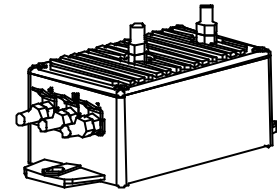


Voltage Transducer AV100 Series

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 ¹⁾ (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 Ω
	@ $V_C=22.8V$		0 184 Ω
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 ²⁾ kV 2.2 ³⁾ 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	μs
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 : ¹⁾ Between primary and secondary

²⁾ For models AV 100-50 to 750

³⁾ For models AV 100-1000 & AV 100-1500

Features

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

Advantages

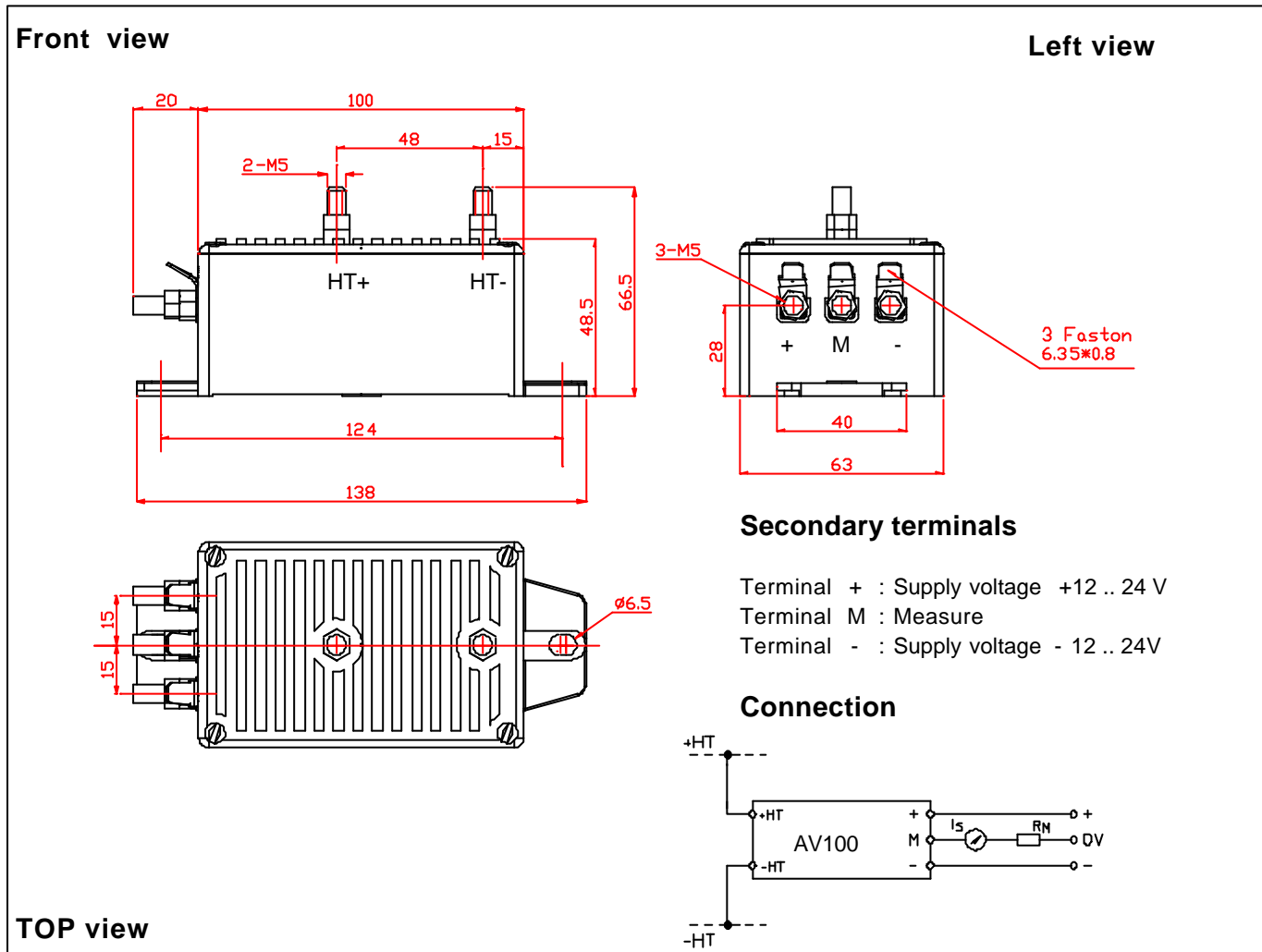
- Low power
- Excellent accuracy
- Very good linearity
- Low thermal drift
- Low response time
- High bandwidth
- High immunity to external interference
- Low disturbance in common mode.

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 ± 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.