

Voltage Transducer LV 100-3500/SP2

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



	Electrical data				
U_{P}	N Primary nominal RMS	voltage	3600		V
U_{P} I_{PN}	Primary voltage, meas	• •	0 ±4 2.26	500	V mA
R_{M}	Measuring resistance with ±24 V	@ ±3600 V _{max} @ ±4500 V _{max}	R _{M min} 0 0	R _{M max} 420 330	Ω
I_{SN} S U_{C} I_{C}	Secondary nominal R Sensitivity Supply voltage (+5/ - Current consumption		50 13.89 ±24 < 37 (@) ±24 V) +	$\begin{array}{c} \text{mA} \\ \mu \text{A/V} \\ \text{V} \\ \text{+} I_{\text{S}} \text{ mA} \end{array}$

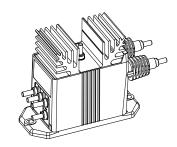
	todardoy Byrianno portori	nance data			
$\varepsilon_{ m tot}$	Total error @ U_{PN} , T_{A} = 25 °C		±0.9		%
$\varepsilon_{_{\mathrm{I}}}$	Linearity error		< 0.1		%
_			Тур	Max	
I_{0}	Offset current @ U_P = 0, T_A = 25	°C		±0.2	mA
I_{OT}	Temperature variation of $I_{\rm O}$	−25 °C +70 °C	±0.3	±0.5	mA
t _{D 90}	Delay time to 90 % of the final outp	out value for $U_{\mathtt{PN}}$ step	100		μs

Accuracy - Dynamic performance data

G	General data					
T_{A}	Ambient operating temperature	−25 +70	°C			
$T_{A \text{ st}}$ N_{P}/N_{e}	Ambient storage temperature Turns ratio	-40 +85 36000 : 1666	°C			
P_{P}	Total primary power loss	8.2	W			
R_{P}	Resistance of primary winding @ T_A = 25 °C	1.592	$M\Omega$			
R_{S}	Resistance of secondary winding @ $T_{\rm A}$ = 70 °C	44	Ω			
m	Mass Standard ¹⁾	790 EN 50155: 2017	g			

Note: 1) Additional information available on request.

$U_{PN} = 3600 \text{ V}$



Features

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

Special features

- $U_{PN} = 3600 \text{ V}$
- $N_P/N_S = 36000 : 1666$
- $U_{\rm C}$ = ±24 (+5/ -10 %) V
- T_△ = -25 °C ... +70 °C

Advantages

- Excellent accuracy
- Very good linearity
- Low temperature drift
- Optimized delay time
- Wide frequency bandwidth
- High immunity to external interference.

Applications

- Single or three phase inverters
- Propulsion and braking choppers
- Propulsion converters
- Auxiliary converters
- Battery chargers.

Application domain

Railway (fixed installations and onboard).

N° 97.24.73.002.0

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Voltage Transducer LV 100-3500/SP2

lı	Insulation coordination				
$U_{\rm d}$	RMS voltage for AC insulation test, 50 Hz, 1 min	12 ¹⁾ 1 ²⁾ Min	kV kV		
d_{Cp} d_{Cl} CTI	Creepage distance Clearance Comparative tracking index (group I)	164.8 47.1 600	mm mm		

Notes: 1) Between primary and secondary + shield + heatsink

Safety



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 (e.g. primary connections, 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.

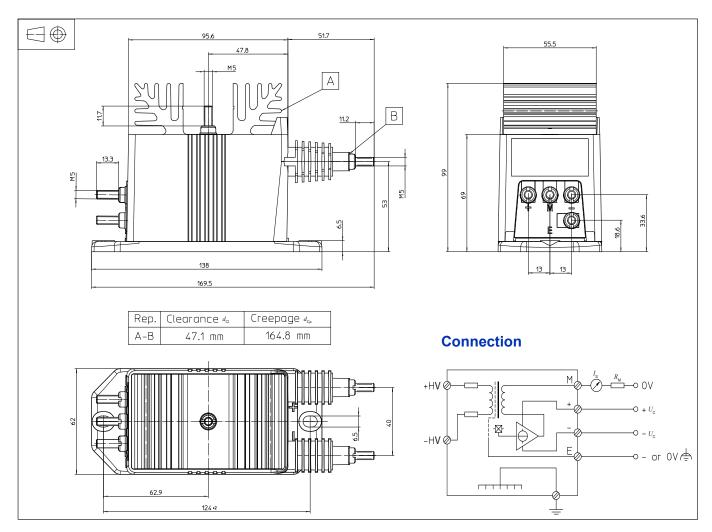
A protective housing or additional shield could be used.

Main supply must be able to be disconnected.

²⁾ Between shield and secondary.



Dimensions LV 100-3500/SP2 (in mm)



Mechanical characteristics

- General tolerance
- Transducer fastening

Recommended fastening torque

- Connection of primary
 Recommended fastening torque
- Connection of secondary Recommended fastening torque
- Connection of ground Recommended fastening torque

±0.5 mm 2 holes Ø 6.5 mm 2 M6 steel screws 5 N⋅m M5 threaded studs 2.2 N⋅m M5 threaded studs 2.2 N⋅m M5 threaded stud

2.2 N·m

Remarks

- $I_{\rm S}$ is positive when $U_{\rm P}$ is applied on terminal +HV.
- The primary circuit of the transducer must be linked to the connections where the voltage has to be measured.
- Installation of the transducer must be done unless otherwise specified on the datasheet, according to LEM Transducer Generic Mounting Rules. Please refer to LEM document N°ANE120504 available on our Web site: https://www.lem.com/en/file/3137/download/.

单击下面可查看定价,库存,交付和生命周期等信息

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