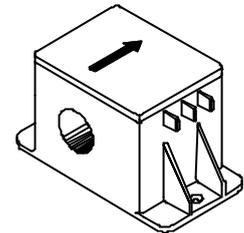


Current Transducer LT 200-S

$I_{PN} = 200 \text{ A}$

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).



Electrical data

I_{PN}	Primary nominal r.m.s. current	200	A			
I_P	Primary current, measuring range	0 .. ± 300	A			
R_M	Measuring resistance	$R_{M \min}$	$R_{M \max}$			
				with $\pm 12 \text{ V}$	@ $\pm 200 \text{ A}_{\max}$	0
			@ $\pm 300 \text{ A}_{\max}$	0	30	Ω
		with $\pm 18 \text{ V}$	@ $\pm 200 \text{ A}_{\max}$	50	120	Ω
	@ $\pm 300 \text{ A}_{\max}$	50	65	Ω		
I_{SN}	Secondary nominal r.m.s. current	100	mA			
K_N	Conversion ratio	1 : 2000				
V_C	Supply voltage ($\pm 5\%$)	$\pm 12 \dots 18$	V			
I_C	Current consumption	28 (@ $\pm 18\text{V}$) + I_S	mA			
V_d	R.m.s. voltage for AC isolation test, 50 Hz, 1 mn	6	kV			

Features

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

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.

Accuracy - Dynamic performance data

X_G	Overall accuracy @ $I_{PN}, T_A = 25^\circ\text{C}$	± 0.5	%
e_L	Linearity	< 0.1	%
I_O	Offset current @ $I_P = 0, T_A = 25^\circ\text{C}$	Typ	Max
I_{OT}	Thermal drift of I_O 0°C .. +70°C	± 0.3	± 0.5
t_r	Response time ¹⁾ @ 90 % of I_{PN}	< 1	μs
di/dt	di/dt accurately followed	> 50	A/ μs
f	Frequency bandwidth (-1dB)	DC .. 150	kHz

Applications

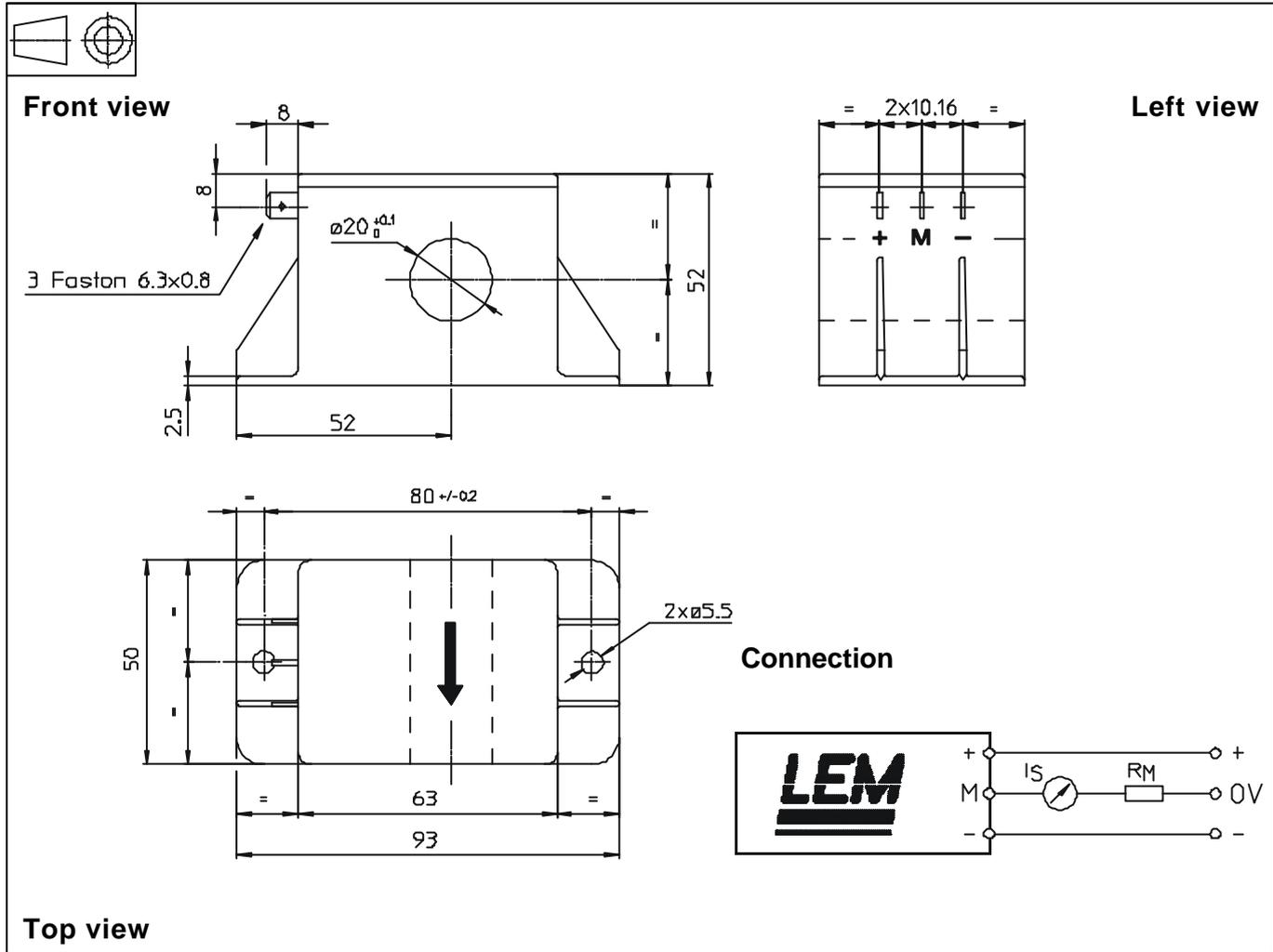
- AC variable speed drives and servo motor drives
- Static converters for DC motor drives
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Power supplies for welding applications.

General data

T_A	Ambient operating temperature	0 .. +70	$^\circ\text{C}$
T_S	Ambient storage temperature	-25 .. +85	$^\circ\text{C}$
R_S	Secondary coil resistance @ $T_A = 70^\circ\text{C}$	35	Ω
m	Mass	200	g
	Standards	EN 50178	

Note : ¹⁾ With di/dt at 100 A/ μs .

Dimensions LT 200-S (in mm. 1 mm = 0.0394 inch)



Mechanical characteristics

- | | |
|---------------------------|------------------------------|
| • General tolerance | ± 0.3 mm |
| • Transducer fastening | 2 holes $\varnothing 5.5$ mm |
| | 2 M5 steel screws |
| Fastening torque max | 3.8Nm or 2.8 Lb.-Ft. |
| • Primary through-hole | $\varnothing 20$ 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.
- Dynamic performances (di/dt and response time) are best with a single bar completely filling the primary hole
- This is a standard model. For different versions (supply voltages, turns ratios, unidirectional measurements...), please contact us.