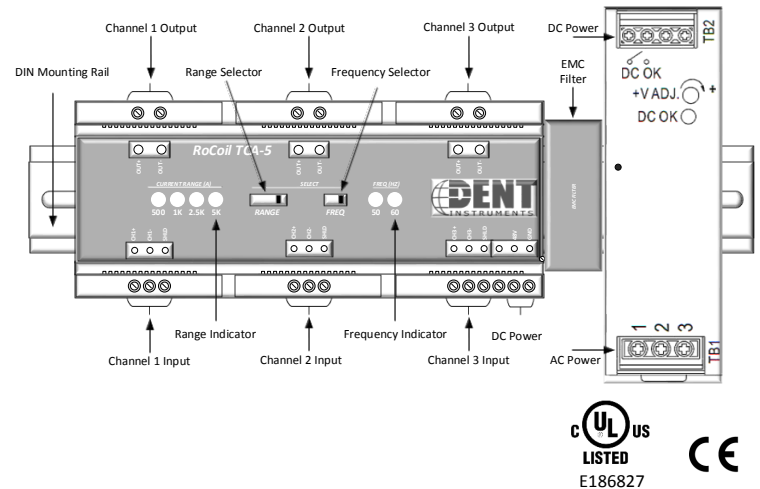
| | |
|--------------------|--------------------------|
| TCA Supply Voltage | 48 VDC +/- 10%, 30 Watts |
| TCA Supply Current | 0.6 Amps DC @ 48 VDC |

Accessories

| | |
|----------------------------|---|
| AC/DC Power Supply, 48 VDC | Low Voltage: 120/240 VAC High Voltage: 200/500 VAC |
| Mounting Rail | TS35/7 DIN Rail |

DIMENSIONS/MOUNTING

| | |
|------------------------|------------------------------|
| Width—Base Unit | 15.7 cm (6.2") |
| Width—As Assembly | 25.0 cm (9.8") |
| Height—Base Unit | 9.0 cm (3.5") |
| Height—As Assembly | 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) |



| 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-5TM PART NUMBERS

| Part Number | Description |
|--------------|--|
| TCA-5-AO | RōCoil TCA-5 TM 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 (200/500 VAC) power supply for use on 3-phase services, 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 1-phase services, 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. |

*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 RōCoilTM centered on conductor with unity power factor.