Honeywell

Honeywell Sensing and Control

CSNP661

Actual product appearance may vary.

CSN Series closed loop current sensor, measures ac, dc or impulse current, 50 A nominal, ± 90 amp range, offset pin, 1000 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	±90 A
Package Style	Thru Hole PCB Mount
Output Type	Current
Maximum Continuous Current	±90 A
Nominal Operate Current @ 25 °C	50 A RMS
Supply Current	±10 mA + output

Supply Voltage	±12.0 Vdc to ±15.0 Vdc
Offset Current	< ±0.2 mA
Offset Current Drift	< ±0.5 mA
Coil Resistance @ 25 °C	30 Ohm
Response Time	< 0.5 µs
Coil Turns	1000
Output Nominal	50 mA
Operating Temperature Range	-40 °C to 85 °C [-40 °F to 185 °F]
Storage Temperature Range	-40 °C to 90 °C [-40 °F to 194 °F]
Minimum Measuring Resistance	70 Ohm
Maximum Measuring Resistance	195 Ohm
Housing Material	Glass-filled PBT (UL94-V0)
Mounting	PCB on 3 pins
Pinout Style	Offset
Accuracy	±0.5 %
Availability	Global
Comment	Larger thru hole.
UNSPSC Code	411121
UNSPSC Commodity	411121 Transducers
Series Name	CSN

DO NOT SCALE PRINT

Honeywell

50/100A NULL BALANCE CURRENT SENSOR

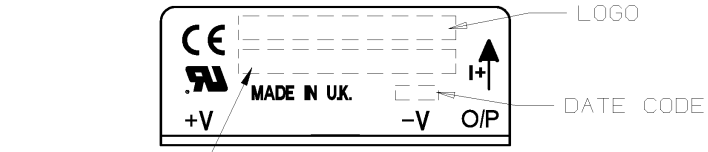
CATALOGUE LISTING

CSN SERIES

MTG-CSN-218

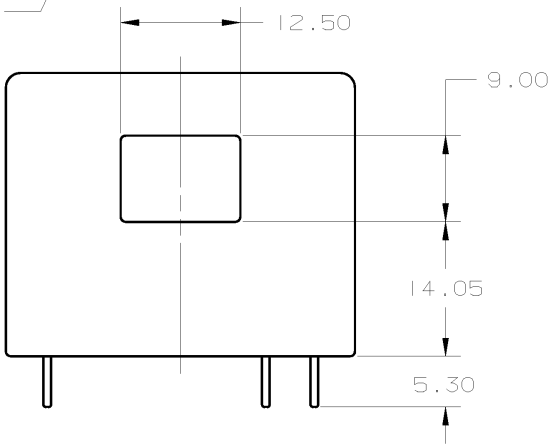
THIS DRAWING IS FOR REFERENCE ONLY.

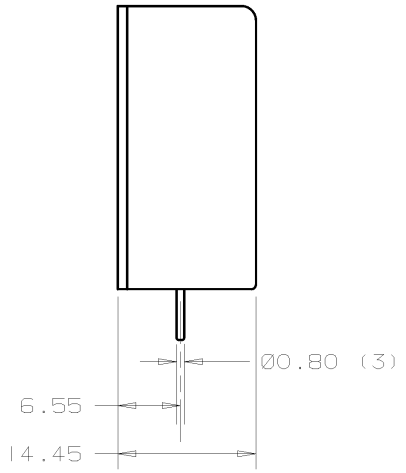
CAT. LISTING	ISSUE NO.	OPERATING TEMPERATURE	SUPPLY RANGE		HOUSING MATERIAL	SENSING RANGE		OUTPUT NOMINAL	MAXIMUM COIL RESISTANCE AT 70°C	NUMBER OF TURNS
						NOMINAL	MAXIMUM			
CSNP661	3	-40°C TO +85°C	±12V	±15V	GLASS FILLED P.B.T.	50A	90A	± 50mA	30 Ohms	1000 ± 1
CSNP661-003	3	-40°C TO +85°C	±12V	±15V		50A	90A	± 50mA	30 Ohms	1000 ± 1
CSNP661-006	3	-40°C TO +85°C	±12V	±15V		50A	90A	± 50mA	30 Ohms	1000 ± 1
CSNT651	3	-40°C TO +85°C	±12V	±15V		50A	150A	± 25mA	100 Ohms	2000 ± 1
CSNG251	3	-40°C TO +85°C	+15V	-15V		100A	180A	± 50mA	100 Ohms	2000 ± 1
CSNF661	2	-40°C TO +85°C	±12V	±15V		100A	150A	± 100mA	30 Ohms	1000 ± 1
CSNF141	1	-25°C TO +85°C	±12V	±15V		100A	150A	± 100mA	50 Ohms	1000 ± 1
CSNT651-005	1	-40°C TO +85°C	±12V	±15V		50A	150A	± 25mA	100 Ohms	2000 ± 1
CSNR151-005	1	-40°C TO +85°C	±12V	±15V		125A	200A	± 62.5mA	100 Ohms	2000 ± 1
CSNR161-004	1	-40°C TO +85°C	±12V	±15V		125A	200A	± 125mA	30 Ohms	1000 ± 1
CSNF651	1	-40°C TO +85°C	±12V	±15V		100A	150A	± 50mA	100 Ohms	2000 ± 1

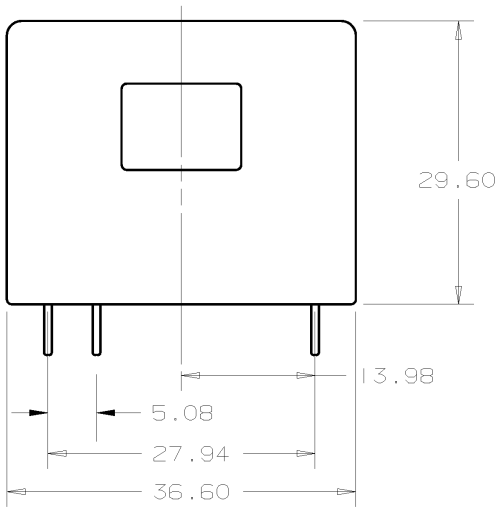


NOTES:-

1. MOUNTING HOLES 0.90 DIA.
2. INK COLOUR BLACK.







CSN SERIES
MTG-CSN-218

DRAWING NUMBER 5

ISSUE

DRAWN W.JOHNSTON 2/97
CHECK
DESIGN
AUTHOR'N

THIRD ANGLE PROJECTION

SCALE :- 2/1

DIMENSIONS ARE IN MILLIMETRES

MODIFY ON CAD3D SYSTEM ONLY