



# SENSOR Module LA-50P

## $I_N = 50A$

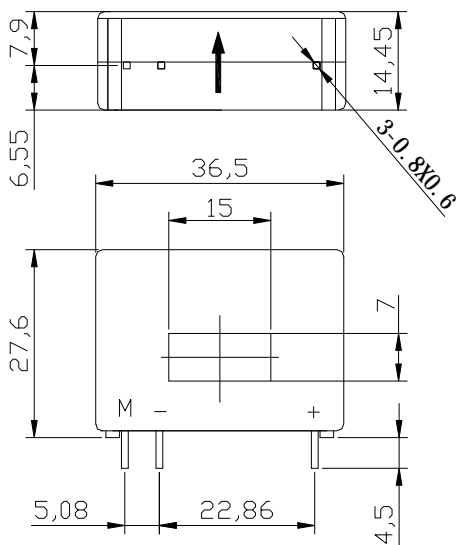


### Specifications:

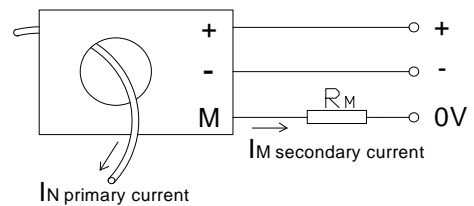
Closed loop Hall current sensor, Nominal current 50A RMS for measuring of currents: AC, DC, pulsed...

Type	LA-50P		
$I_N$	Nominal current (RMS) 50A		
$I_P$	Measuring range ( $I_{P-P}$ ) 0...±80A		
$R_M$	Measuring resistance	$R_M$ min	$R_M$ max
	( $V_c = \pm 12V, \pm 50A$ )	10Ω	100Ω
	( $V_c = \pm 12V, \pm 70A$ )	10Ω	50Ω
	( $V_c = \pm 15V, \pm 50A$ )	50Ω	160Ω
	( $V_c = \pm 15V, \pm 70A$ )	50Ω	90Ω
$I_M$	Output current Nominal output current 50mA, for primary nominal current $I_N = 50A$		
$K_N$	Turns ratio 1:1000		
X	Accuracy ( $T_a = +25^\circ C$ ) $I_N \pm 0.5\%$		
$V_c$	Supply voltage $\pm 12...15V (\pm 5\%)$		
$I_c$	Current consumption 10mA + $I_M$		
$V_i$	Isolation voltage Between primary and secondary circuit: 2.5KV RMS/50Hz/1min.		
$I_{off}$	Offset current ( $T_a = +25^\circ C$ ) $\pm 0.3mA$ max, for primary current $I_N = 0$		
$T_d$	Temperature drift $\pm 0.1mA$ Typical; $\pm 0.6mA$ Max ( $-25^\circ C ... +85^\circ C$ )		
L	Linearity $< 0.1\%$		
Tr	Response time	$< 1\mu S$	
	di/dt	$> 200A/\mu S$	
f	Frequency bandwidth DC...200KHz		
$T_a$	Operating temperature $-25^\circ C ... +85^\circ C$		
$T_s$	Storage temperature $-40^\circ C ... +90^\circ C$		
$R_s$	Secondary resistance $< 80\Omega$ ( $T_a = +70^\circ C$ )		
$R_N$	Primary resistance -----		
W	Weight 16g		

### Dimensions (mm):



### Connection:



Secondary terminals:  
Terminal +: supply voltage +12...15V  
Terminal -: supply voltage -12...15V  
Terminal M: output



Note: 1) Output  $I_M$  is positive, when the primary current flows in the direction of the arrow. 2) Mounting: PCB

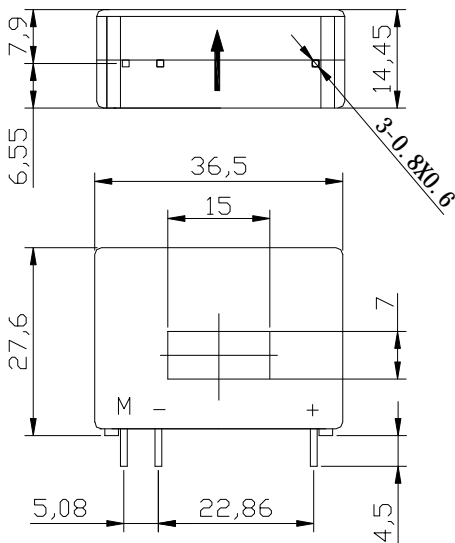


### Specifications:

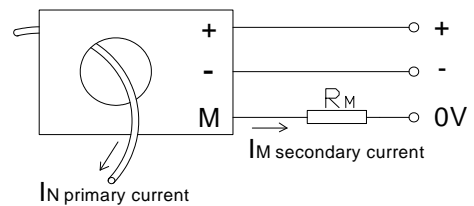
Closed loop Hall current sensor, Nominal current 100A RMS for measuring of currents: AC, DC, pulsed

	Type	LA-100P	
$I_N$	Nominal current (RMS)	100A	
$I_P$	Measuring range ( $I_{P-P}$ )	0...±150A	
$R_M$	Measuring resistance	$R_M$ min	$R_M$ max
		( $V_c = \pm 12V, \pm 100A$ )	0Ω / 50Ω
		( $V_c = \pm 12V, \pm 120A$ )	0Ω / 22Ω
		( $V_c = \pm 15V, \pm 100A$ )	0Ω / 110Ω
		( $V_c = \pm 15V, \pm 120A$ )	10Ω / 33Ω
$I_M$	Output current	Nominal output current 50mA, for primary nominal current $I_N = 100A$	
$K_N$	Turns ratio	1:2000	
X	Accuracy ( $T_a = +25^\circ C$ )	$I_N \pm 0.5\%$	
$V_c$	Supply voltage	±12...15V (±5%)	
$I_c$	Current consumption	10mA + $I_M$	
$V_i$	Isolation voltage	Between primary and secondary circuit: 2.5KV RMS/50Hz/1min.	
$I_{off}$	Offset current ( $T_a = +25^\circ C$ )	±0.2mA max, for primary current $I_N = 0$	
$T_d$	Temperature drift	±0.1mA Typical; ±0.3mA Max (-25°C...+85°C)	
L	Linearity	< 0.15%	
Tr	Response time	< 1μS	
		$di/dt$ > 200A/μS	
f	Frequency bandwidth	DC...200KHz	
$T_a$	Operating temperature	-25°C...+85°C	
$T_s$	Storage temperature	-40°C...+90°C	
$R_s$	Secondary resistance	< 120Ω ( $T_a = +70^\circ C$ )	
$R_N$	Primary resistance	-----	
W	Weight	18g	

### Dimensions (mm):



### Connection:



Secondary terminals:  
 Terminal +: supply voltage +12...15V  
 Terminal -: supply voltage -12...15V  
 Terminal M: output



Note: 1) Output  $I_M$  is positive, when the primary current flows in the direction of the arrow. 2) Mounting: PCB

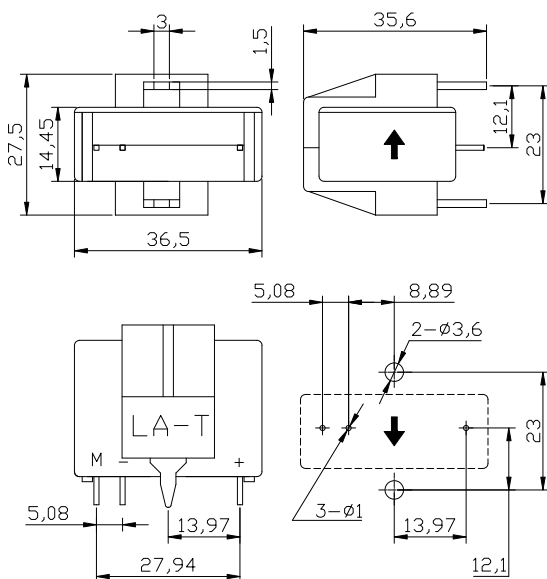


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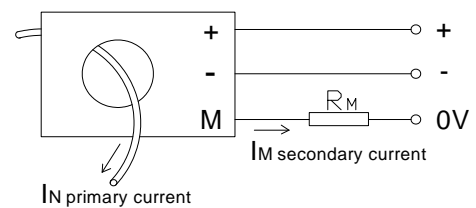
Closed loop Hall current sensor, Nominal current 50A RMS for measuring of currents: AC, DC, pulsed...

	Type	LA-50T	
I <sub>N</sub>	Nominal current (RMS)	50A	
I <sub>P</sub>	Measuring range (I <sub>P-P</sub> )	0...±80A	
R <sub>M</sub>	Measuring resistance	R <sub>M</sub> min	R <sub>M</sub> max
		(V <sub>c</sub> = ±12V, ±50A)	10Ω / 100Ω
		(V <sub>c</sub> = ±12V, ±70A)	10Ω / 50Ω
		(V <sub>c</sub> = ±15V, ±50A)	50Ω / 160Ω
		(V <sub>c</sub> = ±15V, ±70A)	50Ω / 90Ω
I <sub>M</sub>	Output current	Nominal output current 50mA, for primary nominal current I <sub>N</sub> = 50A	
X	Accuracy (T <sub>a</sub> = +25°C)	I <sub>N</sub> ± 0.5%	
K <sub>N</sub>	Turns ratio	1:1000	
V <sub>c</sub>	Supply voltage	±12...15V (±5%)	
I <sub>c</sub>	Current consumption	10mA + I <sub>M</sub>	
V <sub>i</sub>	Isolation voltage	Between primary and secondary circuit: 2.5KV RMS/50Hz/1min.	
I <sub>off</sub>	Offset current (T <sub>a</sub> = +25°C)	±0.3mA max, for primary current I <sub>N</sub> = 0	
T <sub>d</sub>	Temperature drift	±0.1mA Typical; ±0.6mA Max (-25°C...+85°C)	
L	Linearity	< 0.1%	
T <sub>r</sub>	Response time	< 1μS	
		di/dt	> 200A/μS
f	Frequency bandwidth	DC...200KHz	
T <sub>a</sub>	Operating temperature	-25°C...+85°C	
T <sub>s</sub>	Storage temperature	-40°C...+90°C	
R <sub>s</sub>	Secondary resistance	< 80Ω (T <sub>a</sub> = +70°C)	
R <sub>N</sub>	Primary resistance	-----	
W	Weight	35g	

### Dimensions (mm):



### Connection:

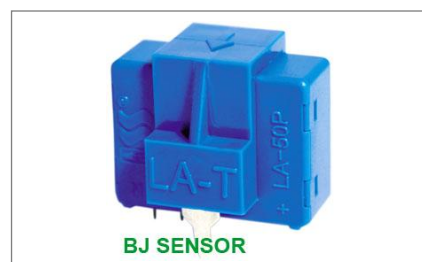


#### Secondary terminals:

Terminal +: supply voltage +12...15V

Terminal -: supply voltage -12...15V

Terminal M: output



Note: 1) Output I<sub>M</sub> is positive, when the primary current flows in the direction of the arrow. 2) Mounting: PCB

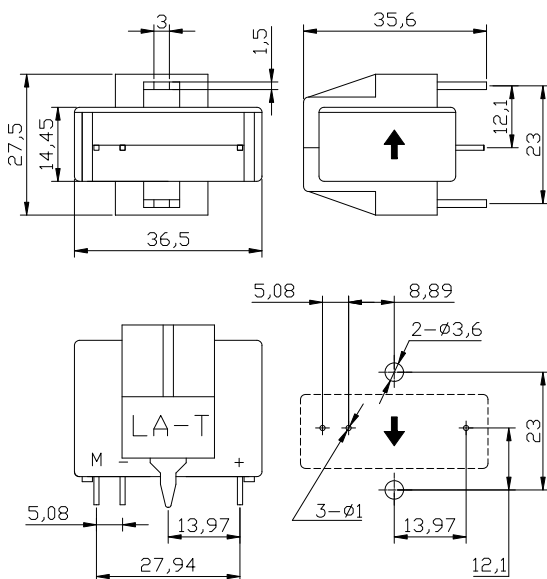


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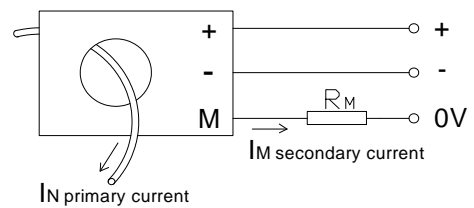
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		( $V_c = \pm 15V, \pm 100A$ )	0Ω / 110Ω
		( $V_c = \pm 15V, \pm 120A$ )	10Ω / 33Ω
$I_M$	Output current	Nominal output current 50mA, for primary nominal current $I_N = 100A$	
X	Accuracy ( $T_a = +25^\circ C$ )	$I_N \pm 0.5\%$	
$K_N$	Turns ratio	1:2000	
$V_c$	Supply voltage	±12...15V (±5%)	
$I_c$	Current consumption	10mA + $I_M$	
$V_i$	Isolation voltage	Between primary and secondary circuit: 2.5KV RMS/50Hz/1min.	
$I_{off}$	Offset current ( $T_a = +25^\circ C$ )	±0.3mA max, for primary current $I_N = 0$	
$T_d$	Temperature drift	±0.1mA Typical; ±0.3mA Max (-25°C...+85°C)	
L	Linearity	< 0.15%	
$T_r$	Response time	< 1μS	
		$di/dt$	> 200A/μS
f	Frequency bandwidth	DC...200KHz	
$T_a$	Operating temperature	-25°C...+85°C	
$T_s$	Storage temperature	-40°C...+90°C	
$R_s$	Secondary resistance	< 120Ω ( $T_a = +70^\circ C$ )	
$R_N$	Primary resistance	----	
W	Weight	35g	

### Dimensions (mm):

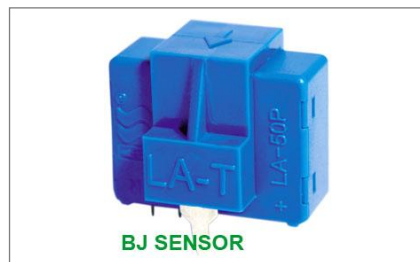


### Connection:



#### Secondary terminals:

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 Terminal -: supply voltage -12...15V  
 Terminal M: output



Note: 1) Output  $I_M$  is positive, when the primary current flows in the direction of the arrow. 2) Mounting: PCB