

# Installation Instructions for CS Series Digital Current Detectors

PK 87893



## GENERAL INFORMATION

The CS Series of current detectors have a single digital (TTL logic level, open collector) output that will sink 20mA 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°C (750°F) controlled temperature, 1/8" 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°C (482°F).

**Wave Soldering** - Use Loncoflux 106A35 or equivalent. Preheaters should be set for 95°C (200°F) 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°C (500°F), preferably 252°C to 260°C (485°F to 500°F). Set conveyor speed to approximately 4.5 feet per minute (1.37 meter/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 fluorinated solvents.

### WARNING

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

**Handling** - The terminals are fragile. Handle with care.

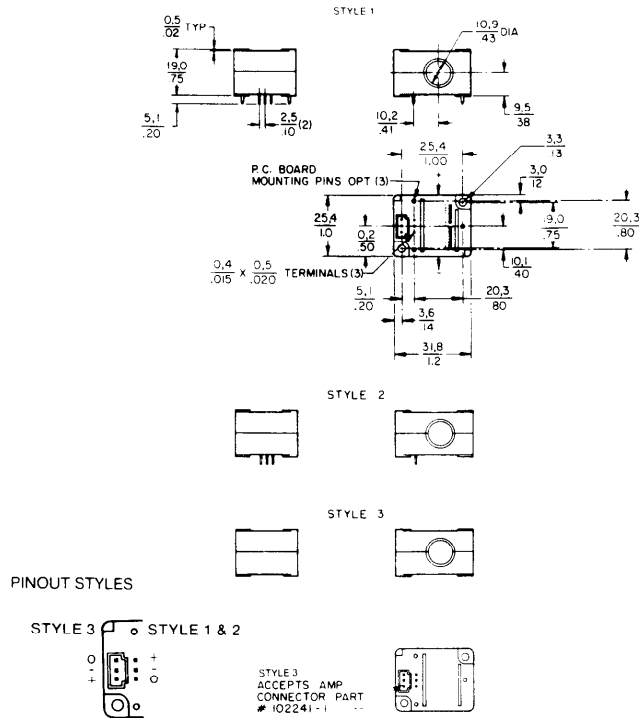
**Dielectric Isolation** - The sensor is not rated for dielectric isolation. Therefore, the user must provide the necessary dieisolation between the sensed conductor and sensor housing.

## OPERATING CHARACTERISTICS

Catalog Listing	Mtg. Dim. Fig.	Pinout Style	Operate Current @ 25°C (Amp-Turns)			Operate Current -25°C to +85°C (Amp-Turns)	Release Current -25°C to +85°C (Amp-Turns Min.)	SUPPLY Volt. (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	20mA	100
CSDA1BC	1	2	2.2	3.5	6.5	3.5+4.0/-1.8	0.60	6 to 16	0.4	20mA	100
CSDB1CC	2	--	2.2	3.5	6.5	3.5+4.0/-1.8	0.60	8 to 16	0.4	100mA	100
CSDC1BA	1	2	0.32	0.50	0.88	0.50+0.5/-0.25	0.08	5 ± 0.2	0.4	20mA	100
CSDC1BC	1	2	2.2	3.5	6.5	3.5 ± 4.0/-1.8	0.60	5 ± 0.2	0.4	20mA	100
CSDA1AA	1	1	0.32	0.50	0.88	0.50 + 0.5/-0.25	0.08	6 to 16	0.4	20mA	100
CSDA1AC	1	1	2.2	3.5	6.5	3.5 + 4.0/-1.8	0.60	6 to 16	0.4	20mA	100
CSDC1AA	1	1	0.32	0.50	0.88	0.50 + 0.5/-0.25	0.08	5 ± 0.2	0.4	20mA	100
CSDC1AC	1	1	2.2	3.5	6.5	3.5 + 4.0/-1.8	0.60	5 ± 0.2	0.4	20mA	100
CSDC1DA	1	3	0.32	0.50	0.88	0.50 + 0.5/-0.25	0.08	5 ± 0.2	0.4	20mA	100
CSDA1DA	1	3	0.32	0.50	0.88	0.50+0.5/-0.25	0.08	6 to 16	0.4	20mA	100
CSDC1DC	1	3	2.2	3.5	6.5	3.5+4.0/-1.8	0.60	5 ± 0.2	0.4	20mA	100
CSDA1DC	1	3	2.2	3.5	6.5	3.5 + 4.0/-1.8	0.60	6 to 16	0.4	20mA	100

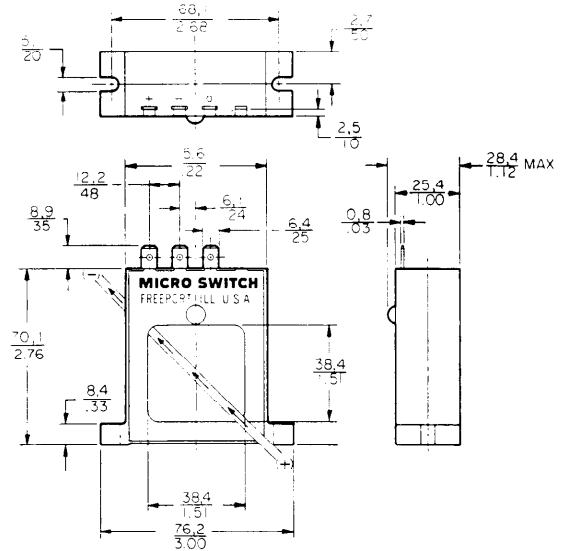
## MOUNTING DIMENSIONS (For reference only)

Figure 1



NOTE: Pinout reversed for AMP connector

Figure 2



### 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.

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