



CSLA2CD



Actual product appearance may vary.

CSLA Series linear current sensor, 72 A sensed current, sink or source output, through-hole, operates on AC or DC current, bottom mount

Features

- Linear output
- AC or DC current sensing
- Through-hole design
- Fast response time
- Output voltage isolation from input
- Minimum energy dissipation
- Maximum current limited only by conductor size
- Adjustable performance and built-in temperature compensation assures reliable operation
- Accurate, low cost sensing
- Operating temperature range -25 °C to 85 °C
- Housing: PBT polyester

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

Honeywell CSLA series linear current sensors incorporate our 91SS12-2 and SS94A1 linear output Hall effect transducer (LOHET™). The sensing element is assembled in a printed circuit board mountable housing. This housing is available in four configurations. Normal mounting is with 0.375 inch long 4-40 screw and square nut (not provided) inserted in the housing or a 6-20 self-tapping screw. The combination of the sensor, flux collector, and housing comprises the holder assembly. These sensors are ratiometric.

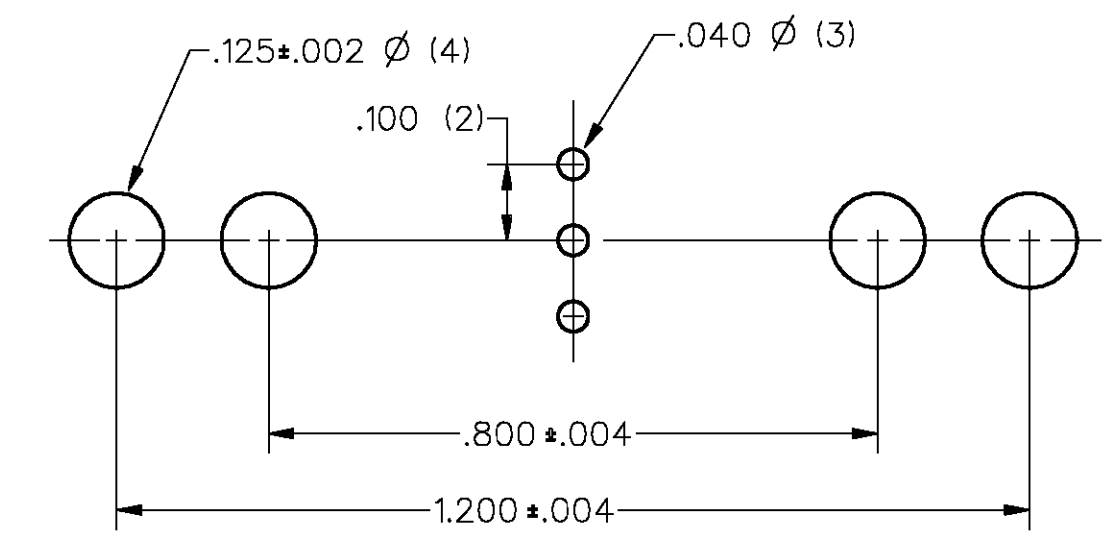
| Product Specifications | |
|------------------------|---------------------------------|
| Product Type | Inductive Analog Current Sensor |
| Sensed Current Type | ac or dc |
| Sensed Current Range | ± 72 A |
| Package Style | PCB Bottom Mount |
| Output Type | Voltage |
| Sensitivity | 32.7 mV N* ± 3.0 mV N* @ 8 Vdc |
| Supply Current | 20 mA max. |
| Offset Voltage | Vcc/2 ± 2 % |
| Supply Voltage | 6.0 Vdc to 12.0 Vdc |
| Offset Shift (%/ °C) | ± 0.02 |

| | |
|-----------------------------|------------------------------------|
| Response Time | 3 μ s |
| Operating Temperature Range | -25 °C to 85 °C [-13 °F to 185 °F] |
| Storage Temperature Range | -40 °C to 100°C [-40 °F to 212 °F] |
| Housing Material | PBT Polyester |
| Mounting | PCB on 3 pins |
| Pinout Style | 3 pin |
| Availability | Global |
| Comment | * N = Number of Turns |
| UNSPSC Code | 411121 |
| UNSPSC Commodity | 411121 Transducers |
| Series Name | CSLA |

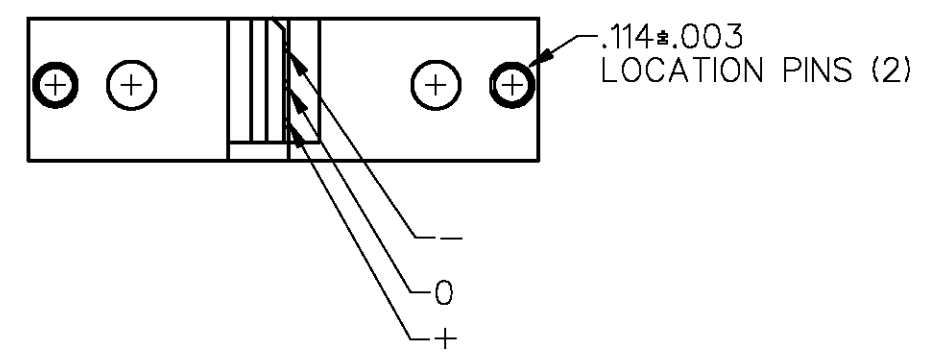
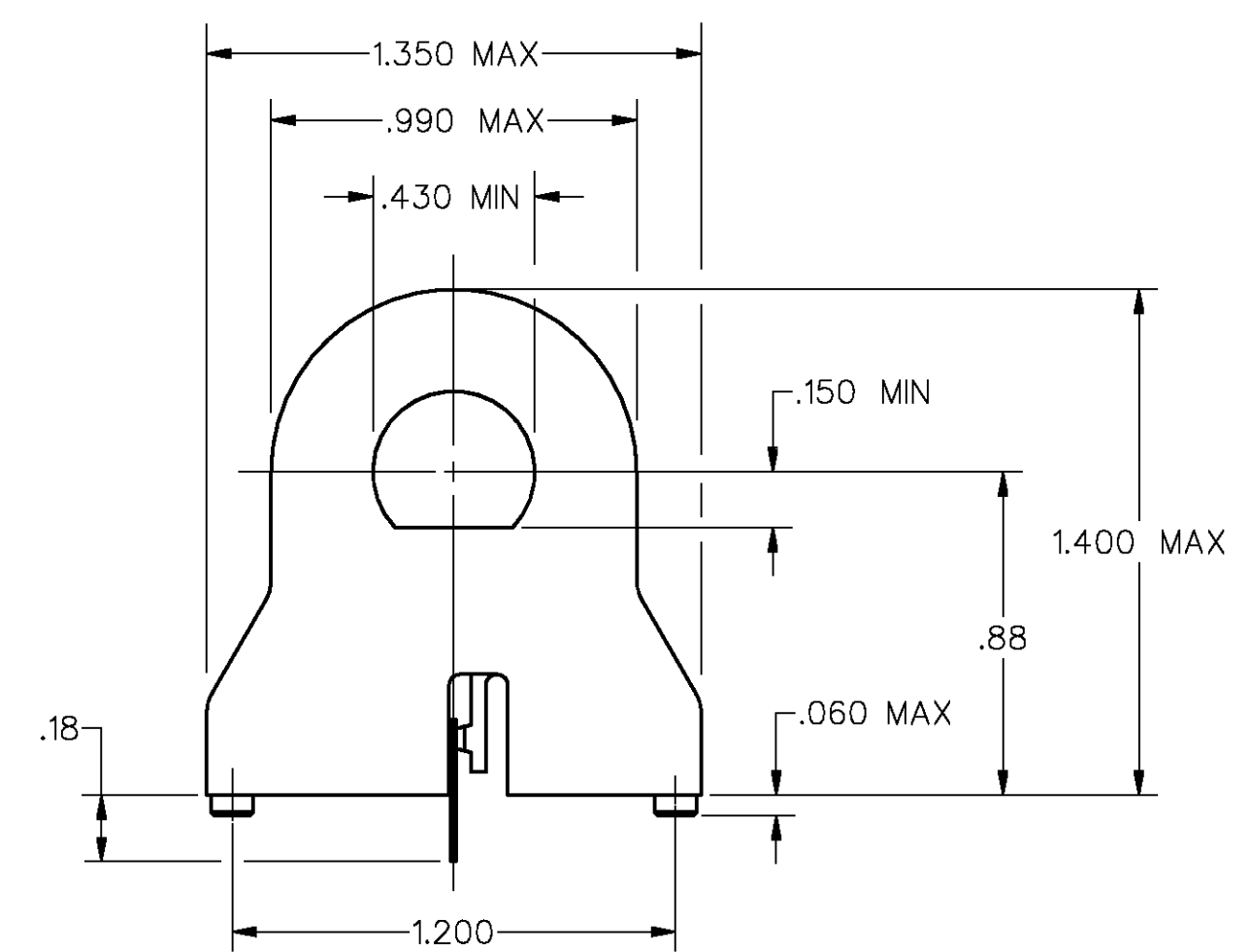
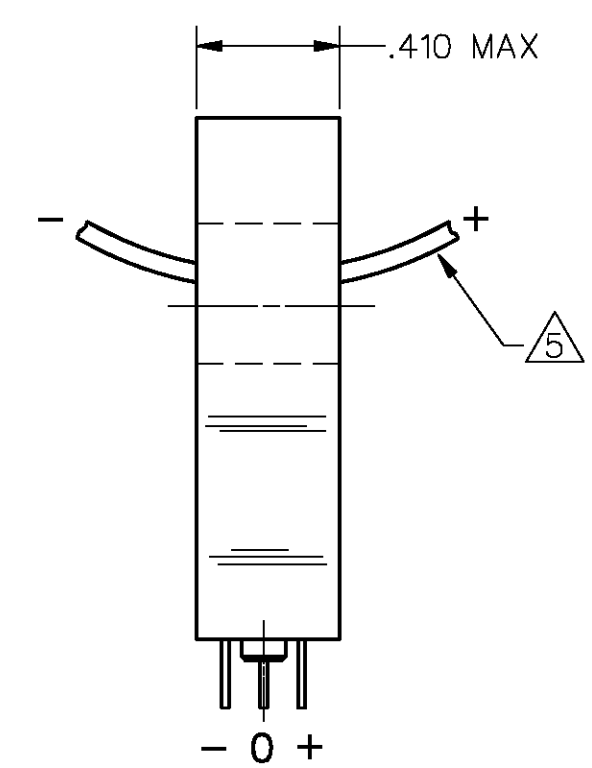
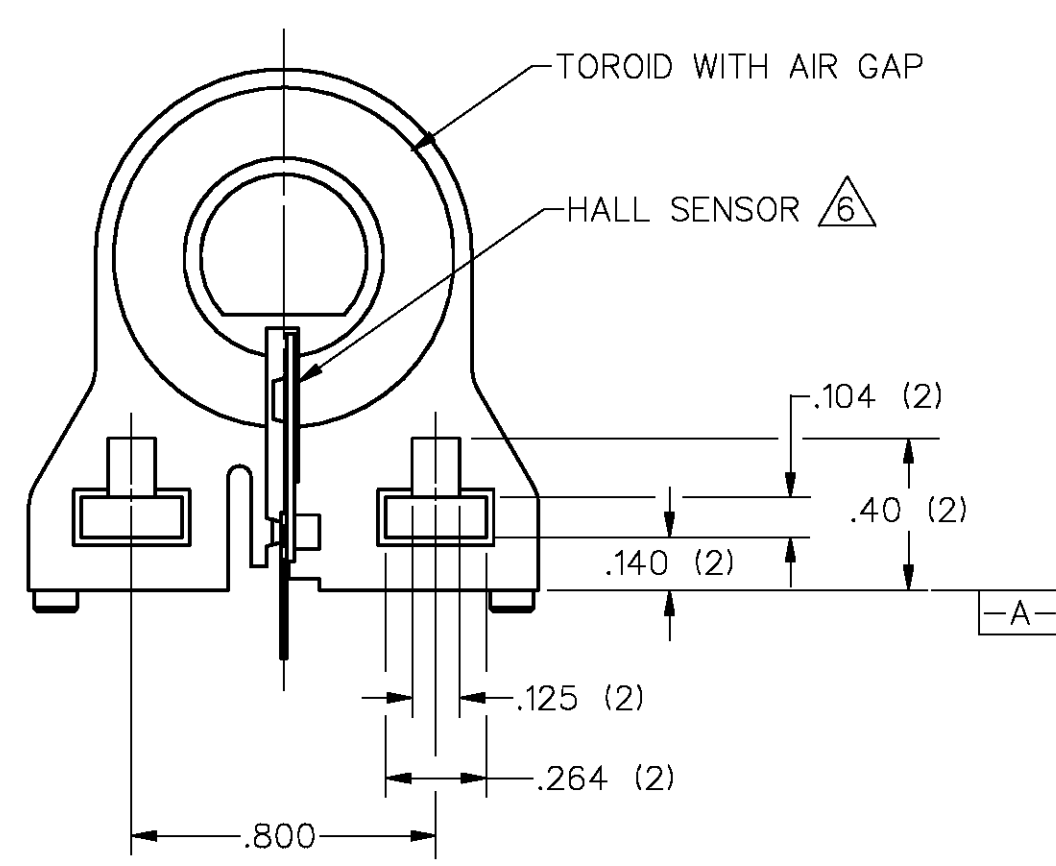
CHARACTERISTICS

| PARAMETER | MIN | TYP | MAX | UNITS | CONDITIONS/REMARKS |
|-----------------------------------|------------------------|-----|------------------------|-------|---|
| SUPPLY VOLTAGE | 5.4 | 8.0 | 13.2 | VOLTS | -25°C TO 85°C |
| SUPPLY CURRENT | | 13 | 20 | mA | MAX @ -25°C, TYP @ 25°C, V _s = 8.0V, EXCLUDES LOAD |
| OUTPUT CURRENT | 1 | | | mA | SINKING OR SOURCING |
| OUTPUT VOLTAGE SWING | (-V)+1.25 | | (+V)-1.25 | VOLTS | MAX CLAMPED @ 9.0 VOLTS MIN |
| SENSITIVITY | 29.7 | | 35.7 | mV/NI | @ V _s = 8.0 VOLTS & 25°C $\triangle 5$ |
| LINEARITY | | | | | DEV FROM STR LINE FROM -I MAX TO +I MAX $\triangle 1$ |
| V _{out} @ \emptyset NI | .5(V _s)-2% | | .5(V _s)+2% | VOLTS | 25°C |
| TEMP ERROR - NULL | -.02 | | +.02 | %/°C | -25°C TO 85°C |
| TEMP ERROR - GAIN | -.06 | | +.01 | 5%/°C | -25°C TO 85°C |

M CSLA2CD



SUGGESTED HOLE CENTERS
SCALE 4:1



- NOTES
- $\triangle 1$ SUGGESTED I MAX FOR LINEAR OPERATION IS 72 AMPS
 - 2 - RECOMMENDED MOUNTING IS 4-40 SQUARE NUT AND .375 LONG 4-40 SCREW
 - 3 - CONVENTIONAL CURRENT FLOW IN DIRECTION INDICATED WILL CAUSE AN INCREASE IN OUTPUT VOLTAGE
 - 4 - THE DEVICE CANNOT BE DAMAGED BY MAGNETIC OVERDRIVE
 - $\triangle 5$ AT V_s OTHER THAN 8.0 VOLTS, SENSITIVITY = (NUMBER SHOWN) X V_s/8
 - $\triangle 6$ BACKSIDE OF HALL SENSOR IS ELECTRICALLY CONNECTED TO THE "-" TERMINAL

DRAWING NUMBER: CSLA2CD
 ISSUE: 4
 PAGE 1 OF 1
 RELEASE NO. DR-3141-8 REPLACES X83397-CS
 REVISIONS:
 A CO 65790
 J A S 17 JUL 89
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 K D R 14 AUG 95
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 DLM 20 MAR 00
 FORMTEK DRAWN
 JAS 17 JUL 89 CHECK K A G 21 JUL 89
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CURRENT SENSOR

CATALOG LISTING
CSLA2CD

THIRD ANGLE PROJECTION

SCALE **2:1**

DO NOT SCALE PRINT

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE

| | | |
|--------------|--------|-------|
| ONE PLACE | (.0) | ±.030 |
| TWO PLACES | (.00) | ±.015 |
| THREE PLACES | (.000) | ±.005 |
| ANGLES | | ± |

WEIGHT