

# Solid State Sensors

## Closed Loop Current Sensors

CSN Series

### CSNA, CSNB, CSNE SERIES ORDER GUIDE

Catalog Listing	Current Range Amps	Supply Voltage VDC $\pm 5\%$	Coil Characteristics		Meas. Currents Nom.	Meas. Resist (@ $I_{nom}$ )
			Turns	Resistance		
CSNA111	$\pm 70$	$\pm 15$	1000	90 $\Omega$ @ 70°C	50 mA for 50 A	40 to 130 $\Omega$
CSNB121	$\pm 100$	$\pm 15$	2000	160 $\Omega$ @ 70°C	25 mA for 50 A	40 to 270 $\Omega$
CSNB131	$\pm 100$	$\pm 15$	2000	130 $\Omega$ @ 70°C	25 mA for 50 A	40 to 300 $\Omega$
CSNE151	$\pm 5-36$	$\pm 15$	1000	110 $\Omega$ @ 70°C	25 mA for 25 A	100 to 320 $\Omega$
CSNE381*	$\pm 5-36$	$\pm 5V$	1000	66 $\Omega$ @ 70°C	25 mA for 25 A	0 to 84 $\Omega$
CSNH151*	$\pm 4-43$	$\pm 15V$	1000	110 $\Omega$ @ 70°C	25 mA for 25 A	100 to 320 $\Omega$

NOTE: Extended temperature range and potting also available.

\* Contact the 800 number for more information.

### SPECIFICATIONS

Catalog Listing	CSNA111	CSNB121	CSNB131	CSNE151
Offset Current @ 25°C, mA max.	$\pm 0.20$	$\pm 0.10$	$\pm 0.10$	$\pm 0.10$
Temperature Drift, 0 to 70°C, mA	$\pm 0.35$ typ. $\pm 0.60$ max.	$\pm 0.20$ typ. $\pm 0.30$ max.	$\pm 0.20$ typ. $\pm 0.30$ max.	$\pm 0.17$ typ. $\pm 0.60$ max.
Linearity	0.1%	0.1%	0.1%	0.2%
Supply Voltage	$\pm 15V$	$\pm 15V$	$\pm 15V$	$\pm 15V$
Galvanic Isolation @ 50 Hz/1 min.	2.5 kV rms			5 kV rms
Accuracy	$\pm 0.5\%$ of $I_N$ (nominal Current) at 25°C			
Response Time	$< 1 \mu s$			
Bandwidth	DC to 150 kHz			
Temperature	Operating: 0 to 70°C (32 to 150°F)		Storage: -25 to 85°C (-13 to 185°F)	
Primary Circuit Connection	Thru-hole	Thru-hole	Thru-hole	Invasive on 10 pins
Secondary Circuit Connection	3 Pins	3 Pins	3 Pins	3 Pins
Current Drain	10 mA (no load current) + output current (secondary current)			
"In-Out" Sense Signal	To obtain positive measuring current on O/P terminal, current must flow in direction of arrow			
Mounting	PCB, 3 pins, hole size 0.95 mm			PCB, 13 pins

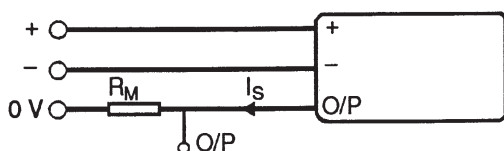
### PRIMARY PIN CONNECTIONS FOR CSNE151

Primary Turns	Primary Current		Output Current (mA)	Primary Resistance (m $\Omega$ )	Primary Pin Connections
	Nom. $I_{DN}$ (A)	Max. $I_D$ (A)			
1	24	36	25	0.3	
2	12	18	24	1.1	
3	8	12	24	2.5	
4	6	9	24	4.4	
5	5	7	25	6.3	

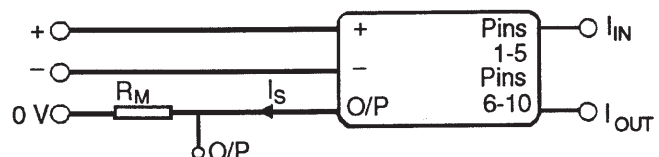
Current

### WIRING DIAGRAMS

#### CSNA111/CSNB121/CSNB131



#### CSNE151



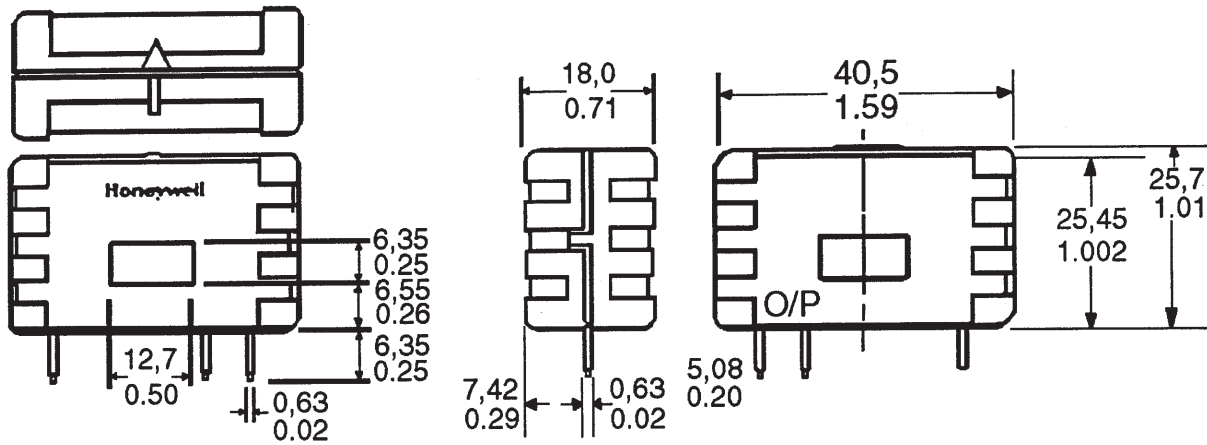
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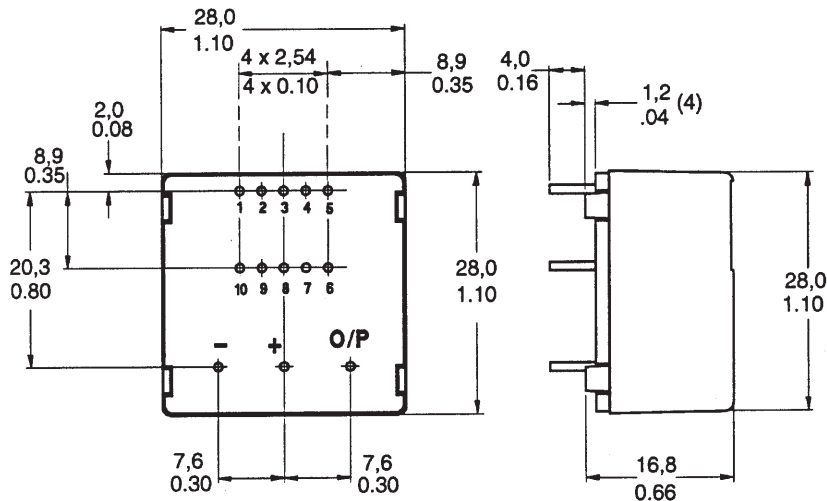
CSN Series

MOUNTING DIMENSIONS (for reference only)

CSNA111, CSNB121, CSNB131



CSNE151/CSNE381



CSNH151

