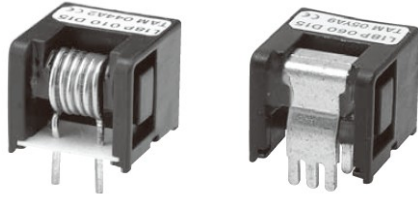


# Hall Effect Current Sensors L18P\*\*\*D15 Series



## Features:

- Open Loop type
- Printed circuit board mounting
- Integrated primary
- Voltage output
- Busbar version from 40A to 60A
- Insulated plastic case according to UL94V0
- UL Recognition

## Advantage:

- Excellent accuracy and linearity
- Wide nominal current range
- Low temperature drift
- Wide frequency bandwidth
- No insertion loss
- High Immunity To External Interference
- Optimised response time
- Current overload capability

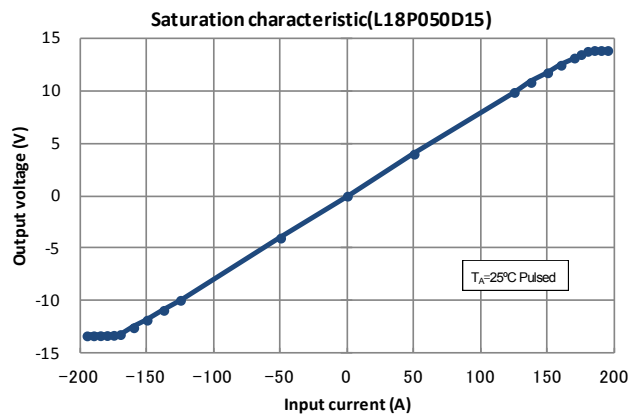
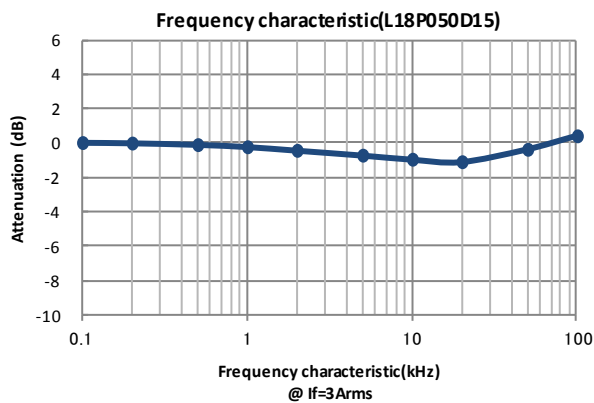
## Specifications

 $T_A=25^{\circ}\text{C}$ ,  $V_{CC}=\pm 15\text{V}$ ,  $R_L=10\text{k}\Omega$ 

Parameters	Symbol	L18P003 D15	L18P005 D15	L18P010 D15	L18P015 D15	L18P020 D15	L18P025 D15	L18P030 D15	L18P040 D15	L18P050 D15	L18P060 D15
Primary nominal current	$I_f$	3A	5A	10A	15A	20A	25A	30A	40A	50A	60A
Saturation current	$I_{fmax}$	$\geq \pm I_f \times 3$									
Rated output voltage	$V_o$	$4\text{V} \pm 0.040\text{V}$ (at $I_f$ )							$4\text{V} \pm 0.050\text{V}$ (at $I_f$ )		
Offset voltage <sup>1</sup>	$V_{of}$	$\leq \pm 0.040\text{V}$ (at $I_f=0\text{A}$ )							$\leq \pm 0.050\text{V}$ (at $I_f=0\text{A}$ )		
Output linearity <sup>2</sup> (0A~ $I_f$ )	$\epsilon_L$	$\leq \pm 1\%$ (at $I_f$ )									
Power supply voltage	$V_{CC}$	$\pm 15\text{V} \pm 5\%$									
Consumption current	$I_{CC}$	$\leq \pm 15\text{mA}$									
Response time <sup>3</sup>	$t_r$	$\leq 5\mu\text{s}$ (at $di/dt = I_f / \mu\text{s}$ )									
Thermal drift of gain <sup>4</sup>	$TcVo$	$\leq \pm 0.1\%/^{\circ}\text{C}$									
Thermal drift of offset	$TcVof$	$\leq \pm 1.5\text{mV}/^{\circ}\text{C}$									
Hysteresis error (at $I_f=0\text{A} \rightarrow I_f \rightarrow 0\text{A}$ )	$V_{OH}$	$\leq 25\text{mV}$							$\leq 40\text{mV}$		
Insulation voltage	$V_d$	AC3000V for 1minute (sensing current 0.5mA), primary $\leftrightarrow$ secondary									
Insulation resistance	$R_{IS}$	$\geq 500\text{M}\Omega$ (at DC500V), primary $\leftrightarrow$ secondary									
Ambient operation temperature	$T_A$	$-30^{\circ}\text{C} \sim +80^{\circ}\text{C}$									
Ambient storage temperature	$T_S$	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$									

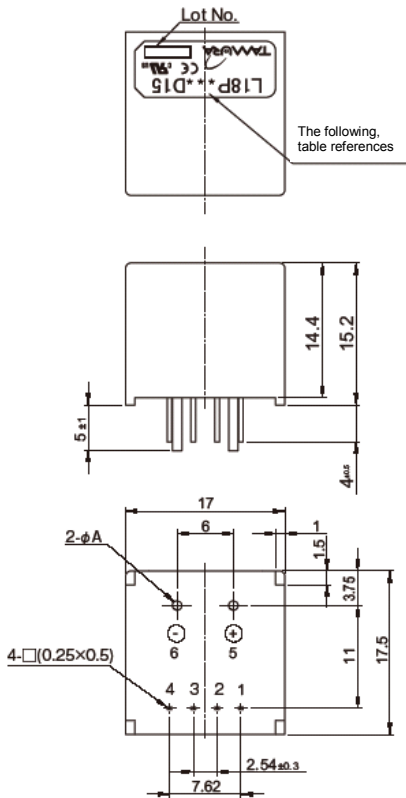
<sup>1</sup> After removal of core hysteresis — <sup>2</sup> Without offset — <sup>3</sup> Time between 10% input current full scale and 90% of sensor output full scale — <sup>4</sup> Without Thermal drift of offset

## Electrical Performances



# Hall Effect Current Sensors L18P\*\*\*D15 Series

## Mechanical dimensions



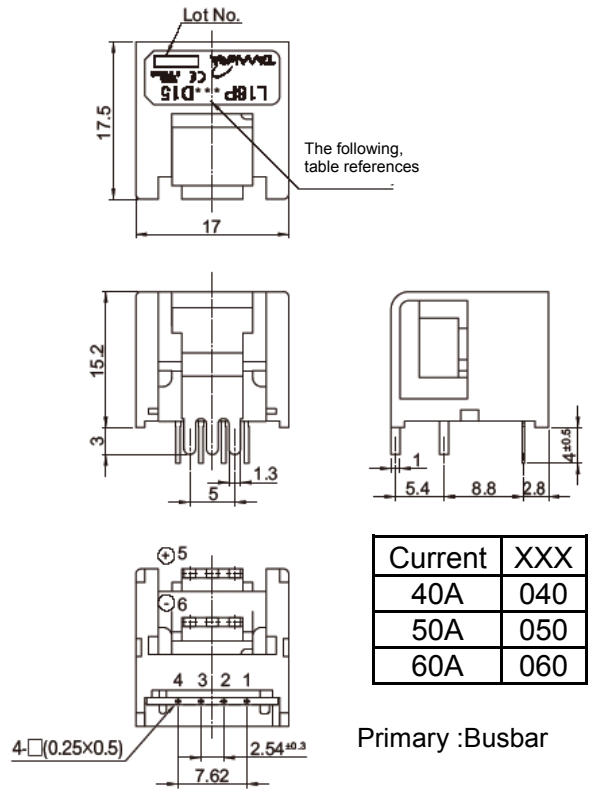
Terminal Number:

- 1:  $-V_{CC}(-15V)$
- 2: GND
- 3:  $+V_{CC}(+15V)$
- 4:  $V_{OUT}$
- 5: Primary input current (+)
- 6: Primary input current (-)

Current	XXX	$\phi A$
3A	003	$\phi 0.6$
5A	005	$\phi 0.8$
10A	010	$\phi 1.1$
15A	015	$\phi 1.4$
20A	020	$\phi 1.6$
25A	025	$\phi 1.6$
30A	030	$\phi 1.6$

### NOTES

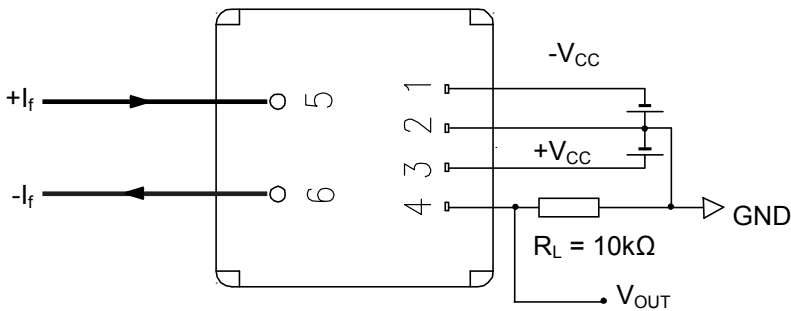
1. Unit is mm
2. Tolerance is 0.5mm
3. Cover is optional parts.



Current	XXX
40A	040
50A	050
60A	060

Primary :Busbar

## Electrical connection diagram



## UL Standard

UL 508 , CSA C22.2 No.14  
(UL FILE No.E243511)

- For use in Pollution Degree 2 Environment.
- Maximum Surrounding air temperature rating, 80°C.

## Package & Weight Information

nominal current	Weight	Pcs/box	Pcs/carton	Pcs/pallet
10A..60A	8g	100	600	12000
3A , 5A	8g	50	1200	28800