



FUEL TATTLE

North Star Systems: Device Specifications

		<u>FUEL TATTLE</u>
Tattle device dimensions:	152.44mm x 152.4mm x 101.6mm (6" x 6" x 4")	<p>FUEL TATTLE is a self-powered, controlled remote monitoring and data solution for location and level. FUEL TATTLE is compatible with several different fuel applications such as on farm storage tanks, commercial storage tanks, and bulk tanks. FUEL TATTLE utilizes many different pressure sensors. Sensors range from submersible for internal installation to threaded for external installation. Through either the web app or smart phone mobile apps, you can view all your pressure vessel storage tank assets, product inventory, product levels, and product throughput in real time. FUEL TATTLE in combination with Tattle Systems is a valuable business tool that enhances logistics efficiencies for product distribution.</p>
<i>Device mounting</i>	<i>Brackets or Magnets</i>	
<i>Weight</i>	<i>3.5kg (7.7lb)</i>	
<i>Power</i>	<i>6V DC, 3.5W (via solar)</i>	
<i>Wired interfaces</i>	<i>9-pin (external sensor)</i>	
<i>Radio Interfaces</i>	<i>Cellular data</i>	
<i>Operating temperature</i>	<i>-40C to +60C</i>	
<i>Altitude</i>	<i>Up to 2000m</i>	
<i>Operating Humidity Range</i>	<i>Maximum relative humidity 80% for temperatures up to 31C decreasing linearly to 50% relative humidity at 40C</i>	
<i>Storage temperature</i>	<i>-40C to +65C</i>	
<i>IP Rating</i>	<i>IP54 (Protected from limited dust ingress. Protected from water spray from any direction, limited ingress protection)</i>	
<i>Certifications</i>	<i>Product Safety: QPS Certified for Canada and the United States.</i>	
	<p>Class I, Div 2, Groups C&D, T4 Class I, Zone 2 AEx nA IIB, T4</p> <p>Radio: This product contains</p> <p>FCC ID: UDV-1403022014008 IC: 8460A-20110302008</p>	



North Star Systems: Sensor Specifications (certified applications)

Sensor housing	Stainless steel
Sensor Dimensions	L=9.84 (250mm) D=0.87" (22mm)
Sensor Cable	FEP/PUR
Pressure range	0...25 PSI
Sensor Cable length	10ft (3m) or 50 (15m)
AirBox Certifications	cULs, NEMA Type 4, 4x, 6, 6P
AirBox Dimensions	3" (75mm) x 3 1/8" (80mm) x 2" (52mm)
AirBox to Tattle cable	3ft (1m)
Connection	9-pin male plug
Reducing fittings	2" to 1/2"

Sensor description:

- Extensive test cycles not only guarantee a permanent resistance and long service life in all commonly used oils and fuels, including aggressive crude oils and biofuels, but also in flowing and stagnant waters and in wastewater treatment applications.
- Thanks to newly developed special cables, components made of high-alloyed stainless steel and an overvoltage protection against lightning, the submersible pressure sensor is perfectly suited for the measurement of liquid levels, also in the outdoor area.

Approvals Marking

ATEX	Zone 0 gas [II 1G Ex ia IIC T4/T5/T6 Ga]
	Zone 1 gas [II 2G Ex ia IIC T4/T5/T6 Gb]
IECEX	Zone 0 gas [II ia IIC T4/T5/T6 Ga]
	Zone 1 gas [II ia IIC T4/T5/T6 Gb]
CSA	Class I, division 1, groups A, B, C, D
	Class I, zone 0; A/Ex ia IIC; T6 ... T4 Ga
	Class I, zone 1; A/Ex ia IIC; T6 ... T4 Gb
	Class I, zone 2; A/Ex ic IIC; T6 ... T4 Gc
FM	Class I, division 1, groups A, B, C, D
	Class I, zone 0, AEx ia IIC, T6 ... T4 Ga
	Class I, zone 1, AEx ia IIC, T6 ... T4 Gb
	Class I, zone 2, AEx ic IIC, T6 ... T4 Gc



North Star Systems: Sensor Specifications (certified applications)

Sensor housing	Stainless steel
Sensor Dimensions	L=5.51" (140mm) D=0.88" (22.5mm)
Sensor cable	Hytrel Cable
External install	1/4" NPT
Pressure range	0...30 PSI
Sensor Cable length	10ft (3m) or 50 (15m)
AirBox Certifications	cULus, NEMA Type 4, 4x, 6, 6P
AirBox Dimensions	3" (75mm) x 3 1/8" (80mm) x 2" (52mm)
AirBox to Tattle cable	3ft (1m)
Connection	9-pin male plug
Reducing fittings	2" to 1/2"

Sensor description:

- The welded housing is tested in-house via a helium leak tester to ensure proper protection. The conductors of the cable are also isolated from the outside environment to keep the sensor operational for long-term use.
- With a removable nose cone, the FUEL (external) sensor can be also be installed outside of the tank through a 1/4" NPT pipe connection. In this configuration, the sensor continuously monitors the tank level through a threaded connection outside the tank, yet remains fully submersible for applications with flood prone environments or severe wash-down conditions.



Approvals Marking

ATEX	Class I Zone 0 Exia IIB T4 Ga
	Class I Zone 0 Exia IIB T4 Ga
UL/cUL913 (CSA 157)	Class I Div 1, Groups C and D

