



Speciality Magnetic Components  
QUALIFIED to ISO 9001:2008

## DC Voltage Transformer Type DCVT6U



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The DCVT6U is a linear isolating transformer for power level DC voltages. It derives its power economically from the signal to be monitored and needs no external power supply. For accurate measurement of DC voltage in control applications, these voltage isolating transformers give excellent and rugged performance under adverse conditions. The method of operation gives complete galvanic isolation between the primary Power circuit and the secondary monitoring circuit. This device is for unipolar applications only.

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### Features

- 6 kV Proof Stress
- Solid potted construction
- 10V to 10V transformation ratio
- Threaded bush mounting

### Benefits

- Galvanic Isolation
- High Accuracy
- No power supply needed
- Rugged Design

### Applications

- Railway traction
- DC transmission systems
- Process Equipment
- Safety systems
- Ground Loop Prevention
- Remote signal Isolators

As part of our policy of continuous product improvement we reserve the right to make modifications to this product without prior notice.

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## DCVT6U Data Sheet

### TECHNICAL DATA

Nominal Voltage Transformation Ratio	10V : 10V
Standard Load Resistance	1k $\Omega$
Input Current ( $V_{out} = 10V$ $R_L = 1k\Omega$ )	40mA
Operating Temperature Range	-10°C to +65°C
Storage Temperature Range	-15°C to +90°C

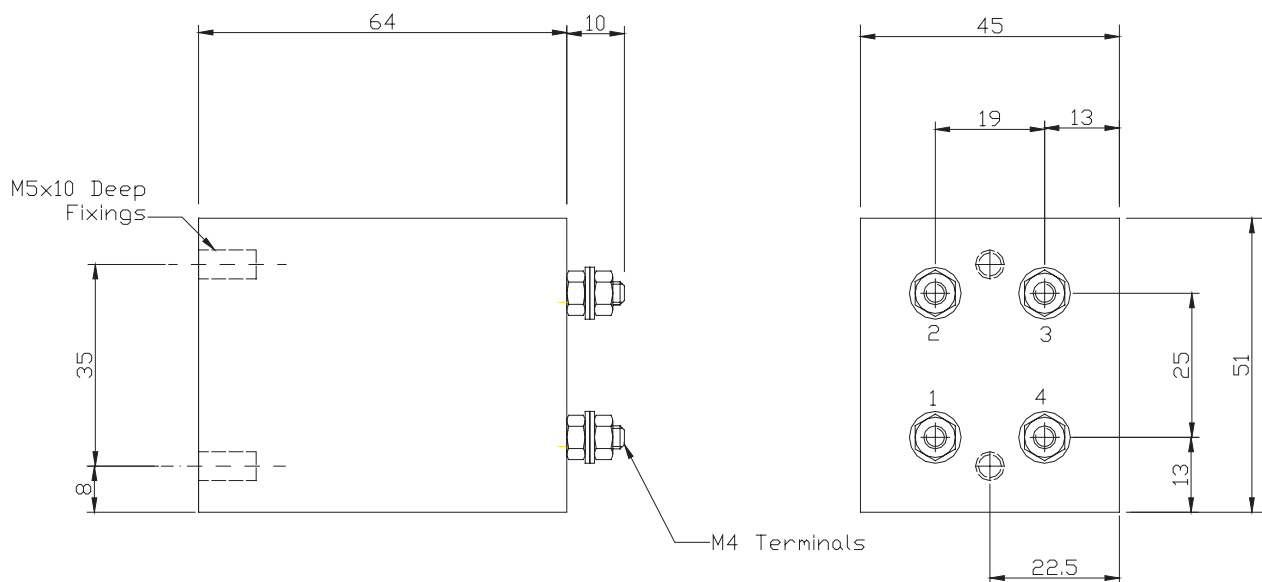
### SPECIFICATION

Transformation Ratio Error	$\pm 1\%$ max.
Interchangeability (unit to unit)	$\pm 2\%$ max.
Independent linearity (= 0.5 - 10V)	0.2% max.
Frequency response (-3dB)	DC to 5kHz min.
Response Time for Step Input	100 $\mu$ s max.
Output Rise Time (10% - 90% $V_{out}$ )	50 $\mu$ s typ.
Output Ripple Amplitude (pk-pk)	0.5% of $V_{out}$
Output Ripple Frequency	80kHz typ..
Internal Dissipation	300mW max.
Peak Input Voltage Across Terminals 1 to 2	-0.3V to 26V max.
	6kV a.c., rms, 50Hz for 1 minute
Proof Stress Voltage	1G $\Omega$ min.
Insulation Resistance ( i/p to o/p+mounting)	

### GENERAL DATA

Weight	280g typ.
Housing Material	Resin cast
Signal Sense	i/p:- 1 -ve, 2 +ve, o/p:- 4 -ve, 3 +ve.
Mounting	Two M5 threaded bushes imbedded in base

Note: The specification above is for a load resistance of 1k $\Omega$ . For use with other load resistances see the DCVT Series Application Note



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