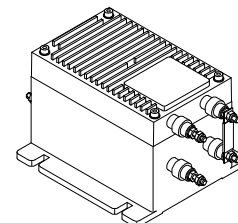


Voltage Transducer LV 200-AW/2/400

$V_{PN} = 400 \text{ V}$

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).



Electrical data

| | | | | | | |
|----------|--|---------------------------------|-----------------------------|-------------------------|-----------------------------|----------|
| V_{PN} | Primary nominal r.m.s. voltage | 400 | V | | | |
| V_P | Primary voltage, measuring range | 0 .. ± 600 | V | | | |
| R_M | Measuring resistance | R_{Mmin} | R_{Mmax} | | | |
| | | | | with $\pm 15 \text{ V}$ | @ $\pm 400 \text{ V}_{max}$ | 0 |
| | | | @ $\pm 600 \text{ V}_{max}$ | 0 | 60 | Ω |
| | | with $\pm 24 \text{ V}$ | @ $\pm 400 \text{ V}_{max}$ | 60 | 220 | Ω |
| | @ $\pm 600 \text{ V}_{max}$ | 60 | 110 | Ω | | |
| I_{SN} | Secondary nominal r.m.s. current | 80 | mA | | | |
| K_N | Conversion ratio | 400 V / 80 mA | | | | |
| V_C | Supply voltage ($\pm 5 \%$) | $\pm 15 \dots 24$ | V | | | |
| I_C | Current consumption | $30 (@ \pm 24 \text{ V}) + I_S$ | mA | | | |
| V_d | R.m.s. voltage for AC isolation test, 50 Hz, 1 mn | 6 ¹⁾ | kV | | | |
| | | 1 ²⁾ | kV | | | |
| V_e | R.m.s. voltage for partial discharges extinction @ 50 pC | 2.5 | kV | | | |

Features

- Closed loop (compensated) voltage transducer using the Hall effect
- Insulated plastic case recognized according to UL 94-V0
- Accessible electronic circuit
- Shield between primary and secondary circuit
- Primary resistor R_1 incorporated into the housing.

Advantages

- Good accuracy
- Very good linearity
- Low thermal drift
- High immunity to external interference
- Current overload capability.

Applications

- AC variable speed drives and servo motor drives
- Static converters for DC motor drives
- Uninterruptible Power Supplies (UPS)
- Power supplies for welding applications.

Accuracy - Dynamic performance data

| | | | | |
|----------|---|---|-----------------------|----|
| X_G | Overall Accuracy @ $V_{PN}, T_A = 25^\circ\text{C}$ | ± 1.0 | % | |
| e_L | Linearity | < 0.1 | % | |
| I_O | Offset current @ $I_P = 0, T_A = 25^\circ\text{C}$ | Typ | Max | |
| | | | ± 0.3 | mA |
| I_{OT} | Thermal drift of I_O | $-25^\circ\text{C} \dots +70^\circ\text{C}$ | ± 0.3 ± 0.6 | mA |
| t_r | Response time @ 90 % of V_{Pmax} | 50 | 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 | 10000 : 2500 | |
| P | Total primary power loss | 8 | W |
| R_1 | Primary resistance @ $T_A = 25^\circ\text{C}$ | 20 | k Ω |
| R_S | Secondary coil resistance @ $T_A = 70^\circ\text{C}$ | 40 | Ω |
| m | Mass | 2 | kg |
| | Standards ³⁾ | EN 50178 | |

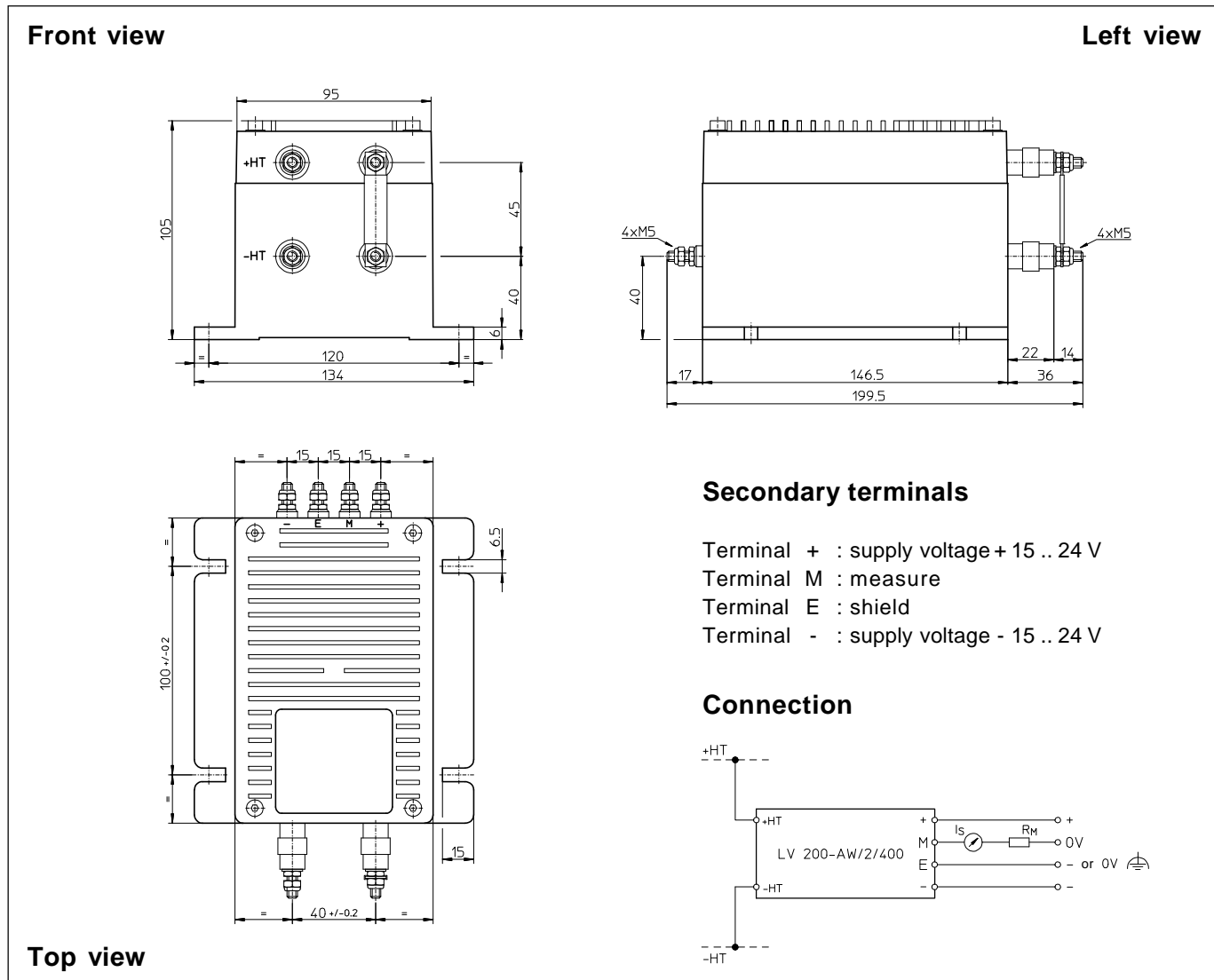
Notes : ¹⁾ Between primary and secondary + shield

²⁾ Between secondary and shield

³⁾ A list of corresponding tests is available

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Dimensions LV 200-AW/2/400 (in mm. 1 mm = 0.0394 inch)



Mechanical characteristics

- | | |
|---------------------------|--------------------------------------|
| • General tolerance | $\pm 0.5 \text{ mm}$ |
| • Fastening | 4 holes $\varnothing 6.5 \text{ mm}$ |
| • Connection of primary | M5 threaded studs |
| • Connection of secondary | M5 threaded studs |
| • Fastening torque | 2.2 Nm or 1.62 Lb. -Ft. |

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.