



Overview:

The DS-32CE RTU is the most advanced product for Remote Terminal Unit. Operating independently, it is a stand-alone RTU. It can act as a Data Gateway, Protocol Converter, and Data Concentrator for IEDs. It also provides the Ethernet interface for the Dynatrol DS-32 RTU, DS-32C RTU and iPAC FTU.

DS-32CE Advance Features:

- One (1) Ethernet port with RJ-45 Connector (IEEE 802.3 compliant 10/100 BaseT) support TCP/IP and Telnet, Logical Serial Ports, WEB Server, and security applications
- Optional 2nd Ethernet port for redundant/dual LAN capability with RJ-45 Connector (IEEE 802.3 compliant 10/100 BaseT)
- Nine (9) RS-232/RS-485 selectable user ports (1200 – 115.2 Kbaud) with RTS, CTS, DCD handshaking signals
- One (1) RS-232/RS-485 port for maintenance/application selectable with RTS, CTS, DCD handshaking signals
- One (1) CAN port
- One (1) I²C port, two-wire bi-directional serial bus over a short distance.
- 2-Mbytes of Flash Memory
- 2-Mbytes of SRAM
- CPU On-chip Memory: 2-Kbytes cache, 64-Kbytes dual ported SRAM, and 512-Kbytes of interleaved Flash Memory
- Optional USB with 12Mbps for device controller and transceiver
- Optional SDRAM for total up to 32Mbytes
- IRIG-B Time Synchronization
- Real Time Clock (RTC)
- CPU Supervisory with Dual Backup Batteries for replacement without power down
- Background debug mode (BDM) for in-circuit debugging and bootstrap code programming
- Compatible with all existing Dynatrol Applications including communication protocols such as DNP3.0, IEC870-5-101, Modbus, CDC II, LG8979, SC1801, CDT, DNP3 over TCP/IP.
- IEC 61131-3 PLC Programming.
- Multiple DS-32CE boards can be connected together (using Dynatrol Network Database NDB Software *) to provide more Ethernet and Serial communications connections



Digital Inputs

- 1500 Vrms (Point Input to Logic).
- Hardware Digital Filter programmable 2-255 ms debounce timer, transition detection and chatter filter.
- Form A, Form C, BCD, and Accumulator (Accumulator max. rate 150Hz).

Analog Inputs

- Bipolar, Differential input +/- 10.0V, +/- 7.5V, +/- 5.0V, +/- 1.0V, +/- 1 mA, 0-1mA, +/- 10 mA, 4-20 mA
- 15 bit plus sign resolution and +/- 0.05% accuracy.
- Auto Calibration Reference Points: -5.000, 0 and +5.000VDC.
- Analog input self-calibration, Auto-correction of gain and offset errors.
- CMRR (@0-60Hz): 90 dB NMRR (@60Hz): 60 dB.

Digital Outputs

- Isolated Discrete control output relays with Latch ON/OFF, Pulse Duration of 1 ms resolution, pulse train output with variable repetition rate and Pattern controls.
- 2 Amp at 30 VDC/125 VAC Contact Rating.
- Remote/Local Switch to enable/disable controls.
- Relay output DB37 socket for ease of interposing relay connections.

Analog Outputs

- 0-5.0 VDC, 0-10.0 VDC, 4-20mA.
- 12 bit resolution.

Power Requirement:

- Power Requirement: 9 – 36 VDC
- Power Output: 5V and 3.3V regulated

Operating Environment:

- Temperature Range: -40 to +85 Degrees Celcius
- Humidity: < 95% non-condensing

* Network Database (NDB) application is Dynatrol Proprietary software for distributing the Database and Applications on a networks of RTU to form one large RTU. Network Database provides a very sophisticated Database link for highly efficient Database mirroring mechanism in a network of multi-processing processors. Every processor in the network has full access to the Database of the whole network. With this special Database mirroring technology (DMT), every point information in every processor can be transferred to the other processor very efficiently in the neighborhood of few milliseconds.