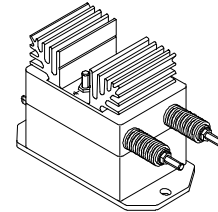


Voltage Transducer LV 100-2500

$$V_{PN} = 2500 \text{ V}$$

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



Electrical data

V_{PN}	Primary nominal r.m.s. voltage	2500	V			
V_P	Primary voltage, measuring range	0 .. ± 3750	V			
I_{PN}	Primary nominal r.m.s. current	4	mA			
R_M	Measuring resistance	R_{Mmin}	R_{Mmax}			
		with $\pm 15 \text{ V}$	@ $\pm 2500 \text{ V}_{max}$	0	170	Ω
		@ $\pm 3750 \text{ V}_{max}$	0	90	Ω	
I_{SN}	Secondary nominal r.m.s. current	50	mA			
K_N	Conversion ratio	2500 V / 50 mA				
V_C	Supply voltage ($\pm 5 \%$)	± 15	V			
I_C	Current consumption	$10 + I_S$	mA			
V_d	R.m.s. voltage for AC isolation test, 50 Hz, 1 mn	9	kV			

Features

- Closed loop (compensated) voltage transducer using the Hall effect
- Insulated plastic case recognized according to UL 94-V0
- Primary resistor R_1 incorporated into the housing.

Advantages

- Excellent accuracy
- Very good linearity
- Low thermal drift
- High immunity to external interference.

Applications

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

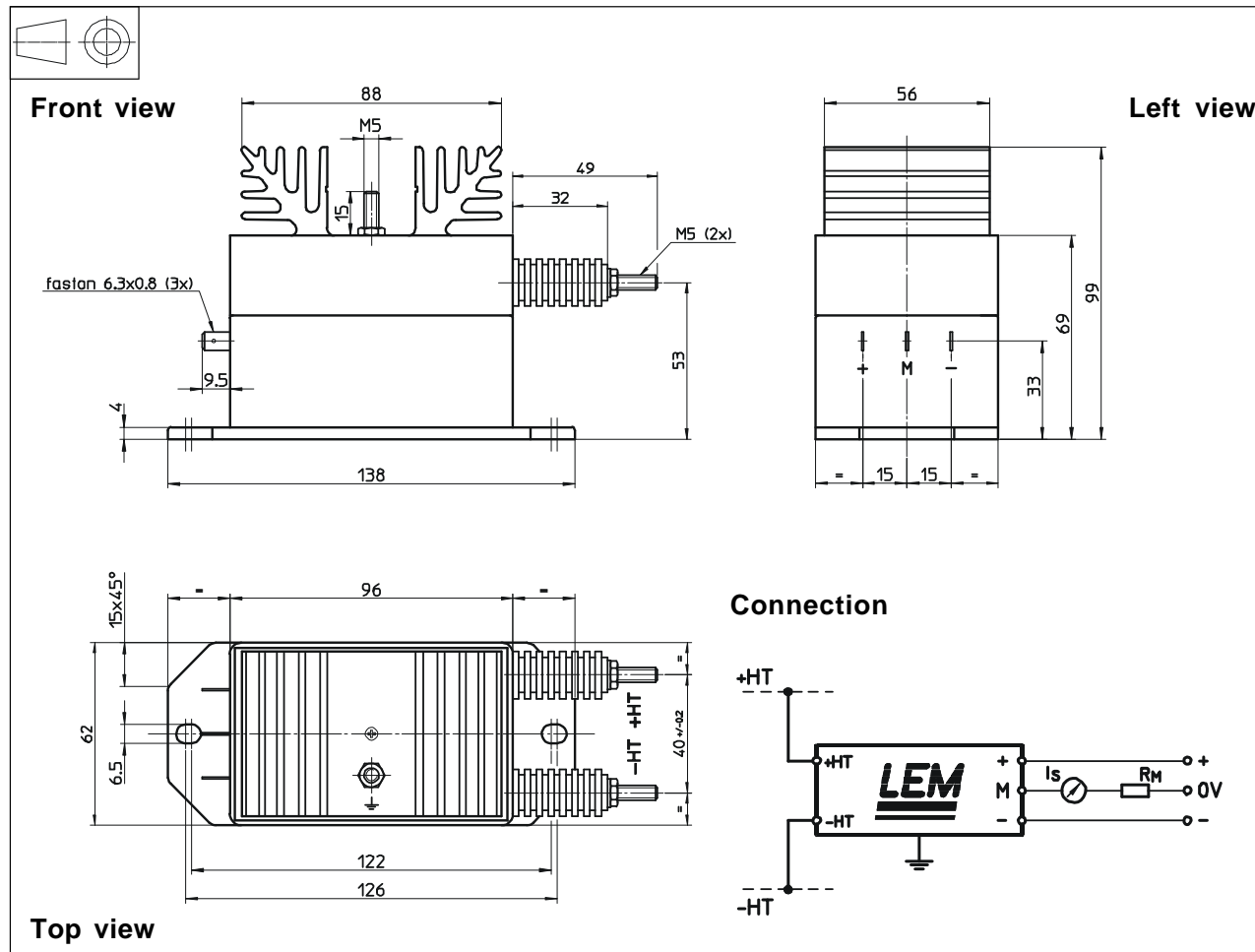
Accuracy - Dynamic performance data

X_G	Overall Accuracy @ $V_{PN}, T_A = 25^\circ\text{C}$	± 0.7	%
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	± 0.2	± 0.3
t_r	Response time @ 90 % of V_{PN}	170	μs

General data

T_A	Ambient operating temperature	0 .. +70	$^\circ\text{C}$
T_S	Ambient storage temperature	-25 .. +85	$^\circ\text{C}$
N	Turns ratio	25000 : 2000	
P	Total primary power loss	10	W
R_1	Primary resistance @ $T_A = 25^\circ\text{C}$	625	k Ω
R_S	Secondary coil resistance @ $T_A = 70^\circ\text{C}$	60	Ω
m	Mass	850	g
	Standards	EN 50178	

Dimensions LV 100-2500 (in mm. 1 mm = 0.0394 inch)



Mechanical characteristics

- | | |
|----------------------------|---|
| • General tolerance | ± 0.3 mm |
| • Transducer fastening | 2 holes $\varnothing 6.5$ mm
M6 steel screws |
| Fastening torque max | 5 Nm or 3.69 Lb - Ft. |
| • Connection of primary | M5 threaded studs |
| • Connection of secondary | Faston 6.3 x 0.8 mm |
| • Connection to the ground | M5 threaded stud |
| • Fastening torque max | 2.2 Nm or 1.62 Lb. -Ft. |

Remarks

- I_s is positive when V_p is applied on terminal +HT.
- The primary circuit of the transducer must be linked to the connections where the voltage has to be measured.
- This is a standard model. For different versions (supply voltages, turns ratios, unidirectional measurements...), please contact us.

LEM reserves the right to carry out modifications on its transducers, in order to improve them, without previous notice.