

Current Transducer LA 150-P

$I_{PN} = 150 \text{ A}$

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	$T_A = 70^\circ\text{C}$	$R_{M \min}$	0
			$R_{M \max}$	30
	with ±15V @ ± 200 A _{max}	$T_A = 85^\circ\text{C}$	$R_{M \min}$	0
			$R_{M \max}$	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

Features

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

Accuracy-Dynamic performance data

X	Accuracy @ $I_{PN}, T_A = 25^\circ\text{C}$ @ ± 15V (± 5 %)	< ± 1	% of I_{PN}
ϵ_L	Linearity (0 .. ± I_{PN})	± 0.25	% of I_{PN}
I_O	Electrical offset current @ $I_P = 0, @ T_A = 25^\circ\text{C}$	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

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

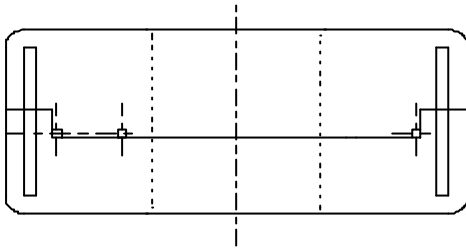
General data

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

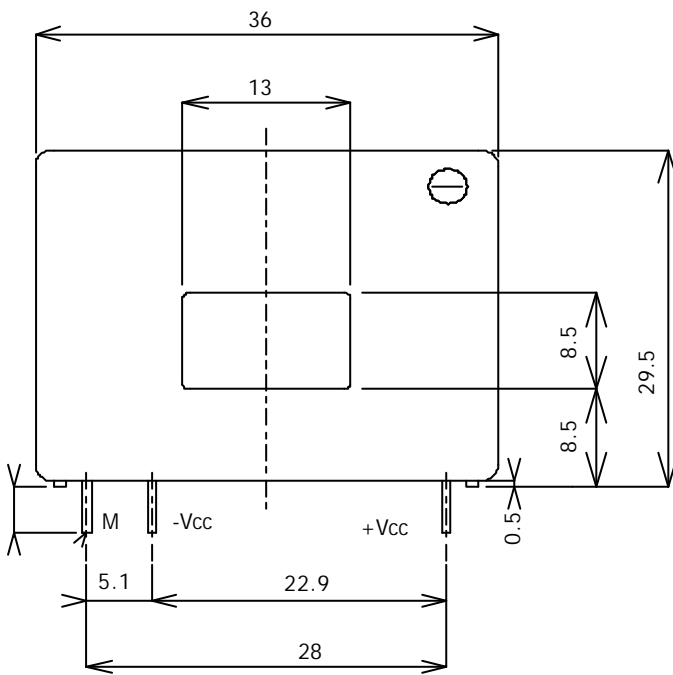
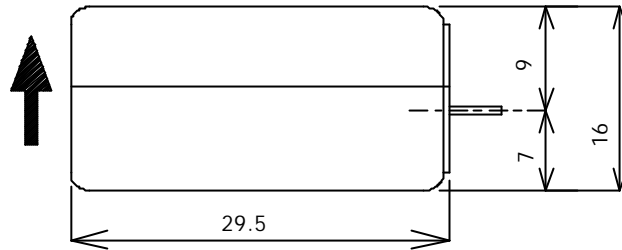
Notes : EN 50178 approval pending

LA 150-P

Bottom view

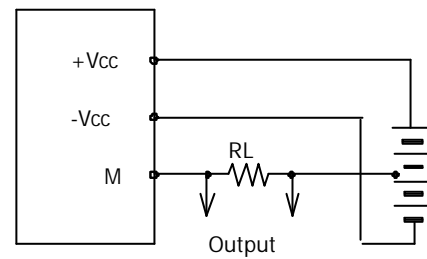


Left view



Front view

Terminal Pin Identification



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