

Installation instructions for CSN Series Closed loop linear current sensors

WARNING

PERSONAL INJURY

- **DO NOT USE** these products as safety or emergency stop devices, or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

CAUTION

- **Electrical** – Do not exceed maximum supply voltage ratings. Do not reverse the supply voltage polarity. Ensure your power supply is sufficiently rated to provide current for the sensor operation plus the sensor output current.
- **Handling** – Sensors intended for PCB mounting should be handled with care to avoid damaging solder terminals.
- **Isolation** – Sensors that do not include an integral primary circuit (e.g. a busbar) have a rated insulation voltage that is relative only to the primary conductor aperture of the sensor. Sensors with an integral primary circuit have a rated insulation voltage that is relative only to that integral circuit.

Failure to comply with these instructions may result in product damage.

General description

The CSN Series of closed loop current sensors are based on the principles of the Magneto-resistive or Hall effects, and the null balance or zero magnetic flux method (feedback system). The magnetic flux in the sensor core is constantly controlled at zero. The amount of current required to balance zero flux is the measure of the primary current flowing through the conductor, multiplied by the ratio of the primary to secondary windings. This closed loop current is the output from the device and presents an image of the primary current reduced by the number of secondary turns at any time. This current can be expressed as a voltage by passing it through a resistor.

Interface details

Soldering – Sensors intended for PCB mounting are compatible with wave soldering methods. Select soldering parameters for your system to provide optimum solder conditions. Guidance available on request. The PCB requires rigid support during wave soldering.

Mechanical – Please refer to the 'M' (mounting) drawing and technical data sheet associated with the listing in question for appropriate details on non-soldered connections. Drawings and datasheets are available from our website, www.honeywell.com/sensing.

Mounting

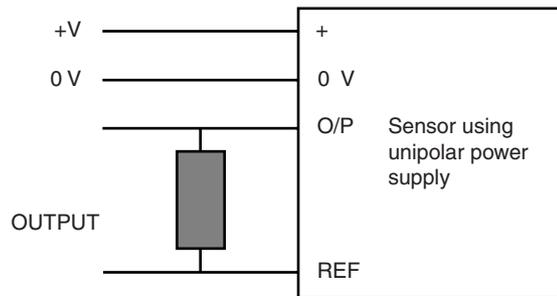
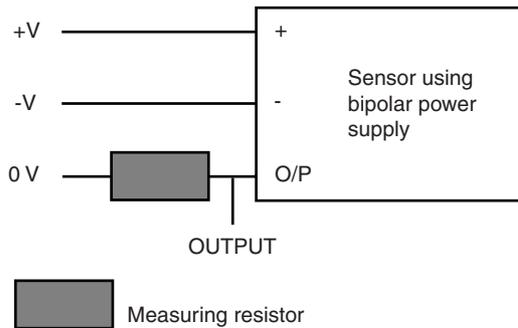
The CSN Series of closed loop current sensors has a wide variety of mounting styles available. Please refer to the 'M' (mounting) drawing associated with the listing in question for appropriate details on mounting arrangements and dimensions. Mounting drawings are available from our website, www.honeywell.com/sensing.

Cleaning

Proper cleaning fluids should be selected based on the type of contaminants to be removed. Honeywell recommends alcohols, chlorinated solvents and fluorinated solvents.

Electrical connections

CSN Series of closed loop current sensors are connected as follows, depending on whether a bipolar (+/-) or unipolar (+/0) power supply is required by the sensor:



Warranty/Remedy

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. **The foregoing is Buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.**

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

For application assistance, current specifications or name of the nearest Authorized Distributor, check the Honeywell web site or call:

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