

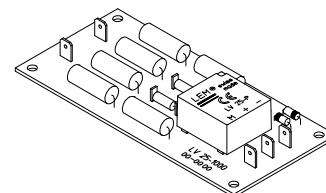
Voltage Transducer LV 25-1000/SP1

$V_{PN} = 1000 \text{ V}$

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).



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Electrical data

V_{PN}	Primary nominal r.m.s. voltage	1000	V			
V_P	Primary voltage, measuring range	0 .. ± 1500	V			
I_{PN}	Primary nominal r.m.s. current	8	mA			
R_M	Measuring resistance	$R_{M \min}$	$R_{M \max}$			
				with $\pm 12 \text{ V}$	@ $\pm 1000 \text{ V}_{\max}$	30
			@ $\pm 1500 \text{ V}_{\max}$	30	100	Ω
		with $\pm 15 \text{ V}$	@ $\pm 1000 \text{ V}_{\max}$	100	320	Ω
	@ $\pm 1500 \text{ V}_{\max}$	100	180	Ω		
I_{SN}	Secondary nominal r.m.s. current	25	mA			
K_N	Conversion ratio	1000 V / 25 mA				
V_C	Supply voltage ($\pm 5 \%$)	$\pm 12 \dots 15$	V			
I_C	Current consumption	10 (@ $\pm 15 \text{ V}$) + I_S	mA			
V_d	R.m.s. voltage for AC isolation test ¹⁾ , 50 Hz, 1 mn	4.1	kV			

Features

- Closed loop (compensated) voltage transducer using the Hall effect
- Transducer with insulated plastic case recognized according to UL 94-V0
- Primary resistor R_1 and transducer mounted on printed circuit board 128 x 60 mm.

Special features

- $T_A = -30 \dots +70 \text{ }^\circ\text{C}$
- Coated
- Railway equipment.

Accuracy - Dynamic performance data

X_G	Overall Accuracy @ $V_{PN}, T_A = 25 \text{ }^\circ\text{C}$	± 0.8	%
ϵ_L	Linearity	< 0.2	%
I_O	Offset current @ $I_P = 0, T_A = 25 \text{ }^\circ\text{C}$	Typ	Max
I_{OT}	Thermal drift of I_O	-30 $^\circ\text{C}$.. +25 $^\circ\text{C}$	± 0.10 ± 0.50 mA
		+25 $^\circ\text{C}$.. +70 $^\circ\text{C}$	± 0.10 ± 0.40 mA
t_r	Response time @ 90 % of V_{PN}	40	μs

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.

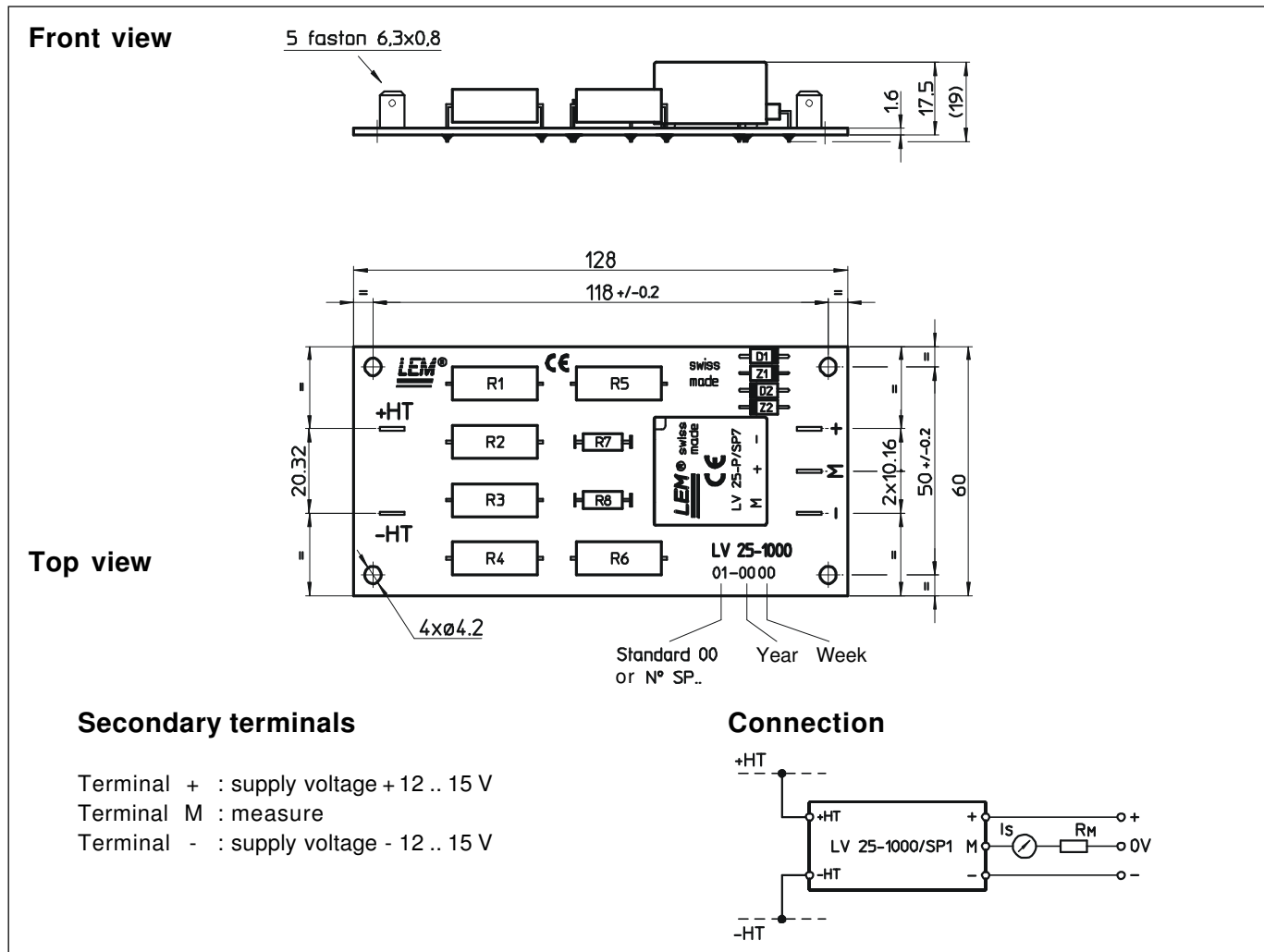
General data

T_A	Ambient operating temperature	-30 .. +70	$^\circ\text{C}$
T_S	Ambient storage temperature	-40 .. +85	$^\circ\text{C}$
N	Turns ratio	3100 : 1000	
P	Total primary power loss	8	W
R_1	Primary resistance @ $T_A = 25 \text{ }^\circ\text{C}$	125	k Ω
R_S	Secondary coil resistance @ $T_A = 70 \text{ }^\circ\text{C}$	110	Ω
m	Mass	60	g
	Standards	EN 50178: 1997	

Note : ¹⁾ Between primary and secondary.

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Dimensions LV 25-1000/SP1 (in mm. 1 mm = 0.0394 inch)



Mechanical characteristics

- General tolerance ± 0.3 mm
- Fastening 4 holes $\varnothing 4.3$ mm
- Connection of primary Faston 6.3 x 0.8 mm
- Connection of secondary Faston 6.3 x 0.8 mm

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.