



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 LA 25-NP/SP8

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

$$I_{PN} = 2 A$$



16094

Electrical data

I_{PN}	Primary nominal current rms	2	A
I_{PM}	Primary current, measuring range	0 .. ± 3	A
R_M	Measuring resistance with ± 15 V	$R_{M \min}$	$R_{M \max}$
			@ ± 2 A _{max}
		@ ± 3 A _{max}	100 190
I_{SN}	Secondary nominal current rms	24	mA
K_N	Conversion ratio	12 : 1000	
V_C	Supply voltage (± 5 %)	± 15	V
I_C	Current consumption	10 + I_S	mA

Accuracy - Dynamic performance data

X	Accuracy @ I_{PN} , $T_A = 25^\circ C$	± 0.5	%
ϵ_L	Linearity error	< 0.2	%
I_O	Offset current ¹⁾ @ $I_P = 0$, $T_A = 25^\circ C$	Typ	Max
		± 0.05	± 0.15
I_{OM}	Magnetic offset current ²⁾ @ $I_P = 0$ and specified R_M , after an overload of 3 x I_{PN}	± 0.05	± 0.15
		± 0.06	± 0.25
I_{OT}	Temperature variation of I_O	0°C .. + 25°C	± 0.10
		+ 25°C .. + 70°C	± 0.35
t_r	Response time ³⁾ to 90 % of I_{PN} step	< 1	µs
di/dt	di/dt accurately followed	> 50	A/µs
BW	Frequency bandwidth (- 1 dB)	DC .. 150	kHz

General data

T_A	Ambient operating temperature	0 .. + 70	°C
T_S	Ambient storage temperature	- 25 .. + 85	°C
R_P	Primary coil resistance @ $T_A = 25^\circ C$	< 12.4	mΩ
R_S	Secondary coil resistance @ $T_A = 70^\circ C$	110	Ω
L_P	Insertion inductance	8	µH
R_{IS}	Isolation resistance @ 500 V, $T_A = 25^\circ C$	> 1500	MΩ
m	Mass	22	g
	Standards	EN 50178: 1997	

Notes: ¹⁾ Measurement carried out after 15 mn functioning
²⁾ The result of the coercive field of the magnetic circuit
³⁾ With a di/dt of 100 A/µs.

Features

- Closed loop (compensated) current transducer using the Hall effect
- Isolated plastic case recognized according to UL 94-V0.

Special features

- $I_{PN} = 2 A$
- $I_{PM} = 0 .. \pm 3 A$
- $K_N = 12 : 1000$.

Advantages

- Excellent accuracy
- Very good linearity
- Low temperature drift
- Optimized response time
- Wide frequency bandwidth
- No insertion losses
- High immunity to external interference
- Current overload capability.

Applications

- AC variable speed drives and servo motor drives
- Static converters for DC motor drives
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Power supplies for welding applications.

Application domain

- Industrial.

Current Transducer LA 25-NP/SP8

Isolation characteristics

V_d	Rms voltage for AC insulation test, 50 Hz, 1 min	2.5	kV
\hat{V}_w	Impulse withstand voltage 1.2/50 μ s	16	kV
		Min	
dCp	Creepage distance	19.5	mm
dCI	Clearance	19.5	mm
CTI	Comparative Tracking Index (group IIIa)	175	

Applications examples

According to EN 50178 and IEC 61010-1 standards and following conditions:

- Over voltage category OV 3
- Pollution degree PD2
- Non-uniform field

	EN 50178	IEC 61010-1
dCp, dCI, \hat{V}_w	Rated insulation voltage	Nominal voltage
Basic insulation	1700 V	1700 V
Reinforced insulation	600 V	600 V

Safety



This transducer must be used in electric/electronic equipment with respect to applicable standards and safety requirements in accordance with the manufacturer's operating instructions.



Caution, risk of electrical shock

When operating the transducer, certain parts of the module can carry hazardous voltage (eg. primary busbar, power supply).

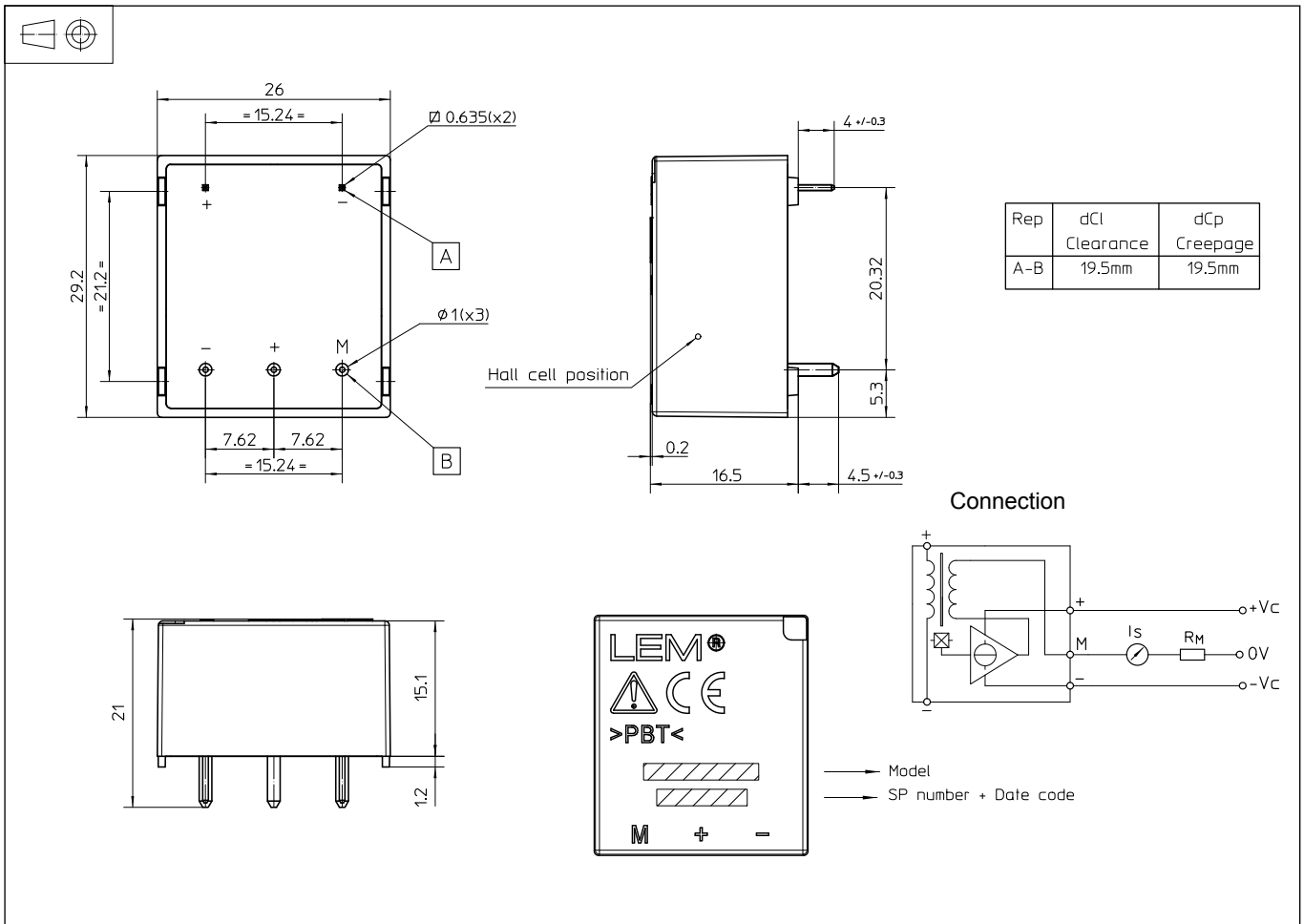
Ignoring this warning can lead to injury and/or cause serious damage.

This transducer is a build-in device, whose conducting parts must be inaccessible after installation.

A protective housing or additional shield could be used.

Main supply must be able to be disconnected.

Dimensions LA 25-NP/SP8 (in mm)



Mechanical characteristics

- General tolerance ± 0.2 mm
- Fastening & connection of primary 2 pins
0.635 x 0.635 mm
- Fastening & connection of secondary 3 pins $\varnothing 1$ mm
- Recommended PCB hole 1.2 mm

Remark

- I_s is positive when I_p flows from terminal + to terminal -.