

# Voltage Transducer LV 25-600/SP2

$$V_{PN} = 600 \text{ V}$$

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	600	V		
$V_P$	Primary voltage, measuring range	0 .. $\pm 900$	V		
$I_{PN}$	Primary nominal r.m.s. current	10	mA		
$R_M$	Measuring resistance	$R_{Mmin}$	$R_{Mmax}$		
				with $\pm 12 \text{ V}$	@ $\pm 600 \text{ V}_{max}$
			@ $\pm 900 \text{ V}_{max}$	30	100 $\Omega$
		with $\pm 15 \text{ V}$	@ $\pm 600 \text{ V}_{max}$	100	320 $\Omega$
			@ $\pm 900 \text{ V}_{max}$	100	180 $\Omega$
$I_{SN}$	Secondary nominal r.m.s. current	25	mA		
$K_N$	Conversion ratio	600 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 resistors **R** and transducer mounted on printed circuit board 128 x 60 mm.

## Special features

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

## 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
$I_{OT}$	Thermal drift of $I_O$	+ $25^\circ\text{C} \dots +70^\circ\text{C}$ - $30^\circ\text{C} \dots +25^\circ\text{C}$	$\pm 0.15$ mA
			$\pm 0.10$   $\pm 0.40$ mA
			$\pm 0.10$   $\pm 0.50$ mA
$t_r$	Response time @ 90 % of $V_{PN}$	15	$\mu\text{s}$

## 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.

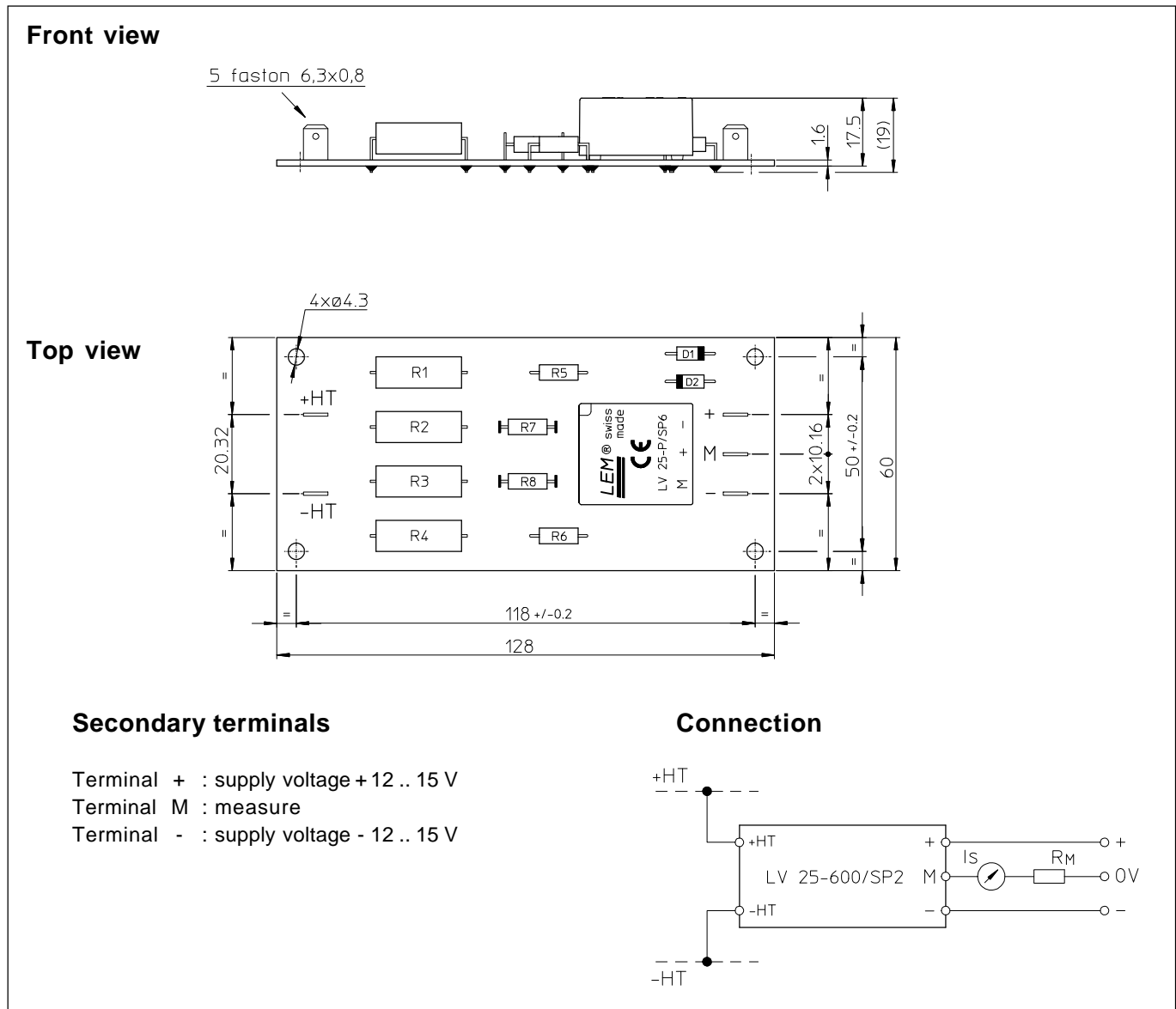
## General data

$T_A$	Ambient operating temperature	- 30 .. + 70	$^\circ\text{C}$
$T_S$	Ambient storage temperature	- 40 .. + 85	$^\circ\text{C}$
<b>N</b>	Turns ratio	2500 : 1000	
<b>P</b>	Total primary power loss	6	W
$R_1$	Primary resistance @ $T_A = 25^\circ\text{C}$	60	k $\Omega$
$R_S$	Secondary coil resistance @ $T_A = 70^\circ\text{C}$	115	$\Omega$
<b>m</b>	Mass	60	g
	Standards	EN 50155	

Note : <sup>1)</sup> Between primary and secondary.

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## Dimensions LV 25-600/SP2 (in mm. 1 mm = 0.0394 inch)



## Mechanical characteristics

- General tolerance  $\pm 0.3$  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.