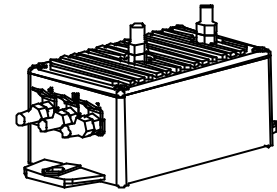


## Voltage Transducer AV100 Series

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).



$$V_{PN} = 50 \dots 1500 \text{ V}$$



### Electrical data

Primary nominal R.m.s or DC voltage	Primary Voltage measuring range	R.m.s. voltage for AC isolation test <sup>1)</sup> (50 Hz/1min)	Type
$V_{PN}$ (V)	$V_{Pmax}$ (V)	$V_d$ (kV)	
50	± 75	3.3	AV 100-50
125	± 187.5	3.3	AV 100-125
150	± 225	3.3	AV 100-150
250	± 375	3.3	AV 100-250
500	± 750	3.3	AV 100-500
750	± 1125	4.3	AV 100-750
1000	± 1500	5.5	AV 100-1000
1500	± 2250	6.5	AV 100-1500
$\hat{V}_P$	Not measurable overload	$2 \times V_{Pmax}$ (1s/h)	$V_{DC}$
$R_M$	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 (± 5 %)		DC ± 12 .. 24 V
$I_c$	Current consumption		$50 + I_s$ mA
	Max Common mode voltage and		$U_{HT+} + U_{HT-} \leq 4.2 \text{ kV}_{DC}$ $ U_{HT+} - U_{HT-}  \leq V_{Pmax}$
$V_e$	R.m.s. voltage for partial discharge extinction @ 10pC		1.1 <sup>2)</sup> kV 2.2 <sup>3)</sup> kV

### Accuracy - Dynamic performance data

$X_G$	Overall Accuracy @ $V_{PN}, T_A = + 25^\circ C$	± 0.7	%
$X_G$	Overall Accuracy @ $V_{PN}, T_A = - 25 \dots + 70^\circ C$	± 1.5	%
$X_G$	Overall Accuracy @ $V_{PN}, T_A = - 40 \dots + 85^\circ C$	± 1.7	%
$e_L$	Linearity @ $T_A = 25^\circ C$	< 0.1	%
$I_O$	Offset current @ $V_P = 0, T_A = 25^\circ C$	± 0.15	mA
$t_r$	Response time @ 10 % of $V_{Pmax}$	Between 10 and 13	$\mu s$
$f$	Frequency bandwidth (-3dB)	DC .. 13	kHz

### General data

$T_A$	Ambient operating temperature	- 40 .. + 85	$^\circ C$
$T_S$	Ambient storage temperature	- 50 .. + 90	$^\circ C$
$m$	Mass	375	g
	Standards	EN 50155 EN 50124-1 NFF16101/2	

**Notes :** <sup>1)</sup> Between primary and secondary

<sup>2)</sup> For models AV 100-50 to 750

<sup>3)</sup> For models AV 100-1000 & AV 100-1500

### Features

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

### Advantages

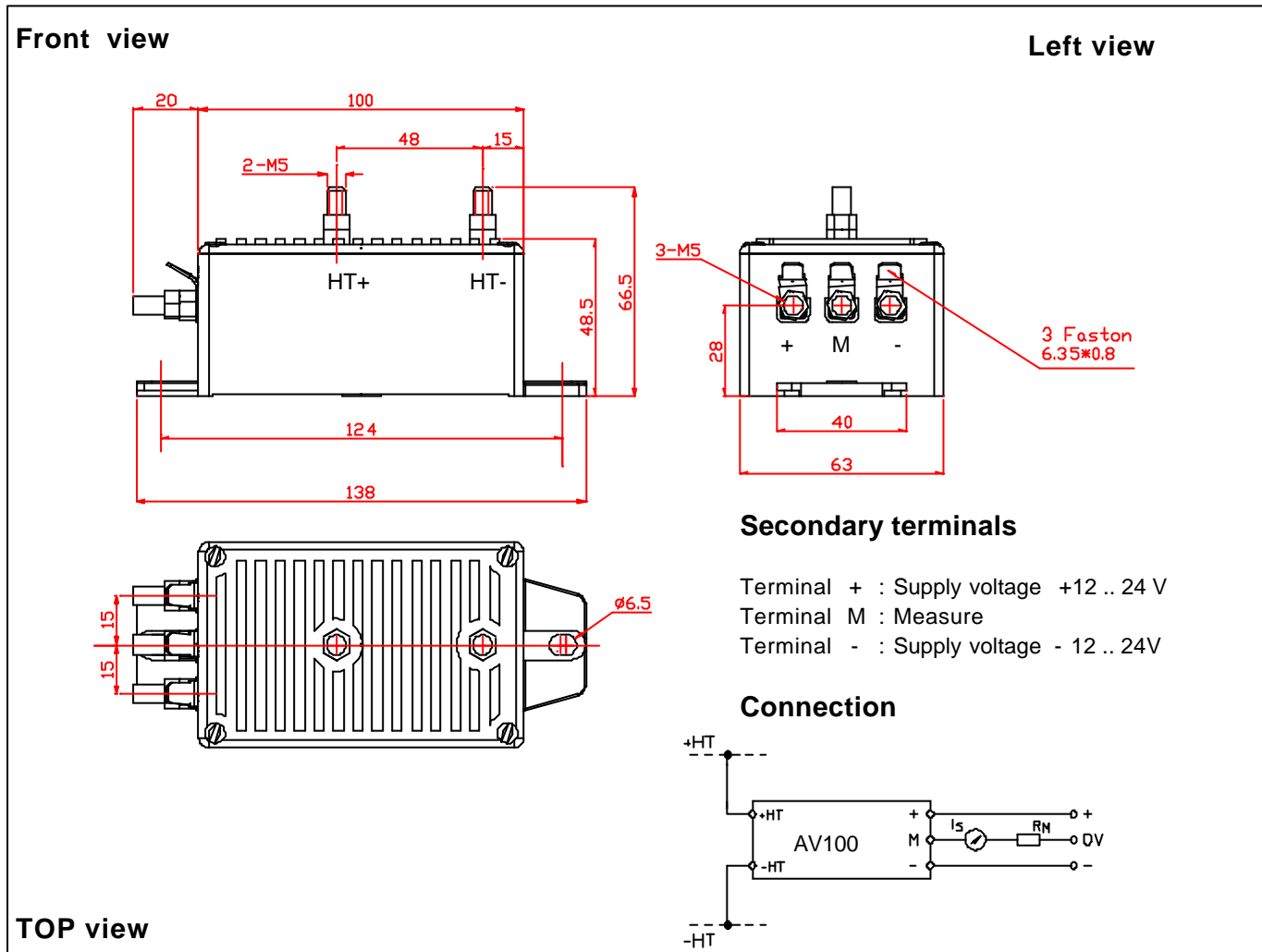
- Low power
- Excellent accuracy
- Very good linearity
- Low thermal drift
- Low response time
- High bandwidth
- High immunity to external interference
- Low disturbance in common mode.

### Applications

- 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.



## Dimensions AV100 Series (in mm. 1 mm = 0.0394 inch)



## Mechanical characteristics

- General tolerance  $\pm 1$  mm
- Fastening 2 holes  $\phi 6.5$  mm
- Distance between holes axes : 124mm
- Fastening & connection of primary 2 x M5
- Fastening & connection of secondary 3 x M5 or 3 Faston 6.35 x 0.8mm
- Output connections must be made with screened cables
- Fastening torque: 2.2 Nm

## Remarks

- $I_s$  is positive when  $V_p$  is applied on terminal +HT.
- This is a standard model. For different versions, please contact us.