Current Transducer LA 205-T/SP16

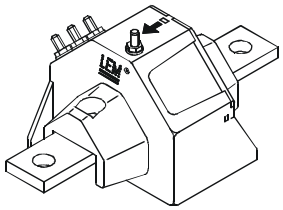
I_{PN} = 200 A

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).

CE

RoHS COMPLIANT 2002/95/EC

0622



Electrical data

I_{PN}	Primary nominal r.m.s. current		200		A
I_P	Primary current, measuring range		0 .. ± 400		A
R_M	Measuring resistance @ T_A = 70°C		$R_{M\,min}$	$R_{M\,max}$	
	avec ± 15 V	@ ± 200 A_{max}	0	120	Ω
		@ ± 400 A_{max}	0	25	Ω
	avec ± 24 V	@ ± 200 A_{max}	50	240	Ω
		@ ± 400 A_{max}	50	80	Ω
I_{SN}	Secondary nominal r.m.s. current		66.6		mA
K_N	Conversion ratio		1 : 3000		
V_C	Supply voltage (± 10 %)		± 15 .. 24		V
I_C	Current consumption		20 + I_S		mA
V_d	R.m.s. voltage for AC isolation test, 50 Hz, 1 mn		6 [1]		kV
			1 [2]		kV

Accuracy - Dynamic performance data

X_G	Overall accuracy @ I_{PN}, T_A = 25°C		± 0.8		%
ε_L	Linearity		< 0.1		%
			Typ	Max	
I_O	Offset current @ I_P = 0, T_A = 25°C			± 0.10	mA
I_{OM}	Residual current [3] @ I_P = 0, after an overload of 3 x I_{PN}			± 0.30	mA
I_{OT}	Thermal drift of I_O	- 25°C .. + 75°C	± 0.1	± 0.25	mA
t_{ra}	Reaction time @ 10 % of $I_{P\,max}$		< 500		ns
t_r	Response time [4] @ 90 % of I_{PN}		< 1		µs
di/dt	di/dt accurately followed		> 100		A/µs
f	Frequency bandwidth (- 3 dB)		DC .. 100		kHz

General data

T_A	Ambient operating temperature		- 25 .. + 75	°C
T_S	Ambient storage temperature		- 40 .. + 85	°C
R_S	Secondary coil resistance @ T_A = 75°C		70	Ω
m	Mass		270	g
	Standards		EN 50155	

Notes : [1] Between primary and secondary + shield
[2] Between secondary and shield
[3] The result of the coercive field of the magnetic circuit
[4] With a di/dt of 100 A/µs.

Features

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

Special features

- I_P = 0 .. ± 400 A
- K_N = 1 : 3000
- V_C = ± 15 .. 24 (± 10 %) V
- T_A = - 25°C .. + 75°C
- Shield between primary and secondary
- Connection to secondary circuit on M4 threaded studs
- Potted
- VRT Burn-in
- Railway equipment.

Advantages

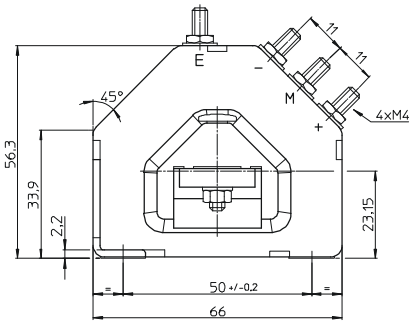
- Excellent accuracy
- Very good linearity
- Low temperature drift
- Optimized response time
- Wide frequency bandwidth
- No insertion losses
- High immunity to external interference
- Current overload capability.

Applications

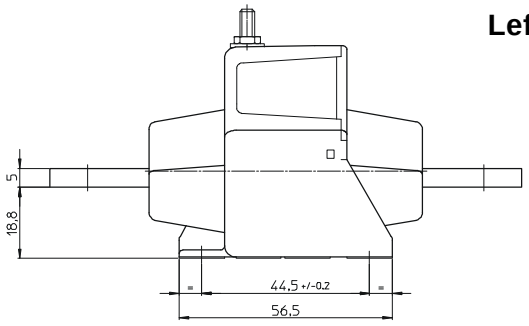
- AC variable speed drives and servo motor drives
- Static converters for DC motor drives
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Power supplies for welding applications.

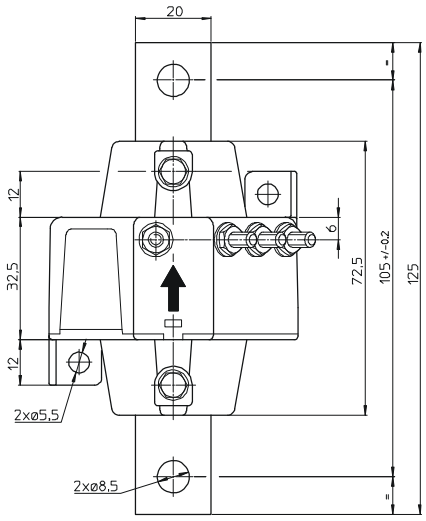
Dimensions LA 205-T/SP16 (in mm. 1 mm = 0.0394 inch)

Front view



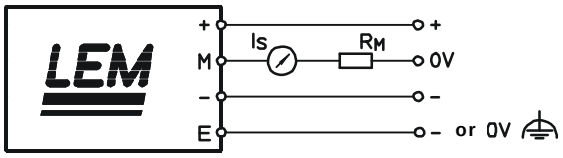
Left view





Top view

Connection



Mechanical characteristics

• General tolerance	± 0.5 mm
• Fastening	
by transducer	2 holes ∅ 5.5 mm
	2 M5 steel screws
Fastening torque, max.	4 Nm or 2.95 Lb. - Ft.
or	
by the primary	2 holes ∅ 8.5 mm
• Connection of secondary	M4 threaded studs
Fastening torque	1.2 Nm or .88 Lb.-Ft.

Remarks

- $\mathbf{I}_S$ is positive when $\mathbf{I}_P$ flows in the direction of the arrow.
- Temperature of the primary conductor should not exceed 100°C.

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