CTC AppNotes

A series of technical documents written by members of the CTC community

Negative voltage sensor for 3 wire applications.

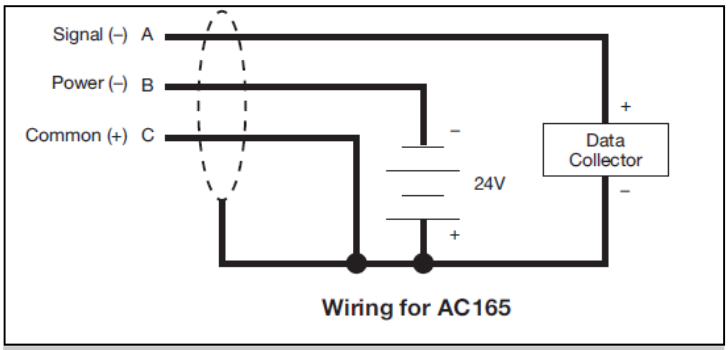
Many power generation companies have standardized on monitoring systems that use negative voltage to power their monitoring systems. Generally, these systems work on a three wire model. CTC has developed a sensor specifically for use with these monitoring systems.

AC165-1A Sensor

The sensor design is based on one of our best performing sensor designs, with high internal RFI resistance and a 80 g dynamic range.

Three wire system

The three wire negative voltage configuration allows the sensor to operate using lower power overall. With a nominal bias voltage of -8.5V, the AC165-1A uses about 25% less power than CTC's standard IEPE sensors.



Typical circuit for AC165, note the separate signal and power conductors with a shared common.

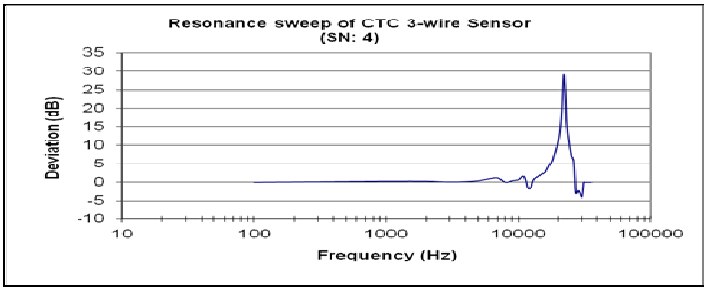
Rack mount monitoring systems

The AC165-1A is primarily designed for permanent installation with the sensors wired to many commercially installed rack mount systems from many manufacturers.

Typical Rack mount input/output cards that can accept AC165 signal/power configurations.

Performance

The resonance sweep shows consistent, straight –line performance from 10Hz to 10kHz.



AC165-1A accelerometers can be ordered from our website, www.ctconline.com or from your local CTC distributor.

If you have any questions or for further information please contact CTC directly via Email at dgripe@ctconline.com or jsmith@ctconline.com or feel free to call 1-800-999-5290 in the US and Canada or +1-585-924-5900 internationally.

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If any CTC vibration analysis hardware product should ever fail, we will repair or replace it at no charge.