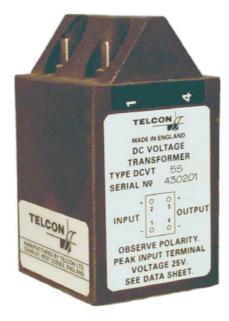


# Speciality Magnetic Components QUALIFIED to ISO 9001:2008

# **DC Voltage Transformer Type DCVT5S**



The DCVT5S 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. An earthed electrostatic screen, connected to the mounting bushes, is installed between the primary and secondary circuits. This device is for unipolar applications only.

## Features

- 6 kV Proof Stress
- Solid potted construction
- 25V to 10V transformation ratio
- Electromagnetic Screen

## Applications

- Railway traction
- DC transmission systems
- Process Equipment

#### **Benefits**

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

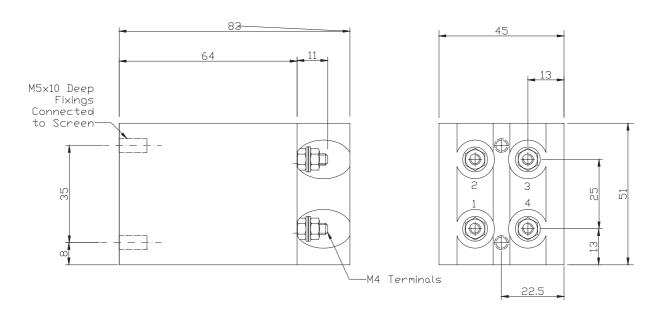
DCVT5S Data Sheet	
<b>TECHNICAL DATA</b> Nominal Voltage Transformation Ratio Standard Load Resistance Input Current ( $V_{out} = 10V R_L = 1k\Omega$ ) Operating Temperature Range Storage Temperature Range	25V : 10V 1kΩ 13.9mA -10 to +65°C -15°C to +90°C
SPECIFICATION	
Transformation Ratio Error Interchangeability (unit to unit) Independent linearity ( $V_{out} = 0.5 - 10V$ ) Frequency response (-3dB) Response Time for Step Input Output Rise Time (10% - 90% $V_{out}$ ) Output Ripple Amplitude (pk-pk) Output Ripple Frequency Internal Dissipation	±1% max. ±2% max. 0.2% max. DC to 5kHz min. 100μs max. 50μs typ. 0.5% of V <sub>out</sub> 80kHz typ 300mW max.
Peak Input Voltage Across Terminals 1 to 2 Proof Stress Voltage (Input to Screen) Proof Stress Voltage (Output to Screen) Insulation Resistance ( i/p to o/p+mounting)	-0.3V to 26V max. 6kV a.c., rms, 50Hz for 1 minute 750V a.c., rms, 50Hz for 1 minute 1GΩ min.

#### **GENERAL DATA**

Weight Housing Material Signal Sense Mounting

320g typ. Resin cast i/p:- 1 -ve, 2 +ve, o/p:- 4 -ve, 3 +ve. Two M5 threaded bushes imbedded in base

Note the specification above is for a maximum input of 25V and a load resistance of  $1k\Omega$ . For use with other inputs voltages and load resistances see the DCVT Series Application Note



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