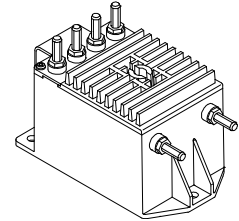


## Voltage Transducer CV 3-200

$$V_{PN} = 140 \text{ V}$$

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 voltage rms	140	V
$V_{PM}$	Primary voltage, measuring range	0 .. $\pm 200$	V
$V_S$	(Analog) secondary voltage @ $V_{P \text{ max}}$	10	V
$K_N$	Conversion ratio	200 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

### Accuracy - Dynamic performance data

$X_G$	Overall accuracy @ $V_{P \text{ max}}$	$T_A = 25^\circ\text{C}$	Maxi $\pm 0.2$	%
		-40 $^\circ\text{C}$ .. +85 $^\circ\text{C}$	$\pm 0.6$	%
$V_O$	Offset voltage @ $V_P = 0$	$T_A = 25^\circ\text{C}$	$\pm 5.0$	mV
		-40 $^\circ\text{C}$ .. +85 $^\circ\text{C}$	$\pm 13.0$	mV
$t_r$	Response time <sup>1)</sup> to 90 % of $V_{PN \text{ step}}$		0.3	$\mu\text{s}$
$dv/dt$	dv/dt accurately followed		200	V/ $\mu\text{s}$
<b>BW</b>	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	$^\circ\text{C}$
<b>P</b>	Total primary power loss	3.1	W
$R_1$	Primary resistance	6.4	k $\Omega$
<b>m</b>	Mass	560	g
	Standards	EN 50155: 1995	

### Features

- Closed loop (compensated) voltage transducer
- Isolated 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
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Power supplies for welding applications.

### Application domain

- Traction.

Note: <sup>1)</sup> With a dv/dt of 200 V/ $\mu\text{s}$ .

## Current Transducer CV 3-200

### Isolation characteristics

$V_d$	Rms voltage for AC isolation test, 50 Hz, 1 min	6	kV
$V_e$	Partial discharge extinction voltage rms @ 10pC	2	kV
<b>dCp</b>	Creepage distance	83.8	mm
<b>dCl</b>	Clearance distance	76.4	mm
<b>CTI</b>	Comparative Tracking Index (Group I)	600	

## Safety



This transducer must be used in electric/electronic equipment with respect to applicable standards and safety requirements in accordance with the following manufacturer's operating instructions.



Caution, risk of electrical shock

When operating the transducer, certain parts of the module can carry hazardous voltage (eg. primary busbar, power supply).

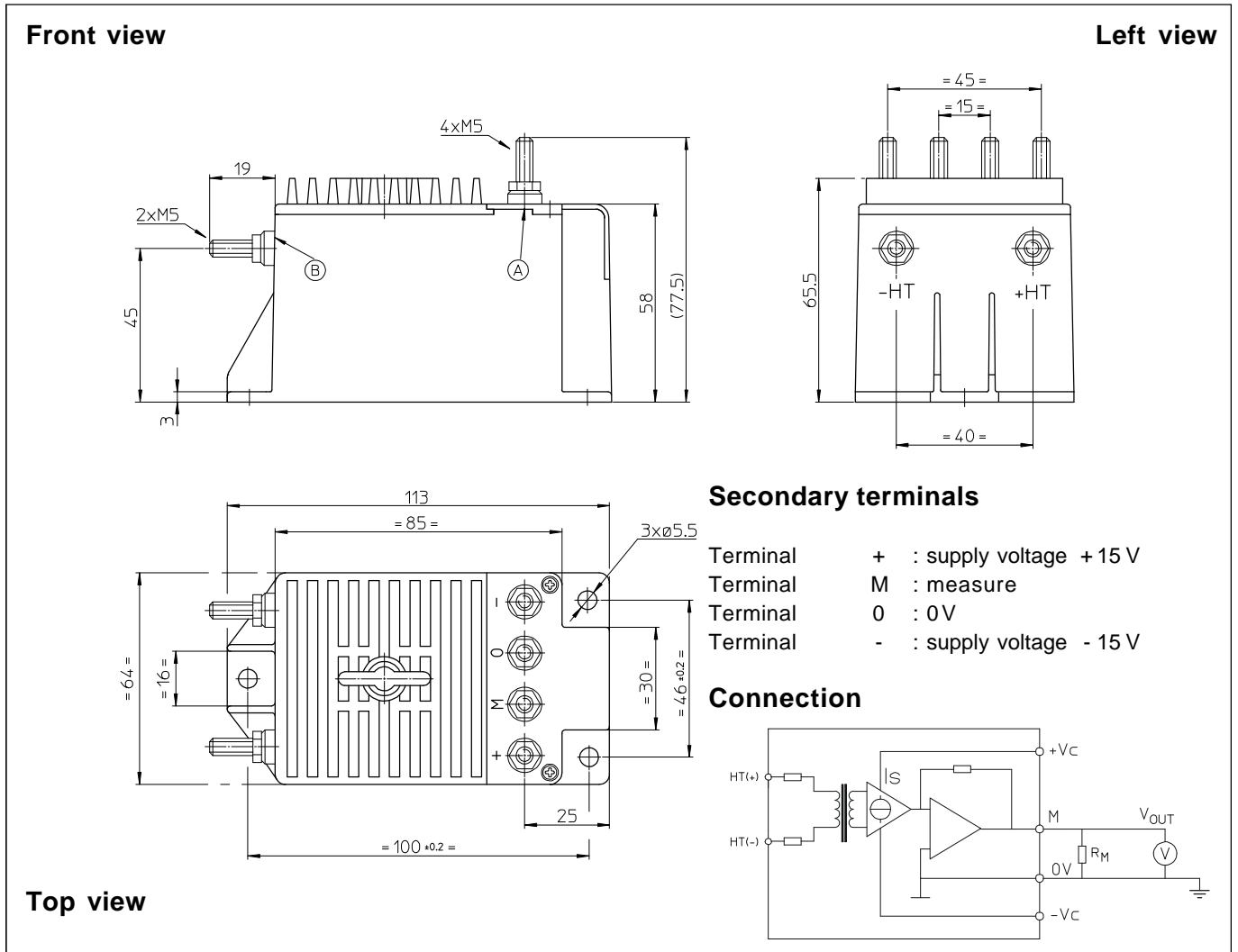
Ignoring this warning can lead to injury and/or cause serious damage.

This transducer is a built-in device, whose conducting parts must be inaccessible after installation.

A protective housing or additional shield could be used.

Main supply must be able to be disconnected.

## Dimensions CV 3-200 (in mm. 1 mm = 0.0394 inch)



### Mechanical characteristics

- |                           |   |
|---------------------------|---|
| • General tolerance       | $\pm 0.3$ mm                                    |
| • Transducer fastening    | 3 holes $\varnothing 5.5$ mm<br>M5 steel screws |
| Fastening torque maxi     | 3.8 Nm or 2.80 Lb. -Ft.                         |
| • Connection of primary   | M5 threaded studs                               |
| • Connection of secondary | M5 threaded studs                               |
| Fastening torque maxi     | 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.