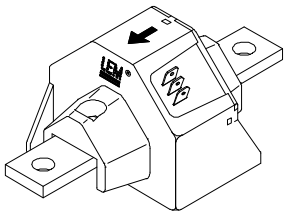
Current Transducer LA 205-T/SP6

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).

16276



Electrical data

I_{PN}	Primary nominal r.m.s. current			200			A
I_P	Primary current, measuring range			0 .. ± 300			A
$\hat{I}_{P\,max}$	Measuring overload [1]			600			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 ± 12 V	@ ± 200 A_{max}	0	68	0	66	Ω
		@ ± 300 A_{max}	0	33	0	30	Ω
	with ± 15 V	@ ± 200 A_{max}	5	95	5	93	Ω
		@ ± 300 A_{max}	5	50	5	49	Ω
I_{SN}	Secondary nominal r.m.s. current			100			mA
K_N	Conversion ratio			1 : 2000			
V_C	Supply voltage (± 5 %)			± 12 .. 15			V
I_C	Current consumption			20 (@ ± 15 V) + I_S			mA
V_d	R.m.s. voltage for AC isolation test, 50 Hz, 1 mn			6			kV
V_b	R.m.s. rated voltage [2], safe separation			1625			V
	basic isolation			3250			V

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				± 0.15	mA
I_{OM}	Residual current [3] @ I_P = 0, after an overload of 3 x I_{PN}				± 0.50	mA
I_{OT}	Thermal drift of I_O	- 40 °C .. + 85 °C		± 0.20	± 0.50	mA
t_{ra}	Reaction time @ 10 % of $I_{P\,max}$			< 500		ns
t_r	Response time [4] @ 90 % of $I_{P\,max}$			< 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		- 40 .. + 85	°C
T_S	Ambient storage temperature		- 50 .. + 90	°C
R_S	Secondary coil resistance @	T_A = 70 °C	35	Ω
		T_A = 85 °C	37	Ω
m	Mass		290	g
	Standards		EN 50155	

Notes : [1] 3 mn / hour @ V_C = ± 15 V, R_M = 5 Ω
[2] Pollution class 2. With a non insulated primary bar which fills the through-hole
[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

- T_A = - 40 °C .. + 85 °C
- Connection to secondary circuit on Faston 6.3 x 0.8 mm
- Railway equipment.

Advantages

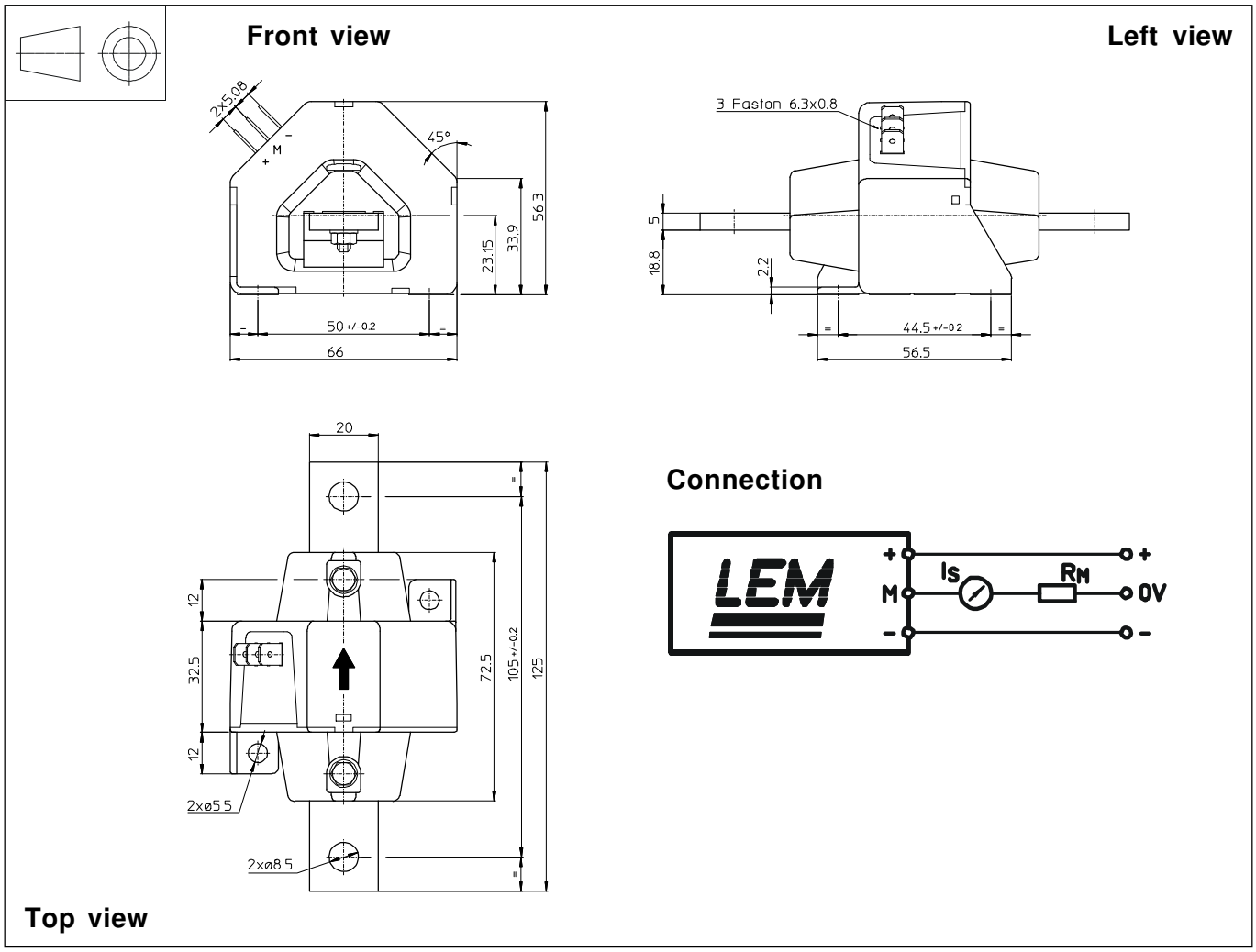
- Excellent accuracy
- Very good linearity
- Low temperature drift
- Optimized response time
- Wide frequency bandwidth
- No insertion losses
- High immunity to external interference
- Current overload capability.

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.

071010/3

Dimensions LA 205-T/SP6 (in mm. 1 mm = 0.0394 inch)



Mechanical characteristics

• General tolerance	± 0.5 mm
• Fastening	
By the transducer	2 holes ∅ 5.5 mm
	2 M5 steel screws
Fastening torque	4 Nm or 2.95 Lb.-Ft.
Or	
By the primary bar	2 holes ∅ 8.5 mm
• Connection of secondary	Faston 6.3 x 0.8 mm

Remarks

- I_S is positive when I_P flows in the direction of the arrow.
- Temperature of the primary conductor should not exceed 100 °C.