

Introducing the 2900 FTT™

A float & tape transmitter with an absolute optical encoder



Automatic Tank Gauging

The Varec 2900 Float & Tape Transmitter (FTT) is a precision, digital instrument designed to mount directly to most manufacturers' mechanical tank gauges. The 2900 FTT encodes and transmits level and temperature data – via industry standard communications – to the control room for use in inventory management volumetric calculations.

The 2900 FTT also provides the first steps to automation and control. It can activate alarms or relays using discrete inputs, SPDT cam-operated outputs and software-driven contact outputs.

Install and Forget

The 2900 FTT direct gearing is made from high-grade stainless steel components that will provide a smooth, precise and trouble-free service life. The primary absolute encoder utilizes gold-plated, reflective optical discs with reference tracks to provide self-calibration and an accuracy check of every measurement. This combination of quality components and innovation is not available in any other transmitter on the market today.

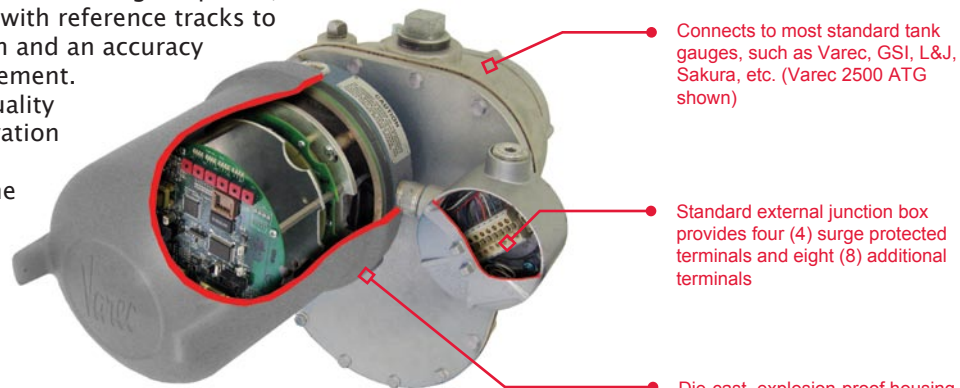
Includes a 3-year warranty!

Simple Retrofit

The universal mounting allows direct replacement of a Varec 1800/1900, L&J 2000 or GSI 2000/2400 transmitters. When replacing other third-party devices, an optional adaptor is available. When replacing an existing transmitter, you may be able to utilize the existing power, communications conduit and junction boxes.

Electronics Upgrade

You are also able to keep your existing Varec 1900 housing and maintain your safety approval. A complete electronics assembly with encoder, printed circuit board (PCB), which can be snapped in, screwed down and ready to configure in less than 5 minutes.



The 2900 Float & Tape Transmitter (FTT) is Varec's latest precision absolute optical encoder (Patent Pending).

Connects to most standard tank gauges, such as Varec, GSI, L&J, Sakura, etc. (Varec 2500 ATG shown)

Standard external junction box provides four (4) surge protected terminals and eight (8) additional terminals

Die-cast, explosion-proof housing for use in hazardous areas

Rotary switches allow you to configure the transmitter without a handheld device

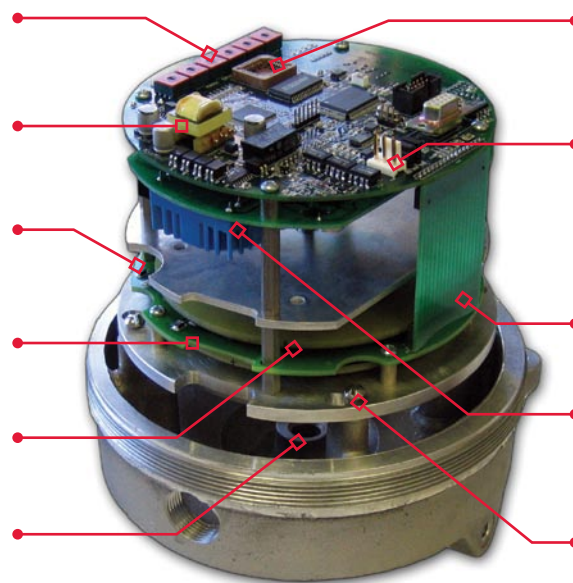
On-board galvanically-isolated power circuit (20-65 DC) and optically-isolated communications

Absolute encoder - maintains correct level reading even after a power outage - no battery required

Infrared optical sensors not affected by direct sunlight

Dual-encoder discs with reflective gold plating and reference tracks ensure an accurate level reading

Precision direct-drive stainless steel gearing eliminates the problems associated with Geneva gears



Upgrade provisions for additional or future software and communications functions

3-wire temperature input (PT100, Cu90, Cu100) for volume calculations and two (2) discrete inputs for mechanical level switches

Simple connector board - no messy wire connectors

Optional 40-240 VAC power supply PCB includes four (4) output contacts and an additional two (2) discrete inputs

Single electronics assembly snaps in and locks down for easy retrofit

2900 Float & Tape Transmitter with absolute optical encoder

Easy Configuration

Many transmitters on the market today require the additional use of a handheld device for configuration or set-up; the 2900 FTT does not require a handheld device. Each parameter, such as communications, baud rate, unit address, etc. is easily configured using rotary switches on the main PCB.

No Re-calibration Required

There is no re-calibration required after a power outage as the absolute encoder continues to track the correct level. The galvanically-isolated power supply and optically-isolated communications means one transmitter will not 'take down' the entire tank gauging field bus loop. If advanced configuration and diagnostics are required, the technician is able to connect a laptop to the transmitter via the serial port (RS-232) on the main PCB.

Trouble-free Service Life

At Varec, we believe preventive maintenance is key to ensuring continued operation of any instrument. However, the precision components and quality of manufacture means the 2900 FTT requires almost no maintenance and reduces the number of times your technicians are out in the field.

Optical sensors means no brushes or contacts that wear out. Stainless steel, direct-drive gearing will provide years of trouble-free operation with no worn or broken teeth. The IP65/NEMA 4 approved housing will keep moisture and dirt from attacking the electronics for many years.

Hazardous Area Approval

The 2900 FTT is explosion proof and approved by Factory Mutual to Class I, Division 1, Groups C&D with an IP65, NEMA Type 4 enclosure rating.

Function	Specification
Communications	Mark/Space EIA-485 MODBUS Tankway (L&J) Whessoe Bus (Whessomatic 550) GPE <i>Future releases will include other communications protocols. Contact your sales representative for further information.</i>
Power Supply	20-65 VDC @50/60 Hz or optional 40-240 VAC
Temperature Input	3-wire RTD (Cu90, Cu100, Pt100)
Device Inputs	Two (2) discrete inputs as standard Additional two (2) discrete inputs as option
Outputs	Optional contact outputs (x4) configurable as normally open or normally closed Optional SPDT cam operated output contacts (x2 or x4)
Range	0-96 feet (0-29 Meters)
Accuracy and Repeatability	+/- 1/16" (1.58 mm)
Safety Approvals	Factory Mutual (FM) Explosion Proof Class 1, Div. 1 Groups C & D IP65, NEMA 4X

Includes a 3-year warranty!



The 2900 Float & Tape Transmitter (FTT) can be installed on most manufacturers' tank gauges (Varec's 2500 ATG shown).



Corporate Headquarters
5834 Peachtree Corners East
Norcross, GA 30092
Tel: +1 (770) 447-9202
Toll Free: +1 (866) 698-2732
Fax: +1 (770) 662-8939

North American Sales
9801 Westheimer, Suite 302
Houston, TX 77042
Tel: +1 (281) 498-9202
Fax: +1 (281) 498-0183

Defense and Government Services
1800 Diagonal Road, Suite 600
Alexandria, VA 22314
Tel: +1 (703) 837-9202
Fax: +1 (703) 837-9209

Varec[®]

www.varec.com