



NORTHERN DATA SYSTEMS

1250 Scenic Highway South | Suite 1701-323 | Lawrenceville, GA 30045

Telemetry Control Unit Specs



Models	TCU001: Telemetry Control Unit TAC Pack TCU: TCU001 with integrated synthesized radio TCU001-IP: TCU001 with integrated network interface TCU001-AD: TCU001 with integrated autodialer
Dimensions	5.75" X 8.75" X 5.45"
Supply Voltage	120VAC +/-10%
Frequency	60 Hz
Current	0.5 A
Power Consumption	20 W (with integrated Radio)
Battery Backup	12 VDC
Analog Inputs	4-20 mA @250 ohm / 1-5 V @100 kohm; both inputs are 12-bit accurate
Digital Input Voltages	10 - 30 volts AC/DC ~ 30 - 300 volts AC/DC with external resistors
Digital Input Impedance	6 kohms
Digital Outputs	120-240 VAC, 60 Hz, 1 A, Pilot Duty
Bias	100 mA



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RS-232 Interface	9600 BAUD serial interface for radio connection Default Settings: ASCII protocol 9600 BAUD 7 data bits Odd parity 2 stop bits Optional Settings: RTU protocol 9600 BAUD 8 data bits E/O/N parity 1 stop bit
RS-485 Interface	9600 BAUD serial interface for communication to Modbus ASCII devices
ISO+24V / ISO GND	24 VDC at 60 mA (100 mA max), unregulated, isolated
Input Protection	M.O.V., Transorb (Transient Voltage Suppressor), and Opto-isolated
Alarm Relays	120 VAC, 60 Hz, 0.5 A, Tungsten
Alarm Light / Horn	Normally closed contacts
LCD w/ Keypad	Liquid Crystal Display; keypad is used to page through programmed menu items
H-O-A Switches	3 x 3-position switches hardwired to 3 solid state control points for HOA operation
Environmental Conditions	Ambient Operating Temperature Range: -10°C (14°F) to 60°C (140°F). The upper temperature limit is 50°C (122°F) when using the recommended backup battery. Note that the LCD display may become unreadable at temperatures below 0°C. Relative Humidity: 0-100%; Atmospheric Pressure: 75-106 KPa; Overvoltage Category II; Pollution Degree 2; EMI Susceptibility to IEC61000-4-5 Surge Immunity Tests; UL listed for Process Control Equipment (UL1092)

Operator Interface: The TCU's large 4-line x 20-character LCD and 12-button keypad provide an operator interface for configuring the TCU, viewing status, and viewing and resetting alarms. An onboard temperature sensor controls the LCD's contrast to ensure that the LCD screen is easy to read in both high and low temperature conditions.

Service Port: RS-232 interface for diagnostics, configuration storage, and updating. Configuration files can be transferred between the TCU and a computer.



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Warranty

This product carries a one (1) year return-to-factory warranty against defects in material and workmanship. When installed with factory recommended surge protection, the return-to-factory warranty is extended to three (3) years and is also covered against damage due to lightning and surge. NDS will repair or replace at its option any part or parts of this product during the warranty period. A Return Authorization (RA) must be obtained by contacting the NDS Factory Repair Center at (215) 945-2227 or by email at info@nordatasys.com.