TDEC-501

ELECTRONIC CONTROL SYSTEM

The TDEC-501 is the latest state-of-the-art full authority microprocessor-based electronic control system for use with Twin Disc automatic transmission systems in heavy duty, off-highway applications.

FEATURES & BENEFITS

- Integrates the transmission, engine and other vehicle systems
- Faster shifts, rapid acceleration and precise control of vehicle speed
- Fully configurable gearshift allows for precise and optimized control of the high pressure piston pump and line test modes in oil field pressure-pumping applications
- Interactive command console and display
- Built-in-test (BIT) diagnostics
- Health and trend capability with fault isolation via user accessible fault and status codes for all operational modes
- Non-volatile memory and real-time clock for expanded fault snapshot and duty cycle logging
- Highly configurable I/O for maximum flexibility and application integration
- Increased fault tolerance

APPLICATIONS

- Military Vehicles
- Oil Field Pressure-Pumping Rigs
- Heavy-Duty, Off-Road Vehicles
- Airport Rescue and Fire Fighting (ARFF) Vehicles
- Railway

TDEC-501 CONTROL SPECIFICATIONS

Processor	Freescale 32 BIT MPC5554 132 MHz
Voltage	12–24 VDC nominal; reverse polarity protected
Mounting orientation	Unrestricted
Communications	SAE J1939 data link and USB are standard
Protection Class	IP 67

ENVIRONMENTAL STANDARD

- Tested to Twin Disc internal standards (based on SAE J1455) and include: salt spray, temperature and humidity, immersion, high pressure wash and vibration and mechanical shock
- EMC (radiated, conducted, electrical transients) standards include: SAE J1113, ISO 7637, EN 13309 and CISPR 25
- Complies with EU Directive 2009/19/EC
- E-mark certified
- RoHS compliant

E11 10 R–04 8179

RoHS Compliant

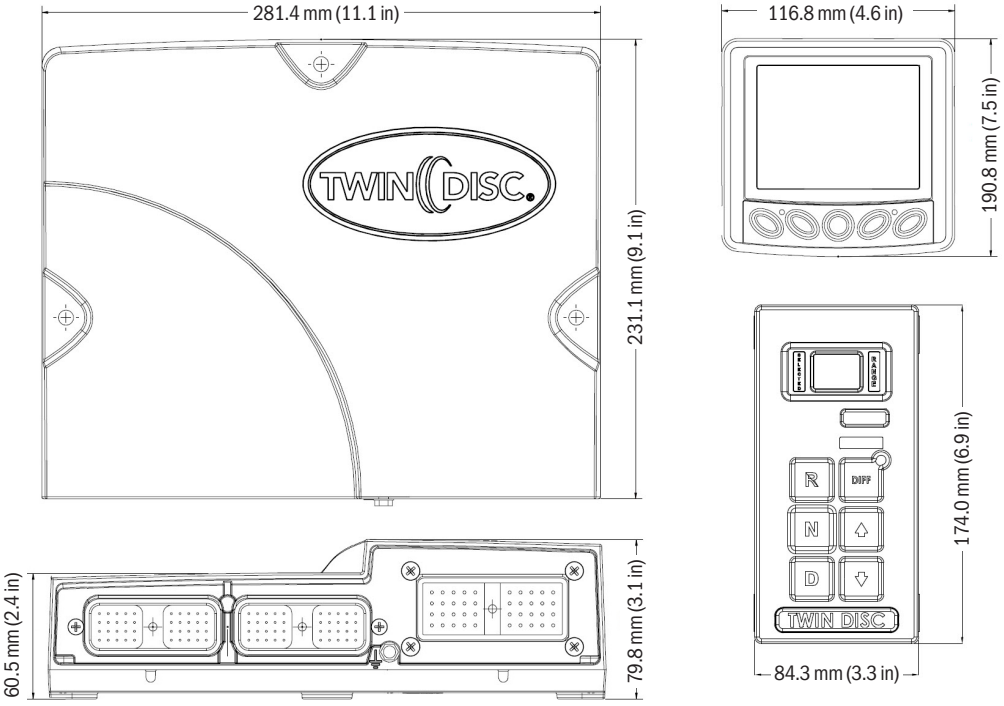
TDEC-501 DISPLAY SPECIFICATIONS

Display	97 mm (3.8 in) QVGA (320 x 240 pixels) monochrome transflective LCD with white LED dimming backlight
Voltage	6 – 36 VDC nominal; reverse polarity protected
Operating temperature	-40°C to 70°C
Storage temperature	-40°C to 85°C
Viewing angle	+/- 55° horizontally; +45°/-60° vertically
Mounting orientation	85.3 mm (3.36 in) opening
Communications	Dual CAN bus J1939
Protection class	IP 66 and 67

TDEC-501 RANGE SELECTOR SPECIFICATIONS

Twin Disc offers a variety of range selector options, including push button J1939 selectors (shown) and discrete switch selectors with a lever or rotary switch.

DIMENSIONS



Consult Twin Disc Applications Engineering for more information.

Twin Disc, Incorporated reminds users of these products that their safe operation depends on use in compliance with engineering information provided in our catalog. Users are also reminded that safe operation depends on proper installation, operation and routine maintenance and inspection under prevailing conditions. It is the responsibility of users (and not Twin Disc, Incorporated) to provide and install guards or safety devices which may be required by recognized safety standards or by the Occupational Safety and Health Act of 1970 and its subsequent provisions.

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Since 1918, we've been putting horsepower to work by designing, engineering and manufacturing rugged-duty industrial products. Our products and our reputation are bolted to the most renowned engine manufacturers and equipment OEMs in the world. Our mission is to make boats, machines and off-highway vehicles more productive, more durable, more operator-friendly, and more cost-effective. From design and installation consultation through after-sale support, Twin Disc and its distributors are committed to your business. No one knows more about managing horsepower in more ways than Twin Disc.

- POWER-SHIFT TRANSMISSIONS
- TORQUE CONVERTERS
- ELECTRONIC CONTROL SYSTEMS
- POWER TAKE-OFFS
- PUMP DRIVES
- CLUTCHES
- GEARBOXES
- UNIVERSAL CONTROL DRIVES

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