

Voltage Transducer CV 4-4000

$$V_{PN} = 2828 \text{ V}$$

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	2828	V
V_P	Primary voltage, measuring range	0 .. ± 4000	V
V_S	Secondary analog voltage @ $V_{P \text{ max}}$	10	V
K_N	Conversion ratio	4000 V / 10 V	
R_L	Load resistance	≈ 2	k Ω
C_L	Capacitive loading	≤ 5	nF
V_C	Supply voltage ($\pm 5\%$)	± 15	V
I_C	Current consumption	$35 + V_S / R_L$	mA
V_d	R.m.s. voltage for AC isolation test, 50 Hz, 1 mn	9	kV

Features

- Closed loop (compensated) voltage transducer
- Insulated plastic case recognized according to UL 94-V0
- Patent pending.

Advantages

- Very good linearity
- Low thermal drift
- Low response time
- High bandwidth.

Accuracy - Dynamic performance data

			Typ	Max	
X_G	Overall accuracy @ $V_{P \text{ max}}$	$T_A = 25^\circ\text{C}$ - 25 $^\circ\text{C}$.. + 70 $^\circ\text{C}$		± 1	%
V_O	Offset voltage @ $V_P = 0$	$T_A = 25^\circ\text{C}$ - 25 $^\circ\text{C}$.. + 70 $^\circ\text{C}$		± 30	mV
t_r	Response time ¹⁾ @ 90 % of V_{PN}		≈ 25		μs
f	Frequency bandwidth (- 3 dB) @ 50 % of V_{PN}		DC .. 11		kHz

Applications

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

General data

T_A	Ambient operating temperature	- 25 .. + 70	$^\circ\text{C}$
T_S	Ambient storage temperature	- 40 .. + 85	$^\circ\text{C}$
P	Total primary power loss	2.86	W
R_1	Primary resistance	2.8	M Ω
m	Mass	600	g
	Standards ^{2) 3)}	EN 50155	
		EN 50178	

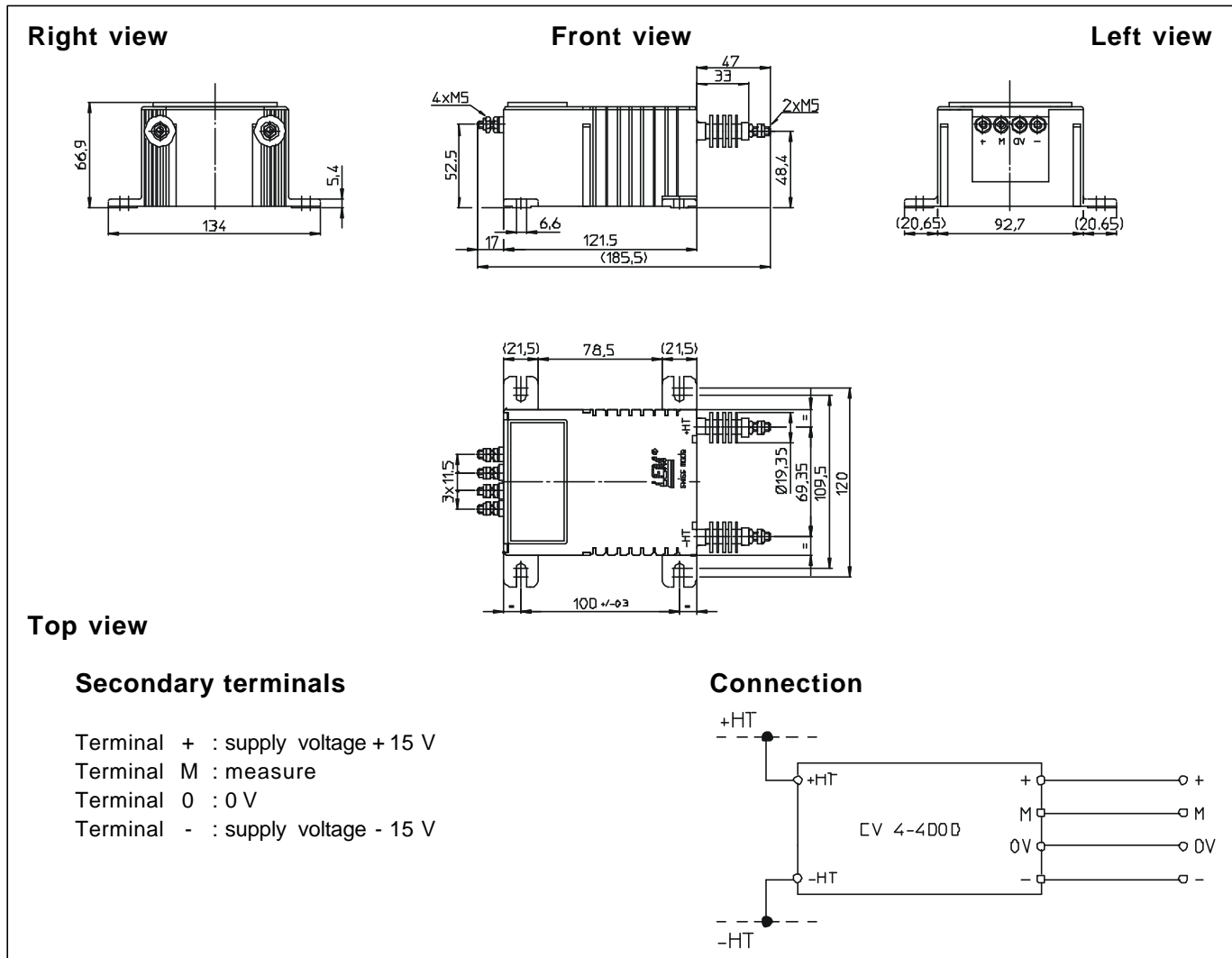
Notes : ¹⁾ With a dv/dt of 1000 V/ μs

²⁾ Specifications according to IEC 1000-4-3 are not guaranteed around 100 MHz. Sensitivity to induced radiation on connecting cable.

³⁾ A list of corresponding tests is available.

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Dimensions CV 4-4000 (in mm. 1 mm = 0.0394 inch)



Mechanical characteristics

- General tolerance ± 0.5 mm
- Fastening 4 slots $\varnothing 6.6$ mm
- Connection of primary M5 threaded studs
- Connection of secondary M5 threaded studs
- Fastening torque 2.2 Nm or 1.62 Lb. -Ft.

Remarks

- V_s is positive when V_p is applied on terminal +HT.
- This is a standard model. For different versions (supply voltages, turns ratios, unidirectional measurements...), please contact us.