

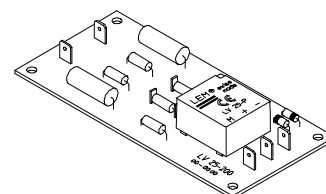
Voltage Transducer LV 25-200

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

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 $\pm 12 \text{ V}$ | @ $\pm 200 \text{ V}_{max}$ | 30 200 Ω |
| | | @ $\pm 300 \text{ V}_{max}$ | 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 | % |
| 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 | $- 25^\circ\text{C} \dots + 25^\circ\text{C}$ | ± 0.15 mA |
| | | $+ 25^\circ\text{C} \dots + 70^\circ\text{C}$ | ± 0.10 ± 0.60 mA |
| t_r | Response time @ 90 % of V_{PN} | 15 | μs |

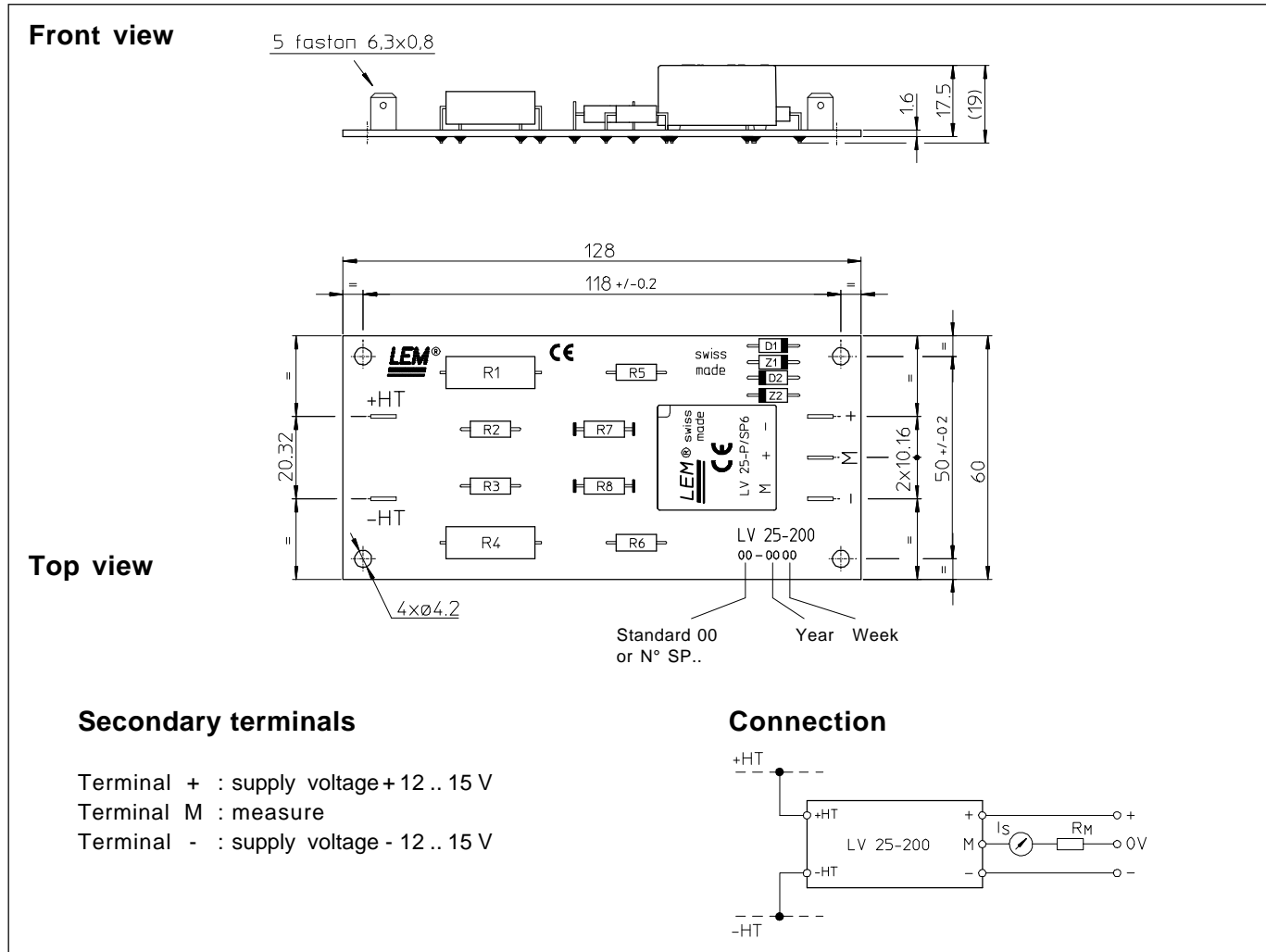
General data

| | | | |
|-------|--|-------------------|------------------|
| T_A | Ambient operating temperature | $- 25 \dots + 70$ | $^\circ\text{C}$ |
| T_S | Ambient storage temperature | $- 40 \dots + 85$ | $^\circ\text{C}$ |
| 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 $\varnothing 4.2$ 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.