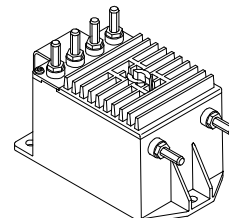


Voltage Transducer CV 3-500

$$V_{PN} = 350 \text{ V}$$

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	350	V
V_P	Primary voltage, measuring range	0 .. ± 500	V
V_S	Secondary analog voltage @ $V_{P \max}$	10	V
K_N	Conversion ratio	500 V / 10 V	
R_L	Load resistance	≥ 1	k Ω
C_L	Capacitive loading	≤ 5	nF
V_C	Supply voltage ($\pm 5\%$)	± 15	V
I_C	Current consumption	$32 + V_S / R_L$	mA
V_d	R.m.s. voltage for AC isolation test, 50 Hz, 1 mn	6	kV
V_e	R.m.s. voltage for partial discharge extinction @ 10 pC	2	kV

Accuracy - Dynamic performance data

			Typ	Max	
X_G	Overall accuracy @ $V_{P \max}$	$T_A = 25^\circ\text{C}$ - $40^\circ\text{C} \dots + 85^\circ\text{C}$		± 0.2 ± 0.6	% %
V_O	Offset voltage @ $V_P = 0$	$T_A = 25^\circ\text{C}$ - $40^\circ\text{C} \dots + 85^\circ\text{C}$		± 5.0 ± 13.0	mV mV
t_r	Response time ¹⁾ @ 90 % of V_{PN}		0.3		μs
dv/dt	dv/dt accurately followed		500		V/ μs
f	Frequency bandwidth (- 1 dB) @ V_{PN}		DC .. 300		kHz

General data

T_A	Ambient operating temperature	- 40 .. + 85	$^\circ\text{C}$
T_S	Ambient storage temperature	- 45 .. + 90	$^\circ\text{C}$
P	Total primary power loss	3.1	W
R_1	Primary resistance	40	k Ω
m	Mass	560	g
	Standards ²⁾	EN 50155	

Features

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

Advantages

- Excellent accuracy
- Very good linearity
- Low thermal drift
- Low response time
- High bandwidth
- High immunity to external interference
- Low disturbance in common mode.

Applications

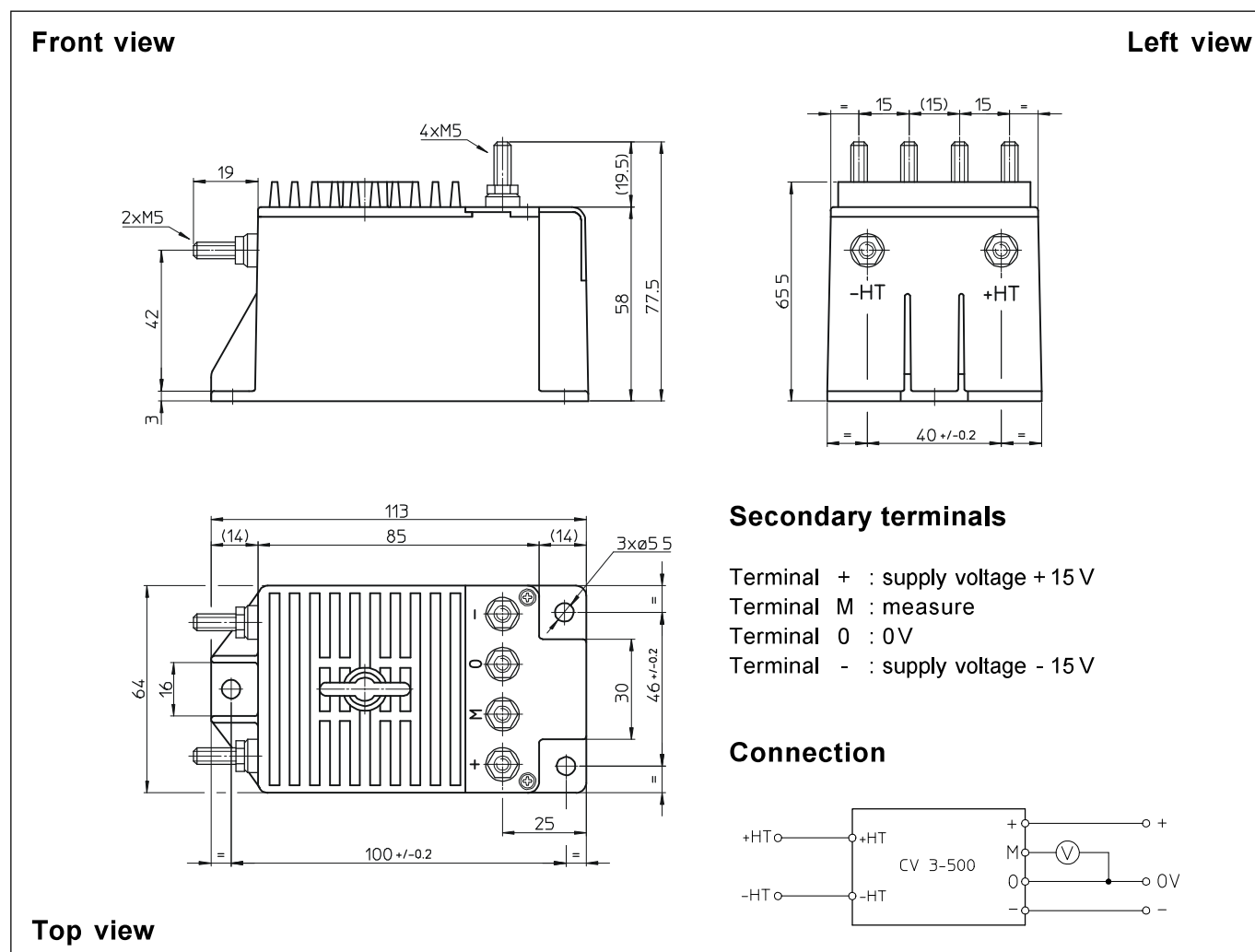
- AC variable speed drives and servo motor drives
- Static converters for DC motor drives
- Uninterruptible Power Supplies (UPS)
- Power supplies for welding applications.

Notes : ¹⁾ With a dv/dt of 500 V/ μs

²⁾ A list of corresponding tests is available.

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Dimensions CV 3-500 (in mm. 1 mm = 0.0394 inch)



Mechanical characteristics

- | | |
|---------------------------|-------------------------|
| • General tolerance | ± 0.3 mm |
| • Fastening | 3 holes Ø 5.5 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.
- CEM tested with a shielded secondary cable. Shield connected to 0 V at both ends, or disconnected.
- This is a standard model. For different versions (supply voltages, turns ratios, unidirectional measurements...), please contact us.