

SWITCHES & SENSORS

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SENSORS – CURRENT

CSN SERIES HALL-EFFECT
NULL-BALANCE LINEAR
CURRENT SENSORS
Honeywell
Sensing and Control


CSNA111



CSNE151

CSN series solid-state sensors measure AC, DC, and impulse currents. Operation based on the Hall-effect principle and the null-balance or zero magnetic flux method (feedback system). The magnetic field on the sensor is constantly controlled at zero. The amount of current required to balance zero flux is the measure of primary current flowing through conductor multiplied by the ratio of the primary to secondary windings. $\pm 0.5\%$ accuracy. Response time: 1 μ sec. NOTE: Thru-hole design does not require electrical connection to the sensed current. Max. sensed current is only limited by the conductor size. Sensors with up to 1200A of sensed current also available; go online or call.

Mfg. Part No.	Supply Voltage	Sensed Current	Nominal Output	Stock No.	Price Each			
					1-9	10-49	50-99	100-199
● CSNA111	± 15 VDC	± 70 A	50mA	10M8411	28.86	26.49	24.26	22.84
● CSNE151	± 15 VDC	$\pm 5-36$ A	25mA	10M8412	27.75	21.92	20.52	19.40

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RS/RSS OPEN LOOP CURRENT SENSOR

RS/RSS-A series open-loop hall effect current sensor accurately measures AC and DC currents and provides electrical isolation between the circuit being measured and the output of the sensor. The RS-A series operates from dual DC supply voltages of ± 15 V to ± 18 V. The RSS-A series operates from a single DC supply voltage of 12V to 18V, with a zero current output of 6VDC. All models are in the same standard package and have the versatility to be panel or bulk-head mounted.



Mfg. Part No.	Nominal Current (A)	Output (mV/A)	Stock No.	Price Each	
				1-4	5+
RS-100A	100	40	87H5552	80.53	73.06
RS-200-A	200	20	45J2871	58.17	52.77
RS-500-A	500	8	89J1820	62.12	56.36
RSS-200-A	200	8	89J1822	54.21	49.18
RSS-300A	300	5.33	86H3829	55.51	50.36
RSS-500-A	500	3.2	89J1824	58.17	52.77

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AC AND DC CURRENT SENSORS AND SWITCHES

Mfg. part nos. 155125 thru 155128 sensors provide 4-20mA output proportionate to AC current. SCC series provide either a 4-20mA or a 0-20mA unipolar output proportional to AC or DC current. SCV series provides either a 0-5V or 0-10V unipolar output proportional to AC or DC current. CS/CSS series detects AC current from 1A to 150A and provides a switched output when the current exceeds the adjustable switch point. Adjustment is made via multi-turn trim pot. Mfg. part nos. 115127, 115128, as well as CSS, SCC, and SCV series clamp around existing wiring for easy installation. Mfg. part nos. 115125 thru 155128 and CS/CSS series feature simple 2-wire connection and interface to PLCs. SCC and SCV series require 24VAC/VDC operating voltage. All models are panel-mounted, feature jumper range selection, UL listed. Higher current units are available. Go online or call.



Mfg. Part No.	Range AC (A)	Output	Aper-ture	Stock No.	Price Each
155125	10-20-50	4-20mA	0.73"	92F4429	171.14
155126	100-150-200	4-20mA	0.73"	92F4430	188.05
155127	10-20-50	4-20mA	0.85"	92F4431	210.63
155128	100-150-200	4-20mA	0.85"	92F4432	236.94
CS-150	1-150	Switch	0.73"	01F816	125.05
CSS-150	1.5-150	Switch	0.85"	01F817	144.81
SCV-100H	50-75-100*	0-10V	0.85"	48F4358	296.19

*AC(A) or DC(A)
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1832

IHA SERIES HIGH
FREQUENCY
CURRENT SENSORS

Response <1 μ s. Frequency range DC to 50kHz. Linearity $\pm 1\%$. Operating voltage ± 12 VDC to ± 15 VDC. Temperature range 0°C to +75°C. Case design allows for either panel or PCB mounting by use of appropriate connector; go online or call. Mounting tabs accept No.6 screws for placement on PCB or panel. Ideal for use in solid-state circuits.



Mfg. Part No.	Current Range	Full Scale Output	Aperture	Stock No.	Price Each
IHA-25	± 25 A	± 1 V	0.38"	92F4411	147.96
155970	± 100 A	± 5 V	0.38"	92F4412	147.96

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CLOSED LOOP
CURRENT SENSORS

CLN-25



CLN-50



Closed loop sensors null out the flux produced by the current through the aperture. Output is a current that is proportionate to the aperture current divided by the number of turns on the coil. Mfg. part nos. CLN-25/50/100 mount directly on PCB. Mfg. part nos. CLN-200/1000 mounts on the panel. Response time less than 1 μ s. Linearity 0.2%. Frequency range: DC to 100kHz min.

Mfg. Part No.	Nom. Current (A _{max})	Output (mA/A)	Operating Voltage ($\pm$ VDC)	Aperture	Stock No.	Price Each
CLN-25*	25	1	15	PCB	83F2354	29.98
CLN-50	50	1	15	0.39 x 0.53"	83F2355	37.18
CLN-100	100	1	15	0.39 x 0.53"	83F2357	58.75
CLSM-25M	25	1	18	PCB	64J9088	26.21
CLSM-50LA	50	1	18	0.402" x 0.795"	84J2272	35.57
CLSM-100S	100	0.5	18	0.276" x 0.630"	84J2267	29.50
CLSM-200LA	200	0.5	18	0.402" x 0.795"	84J2268	44.94
CLSM-1000	1000	0.2	18	1.58" dia.	22J0781	219.07

*CL-25 offers choice of ranges via connection to pins on sensor: 5, 6, 8, 12 or 25 Arms.
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NT SERIES AND MS-15 CURRENT SENSORS



NT-5



NT-15



NT-25



NT-50



MS-15

NT series thin footprint current sensors mount directly to PC Board. All electrical connections are via thru-hole pins. Small size (less than 0.25" wide) allows placement in applications with limited board space. Measure AC and DC currents. Frequency Response DC to 50kHz. Linearity $\pm 1\%$. Response time <2 μ s. Sensors operate from +0°C to +70°C. Ideal replacement for shunts where electrical isolation is required.

Mfg. Part No.	Nom. Current (Arms)	Full Scale Output	Voltage (VDC)	Stock No.	Price Each	
NT-5	5	2.5V	± 15	16F6749	32.69	30.06
NT-15	15	2.5V	± 15	16F6750	34.53	31.25
NT-25	25	2.5V	± 15	16F6751	35.93	32.51
NT-50	50	2.5V	± 15	16F6752	37.77	34.17

MS-15 CURRENT SENSOR

The miniature MS sensor measures DC and AC currents and provides electrical isolation between the circuit being measured and the output. The unipolar power source, small size and low cost make it the most cost effective solution for Hall effect current sensing in the industry. Supply voltage is +5VDC.

Mfg. Part No.	Measurement Range	Output	Stock No.	Price Each	
MS-15	(± 15 A)	0.08 - 0.15 V/A	49H8118	11.45	10.50

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Go online or call for non-compliant or RoHS compliant products. See page 2

