



CSNB121



Actual product appearance may vary.

CSN Series closed loop current sensor, measures ac, dc or impulse current, 50 A nominal, ± 100 amp range, 2000 turn

Features

- Current sensing up to 1275 amps (depending on product listing)
- Measures ac, dc and impulse currents
- Competitive cost/performance ratio
- Rapid response
- High overload capability
- High level of electrical isolation between primary and secondary circuits
- Industrial operating temperature range
- Small size and weight

Potential Applications

- Variable speed drives
- Overcurrent protection
- Ground fault detectors
- Current feedback control systems
- Robotics
- UPS and telecommunication power supplies
- Welding power supplies
- Automotive - Battery management systems
- Wattmeters

Description

The CSN Series of closed loop current sensors are based on the principles of the Magnetoresistive 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.

Product Specifications	
Product Type	Closed Loop Linear
Sensed Current Type	ac or dc
Sensed Current Range	± 100 A
Package Style	Thru Hole PCB Mount
Output Type	Current
Maximum Continuous Current	± 100 A
Nominal Operate Current @ 25 °C	50 A RMS
Supply Current	± 10 mA + output
Supply Voltage	± 15.0 Vdc
Offset Current	$< \pm 0.1$ mA


Offset Current Drift	< ± 0.3 mA
Coil Resistance @ 25 °C	160 Ohm
Response Time	< 1 μ s
Coil Turns	2000
Output Nominal	25 mA
Operating Temperature Range	0 °C to 70 °C [32 °F to 158 °F]
Storage Temperature Range	-40 °C to 90 °C [-40 °F to 194 °F]
Minimum Measuring Resistance	0 Ohm
Maximum Measuring Resistance	290 Ohm
Housing Material	Polycarbonate/ABS blend (UL94-V0)
Mounting	PCB on 3 pins
Pinout Style	Offset
Accuracy	± 0.5 %
Availability	Global
Comment	2000 turn coil version of CSNA111.
UNSPSC Code	411121
UNSPSC Commodity	411121 Transducers
Series Name	CSN

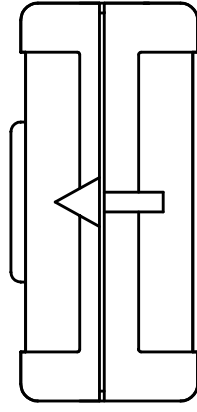
DO NOT SCALE PRINT

CATALOGUE LISTING
CSN SERIES CHART I
MTG-CSN-01

THIS DRAWING IS FOR REFERENCE ONLY.

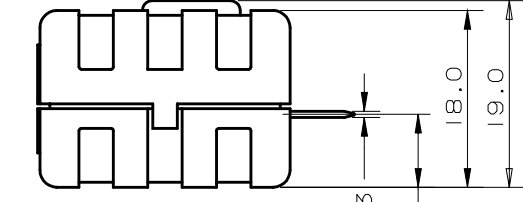
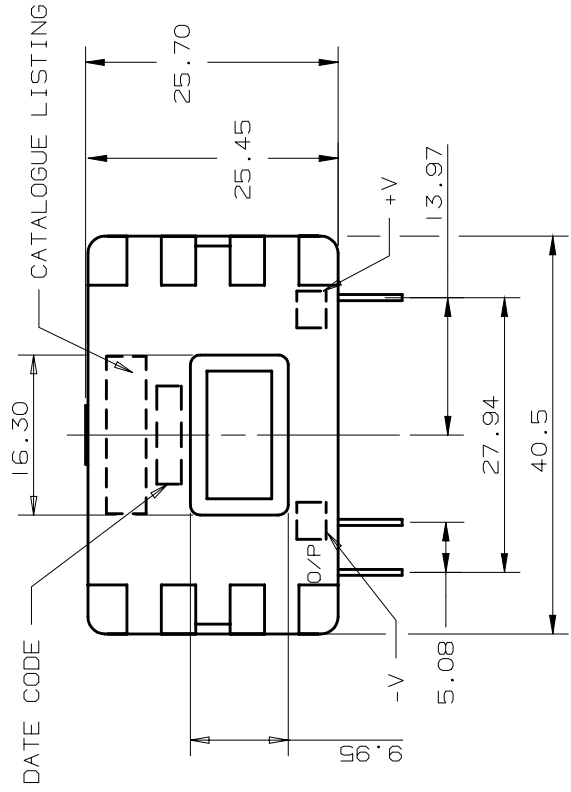
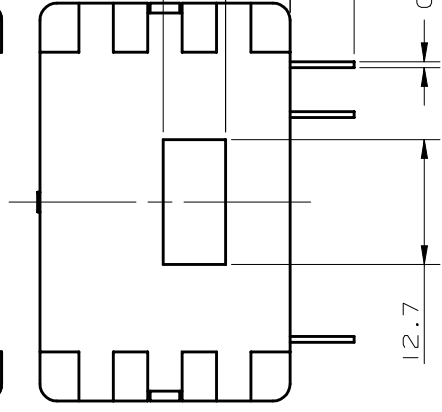
CAT. LISTING	ISSUE NO.	OPERATING TEMPERATURE	SUPPLY	HOUSING MATERIAL	SENSING RANGE		OUTPUT NOMINAL	MAXIMUM COIL RESISTANCE AT 70°C	NUMBER OF TURNS
					NOMINAL	MAXIMUM			
CSNA111	2	0°C TO +70°C	+15V -15V	POLYCARBONATE/ABS BLEND	50A	70A	+ 50mA	90 Ohms	1000±1
CSNC241	1	-25°C TO +85°C	+13V -13V	POLYCARBONATE/ABS BLEND	50A	90A	+ 50mA	50 Ohms	1000±1
CSNB131	1	0°C TO +70°C	+15V -15V	POLYCARBONATE/ABS BLEND	50A	100A	+ 25mA	130 Ohms	2000±1
CSNB121	1	0°C TO +70°C	+15V -15V	POLYCARBONATE/ABS BLEND	50A	100A	+ 25mA	160 Ohms	2000±1
CSND341	1	0°C TO +70°C	+5V -5V	POLYCARBONATE/ABS BLEND	15A	25A	+ 15mA	50 Ohms	1000±1
CSNA111-040	1	-40°C TO +85°C	+15V -15V	POLYCARBONATE/ABS BLEND	50A	70A	+ 50mA	90 Ohms	1000±1
CSNN191	1	0°C TO +70°C	+15V -15V	POLYCARBONATE/ABS BLEND	10A	15A	+ 50mA	20 Ohms	200±1
CSNA111-009	1	0°C TO +70°C	+15V -15V	POLYCARBONATE/ABS BLEND	50A	70A	+ 50mA	90 Ohms	1000±1

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 DRAWING NUMBER
 2
 ISSUE 1



NOTES :-

1. MOUNTING HOLES 0.95 DIA.
2. INK COLOUR GREY.



DRAWN I WEIR 5/89
 CHECK
 DESIGN
 AUTHOR N

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THIRD ANGLE PROJECTION

 SCALE :- 2/1

DIMENSIONS ARE IN MILLIMETRES

MODIFY ON CAD3D SYSTEM ONLY