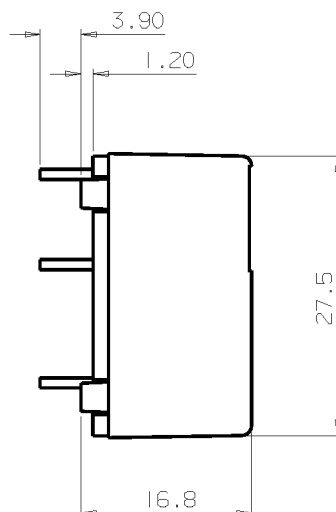
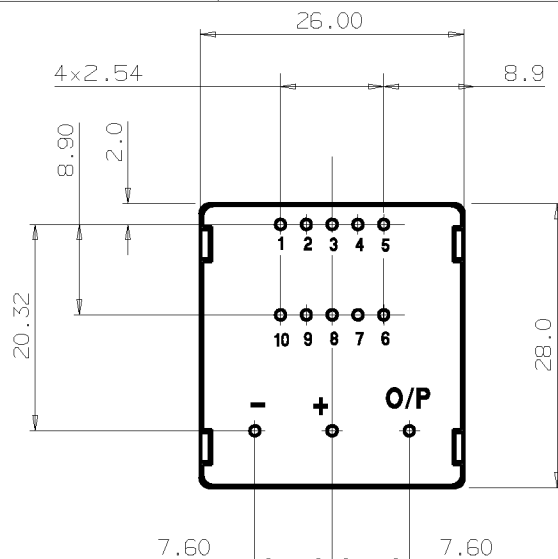
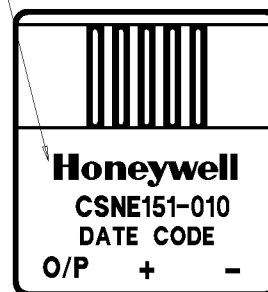


## 5A TO 25A MULTI - RANGE CURRENT SENSOR

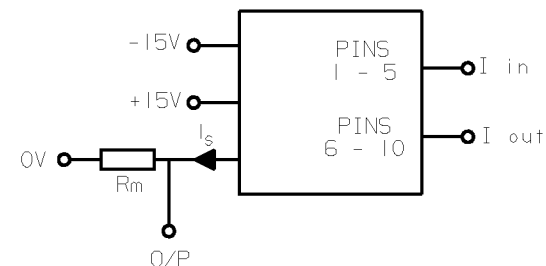
CATALOGUE LISTING  
**CSNE151-010**

- LOGO, DATE CODE  
AND CAT. LISTING  
MARKED ON SENSOR.



RECOMMENDED P.C.B. HOLE :-  $\varnothing 1.2$

## ELECTRICAL SCHEMATIC



## DESCRIPTION

CSNE151-010 IS A MULTI-RANGE CURRENT  
SENSOR MODULE BASED ON THE 'NULL BALANCE'  
HALL EFFECT PRINCIPLE. 5,6,8,12 OR 25A  
CAN BE MEASURED BY SELECTING THE  
APPROPRIATE 1 TO 5 PRIMARY TURNS.

## ACCURACY DATA

|        |    |                     |
|--------|----|---------------------|
| OFFSET | :- | $\pm 0.02$ mA TYP.  |
|        |    | $\pm 0.075$ mA MAX. |

OFFSET DRIFT WITH TEMP.: -  
0 TO 25°C ±

25 TO 70° C

|                     |      |
|---------------------|------|
| $\pm 0.06\text{mA}$ | TYP. |
| $\pm 0.20\text{mA}$ | MAX. |
| $\pm 0.10\text{mA}$ | TYP. |
| $\pm 0.20\text{mA}$ | MAX. |

LINEARITY:-  $\pm 0.2\%$  I<sub>pn</sub>  
RESPONSE TIME :-  $< 1\mu\text{S}$   
FREQUENCY:- DC TO 150KHz

## ENVIRONMENTAL DATA

OPERATING TEMP.: - 0 TO +70° C  
STORAGE TEMP.: - -40 TO +90° C

## ELECTRICAL DATA

NOMINAL PRIMARY CURRENT  $I_{pn}$ :- 25A rms

MEASURING RANGE  $I_p$ :- 0 TO  $\pm 36A$

|                   |                    |                    |
|-------------------|--------------------|--------------------|
| LOAD RESISTANCE:- | R <sub>m</sub> min | R <sub>m</sub> max |
| +25A.t max        | 100Ω               | 320Ω               |
| +36A.t max        | 100Ω               | 190Ω               |

SUPPLY VOLTAGE:-  $\pm 15V$  ( $\pm 5\%$ )

DIELECTRIC STRENGTH:- 5.0KV<sub>rms</sub>/50Hz/1min.

CURRENT CONSUMPTION:-  $10 + I_s$  mA

PRIMARY INTERNAL RESISTANCE: -  $< 1.25\text{m}\Omega/\text{TURN}$

SECONDARY INTERNAL RESISTANCE:- 110Ω MAX AT +70°C.

| PRIMARY<br>TURNS | PRIMARY CURRENT         |                         | NOM. OUTPUT<br>CURRENT (mA)<br>I <sub>s</sub> | PRIMARY<br>RESISTANCE<br>(mΩ) | PRIMARY<br>INSERTION<br>INDUCTANCE<br>(μH) | PIN<br>CONNECTIONS                                                                    |
|------------------|-------------------------|-------------------------|-----------------------------------------------|-------------------------------|--------------------------------------------|---------------------------------------------------------------------------------------|
|                  | NOM. I <sub>p</sub> (A) | MAX. I <sub>p</sub> (A) |                                               |                               |                                            |                                                                                       |
| 1                | 25                      | 36                      | 25                                            | 0.3                           | 0.023                                      |  |
| 2                | 12                      | 18                      | 24                                            | 1.1                           | 0.09                                       |  |
| 3                | 8                       | 12                      | 24                                            | 2.5                           | 0.21                                       |  |
| 4                | 6                       | 9                       | 24                                            | 4.4                           | 0.37                                       |  |
| 5                | 5                       | 7                       | 25                                            | 6.3                           | 0.58                                       |  |

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ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS SUPPLIED.

THIRD ANGLE  
PROJECTION



MODIFY ON CAD3D  
SYSTEM ONLY

SCALE :- 2:1

DIMENSIONS ARE IN  
MILLIMETRES

## REVISIONS

8/97

DRAWN W. JOHNSTON

DESIGN  
AUTHOR'S N