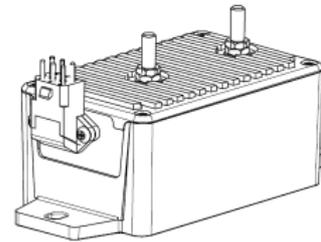


## Voltage Transducer AV 100-750/SP1

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).

$$V_{PN} = 750 \text{ V}$$



### Electrical data

$V_{PN}$	Primary nominal r.m.s. voltage	750	V
$V_{Pmax}$	Primary voltage measuring range	$\pm 1125$	V
$\hat{V}_P$	Not measurable overload	2250(1s/h)	$V_{DC}$
$R_P$	Primary input resistance	8.9M	$\Omega$
$R_M$	Measuring resistance	$R_{Mmin}$	$R_{Mmax}$
	@ $V_C = 11.4V$	0	47 $\Omega$
	@ $V_C = 22.8V$	0	184 $\Omega$
$I_{SN}$	Secondary nominal r.m.s. current	50	mA
$V_C$	Supply voltage ( $\pm 5\%$ )	DC $\pm 12 \dots 24$	V
$I_C$	Current consumption	$50 + I_s$	mA

### Features

- Insulated plastic case recognized according to UL 94-V0.
- Included primary resistor

### Special features

- Secondary connections on Burndy connector
- Ratio : 600 V / 50 mA

### Accuracy - Dynamic performance data

$X_G$	Overall Accuracy @ $V_{PN}$ , $T_A = +25^\circ C$	$\pm 0.7$	%
$X_G$	Overall Accuracy @ $V_{PN}$ , $T_A = -25 \dots +70^\circ C$	$\pm 1.5$	%
$X_G$	Overall Accuracy @ $V_{PN}$ , $T_A = -40 \dots +85^\circ C$	$\pm 1.7$	%
$\mathcal{E}_L$	Linearity @ $T_A = 25^\circ C$	$< 0.1$	%
$I_O$	Offset current @ $I_P = 0$ , $T_A = 25^\circ C$	$\pm 0.15$	mA
$t_r$	Response time @ 10 % of $V_{Pmax}$	$< 10$	$\mu s$
<b>BW</b>	Frequency bandwidth (-3 dB)	DC .. 13	kHz

### Electrical data

$T_A$	Ambient operating temperature	-40 .. +85	$^\circ C$
$T_S$	Ambient storage temperature	-50 .. +90	$^\circ C$
<b>m</b>	Mass	380	g
	Standards	EN 50155 (2001)	
		EN 50124-1 (2001)	
		NFF16101/2(1988)	

### Advantages

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

### Applications

- Single or three phases inverter
- Propulsion and braking chopper
- Propulsion converter
- Auxiliary converter
- Battery charger

### Application Domain

- Traction.

## Current Transducer AV 100-750/SP1

### Isolation characteristics

$V_d$	R.m.s. voltage for AC isolation test <sup>1)</sup> , 50 Hz, 1 min	4.3	kV
	Maxi Common mode voltage	$U_{HT+} + U_{HT-} \leq 4.2$	kV <sub>DC</sub>
	and	$ U_{HT+} - U_{HT-}  \leq V_{PMAX}$	
$V_e$	R.m.s. voltage for partial discharge extinction @ 10pc	1.1	kV

### Safety



This transducer must be used in electric/electronic equipment with respect to applicable standards and safety requirements in accordance with the 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).

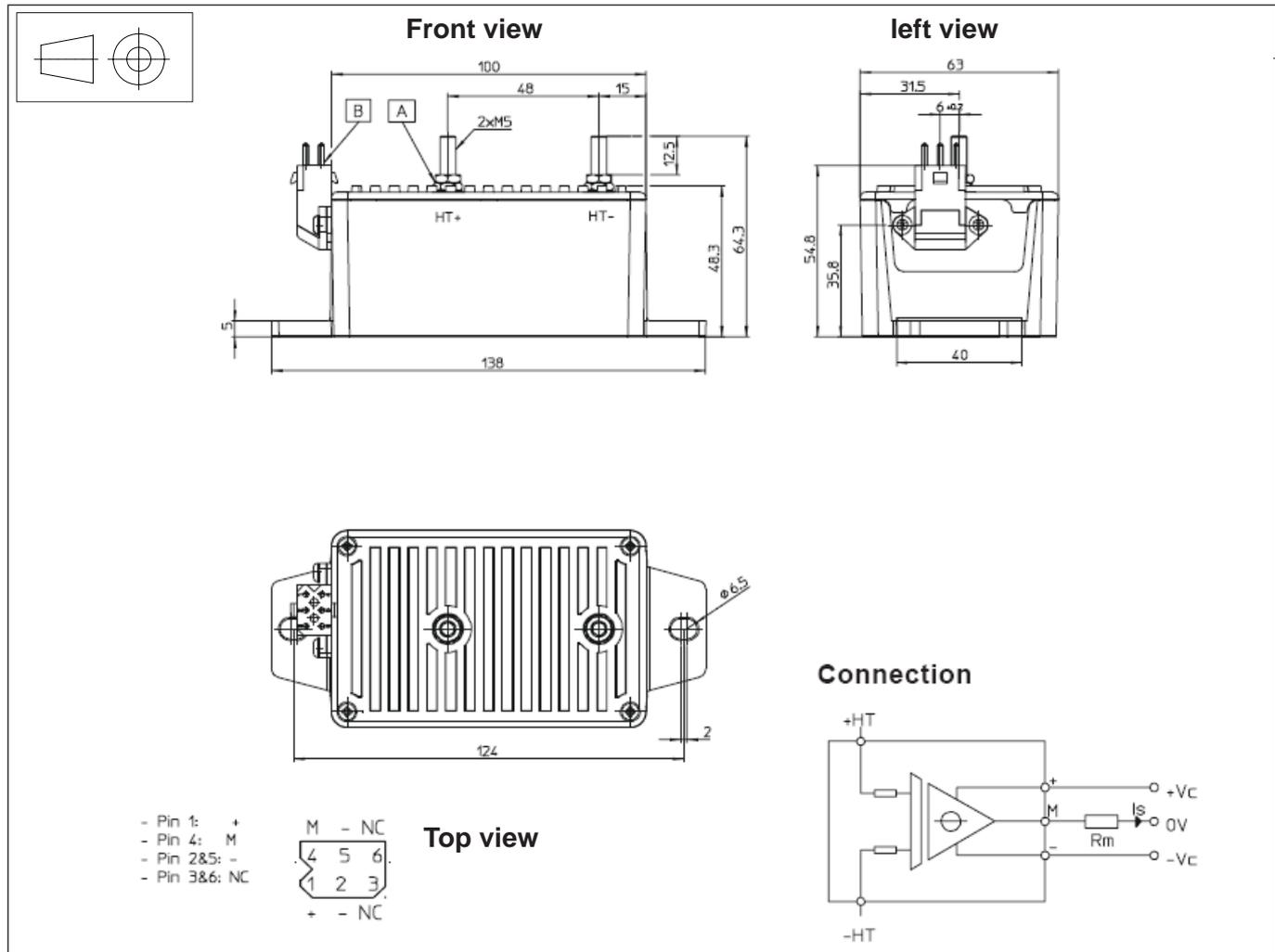
Ignoring this warning can lead to injury and/or cause serious damage.

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 AV 100-750/SP1 (in mm. 1 mm = 0.0394 inch)



### Mechanical characteristics

- General tolerance:  $\pm 1$  mm
- Transducer fastening: 2 holes  $\varnothing 6.5$  mm  
2 M6 screws
- Distance between holes: 124mm
- Recommended fastening torque: 4Nm or 2.95 Lb-Ft
- Fastening & connection of primary: 2 x M5 threaded studs
- Recommended fastening torque: 2.2 Nm or 1.62 Lb-Ft
- Fastening & connection of secondary: SMS6GE6
- Recommended fastening torque: 2.2 Nm or 1.62 Lb-Ft
- Output connections must be made with screened cables

### Remarks

- $I_s$  is positive when  $V_p$  is applied on terminal +HT.
- Customer making "DTRXXXXXXXXXX".