AC Power Transducer

DIN RAIL / PANEL MOUNT, AVERAGE SENSING

The **CR6200** Series, Power Transducers and Transmitters are designed to provide a controlled output that is proportional to the average power. These devices are specifically targeted to provide an efficient solution to most power sensing needs. Units are designed for operation in systems with sinusoidal voltage and current wave forms.

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CR6210, CR6211
CR6220, CR6221

CR6230, CR6231
CR6240, CR6241

CR6250, CR6251
CR6260, CR6261

Regulatory Agencies

- Approved to UL3111-1, First Editon, Ammendment 2
- Approved to CAN/CSA-C22.2, No. 1010.1-92
- Meets requirement of IEC 61010-1 and BS EN 61010-1

Applications

- Energy Management
- Motor Efficiency
- Multi-point power sensing
- Remote power sensing over long distances

Features

- 35mm DIN Rail or Panel Mount
- Ranges available for any power sensing need
- Active and Reactive power sensing
- 0 - 5 Vdc and 4 - 20 mAdc outputs
- Connection diagram printed on case

Internet Resources http://www.crmagnetics.com/

- Pricing: pricing/6200.html
- Application Sheets: pdf/an6230-1.pdf, pdf/an6250-1.pdf

Part Numbers

CR6210 - ❑ - ❑	1 Phase, Active Power with 0 - 5 Vdc Output
CR6211 - ❑ - ❑	1 Phase, Reactive Power with 0 - 5 Vdc Output
CR6220 - ❑ - ❑	1 Phase, Active Power with 4 - 20 mAdc Output
CR6221 - ❑ - ❑	1 Phase, Reactive Power with 4 - 20 mAdc Output
CR6230 - ❑ - ❑	3-Phase, 3-Wire, Active Power with 0 - 5 Vdc Output
CR6231 - ❑ - ❑	3-Phase, 3-Wire, Reactive Power with 0 - 5 Vdc Output
CR6240 - ❑ - ❑	3-Phase, 3-Wire, Active Power with 4 - 20 mAdc Output
CR6241 - ❑ - ❑	3-Phase, 3-Wire, Reactive Power with 4 - 20 mAdc Output
CR6250 - ❑ - ❑	3-Phase, 4-Wire, Active Power with 0 - 5 Vdc Output
CR6251 - ❑ - ❑	3-Phase, 4-Wire, Reactive Power with 0 - 5 Vdc Output
CR6260 - ❑ - ❑	3-Phase, 4-Wire, Active Power with 4 - 20 mAdc Output
CR6261 - ❑ - ❑	3-Phase, 4-Wire, Reactive Power with 4 - 20 mAdc Output

❑ - ❑

150 - 0-150 Vac
250 - 0-250 Vac
500 - 0-500 Vac *
other ranges available
* not UL recognized

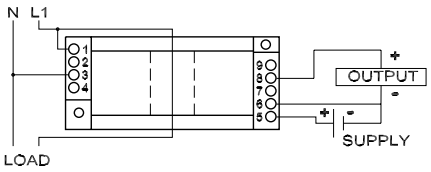
5 - 0-5 Aac
20 - 0-20 Aac
50 - 0-50 Aac
other ranges available

Specifications

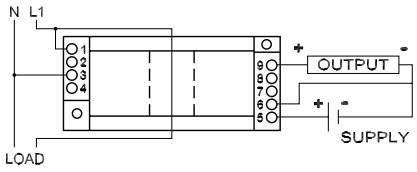
Basic Accuracy:..... 0.5%
Thermal Drift:..... 500 PPM/°C
Operating Temperature:..... 0°C to +60°C
Installation Catagory:..... CAT II
Polution Degree:..... 2
Response Time: ..... 250 ms max. 0-90% FS
Supply Voltage:..... 12 to 24 Vdc
MTBF:..... Greater than 100 K hours

Frequency Range:..... 20Hz - 5 KHz, sine wave
Insulation Voltage:..... 2500 Vdc
Altitude:..... 2000 meter max.
Output Load:..... 4-20 mAdc -0 to 300 Ω
0-5 Vdc - 2K Ω or Greater
Cleaning:..... Water-dampened cloth
Relative Humidity:... 80% for temperatures up to 31°C and decreasing linearly to 50% at 40°C

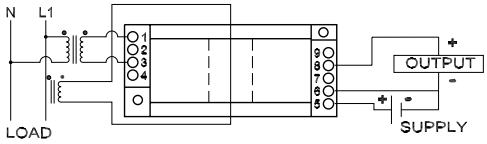
Connection Drawings



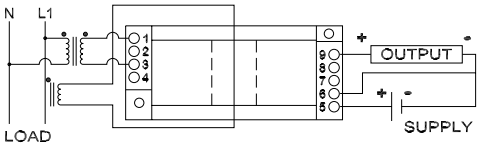
CR6210 CR6211
Single Phase, 0 - 5 Vdc Output



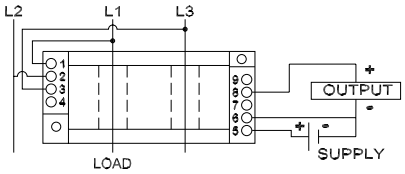
CR6220 CR6221
Single Phase, 4 - 20 mAdc Output



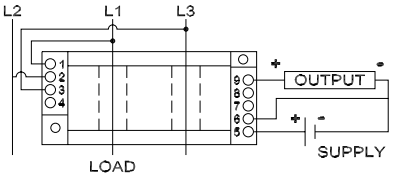
CR6210 CR6211
Single Phase, 0 - 5 Vdc Output
with external voltage transformers



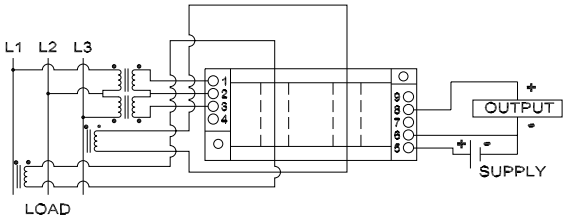
CR6220 CR6221
Single Phase, 4 - 20 mAdc Output
with external voltage transformers



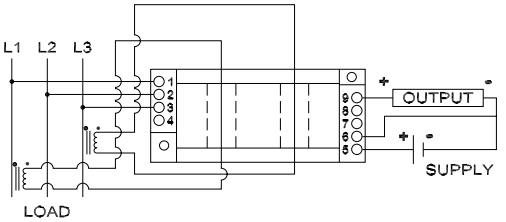
CR6230 CR6231
3 Phase - 3 Wire, 0 - 5 Vdc Output



CR6240 CR6241
3 Phase - 3 Wire, 4 - 20 mAdc output



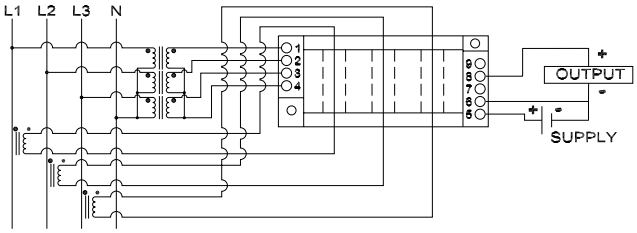
CR6230 CR6231
3 Phase - 3 Wire, 0 - 5 Vdc Output
with external voltage and
current transformers



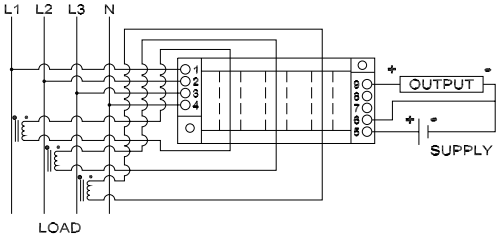
CR6240 CR6241
3 Phase - 3 Wire, 4 - 20 mAdc Output
with external current transformer

Note: The building installation must have a switch or circuit-breaker that is in close proximity and within easy reach of the operator. The switch or circuit breaker shall be marked as the disconnecting device for the equipment.

Connection Drawings

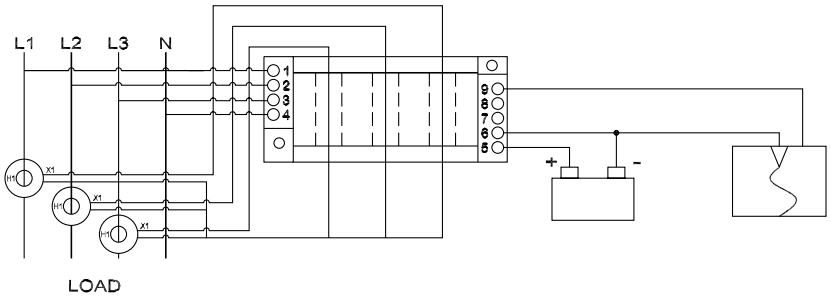


CR6250 CR6251
Three Phase - 4 Wire, 0 - 5 Vdc Output
shown with external voltage and
current transformers



CR6260 CR6261
Three Phase - 4 Wire, 4 - 20 mAdc Output
shown with external current transformers

Typical Application



POWER TRANSDUCER

A university campus needs to monitor the power coming into each building and record the results at a central location. The incoming feeds are rated at 480/277, 2000 amps, 3-phase, 4-wire Y.

An ANSI Metering Class Current Transformer, part number CR170RL-202, is selected from the CR Magnetics current transformer catalog to convert the full-load current down to 5 Amps for input to the transducer. The voltage legs are connected directly to the transducer.

Outline Drawing