



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Current Transducer HY30-P

For the electronic measurement of currents : DC, AC, pulsed..., with a galvanic isolation between the primary circuit (high power) and the secondary circuit (electronic circuit).



Electrical data

Primary nominal r.m.s. current I_{PN} (A)	Primary current measuring range I_P (A)	Primary conductor (mm)	Type
30	± 90	2 x $\varnothing 1.5$ ¹⁾	HY 30-P
V_C	Supply voltage ($\pm 5\%$)		± 15 V
I_C	Current consumption		± 10 mA
\hat{I}_P	Overload capability (1 ms)		$50 \times I_{PN}$
V_d	R.m.s. voltage for AC isolation test, 50/60Hz, 1 mn		2.5 kV
V_b	R.m.s. rated voltage, safe separation		500 ²⁾ V
R_{IS}	Isolation resistance @ 500 VDC		> 1000 M Ω
V_{OUT}	Output voltage @ $\pm I_{PN}$, $R_L = 10$ k Ω , $T_A = 25^\circ\text{C} \pm 4$		V
R_{OUT}	Output internal resistance		100 Ω
R_L	Load resistance		> 1 k Ω

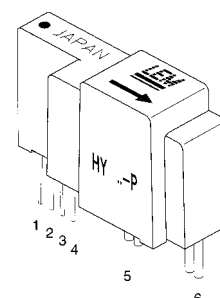
Accuracy - Dynamic performance data

X	Accuracy @ I_{PN} , $T_A = 25^\circ\text{C}$ (without offset)		$< \pm 1$ %
ϵ_L	Linearity ³⁾ ($0 \dots \pm I_{PN}$)		$< \pm 1$ % of I_{PN}
V_{OE}	Electrical offset voltage, $T_A = 25^\circ\text{C}$		$< \pm 40$ mV
V_{OH}	Hysteresis offset voltage @ $I_P = 0$; after an excursion of $1 \times I_{PN}$		$< \pm 15$ mV
V_{OT}	Thermal drift of V_{OE}	typ. ± 1.5 mV/K max. ± 3 mV/K	
TCE_G	Thermal drift of the gain (% of reading)		$< \pm 0.1$ %/K
t_r	Response time @ 90% of I_P		< 3 μs
di/dt	di/dt accurately followed		> 50 A/ μs
f	Frequency bandwidth ⁴⁾ (-3 dB)		DC .. 50 kHz

General data

T_A	Ambient operating temperature	- 10 .. + 80 $^\circ\text{C}$
T_S	Ambient storage temperature	- 25 .. + 85 $^\circ\text{C}$
m	Mass	< 14 g
	Standards ⁵⁾	EN 50178

$$I_{PN} = 30 \text{ A}$$



Features

- Hall effect measuring principle
- Galvanic isolation between primary and secondary circuit
- Isolation voltage 2500 V~
- Compact design for PCB mounting
- Low power consumption
- Extended measuring range ($3 \times I_{PN}$)
- Insulated plastic case recognized according to UL 94-V0.

Advantages

- Easy mounting
- Small size and space savings
- Only one design for wide current ratings range
- High immunity against external interference

Applications

- General purpose inverters
- Switched-Mode Power Supplies (SMPS)
- AC motor speed control
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Power supplies for welding applications.

Notes : ¹⁾ Conductor terminals are soldered together.

²⁾ Pollution class 2, overvoltage category III.

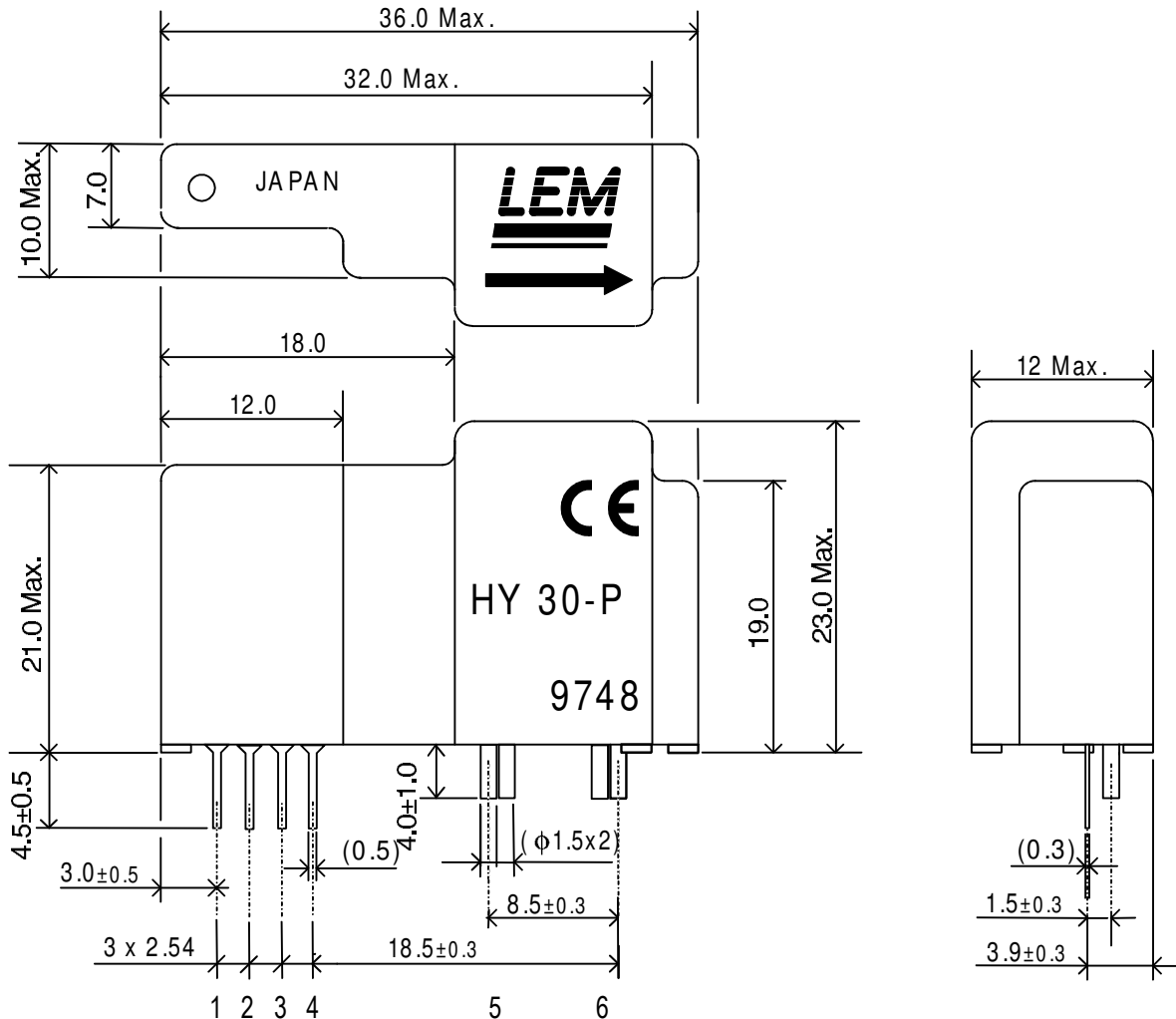
³⁾ Linearity data exclude the electrical offset.

⁴⁾ Please refer to derating curves in the technical file to avoid excessive core heating at high frequency.

⁵⁾ Please consult characterisation report for more technical details and application advice.

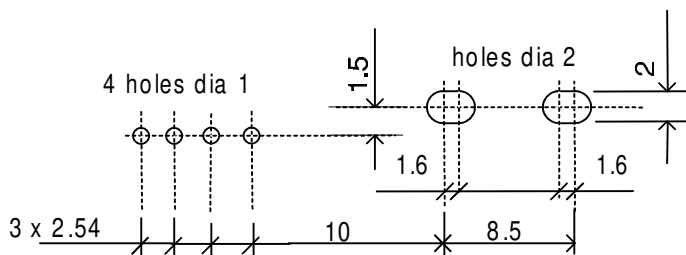
HY 30-P

Dimensions (in mm)



PCB MOUNTING DIMENSIONS (in mm ±0.1, hole -0, +0.2)

HY 30-P



PIN ARRANGEMENT

- 1 +15V
- 2 -15V
- 3 OUTPUT
- 4 0V

- 5 PRIMARY IN
- 6 PRIMARY OUT