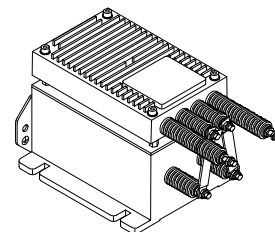


Voltage Transducer LV 200-AW/2/SP75

$$V_{PN} = 4200 \text{ V}$$

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	4200	V
V_P	Primary voltage, measuring range	0 .. ± 6800	V
R_M	Measuring resistance	$R_{M \min}$ $R_{M \max}$	
	with $\pm 24 \text{ V}$	@ $\pm 4200 \text{ V}_{\max}$	60 140 Ω
		@ $\pm 6800 \text{ V}_{\max}$	60 66 Ω
I_{SN}	Secondary nominal r.m.s. current	80	mA
K_N	Conversion ratio	4200 V / 80 mA	
V_C	Supply voltage (- 30 % .. + 20 %)	± 24	V
I_C	Current consumption	$30 + I_S$	mA
V_d	R.m.s. voltage for AC isolation test, 50 Hz, 1 mn	12 ¹⁾	kV
		1 ²⁾	kV
		0.5 ³⁾	kV
V_e	R.m.s. voltage for partial discharges extinction @ 5 pC	4.8	kV

Accuracy - Dynamic performance data

X_G	Overall Accuracy @ V_{PN}	- 25°C .. + 70°C	± 1.5	%
e_L	Linearity		< 0.1	%
I_O	Offset current @ $I_P = 0$, $T_A = 25^\circ\text{C}$		Typ Max	
I_{OT}	Thermal drift of I_O	- 25°C .. + 70°C	± 0.3	mA
		- 40°C .. + 80°C	± 0.6	mA
			± 0.8	mA
t_r	Response time @ 90 % of V_{PN}		500	μs

General data

T_A	Ambient operating temperature	- 40 .. + 80	°C
T_S	Ambient storage temperature	- 50 .. + 85	°C
N	Turns ratio	105000 / 2500	
R_1	Primary resistance @ $T_A = 25^\circ\text{C}$	2.2	M Ω
R_S	Secondary coil resistance @ $T_A = 80^\circ\text{C}$	41.5	Ω
P	Total primary power loss @ V_{PN}	8	W
m	Mass	2.5	kg
	Standards ⁴⁾	EN 50155	

Notes : ¹⁾ Between primary and secondary + shield

²⁾ Between secondary and shield

³⁾ Between secondary + test and external shield

⁴⁾ A list of corresponding tests is available.

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.

Special features

- $V_P = 0 \dots \pm 6800 \text{ V}$
- $T_A = - 40^\circ\text{C} \dots + 80^\circ\text{C}$
- $X_G = 2\%$ (-40°C...-25°C; +70°C...+80°C)
- Built-in primary resistance R_1 is connected in 2 equal parts to both sides of the primary winding
- Better behaviour with potential variations in common mode
- Screening around connections of secondary
- Connection to secondary circuit on LEMO EGJ.1B.304.CYC.

Advantages

- Excellent accuracy
- Very good linearity
- Low thermal drift
- High immunity to external interference.

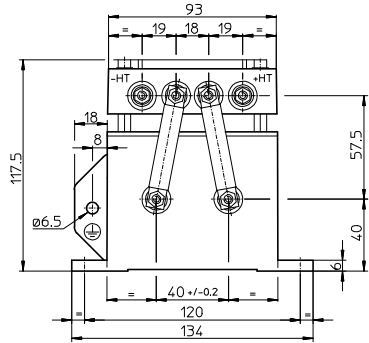
Applications

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

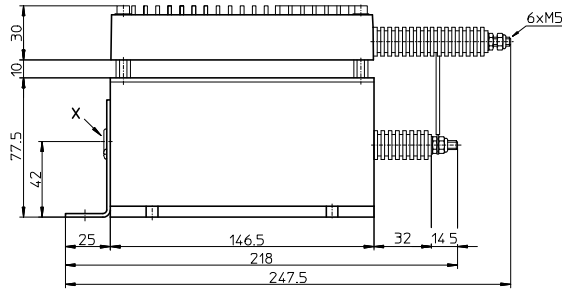
011120/5

Dimensions LV 200-AW/2/SP75 (in mm. 1 mm = 0.0394 inch)

Right view



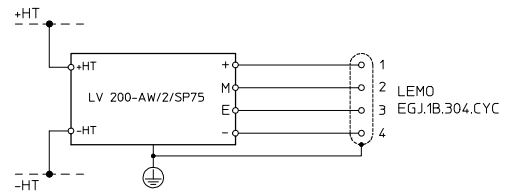
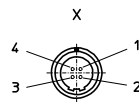
Front view



Secondary terminals

- Pin 1 : supply voltage + 24 V
- Pin 2 : measure
- Pin 3 : shield
- Pin 4 : supply voltage - 24 V
- Terminal \oplus : protection ground

Connection



Top view

Mechanical characteristics

- General tolerance ± 0.5 mm
- Fastening 4 slots $\varnothing 6.5$ mm
- Connection of primary M5 threaded studs
- Fastening torque 2.2 Nm or 1.62 Lb. - Ft.
- Connection of secondary LEMOEGJ.1B.304.CYC

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.