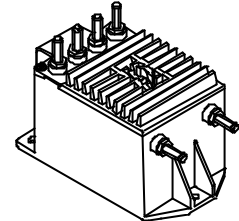


## Voltage Transducer CV 3-500

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

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 .. $\pm 500$	V
$V_s$	Secondary analog voltage @ $V_{P \max}$	10	V
$K_N$	Conversion ratio	500 V / 10 V	
$R_L$	Load resistance	$\approx 1$	k $\Omega$
$C_L$	Capacitive loading	$\leq 5$	nF
$V_C$	Supply voltage ( $\pm 5\%$ )	$\pm 15$	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

### 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.

### Accuracy - Dynamic performance data

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

### General data

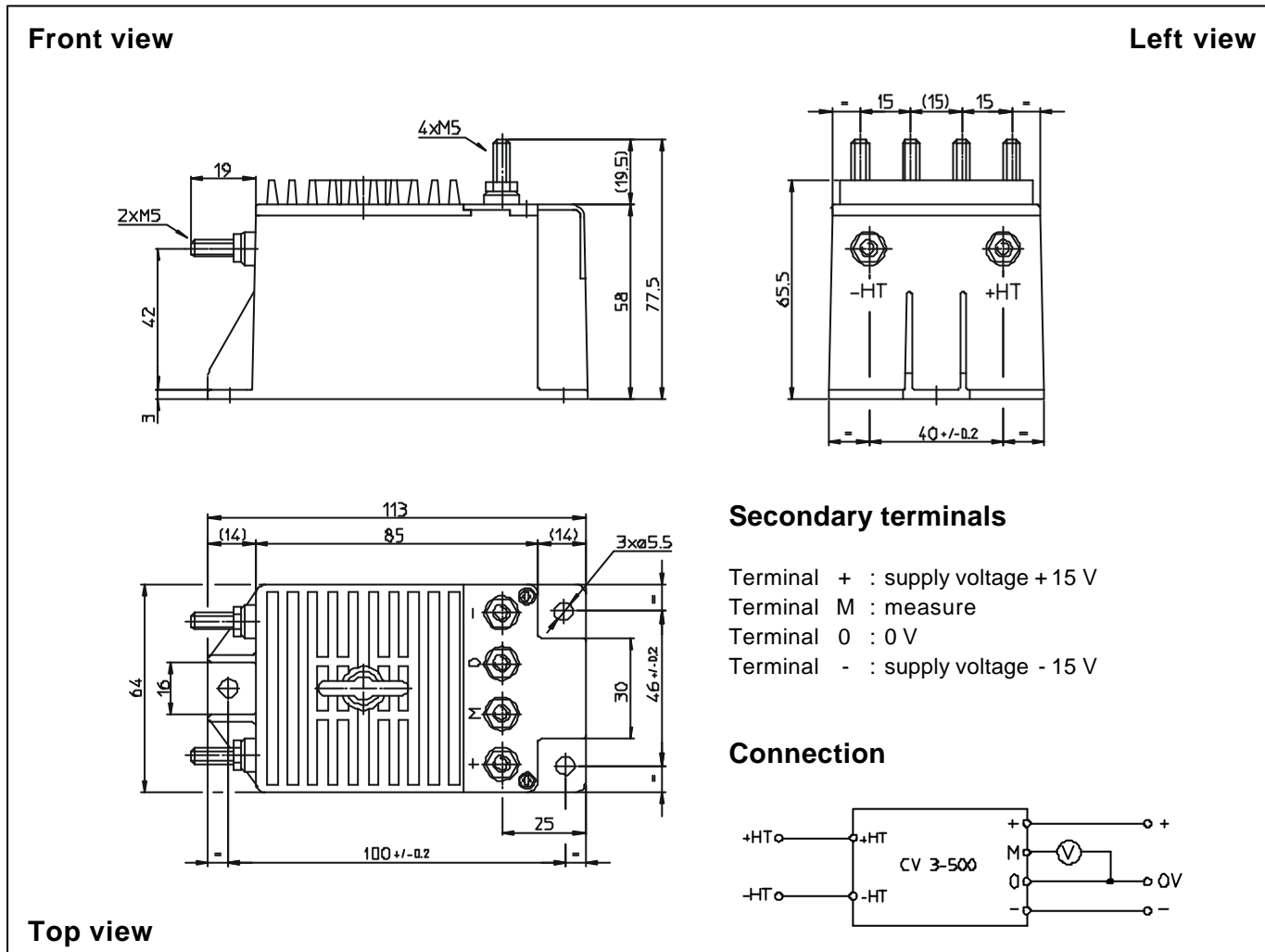
$T_A$	Ambient operating temperature	- 40 .. + 85	$^\circ\text{C}$
$T_S$	Ambient storage temperature	- 45 .. + 90	$^\circ\text{C}$
$P$	Total primary power loss	3.1	W
$R_1$	Primary resistance	40	k $\Omega$
$m$	Mass	560	g
	Standards <sup>2)</sup>	EN 50155	

Notes : <sup>1)</sup> With a dv/dt of 500 V/ $\mu\text{s}$

<sup>2)</sup> 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  $\pm 0.3$  mm
- Fastening 3 holes  $\varnothing 5.5$  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.