

2920 Float & Tape Transmitter

View accurate level and temperature data at the tank side and transmit it to the control room



Highlights

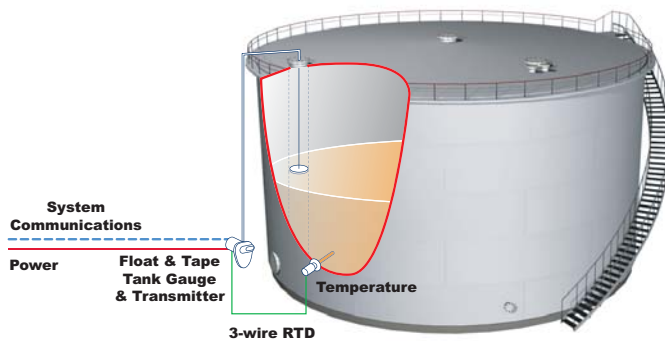
- Digital display with capacitive touch control interface provides inventory information at the tank side and configuration of the transmitter for all connected devices
- Easy in-service installation - mounts directly to most mechanical tank gauges, including Varec, L&J and GSI
- Industry Standard Protocols - MODBUS, Biphase Mark, Mark/Space¹ and L&J¹
- Integrate ancillary equipment and sensors - supports up to 4 HART² devices and provides an on-board 3-wire RTD temperature input
- Activate alarms or relays² with; 2 discrete inputs (as standard), 2 inputs or 4 contact outputs (as option) or 2-4 SPDT cam-operated switches (as option)
- Approved for hazardous areas: cFMus, ATEX², IECEx

Applications

The 2920 Float & Tape Transmitter (FTT) provides data from the tank side to the control room for use in inventory management applications. It accurately converts mechanical level measurement from the connected tank gauge, integrates temperature and HART devices, and provides digital inputs and digital outputs for the indication of alarms or drive relays. The built-in display with capacitive touch control interface provides information at the tank side and allows configuration of the transmitter for all connected devices.

Service and Maintenance

The 2920 FTT is built to perform even in the most demanding of environments. All electronics are contained within explosion-proof, NEMA 4x rated enclosures. Utilizing capacitive sensors and precision direct-drive gearing, the encoder transmits the level reading accurately and consistently. This encoder can also read the absolute measurement, which eliminates the need for a battery back-up and maintains the correct level reading even after a power outage. Isolated power and communications circuits provide an extra measure of safety. The self-diagnostic circuit identifies any problems on the electronic components and isolates the unit to protect the communication loop.



Example Tank Gauging System

¹ Options pending release

² ATEX, HART, and Analog Inputs and Output features are pending release. Please contact Factory for more information.

Technical Specifications

Performance

Accuracy	± 1/16" (1.58 mm)
Repeatability	± 1/16" (1.58 mm)

Functional

Available ranges	0 to 120 ft; 0 to 36 m Note! The available limit switch range is 100 ft (30 M) max.
Field communications With optical isolation from the micro controller.	Biphase Mark EIA-485/GSI Type MODBUS® L&J and Mark/Space (Pending)
Temperature RTD input	High-accuracy 20-bit analog-to-digital converter. 3-wire RTD Copper (CU90, CU100) or Platinum (PT100).
Discrete inputs Enables connection to ancillary devices, such as switches, pumps or valves	Standard (DC Unit) Option: Two (2) discrete inputs. Optional (AC Unit): 4 discrete inputs Host Signal: Open/Closed
Contact outputs Triggers temperature or level alarm lights, horns, etc.	Optional (AC Unit): Four (4) software-driven contact outputs Host Signal: Open/Closed Ratings: 0.6 A @ 125 Vac, 1 A @ 30 Vdc, 0.6 A @ 110 Vdc HART:

Physical

Weight	Net 13 lbs (5.9 kg). Shipping 18 lbs (8.2 kg)
Encoder	Absolute, capacitive
Gearing system	Stainless Steel, Direct Drive
Enclosure	Explosion proof die-cast aluminum Rated IP66 (NEMA 4)
Conduit entries	2920 FTT Enclosure: 2 x 3/4" NPT (standard configuration uses one entry) Terminal junction box: 2 x 3/4" NPT
Entries on Display	Display 7 x 2, 3/4"

Environmental

Operating temperature	-4 °F to +185 °F (-20 °C to +85 °C)
Operating humidity	0 to 95% relative humidity, non-condensing

Power

Power requirements	Standard: 20 to 65 VDC 0.05A Optional: 40 to 65 / 110 / 220 – 240 VAC 750 mW nominal, 50/60 Hz
Galvanic Isolation	Built in - Both AC and DC

Order Codes

Approvals	
EA	Electronics Assembly (No housing)
FM	cFMus (USA & Canada) - Explosionproof: Class I, Division 1, Groups C&D T5 -25 °C ≤ Ta ≤ +85 °C Flameproof, Class I, Zone 1, AEx/Ex d IIB T5 -20 °C ≤ Ta ≤ +85 °C
Power Input	
1	DC
2	AC
Communication	
MB	EIA-485 MODBUS/GSI Type MODBUS
BP	Biphase Mark
MS	Mark/Space (Pending)
LJ	Tankway (L&J) (Pending)
Limit Switches	
0	No additional limit switches
1	Two (2) SPDT Limit Switches (18° adjustable dwell, positive activation) ¹
2	Four (4) SPDT Limit Switches (18° adjustable dwell, positive activation) ¹
Limit Switch Range ³	
N	Not Applicable ²
A	0-25 ft
B	0-50 ft
C	0-100 ft
D	0-7.5 m
E	0-15 m
F	0-30 m
Digital Inputs/ Digital Outputs ³	
1	2 Digital Inputs
2	4 Digital Inputs + 4 Dry Contact Outputs
Analog Inputs/Outputs ³	
N	None
HART Inputs/ Outputs (HART Master) ³	
0	None
Display Options ⁴	
A	Forward Facing
B	Backward Facing
C	Side Facing
N2920-	Complete designation

¹ Ensure a Limit Switch Range option from A to F has been selected.

² Applies only to Limit Switch option 0. Otherwise, select an option from A to F.

³ The number of junction boxes supplied from the factory depends on the Communication, number of limit switches, Digital Input/Output, Analog Input/Output, and HART options selected. Transmitters are supplied with 1-3 junction boxes dependent on the terminal and wiring requirements.

⁴ Select the appropriate Display Option depending on the tank gauge used with the 2920 transmitter.

