

# TacFuels® - Tactical Fueling Solutions



## 7660 Tactical Fuel Gauge

*The 7660 Tactical Fuel Gauge (TFG) is a rugged sensor for measuring pressure and temperature in military and expeditionary collapsible tanks. It provides queried or continuous pressure and temperature measurements of fuel stored in collapsible tanks for accurate and reliable 24/7 inventory management.*



### Benefits and Features

- cSGSus Approved for use in hazardous areas as part of the Varec TacFuels® system solution (USA & Canada)
- Precision digital measurement
- -4 to +176 °F (-20 to +80 °C) liquid temperature measurement
- 2-wire sensor cable is compatible with all petroleum fuel products
- Stainless steel sensor housing with dry, ceramic-capacitive sensor element
- All power and communications cables are connected via military style quick connects/disconnects.
- Simple installation - direct replacement for an existing collapsible tank vent pipe
- Rugged design makes it suitable for harsh environments



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### Data Transmission Protocol:

4-20 mA (HART)

### Environmental Operating Temperature:

-4 °F to +140 °F (-20 °C to +60 °C)

**Power Required:** 8 - 36 VDC

**Power Consumption:** 4 mA

**Sensor Element Material:** Stainless steel

**Sensor Element Cable Material:** PE

### Pressure Measurement Ranges:

1.45 psig (0.1 bar) to 218 psig (15 bar)

2.9 psig (0.2 bar) to 290 psig (20 bar)

≤ 5.8 psig (0.4 bar) to 363 psig (25 bar)

### Sensor Element Type:

Integrated resistance thermometer

Pt 100 according to DIN EN 60751

### Temperature Measurement Range:

-4 to +176 °F (-20 to +80 °C)

### Temperature Measurement Resolution:

1 °K

### Sensor Element Dimensions:

1.25" x 7.5" long - 13' cable

(32" x 190 mm long - 4.3 m cable)

**Sensor Element Protection:** IP 68 (30 bar)

### Hazardous Area Approvals:

ISA/CSA Standards -

Class 1 Division 1, Groups C and D

### Vent Pipe Enclosure:

Powder coated aluminium

### Vent Pipe Enclosure Mounting:

Standard 2" NPT mounting

### Vent Pipe Enclosure Dimensions:

4.25 x 5.5 x 15" (108 x 140 x 380 mm)

### Vent Pipe Enclosure Cable Connections:

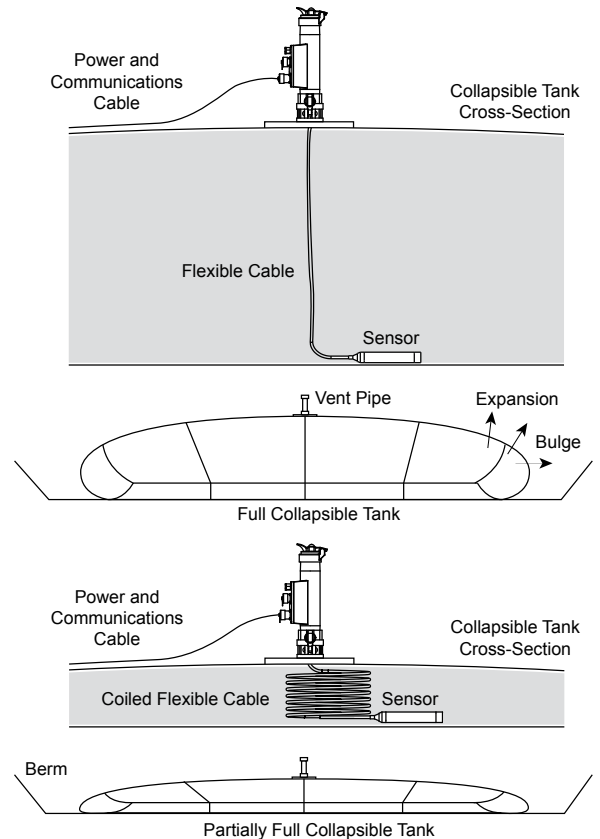
YG95 234/MIL-C-5015 bayonet quick disconnects (x2)

## Installation

The 7660 TFG can be installed in minutes. First, remove the existing vent pipe and feed the integrated sensor into the collapsible tank until it is resting on the bottom of the tank. Then, fasten down the 7660 TFG vent pipe coupling. Lastly, connect the power/communications cable to the quick disconnect point on the vent pipe.

## System Configuration and Operation

Up to four 7660 TFGs' power and communications can be "daisy chained" together and terminated at the 8240 Tactical Data Unit (TDU). The 8240 TDU polls each connected 7660 TFG in turn for measurement data, performs calculations and provides complete tank inventory information to the TacFuels system computing device.



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