

D5625 DC/DC CP system

The D5625 DC/DC Cathodic protection system is a complete isolated output dc/dc converter which has a full range of features. The D5625 can be operated from a wide dc input voltage range and is especially intended for low power applications supplied

The D5625 DC/DC CP system is a switchmode fully isolated dc/dc converter which provides a controllable, precisely regulated, output from an uncontrolled transformer rectifier input or solar supply. The D5625 uses optically isolated feedback to provide high immunity to voltage transients on the output. The D5625 has comprehensive features including 3 mode control, DC scaled outputs for meters or transducers, indicator leds, inbuilt alarm relays for supply status, current failure and potential failure and a dc output interruption relay. Out power is typically 300W at 10A maximum, with operation over the whole range of 1—100% voltage and current.

The D5625 uses a high frequency power MOSFET switchmode isolating converter transformer, toroidal output choke and filter combination to chop and step down the voltage supplied from a DC input supply. The supply source can be a fixed voltage rectifier with suitable smoothing fitted. Alternately the D5625 can be directly powered from a dc source such as solar battery sets. Input voltage ranges suit most solar systems.

The output voltage and current from the power conversion section is sensed by an analog pulse width modulator circuit which can also monitor a reference voltage using an inbuilt high input impedance amplifier. The controller circuit allows the user to select one of 3 modes using selectors on the control board.

- **Constant voltage**, where the voltage does not change with load up to a presettable maximum current.

- **Constant current**, where the current does not change with load up to a presettable maximum voltage. This feature allows constant protection current to be applied with varying soil or circuit resistance.

- **Constant auto potential**, where the controller holds the level of protection potential measured on an external reference circuit constant. This feature allows precise setting of potential and

CATHODIC PROTECTION SYSTEMS , ACCESSORIES

provides protection against stray interference currents. Other features include: Safety maximum current circuits allow the user to set the upper limit of output current, while the voltage is clamped at a preset maximum, which can be adjusted by on board potentiometers.

The converter output is short circuit protected and surge and spike protected by voltage dependent resistors.

The D5625 CP system can be provided with a number of options

a. Enclosures. These are available in coated steel, stainless steel, fibreglass and marine grade aluminium.



View of D5625 DC/DC Converter system. The single circuit board contains an isolated converter, surge suppression, status leds and relays, interruptor relay and transducer interface outputs.

b. Interruptors. The D5625 internal interruptor relay can be interfaced with

an external GPS interruptor or our D5526 series of interruptors.

c. Monitoring. Local monitoring by digital or analog meters, remote monitoring by transducers, RTU or SCADA systems.



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