Current Transducer LA 150-P

I_{PN} = 150 A

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

Preliminary

Electrical data

I_{PN}	Primary nominal current				150		A
I_P	Primary current, measuring range				0 .. ± 200		A
R_M	Measuring resistance	T_A = 70°C		T_A = 85°C			
		$R_{M\ min}$	$R_{M\ max}$	$R_{M\ min}$	$R_{M\ max}$		
	with ±15V @± 200 **A** $_{max}$	0	30	0	15		Ω
I_{SN}	Secondary nominal current				75		mA
K_N	Conversion ratio				1 : 2000		
V_C	Supply voltage (± 5 %)				± 15		V
I_C	Current consumption			app	16 + I_{SN}		mA
V_d	R.m.s. voltage for AC isolation test, 50/60Hz,1mn				2.5		kV

Accuracy-Dynamic performance data

X	Accuracy @ I_{PN}, T_A = 25°C @± 15V (± 5 %)		< ± 1	% of I_{PN}
ε_L	Linearity (0 .. ± I_{PN})		± 0.25	% of I_{PN}
I_O	Electrical offset current @I_P = 0, @T_A = 25°C	Max.	± 0.2	mA
I_{om}	Residual current @ I_P = 0, after an excursion at 1x I_{PN}	Max.	± 0.15	mA
I_{OT}	Thermal drift of I_O		± 0.005	mA/K
t_r	Response time @ 90% of I_P		<1	µs
di/dt	di/dt accurately followed		> 200	A/µs
f	Frequency bandwidth (- 1dB)[1)]		DC .. 150	kHz

General data

T_A	Ambient operating temperature	- 10 .. + 80	°C
T_S	Ambient storage temperature	- 15 .. + 85	°C
R_S	Secondary coil resistance	80	Ω
m	Mass	25	g

Notes : EN 50178 approval pending

[1)] Derating is needed to avoid excessive core heating at high frequency.

Features

- Closed loop (compensation) current transducer using the Hall effect
- Printed circuit board mounting

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 capacity

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

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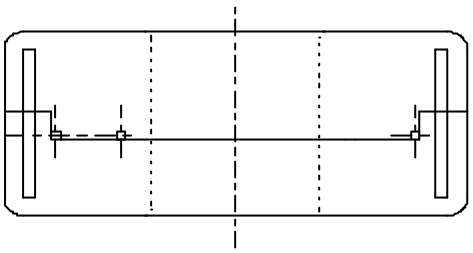
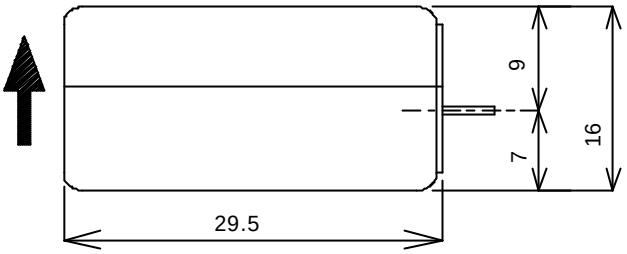
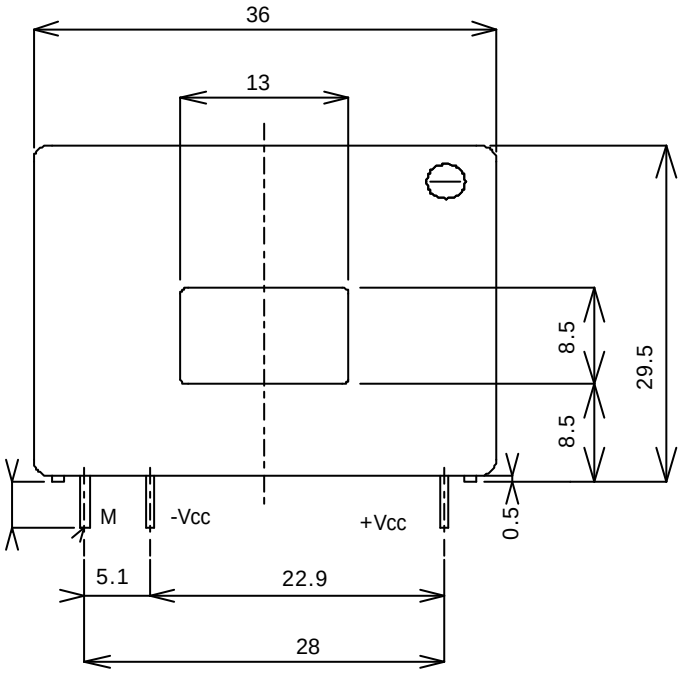
LA 150-P

Bottom view



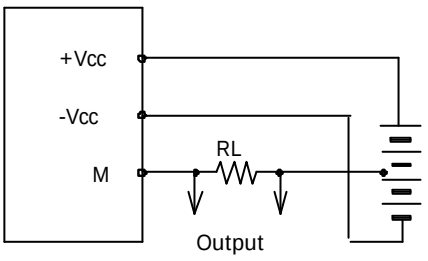
Left view





Front view

Terminal Pin Identification



General tolerance	+/- 0.2 mm
Primary through-hole	13 x 8.5 mm
Fastening & connection of secongary	3 pins 0.7 x 0.7 mm
Recommended PCB hole	1.0 mm