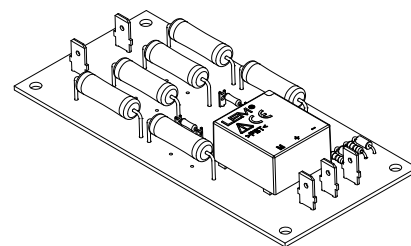


## Voltage Transducer LV 25-600/SP2

For the electronic measurement of voltage: DC, AC, pulsed..., with galvanic separation between the primary circuit and the secondary circuit.



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



### Electrical data

$V_{PN}$	Primary nominal rms voltage	600	V
$V_{PM}$	Primary voltage, measuring range	0 .. $\pm 900$	V
$I_{PN}$	Primary nominal rms current	10	mA
$R_M$	Measuring resistance	$R_{M \min}$ $R_{M \max}$	
	with $\pm 12 \text{ V}$	@ $\pm 600 \text{ V}_{\max}$	30 200 $\Omega$
		@ $\pm 900 \text{ V}_{\max}$	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 rms current	25	mA
$K_N$	Conversion ratio	600 V : 25 mA	
$U_C$	Supply voltage ( $\pm 5 \%$ )	$\pm 12 \dots 15$	V
$I_C$	Current consumption	10 (@ $\pm 15 \text{ V}$ ) + $I_S$	mA

### Accuracy - Dynamic performance data

$X_G$	Overall accuracy @ $V_{PN}$ , $T_A = 25^\circ \text{C}$	$\pm 0.8$	%
$\epsilon_L$	Linearity error	$< 0.2$	%
$I_O$	Offset current @ $V_P = 0$ , $T_A = 25^\circ \text{C}$	Typ Max	
$I_{OT}$	Temperature variation of $I_O$	$+ 25^\circ \text{C} \dots + 70^\circ \text{C}$	$\pm 0.10 \pm 0.40$ mA
		$- 30^\circ \text{C} \dots + 25^\circ \text{C}$	$\pm 0.10 \pm 0.50$ mA
$t_r$	Step response time to 90 % of $V_{PN}$	$< 15$	us

### General data

$T_A$	Ambient operating temperature	$- 30 \dots + 70$	$^\circ \text{C}$
$T_S$	Ambient storage temperature	$- 40 \dots + 85$	$^\circ \text{C}$
$N_P/N_S$	Turns ratio	2500 : 1000	
$P_P$	Total primary power loss	6	W
$R_P$	Resistance of primary @ $T_A = 25^\circ \text{C}$	60	k $\Omega$
$R_S$	Resistance of secondary winding @ $T_A = 70^\circ \text{C}$	115	$\Omega$
$m$	Mass	60	g
	Standards	EN 50155: 2001 UL 508: 2010	

### Features

- Closed loop (compensated) voltage transducer using the Hall effect
- Insulating plastic case recognized according to UL 94-V0
- Primary resistor 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.

### Advantages

- Excellent accuracy
- Very good linearity
- Low temperature 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.

### Application Domain

- Traction.

## Voltage Transducer LV 25-600/SP2

### Insulation coordination

$U_d$	Rms voltage for AC insulation test <sup>1)</sup> , 50 Hz, 1 min	4.1	kV
		Min	
$d_{cp}$	Creepage distance	13.8	mm
$d_{cl}$	Clearance	13.8	mm
CTI	Comparative tracking index (group IIIb)	< 175	

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

## Safety

This transducer must be used in limited-energy secondary circuits according to IEC 61010-1.



This transducer must be used in electric/electronic equipment with respect to applicable standards and safety requirements in accordance with the manufacturer's operating instructions.



Caution, risk of electrical shock

When operating the transducer, certain parts of the module can carry hazardous voltage (eg. primary busbar, power supply). Ignoring this warning can lead to injury and/or cause serious damage.

This transducer is a build-in device, whose conducting parts must be inaccessible after installation. A protective housing or additional shield could be used.

Main supply must be able to be disconnected.

## Dimensions LV 25-600/SP2 (in mm)

