

8250

Tactical Interface Converter

or fuel supply officers, petroleum operations NCOs, and logistics managers operating command posts and control rooms adjacent to expeditionary or semi-permanent fuel points, the 8250 Tactical Interface Converter translates RS485 Modbus data from field-mounted 8240 TDUs into RS232 or USB output for the 9760 Tactical Mobile Computer running FuelsManager®, while delivering 24 VDC power to all connected TDUs through the same cable — eliminating separate field power runs. The standard two-port configuration expands to four, covering fuel points from four to 28 tanks across up to seven daisy-chained TDUs. Unlike standalone protocol converters, the 8250 combines protocol translation, DC field power, universal 100–240 VAC input, three sealed LED status indicators, and plug-and-play installation in one control-room unit purpose-built to sustain the complete TacFuels® network.



Key Features

RS485-to-RS232/USB Protocol Translation

Converts RS485 Modbus data from field TDUs to RS232 or USB for the Tactical Mobile Computer, bridging field instrumentation and command software in one unit and removing the need for extra protocol-conversion hardware.

Continuous DC Power Delivery

Supplies 24 VDC to all connected TDUs through the same RS485 cable used for data, eliminating separate power runs and reducing cable complexity and installation time at every deployment.

Scalable TDU Connectivity

Standard two-port configuration expands to four TDU ports and supports up to seven TDUs daisy-chained per TIC. A single TIC can manage fuel points ranging from four-tank forward sites to 28-tank operational fuel farms without additional hardware.

Universal AC Power Input

Accepts 100–240 VAC at 50–60 Hz, ensuring compatibility with commercial grids and military generators worldwide without adapters or rewiring.

Three-LED Status Monitoring

Sealed LEDs for power, transmit, and receive provide instant visual confirmation of communication health, allowing operators to verify data flow at a glance without accessing software or internal components.

Desktop Plug-and-Play Setup

Control-room mounting and military-style quick-disconnect cabling enable full installation in minutes with no tools or specialized configuration, making the TIC operational almost immediately upon arrival at a new site.



Typical Applications



FORWARD OPERATING BASE COMMAND POSTS

Operators need inventory data in the command area; the TIC bridges field TDUs to the TMC over distances up to 1,000 feet.



MULTI-TDU FUEL FARM NETWORKS

Large fuel points require multiple TDUs; one TIC powers and communicates with up to seven daisy-chained units simultaneously.



RAPID DEPLOYMENT FUEL POINTS

Time-critical setups demand instant connectivity; plug-and-play desktop installation brings the system online in minutes.



EXPEDITIONARY AVIATION FUEL FARMS

Aviation fuel accountability requires continuous data flow; the TIC maintains uninterrupted power and communications to all field TDUs.



DISASTER RELIEF OPERATIONS

Generator power quality varies; universal 100–240 VAC input ensures reliable TIC operation on any available power source.



SEMI-PERMANENT MILITARY FACILITIES

Established fuel points benefit from control-room integration; desktop mounting keeps the TIC secure and accessible at all times.

Benefits



Single-Cable Simplicity

Power and data share one RS485 cable, reducing field-wiring complexity and cutting installation time at every deployment.



Worldwide Power Compatibility

Universal 100–240 VAC input removes the need for adapters or voltage converters in any global deployment.



Instant Status Visibility

Three sealed LEDs provide at-a-glance confirmation of power, transmit, and receive status without accessing software.



Scalable System Coverage

Expandable from two to four TDU ports, allowing one TIC to grow with the fuel point without additional interface hardware.



Rapid Field Commissioning

Desktop mounting and quick-disconnect cabling make the communications layer operational within minutes of arrival.



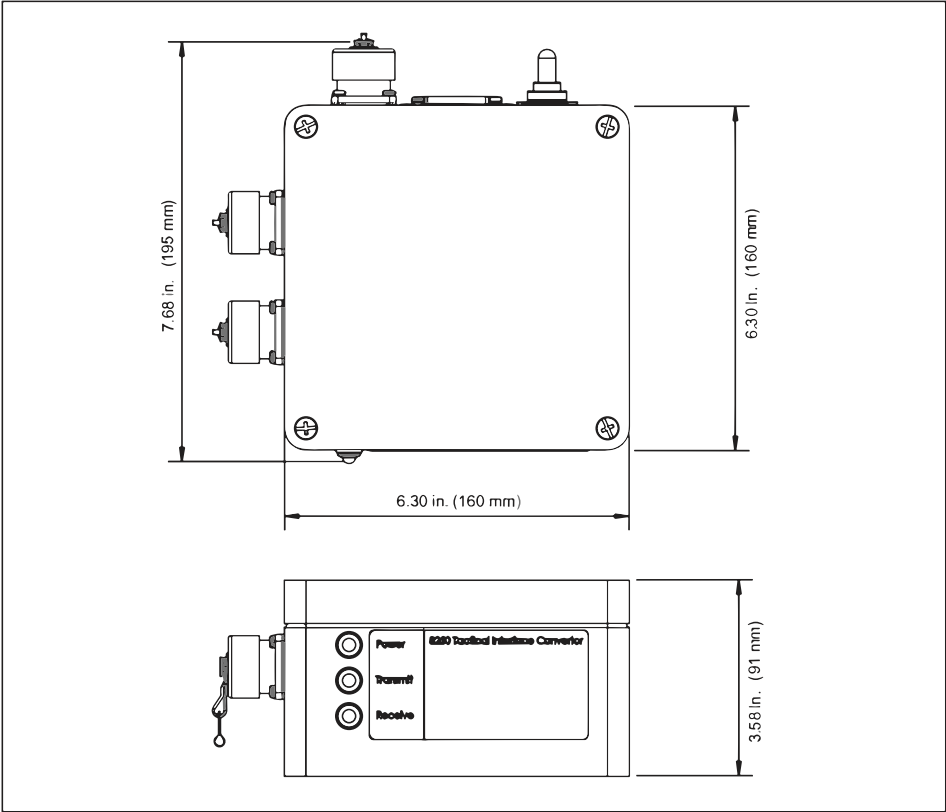
Sustained Field Power

Continuous 24 VDC output ensures all TDUs remain powered, preventing gauge outages caused by separate supply failures.

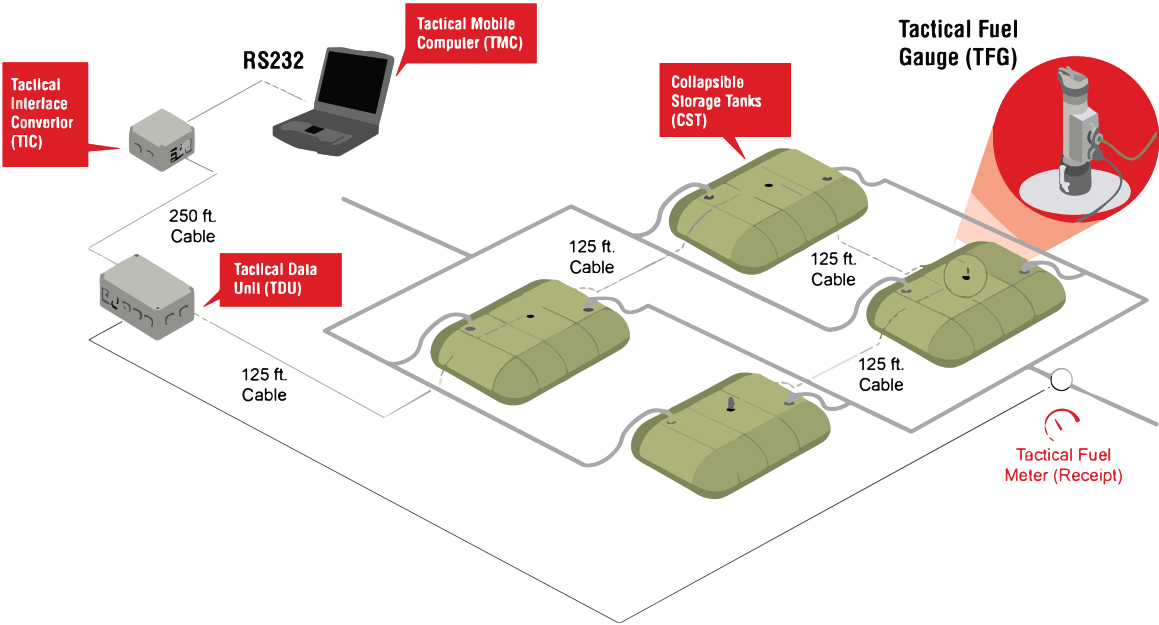
Technical Specifications

Specification	Details
Data Transmission Protocol	RS232 / RS485
RS485 Ports	2 standard; 4 optional
RS232 / USB Port	1 × RS232 standard; USB optional
TDU Daisy-Chain Capacity	Up to 7 TDUs per TIC (up to 28 tanks in one system)
DC Power Output to TDUs	24 VDC via RS485 interface cable
AC Power Input	100–240 VAC, 50–60 Hz
Current Consumption	0.375 A maximum
Environmental Operating Temp.	-22°F to +140°F (-30°C to +60°C)
Humidity	5 to 95% (non-condensing)
Lightning Protection	Solid-state transient voltage suppressors, current-limiting resistors, and fuses
Fuses	2 × 2.0 A, 250 V (replaceable; part # P116-01-046)
LED Indicators	3 × sealed LEDs: Power ON, Transmit (to TMC), Receive (from TMC)
Baud Rate	300 to 115,200 baud; default 9,600 baud (10-position rotary switch SW2)
Max RS485 Cable Length	1,000 feet (total recommended; coupler available for extended runs)
Enclosure	Powder-coated aluminum
Mounting	Control room / desktop
Dimensions	6.3 × 6.3 × 3.6" (160 × 160 × 90 mm)
Certifications	SGS approved for normal locations (USA & Canada); CE marked
Cable Connections	Military-style quick connects/disconnects
System Integration	Connects 8240 TDU network to 9760 TMC running FuelsManager® Defense

Dimensions



Typical System Layout



Model Number Selection

N8250

Tatical Interface Converter

	Housing
0	RS232
1	USB

Example Code: N8250-1

Summary

The TacFuels system has three layers: gauges in the tanks, data units in the field, and software in the command post. The 8250 Tactical Interface Converter is the device that connects the second layer to the third — and powers the second layer while doing it. That dual role matters in deployments where simplicity and speed of setup are operational requirements. One RS485 cable from the TIC to the first TDU carries both the 24 VDC power supply and the Modbus data stream. No separate power runs to the field. No additional communication hardware between the fuel farm and the operator. Up to seven TDUs — and up to 28 tanks — managed through one compact desktop unit running on any AC power supply in the world. Three LED indicators give every operator an immediate answer to the most critical question in any automated system: is data actually flowing? Power, transmit, receive — confirmed at a glance, without opening a panel or querying software.

info@cognesense.com

Tel: (708) 236-6000

5911 Butterfield Road Hillside, Illinois 60162 USA

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www.cognesense.com