

3 to 25 Amp Applications — Open Loop

- Compact PCB Mount Design
- Dual Integrated Primary
- Withstanding Voltage of 2000 Vrms
- 3A - 25A with a Bipolar $\pm 15\text{VDC}$ Supply Voltage
- Low Cost



Specifications Measured at 25°C, RL-10KΩ Vcc= $\pm 15\text{V}$

Specification	L07P003D15	L07P005D15	L07P010D15	L07P015D15	L07P020D15	L07P025D15
Nominal Primary DC Current (If)	$\pm 3\text{A}$	$\pm 5\text{A}$	$\pm 10\text{A}$	$\pm 15\text{A}$	$\pm 20\text{A}$	$\pm 25\text{A}$
Maximum Current	$\pm 9\text{A}$	$\pm 15\text{A}$	$\pm 30\text{A}$	$\pm 45\text{A}$	$\pm 60\text{A}$	$\pm 75\text{A}$
Output Voltage @ If	$V_{\text{OUT}} = +4\text{V} \pm 0.05\text{V}, -4\text{V} \pm 0.150\text{V}$ (at If)					
Offset Voltage	$V_{\text{OE}} = 0 \pm 0.50\text{V}$					
Accuracy @ If ¹	$X < \pm 1\%$ of If					
Output Linearity ¹ (O..If Max)	$E_L \leq \pm 1\%$ (at 0A ~ If)					
Power Supply	$V_{\text{CC}} = \pm 15\text{V} \pm 5\%$					
Response Time	$T_r \leq 10\mu\text{sec}$ (di/dt = 10A / 5μsec)					
Current Consumption	$I_c \leq 30\text{mA}$					
Output Temperature Characteristic	$TCE_G < \pm 0.1\% / ^\circ\text{C}$					
Offset Temperature Characteristic	$V_{\text{OT}} \leq \pm 2\text{mV} / ^\circ\text{C TYP}$					
Hysteresis Allowance @ If=0	$V_{\text{OH}} \leq 30\text{mV}$ (0A = If)					
Withstand Voltage (50/60Hz)	$V_d = 2,000\text{VACrms}$ for 1 minute (Sensing Current 0.5mA)					
Insulation Resistance @ 500VDC	$R_{\text{IS}} \geq 500\text{MW}$					
Operating Temperature	$T_A = -10 \sim +80^\circ\text{C}$					
Storage Temperature	$T_S = -20 \sim +85^\circ\text{C}$					

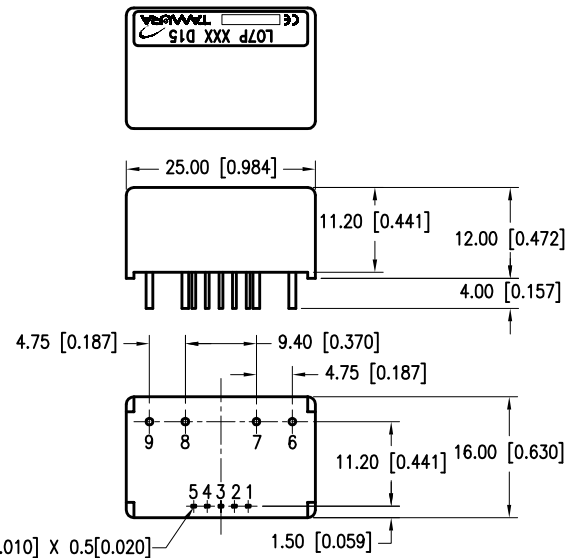
1. Without offset

Package & Weight Information

QTY/Box	Weight/each(g)
CALL	CALL

TERMINAL	FUNCTION
1	+15V
2	-15V
3	OUT1
4	OUT2
5	GND
6	+IN1
7	-IN1
8	+IN2
9	-IN2

CURRENT	Ø PIN
3A ~ 10A	Ø 0.6[0.024]
15A ~ 20A	Ø 0.9[0.035]
25A	Ø 1.2[0.047]



Unless otherwise specified, tolerances shall be $\pm 0.5\text{mm}$.

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3 to 30 Amp Applications — Open Loop

- Compact PCB Mount Design
- Integrated Primary
- Withstanding Voltage of 3000 Vrms
- 3A - 30A with a Bipolar ± 15 VDC Supply Voltage
- Low Cost

Specifications Measured at 25°C, RL-10K Ω Vcc= ± 15 V

Specification	L18P003D15	L18P005D15	L18P010D15	L18P015D15	L18P020D15	L18P025D15	L18P030D15
Nominal Primary DC Current (If)	± 3 A	± 5 A	± 10 A	± 15 A	± 20 A	± 25 A	± 30 A
Maximum Current If(max)	± 9 A	± 15 A	± 30 A	± 45 A	± 60 A	± 60 A	± 90 A
Output Voltage @ If	V _{OUT} ± 4 V ± 0.04 V (at If)						
Offset Voltage	V _{OE} 0 ± 0.40 V						
Accuracy @ If ¹	X $< \pm 1\%$ of If						
Output Linearity ¹ (O..If Max)	E _L $\leq \pm 1\%$ MAX						
Power Supply	V _{CC} ± 15 V $\pm 5\%$						
Response Time	T _r $\leq 5\mu$ sec (di/dt = 10A / 5 μ sec)						
Current Consumption	I _c ≤ 15 mA						
Output Temperature Characteristic	TCE _G $< \pm 0.1\%$ / °C MAX						
Offset Temperature Characteristic	V _{OT} $\leq \pm 1.5$ mV / °C TYP						
Hysteresis Allowance @ If=0	V _{OH} ≤ 25 mV (0A = If)						
Withstand Voltage (50/60Hz)	V _d 3,000VACrms for 1 minute (Sensing Current 0.5mA)						
Insulation Resistance @ 500VDC	R _{IS} ≥ 500 M Ω						
Operating Temperature	T _A -10 ~ +80°C						
Storage Temperature	T _S -20 ~ +85°C						

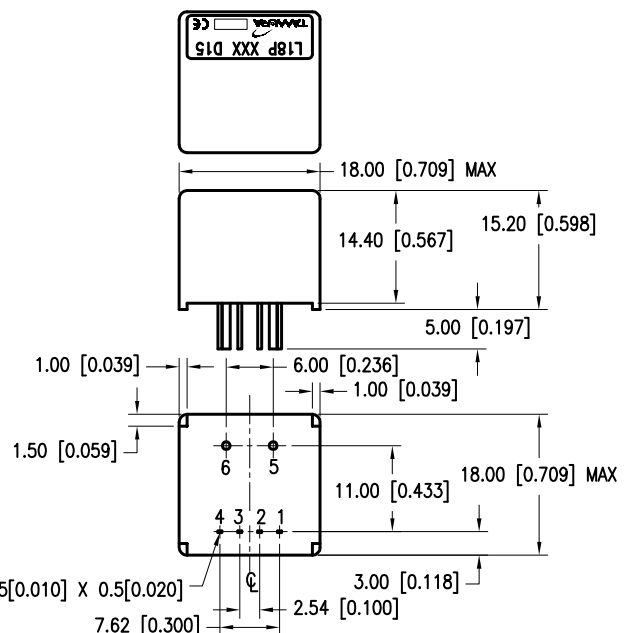
¹ Without offset

Package & Weight Information

QTY/Box	Weight/each(g)
CALL	CALL

TERMINAL	FUNCTION
1	-V _{CC}
2	GND
3	+V _{CC}
4	OUTPUT
5	+IN
6	-IN

CURRENT	Ø PIN
3A ~ 5A	Ø 0.6[0.024]
10A ~ 15A	Ø 0.9[0.035]
20A ~ 30A	Ø 1.2[0.047]



4 RECTANGULAR PINS 0.25[0.010] X 0.5[0.020]

Unless otherwise specified, tolerances shall be ± 0.5 mm.

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Hall Effect Current Sensors

40 to 60 Amp Applications — Open Loop

- Compact PCB Mount Design
- Dual Integrated Primary
- Withstanding Voltage of 3000 Vrms
- 40A - 60A Bipolar ± 15 VDC Supply Voltage
- Durable Busbar Construction



Specifications Measured at 25°C, RL=10KΩ Vcc=±15V

Specification	L18P040D15	L18P050D15	L18P060D15
Nominal Primary DC Current (If)	+40A	+50A	+60A
Maximum Current If(max)	±120A	±150A	±180A
Output Voltage @ If		+4.0V ±0.050V	
Offset Voltage V _{OE}		0± 0.050V	
Accuracy @ If ¹	X	< ± 1%	
Output Linearity ¹ (O..If Max)	E _L	≤ 1% MAX	
Power Supply V _{CC}		± 15V ±5%	
Response Time T _r		≤ 5μsec	
Current Consumption I _c		≤ 15mA	
Output Temperature Characteristic TCE _G		< ± 0.1% / °C MAX	
Offset Temperature Characteristic V _{OT}		≤ ± 1.5mV / °C MAX	
Hysteresis Allowance @ If=0 V _{OH}		≤ 40mV (0A = If)	
Withstand Voltage (50/60Hz) V _d		3000VACrms for 1 minute (Sensing Current 0.5mA)	
Insulation Resistance @ 500VDC R _{IS}		≥ 500MΩ	
Operating Temperature T _A		-10 ~ +80°C	
Storage Temperature T _S		-20 ~ +85°C	

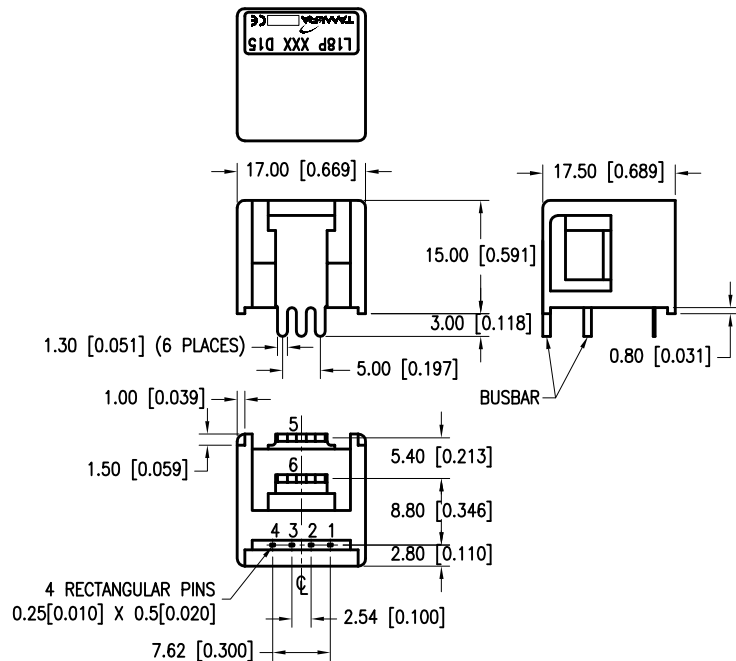
1. Without offset

Package & Weight Information

QTY/Box	Weight/each(g)
CALL	CALL

TERMINAL	FUNCTION
1	-V _{CC}
2	GND
3	+V _{CC}
4	OUTPUT
5	+IN
6	-IN

CURRENT	Ø PIN
40A ~ 60A	BUSBAR 1.0[0.04]X6.3[2.48]



Unless otherwise specified, tolerances shall be ±0.5mm.

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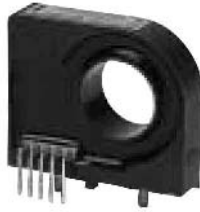
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Hall Effect Current Sensors

50 to 200 Amp Applications — Open Loop



- Compact PCB Mount Design
- Voltage Output type
- CE EN50178 (pending)

Specifications Measured at 25°C, RL=10KΩ, V_{CC}=±15V

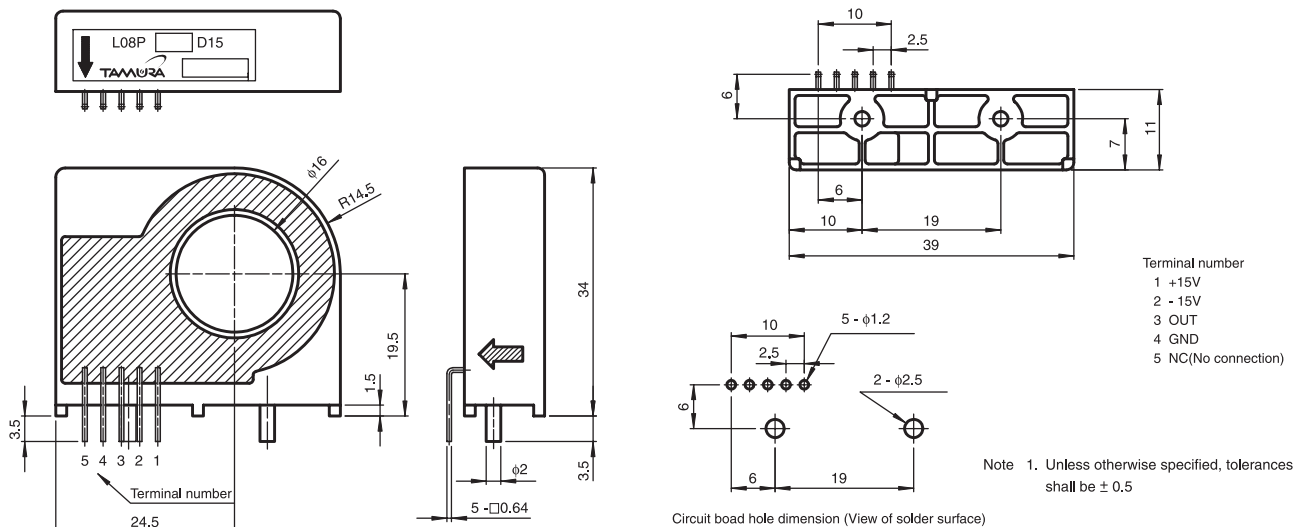
Specification		L08P050D15	L08P100D15	L08P150D15	L08P200D15
Nominal Primary DC Current	(I _f)	50AT	100AT	150AT	200AT
Maximum Current	I _{f(max)}	±150AT	±300AT	±350AT	±350AT
Output Voltage @ I _f	V _{OUT}	4V			
Offset Voltage	V _{OE}	<±40mV			
Accuracy @ I _f ²	X	±1% of I _f			
Output Linearity ² (0..I _f MAX)	E _L	≤±1% of I _f			
Power Supply	V _{CC}	±15V±5%			
Response Time	t _r	<10μ Sec			
Current Consumption	I _c	12mA typ			
Output Temperature Characteristic	TCE _B	<±0.1% / °C	<±0.05% / °C		
Offset Temperature Characteristic	V _{OT}	<±2mV / °C	<±1mV / °C		
Hysteresis Allowance @ I _f =0	V _{OH}	< ±30mV	<± 20mV		
Withstand Voltage (50/60Hz)	V _d	2,500VACrms for 1 minute (Sensing Current 0.5mA)			
Insulation Resistance @ 500VDC	R _{IS}	≥500MΩ			
Operating Bandwidth (-3dB)	f	DC - 50kHz			
Operating Temperature	T _A	-10 - +80°C			
Storage Temperature	T _s	-20 - +85°C			

¹ Small signal only; derating needed to avoid excessive core heating at high frequency

² Without offset

Package & Weight Information

QTY/Box	Weight/each(g)
50	25



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50 to 600 Amp Applications — Open Loop

- Compact PCB Mount Design
- Voltage Output type
- Very High Linearity
- 15V Supply Voltage
- CE EN50178 (pending)



Specifications Measured at 25°C, RL=10KΩ, Vcc=±15V

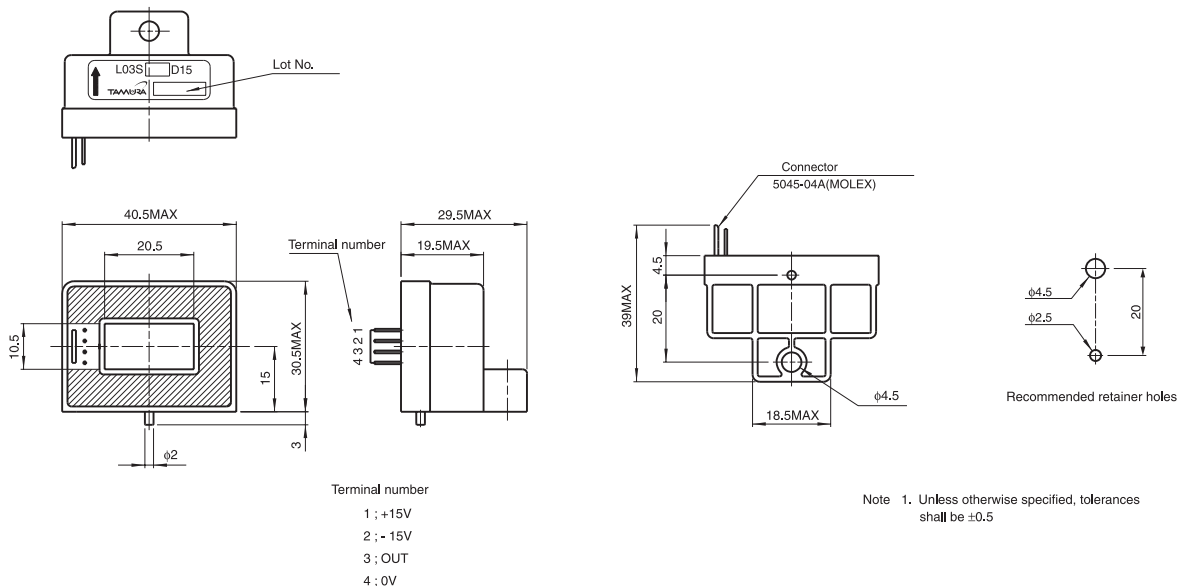
Specification	L03S050D15	L03S100D15	L03S200D15	L03S300D15	L03S400D15	L03S500D15	L03S600D15
Nominal Primary DC Current (If)	50AT	100AT	200AT	300AT	400AT	500AT	600AT
Maximum Current If(max)	±150AT	±300AT	±600AT	±700AT	±700AT	±700AT	±700AT
Output Voltage @ If	V _{OUT} 4V						
Offset Voltage V _{OE}	<± 40mV			<±30mV			
Accuracy @ If ²	X			±1% of If			
Output Linearity ² (0..If MAX)	E _L			±1% of If			
Power Supply V _{CC}	±15V±5%						
Response Time t _r	≤5μ Sec						
Current Consumption I _c	12mA typ						
Output Temperature Characteristic TCE _G	<±0.1% / °C						
Offset Temperature Characteristic V _{OT}	<±2mV / °C			<±1mV / °C			
Hysteresis Allowance @ If=0 V _{OH}	±30mV			±20mV		±10mV	
Withstand Voltage (50/60Hz) V _d	2,500VACrms for 1 minute (sensing current 0.5mA)						
Insulation Resistance @ 500VDC R _{IS}	≥500MΩ						
Operating Bandwidth ¹ (-3dB) f	DC - 50kHz						
Operating Temperature T _A	-10 - +80°C						
Storage Temperature T _S	-15 - +90°C						

¹ Small signal only; derating needed to avoid excessive core heating at high frequency

² Without offset

Package & Weight Information

QTY/Box	Weight/each(g)
20	50



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Hall Effect Current Sensors

50 to 600 Amp Applications — Open Loop



- Compact PCB Mount Design
- Voltage Output type
- Very High Linearity
- 5V Supply Voltage
- CE EN50178 (pending)

Specifications Measured at 25°C, RL=10KΩ, Vcc=+ 5V; Vref = $\frac{V_{CC}}{2}$

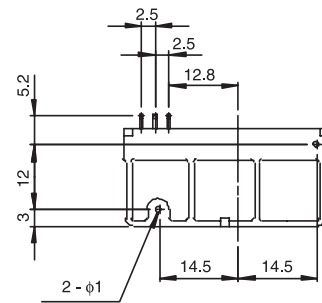
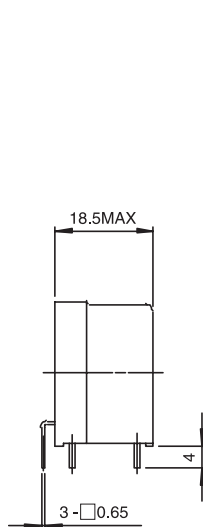
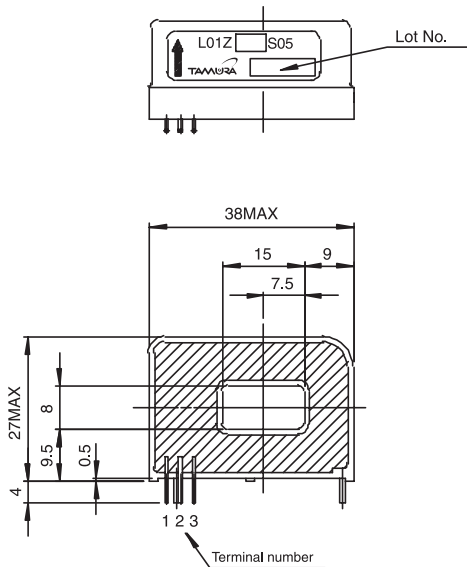
Specification	L01Z050S05	L01Z100S05	L01Z150S05	L01Z200S05	L01Z300S05	L01Z400S05	L01Z500S05	L01Z600S05
Nominal Primary DC Current (If)	50AT	100AT	150AT	200AT	300AT	400AT	500AT	600AT
Maximum Current If(max)	±62.5AT	±125AT	±187.5AT	±250AT	±375AT	±500AT	±625AT	±750AT
Output Voltage @ If	V _{OUT}	Vref±1.5V			Vref±1.5V			
Offset Voltage V _{OE}	2.5V±0.035V				2.5V±0.030V			
Accuracy @ If ²	X	<±1% of If			<±1% of If			
Output Linearity ² (0..If MAX)	E _L			±1% of If				
Power Supply Vcc				5V ±2.0%				
Response Time t _r				<5μs				
Current Consumption I _c				<15mA				
Output Temperature Characteristic TCE _g	<±2mV / °C			<±1.5mV / °C				
Offset Temperature Characteristic V _{OT}	<±2mV / °C			<±1mV / °C				
Hysteresis Allowance @ If=0 V _{OH}		±8mV		±4mV			±6mV	
Withstand Voltage (50/60Hz) V _d				2,500VACrms for 1 minute (sensing current 0.5mA)				
Insulation Resistance @ 500VDC R _{IS}				≥500MΩ				
Operating Bandwidth ¹ (-3dB) f				DC - 50kHz				
Operating Temperature T _A				-10 - +80°C				
Storage Temperature T _S				-15 - +85°C				

¹ Small signal only; derating needed to avoid excessive core heating at high frequency

² Without offset

Package & Weight Information

QTY/Box	Weight/each(g)
50	45



- Terminal number
- 1 OUT
 - 2 OV
 - 3 5V

Note 1. Unless otherwise specified, tolerances shall be ± 0.5

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