MODEL AT200

HIGH ACCURACY MAGNETOSTRICTIVE LEVEL TRANSMITTER - EXTERNAL MOUNT

Tank Gauging Systems Corp., 12532 - 124 St., Edmonton, AB, T5L 0N5 Edmonton: 780-474-2365 Calgary: 403-685-8867

FEATURES

- Designed to Mount Externally to TGS 5020 Gauge Kit
- High Accuracy: .01% of Full Scale
- Simple Calibration: Pushbutton or HART Protocol
- Never Requires Recalibration:
- Set It & Forget It
- No Drift Due To:
  Dielectric Constant Changes
  Vapor Composition Changes
  Temperature Changes
  Pressure Changes
- Dual Compartment Housing with Separate Field Terminal Compartment
- Field Replaceable Module
- Built In RFI / EMI Filter
- Dual Compartment Housing with Separate Field Terminal Compartment
- Field Replaceable Module
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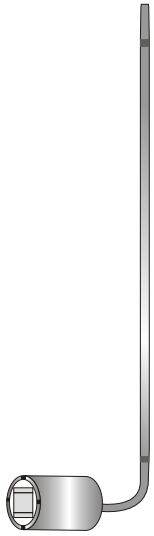
OPTIONS:

- Local Indication with Scrolling LCD Display
- HART Protocol Output
- Honeywell DE Output
- Glass Viewing Window
- 316L SS Enclosure

SPECIFICATIONS

Electronic Transmitter
Housing type: Explosion Proof Epoxy Coated Cast Aluminum, Dual Compartment
Mounting: Stainless steel clamps for TGS 5020
Measuring Range: 1 to 50 ft.
Repeatability: .005% of full scale or 0.015", whichever is greater
Non-Linearity: .01% of full scale or .035", whichever is greater
Accuracy: .01% of full scale or 0.050", whichever is greater
Loop Supply Voltage: 13.5 to 36 VDC
Polarity Protection: Diode in series with loop
Output: Standard 4-20 mA dc
Manual field calibration via pushbuttons
Dampening: Field adjustable by means of pushbuttons. Range: 0.1 to 36 seconds
Burnout: Jumper selectable upscale (21 mAdc) or downscale (3.6mAdc)
Temperature: -40 to 170°F (-40 to 77°C) ambient
Humidity: 0 to 100% R.H., Non-condensing
Sensor tube Material: 316L Stainless Steel standard



Approvals
Factory Mutual Research Corp. and CSA Canadian Standards Association:
XP / I / 1 / ABCD / T6 Ta = 77°C; DIP /11,111 / 1/ EFG / T6 Ta = 77°C
IS / I / 1 / CD / T4 Ta = 77°C-ELE0001 / A (all options except RI analog output)
NI/I/2/ABCD/T4
TYPE 4X
CENELEC:
Flameproof: EEx d IIC T6,
Intrinsically Safe: EEX ia IIB T6 (all options except RI analog output)
Ingress protection classification 1P67

Transmitter Model Number for TGS 5020 Level Gauge:
AT200/B/L9/A/R1/M1/X/FM/Length"

ORDERING INFORMATION:

A T200 / a / b / c / d / e / f / g / h:

a	Mounting (Not field changeable)	
	/B	Bottom Connection Electronic Housing Standard
b	Transmitter Configuration	
	/L9	Transmitter Mounted to TGS 5020 with 90 Degree, 3” Radius
c	Transmitter Housing	
	/A	Standard Dual Compartment Aluminum Housing
d	Probe Type	
	/R1	5/8" OD Probe Standard
e	Electric Module	
	/M1	One Level
f	Second Anolog Output	
	/X	None
g	Approvals	
	/FM	Factory Mutual and CSA Canadian Standard Association
h	Measuring Length	
	/ML	Specify in inches or millimeters

PRINCIPLE OF OPERATION:

The At200 is based upon the magnetostrictive principle. The sensing tube contains a wire which is pulsed at fixed time intervals. The interaction of the current pulse with the magnetic field created by the magnet causes a torsional stress wave to be induced in the wire. This torsion propagates along the wire at a known velocity, from the position of the magnetic field and toward both ends of the wire. A patented piezo-magnetic sensing element placed in the transmitter assembly converts the received mechanical torsion into an electrical return pulse. The microprocessor- based electronics measures the elapsed time between the start and return pulses and converts it into a 4-20 mA DC output which is proportional to the level being measured.