

## Product Data sheet : Hall Effect Current Sensor - HE055T01

Date : 16.10.2015

Rev : 08

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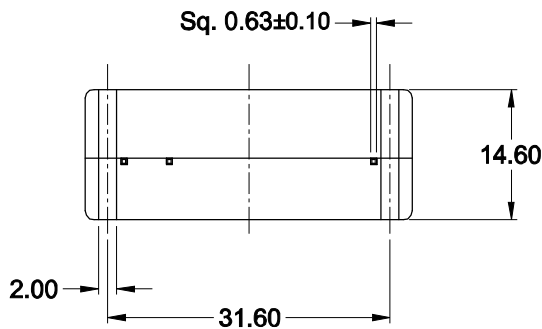
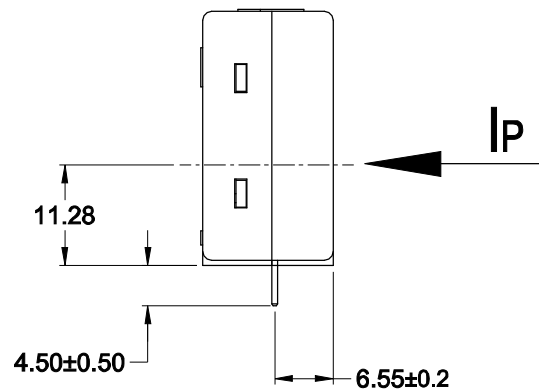
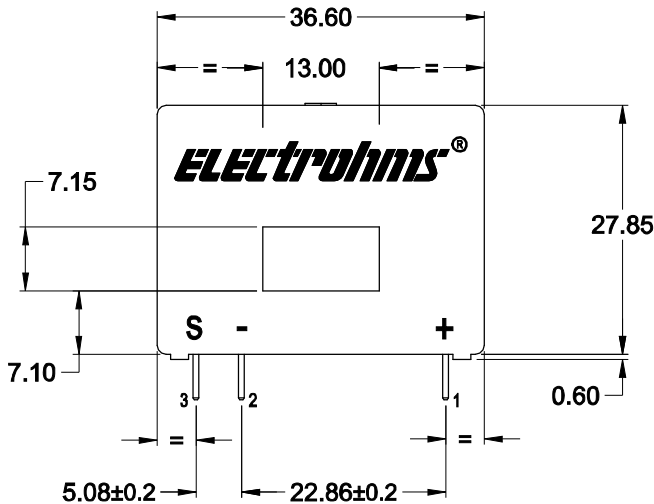
Customer: Standard

Customer's part No.: ---

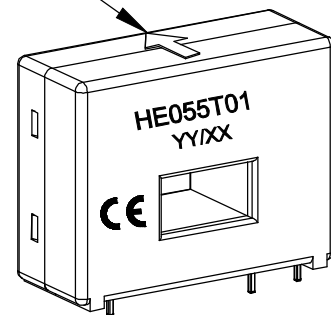
 RoHS Compliant



### ● MECHANICAL DIMENSIONS



Primary current direction



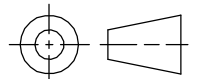
### ● APPLICATION :

Used for measurement of electric current, AC, DC, Pulsed in electrical & electronic equipment.

### ● FEATURES :

- Closed loop current sensor.
- PCB Mountable.
- Current output.
- All Relevant material are UL approved.
- Plastic outer casing flammability rating UL94-V0.

GENERAL TOL.  
±0.5 mm



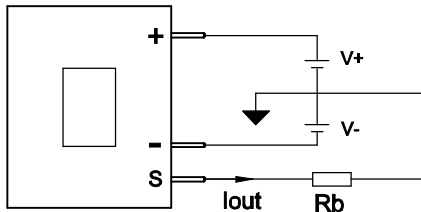
ALL DIMENSIONS  
ARE IN 'mm'

SCALE -NTS

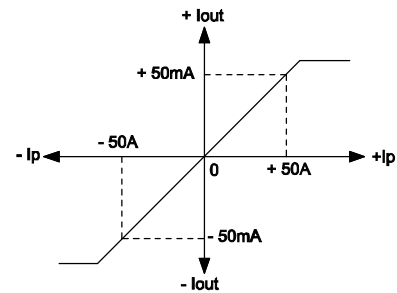
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## ● CONNECTION DIAGRAM



## ● INPUT & OUTPUT CHARACTERISTICS



+ I<sub>p</sub> Indicates primary current flowing in the direction of the arrow

## ● SPECIFICATIONS @ 25° C \*\*

PARAMETERS	VALUES	UNITS																				
Primary Current Nominal (I <sub>pn</sub> )	50	Arms																				
Primary current, range (I <sub>p</sub> )	0 to +/- 70	A																				
Burden Resistance (R <sub>b</sub> ) <sup>(1)</sup>	<table border="0"> <tr> <td></td> <td>T<sub>A</sub> = 70°C</td> <td>T<sub>A</sub> = 85°C</td> <td></td> </tr> <tr> <td>@ ± 12V, ± 50A</td> <td>70</td> <td>90</td> <td></td> </tr> <tr> <td>@ ± 12V, ± 70A</td> <td>60<sup>(2)</sup></td> <td>70<sup>(2)</sup></td> <td>Ω</td> </tr> <tr> <td>@ ± 15V, ± 50A</td> <td>130</td> <td>150</td> <td></td> </tr> <tr> <td>@ ± 15V, ± 70A</td> <td>102<sup>(3)</sup></td> <td>112<sup>(3)</sup></td> <td></td> </tr> </table>		T <sub>A</sub> = 70°C	T <sub>A</sub> = 85°C		@ ± 12V, ± 50A	70	90		@ ± 12V, ± 70A	60 <sup>(2)</sup>	70 <sup>(2)</sup>	Ω	@ ± 15V, ± 50A	130	150		@ ± 15V, ± 70A	102 <sup>(3)</sup>	112 <sup>(3)</sup>		
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Conversion Ratio (K)	1000 : 1	—																				
Current output @ I <sub>pn</sub> (I <sub>out</sub> )	50	mA																				
Supply Voltage (V+ / V-)	+/- 12 to 15	V																				
Current consumption @ ±15V (I <sub>c</sub> )	11 + I <sub>out</sub>	mA																				
Accuracy	+/- 0.65	%																				
Linearity	< 0.15	%																				
Output offset current @ I <sub>p</sub> = 0 (I <sub>off</sub> )	±0.20 Typical	mA																				
Temperature variation of I <sub>off</sub> (-25 to +85°C) (-40 to -25°C)	±0.60 ±1.0	mA																				
Reaction time 10% I <sub>pn</sub> step	< 0.5	μs																				
Response time 90% of I <sub>pn</sub> step	< 1.0	μs																				
dI/dt Accurately followed	> 200	A/μs																				
Frequency bandwidth @ -1 dB (fbw)	DC to 200	kHz																				
Secondary coil resistance	43.0 Typical	Ω																				
Dielectric strength Primary to o/p terminals	2.5	kVrms																				
Operating Temperature Range	- 40 to + 85	°C																				
Storage Temperature	- 40 to + 85	°C																				
Weight	22	g																				
Standards :	EN 50178 : 1997 EN 55011 / CISPR 11 EN 61000-4-2 / IEC 61000-4-2 EN 61000-4-3 / IEC 61000-4-3 EN 61000-4-8 / IEC 61000-4-8																					

\*\* Specifications subject to change.

Note : (1) For values of R<sub>b</sub> other than the specified value in the above table, please contact us.

(2) Measuring range limited to ± 60 A max.

(3) Measuring range limited to ± 55 A max.