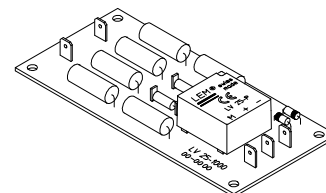


# Voltage Transducer LV 25-1000

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

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).



## Electrical data

$V_{PN}$	Primary nominal r.m.s. voltage	1000	V			
$V_P$	Primary voltage, measuring range	0 .. $\pm 1500$	V			
$I_{PN}$	Primary nominal r.m.s. current	8	mA			
$R_M$	Measuring resistance	$R_{Mmin}$	$R_{Mmax}$			
		with $\pm 12 \text{ V}$	@ $\pm 1000 \text{ V}_{max}$	30	200	$\Omega$
			@ $\pm 1500 \text{ V}_{max}$	30	100	$\Omega$
		with $\pm 15 \text{ V}$	@ $\pm 1000 \text{ V}_{max}$	100	320	$\Omega$
	@ $\pm 1500 \text{ V}_{max}$	100	180	$\Omega$		
$I_{SN}$	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 <sup>1)</sup> , 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.

## 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

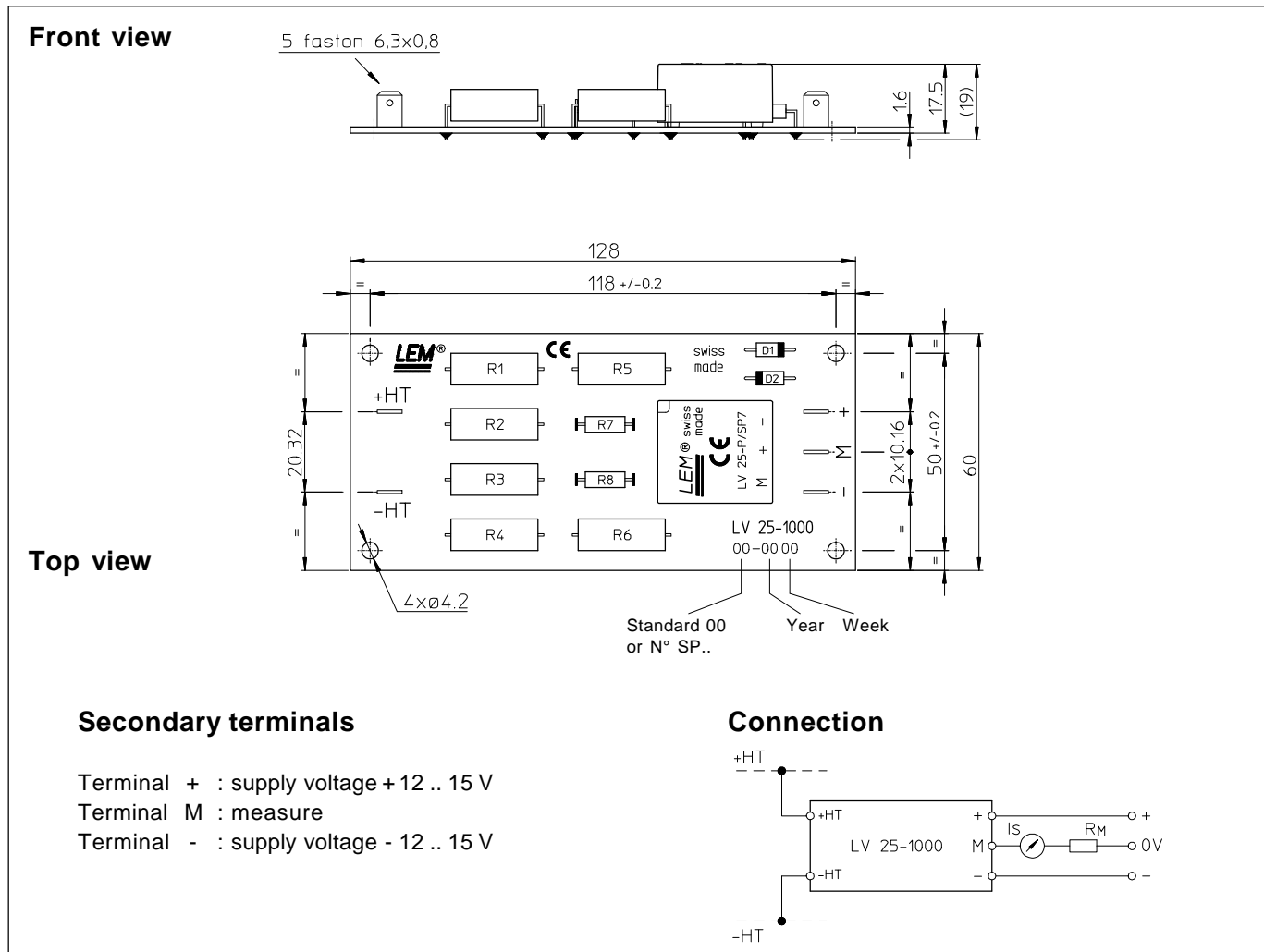
$X_G$	Overall Accuracy @ $V_{PN}, T_A = 25^\circ\text{C}$	$\pm 0.8$	%
$e_L$	Linearity	< 0.2	%
$I_O$	Offset current @ $I_P = 0, T_A = 25^\circ\text{C}$	Typ	Max
			$\pm 0.15$ mA
$I_{OT}$	Thermal drift of $I_O$	- 25°C .. + 25°C	$\pm 0.10$ $\pm 0.60$ mA
		+ 25°C .. + 70°C	$\pm 0.10$ $\pm 0.60$ mA
$t_r$	Response time @ 90 % of $V_{Pmax}$	40	$\mu\text{s}$

## General data

$T_A$	Ambient operating temperature	- 25 .. + 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 @ $T_A = 25^\circ\text{C}$	125	k $\Omega$
$R_S$	Secondary coil resistance @ $T_A = 70^\circ\text{C}$	110	$\Omega$
$m$	Mass	60	g
	Standards <sup>2)</sup>	EN 50178	

Notes : <sup>1)</sup> Between primary and secondary  
<sup>2)</sup> A list of corresponding tests is available

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



## Mechanical characteristics

- General tolerance  $\pm 0.3$  mm
- Fastening 4 holes  $\varnothing 4.2$  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.