

## GENERAL INFORMATION

The CS Series of current detectors have a single digital (TTL logic level, open collector) output that will sink 20 mA of output current. This is an open collector output. Normal mounting is with two screws inserted through the mounting holes in the housing. Three 0.20 inch long printed circuit board mounting pins are optional. As is a version adapted for AMP part \#102241-1. These sensors will not be damaged by overcurrent in the sensed conductor.

## SOLDERING INSTRUCTIONS

Hand Soldering - Use 60/40 rosin core solder, employing a $399^{\circ} \mathrm{C}\left(750^{\circ} \mathrm{F}\right)$ controlled temperature, $1 / 8^{\prime \prime}$ chisel tip soldering iron. To avoid delamination of the terminals from the ceramic, do not hold the iron on the terminals for more than four seconds. The temperature of the lead at the ceramic conductor interface must not exceed $250^{\circ} \mathrm{C}\left(482^{\circ} \mathrm{F}\right)$.

Wave Soldering - Use Loncoflux 106A35 or equivalent. Preheaters should be set for $95^{\circ} \mathrm{C}\left(200^{\circ} \mathrm{F}\right)$ on top (component side) of printed circuit board just prior to board entering wave. (This may have to be adjusted depending upon board thickness.) Solder temperature should be a maximum of $260^{\circ} \mathrm{C}\left(500^{\circ} \mathrm{F}\right)$, preferably $252^{\circ} \mathrm{C}$ to $260^{\circ} \mathrm{C}\left(485^{\circ} \mathrm{F}\right.$ to $\left.500^{\circ} \mathrm{F}\right)$. Set conveyor speed to approximately 4.5 feet per minute ( 1,37 meter $/ \mathrm{min}$.). Select a speed which gives full solder fillets and minimum of bridging and icicles. The printed circuit board requires rigid support during wave soldering.

## CLEANING

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

## WARNING

Electrical - Do not exceed maximum supply ratings. Do not reverse supply voltage polarity.

Handling - The terminals are fragile. Handle with care.

Dielectric Isolation - The sensor is not rated for dielectric isolation. Therefore, the user must provide the necessary dieisolation between the sensed conductor and sensor housing.

## OPERATING CHARACTERISTICS

| Catalog Listing | Mtg. <br> Dim. <br> Fig. | Pinout Style | Operate Current <br> @ $25^{\circ} \mathrm{C}$ <br> (Amp-Turns) |  |  | Operate Current $-25^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ (Amp-Turns) | Release Current $-25^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ (Amp-Turns Min.) | SUPPLY <br> Volt. <br> (Volts DC) | Output Volt. (Volts) | Output Current (mA) Sinking | Response Time |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Min. Nom. Max. |  |  |  |  |  |  |  |  |  |  |  |
| CSDA1BA | 1 | 2 | 0.32 | 0.50 | 0.88 | $0.50+0.5 /-0.25$ | 0.08 | 6 to 16 | 0.4 | 20 mA | 100 |
| CSDA1BC | 1 | 2 | 2.2 | 3.5 | 6.5 | $3.5+4.0 /-1.8$ | 0.60 | 6 to 16 | 0.4 | 20 mA | 100 |
| CSDB1CC | 2 | -- | 2.2 | 3.5 | 6.5 | $3.5+4.0 /-1.8$ | 0.60 | 8 to 16 | 0.4 | 100 mA | 100 |
| CSDC1BA | 1 | 2 | 0.32 | 0.50 | 0.88 | $0.50+0.5 /-0.25$ | 0.08 | $5 \pm 0.2$ | 0.4 | 20 mA | 100 |
| CSDC1BC | 1 | 2 | 2.2 | 3.5 | 6.5 | $3.5 \pm 4.0 /-1.8$ | 0.60 | $5 \pm 0.2$ | 0.4 | 20 mA | 100 |
| CSDA1AA | 1 | 1 | 0.32 | 0.50 | 0.88 | $0.50+0.5 /-0.25$ | 0.08 | 6 to 16 | 0.4 | 20 mA | 100 |
| CSDA1AC | 1 | 1 | 2.2 | 3.5 | 6.5 | $3.5+4.0 /-1.8$ | 0.60 | 6 to 16 | 0.4 | 20 mA | 100 |
| CSDC1AA | 1 | 1 | 0.32 | 0.50 | 0.88 | $0.50+0.5 /-0.25$ | 0.08 | $5 \pm 0.2$ | 0.4 | 20 mA | 100 |
| CSDC1AC | 1 | 1 | 2.2 | 3.5 | 6.5 | $3.5+4.0 /-1.8$ | 0.60 | $5 \pm 0.2$ | 0.4 | 20 mA | 100 |
| CSDC1DA | 1 | 3 | 0.32 | 0.50 | 0.88 | $0.50+0.5 /-0.25$ | 0.08 | $5 \pm 0.2$ | 0.4 | 20 mA | 100 |
| CSDA1DA | 1 | 3 | 0.32 | 0.50 | 0.88 | $0.50+0.5 /-0.25$ | 0.08 | 6 to 16 | 0.4 | 20 mA | 100 |
| CSDC1DC | 1 | 3 | 2.2 | 3.5 | 6.5 | $3.5+4.0 /-1.8$ | 0.60 | $5 \pm 0.2$ | 0.4 | 20 mA | 100 |
| CSDA1DC | 1 | 3 | 2.2 | 3.5 | 6.5 | $3.5+4.0 /-1.8$ | 0.60 | 6 to 16 | 0.4 | 20 mA | 100 |

Figure 1


StyLe 2

style 3

STYLE $3 \xlongequal{\circ}$ STYLE $1 \& 2$


Figure 2


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## WARRANTY/REMEDY

Seller warrants its products to be free from defects in design, material and workmanship under normal use and service. Seller will repair or replace without charge any such product it finds to be so defective on its return to Seller within 18 months after date of shipment by Seller. The foregoing is in lieu of all other expressed or implied warranties (except of title), including those of merchantability and fitness for a particular purpose. The foregoing is also purchaser's sole remedy and is in lieu of all other guarantees, obligations, or liabilities or any consequential, incidental, or punitive damages attributable to negligence or strict liability, all by way of example.

## SALES AND SERVICE

Honeywell serves its customers through a worldwide network of sales offices and distributors. For application assistance, pricing or name of nearest Authorized Distributor, contact a nearby Honeywell sales office. Or, contact:

Honeywell Sensing \& Control 11 W. Spring St.
Freeport, Illinois 61032
Tel. 815/235-6600
While we provide application assistance on MICRO SWITCH products, personally and through our literature, it is up to the customer to determine the suitability of the product in the application.

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[^0]:    NOTE: Pinout reversed for AMP connector

