

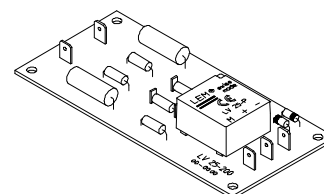
Voltage Transducer LV 25-200

$$V_{PN} = 200 \text{ V}$$

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	200	V			
V_P	Primary voltage, measuring range	0 .. ± 300	V			
I_{PN}	Primary nominal r.m.s. current	10	mA			
R_M	Measuring resistance	R_{Mmin}	R_{Mmax}			
				with $\pm 12 \text{ V}$	@ $\pm 200 \text{ V}_{max}$	30
			@ $\pm 300 \text{ V}_{max}$	30	100	Ω
		with $\pm 15 \text{ V}$	@ $\pm 200 \text{ V}_{max}$	100	320	Ω
			@ $\pm 300 \text{ V}_{max}$	100	180	Ω
I_{SN}	Secondary nominal r.m.s. current	25	mA			
K_N	Conversion ratio	200 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.

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
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Power supplies for welding applications.

Accuracy - Dynamic performance data

X_G	Overall Accuracy @ V_{PN} , $T_A = 25^\circ\text{C}$	± 0.8	%
ϵ_L	Linearity	< 0.2	%
I_O	Offset current @ $I_P = 0$, $T_A = 25^\circ\text{C}$	Typ	Max
			± 0.15 mA
I_{OT}	Thermal drift of I_O	- $25^\circ\text{C} \dots + 25^\circ\text{C}$	± 0.10 ± 0.60 mA
		+ $25^\circ\text{C} \dots + 70^\circ\text{C}$	± 0.10 ± 0.35 mA
t_r	Response time @ 90 % of V_{PN}	15	μs

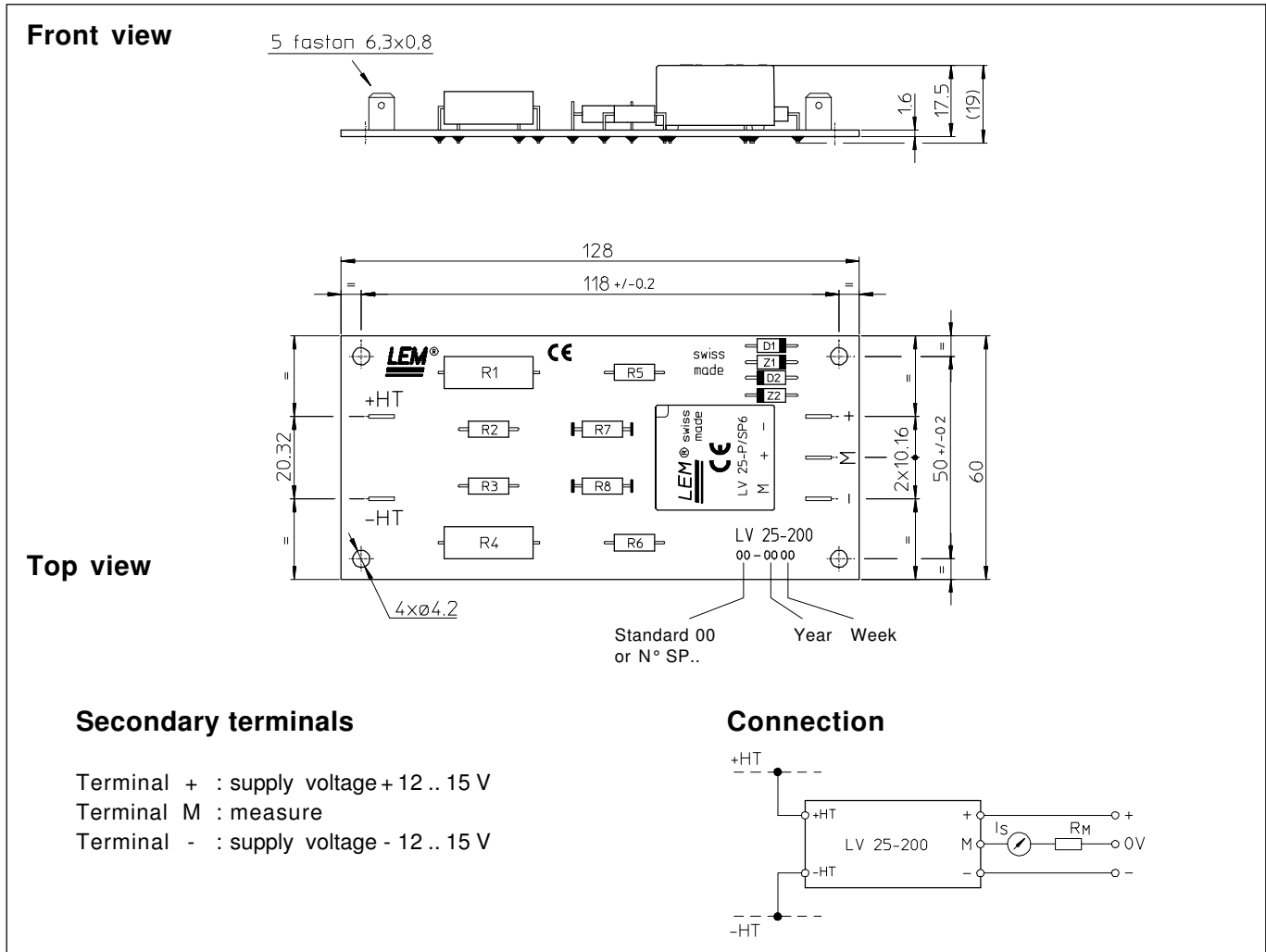
General data

T_A	Ambient operating temperature	- 25 .. + 70	$^\circ\text{C}$
T_S	Ambient storage temperature	- 40 .. + 85	$^\circ\text{C}$
N	Turns ratio	2500 : 1000	
P	Total primary power loss	2	W
R_1	Primary resistance @ $T_A = 25^\circ\text{C}$	20	k Ω
R_S	Secondary coil resistance @ $T_A = 70^\circ\text{C}$	110	Ω
m	Mass	60	g
	Standards	EN 50178 : 1997	

Note : ¹⁾ Between primary and secondary.

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Dimensions LV 25-200 (in mm. 1 mm = 0.0394 inch)



Mechanical characteristics

- | | |
|------------------------------|---------------------------------------|
| • General tolerance | ± 0.3 mm |
| • Transducer fastening | 4 holes Ø 4.2 mm
4 M4 steel screws |
| Recommended fastening torque | 3.2 Nm or 2.36 Lb. - Ft. |
| • 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.