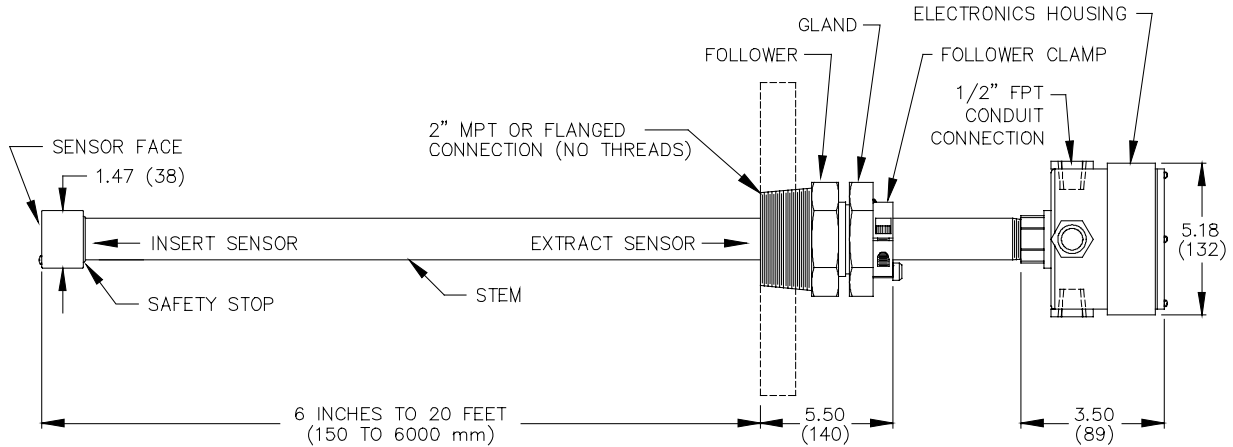


# MODEL 564 INSERTED-UNDER-PRESSURE LEVEL OR PRESSURE TRANSMITTER

00-56401



## FEATURES

- Intended To Be Inserted Or Removed Without Draining Or Depressurizing The Tank Or Vessel
- Used From Hard Vacuum To 3000 PSIG Pressure
- Suitable For Dirty Liquids And Slurries
- Measures Levels In Tanks Pressurized Up To 15 PSIG (1 Bar) Or Down To Hard Vacuum
- Integral Sealed Electronics Module
- Spark, Voltage Surge, And Noise Protection
- Can Also Transmit The Process Temperature Over A Second 4-20 mADC Signal Loop
- Flush Face Sensing Diaphragm; 316-L Basic

## TYPICAL LEVEL APPLICATIONS

Liquid Ammonia Storage Tank Level  
Sewage Treatment Digesters  
High Reliability Hydrocarbon Confinement  
Toxic Materials that must be contained  
Paint and Coating Storage Tanks

## DESCRIPTION

The Model 564 is a two-wire pressure transmitter designed to measure liquid level and pressure in tanks which cannot be depressurized or allowed to leak. It is suitable for services that are very dirty, leave deposits and generally tend to plug up any cavity or recess they encounter. The ability to insert the sensor face of the Model 564 all the way into the inside of the vessel usually eliminates these problems. Other applications include process materials that tend to set up or crystallize when stagnant; that solidify and plug sensing lines when allowed to cool, slurries of polymerizing agents, and many other difficult to handle materials.

The Model 564 can be inserted from the top or side of a vessel as required. Safety stops prevent accidental ejection of the transmitter and rapid discharge of the tank contents into the environment. The block valve, fittings and adaptors are available from Delta or may be furnished by the user..

## SPECIFICATIONS

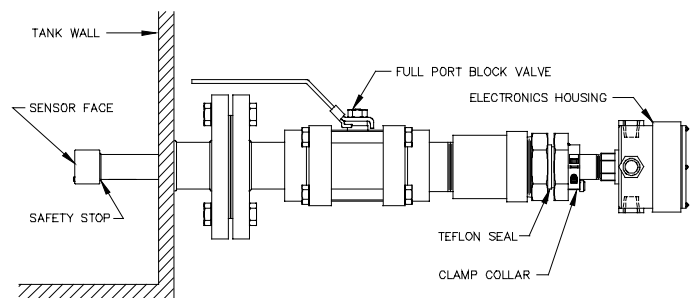
**Technology:** Silicon strain gage  
**Supply Power:** 13 to 35 VDC, 2 wire loop powered  
**Output:** 4-20 mADC isolated; Intrinsically Safe  
**Loop Impedance:** 550Ω at 24 VDC; 1100Ω at 35 VDC  
**Adjustments:** Span from 30% to 100% of sensor range. Zero to 30% is basic and to 80% is optional, non-interactive.  
**Temperature:** -20 to +220°F (Process)  
 -20 to +180°F (Electronics)  
 30 to +130°F (Compensated)  
**Accuracy:** ±0.25% F.S. or better  
**Thermal Error:** ±0.02% F.S./°F maximum  
**Over Pressure:** 2X Range (35 PSI / 2.5 Bar min) without damage; 3X Range (1000 PSI / 70 Bar min) without rupture

## OPTIONAL FEATURES

**Dampening:** Selectable 0.1 to 22 seconds  
**Indicator:** Direct reading LCD display  
**Temperature Transmitter:** 4-20 mA, 2-wire; any 50°F span  
**High Pressure\*:** To 3000 PSIG (200 Bar)  
 \* Not Third Party Approved

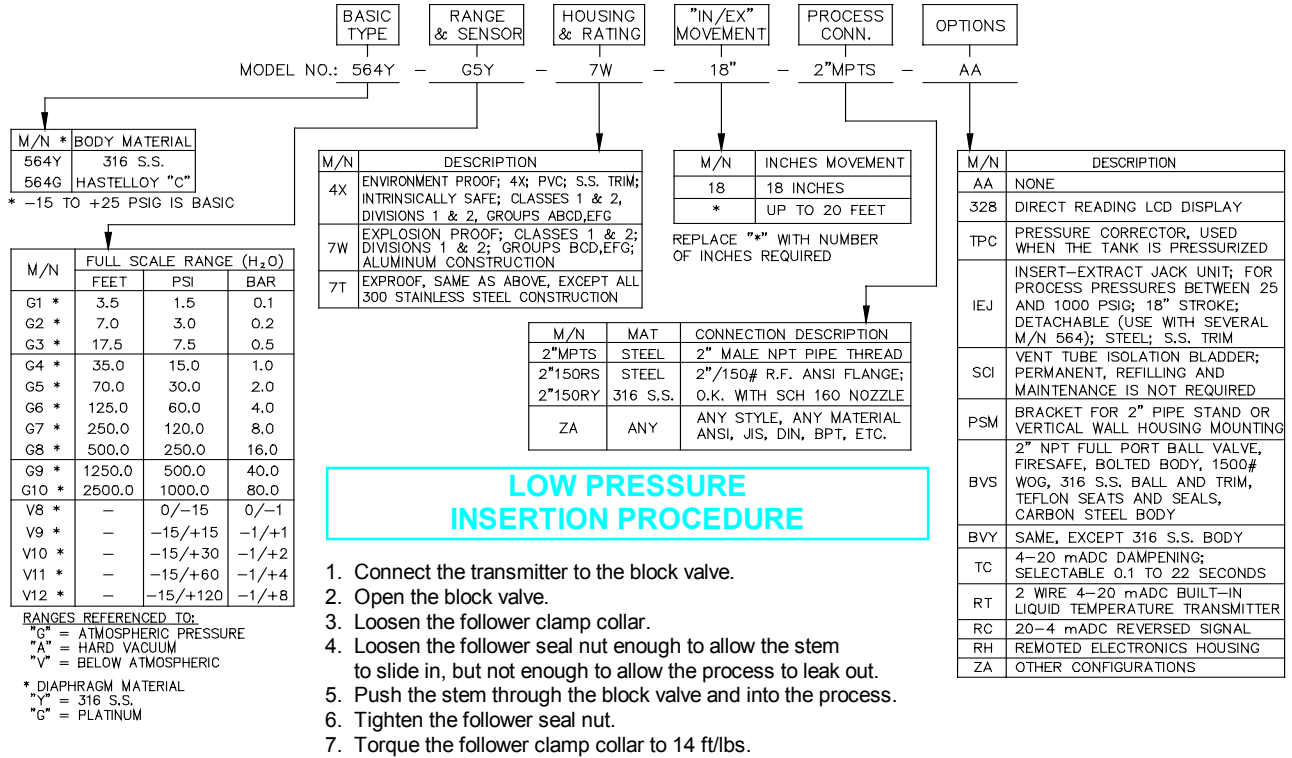
## LOW PRESSURE INSTALLATION

Most applications are for low pressure (< 25 PSIG) service such as tank head pressure, gas receivers, etc. The Model 564 can be manually inserted (by pushing) or extracted (by pulling) the 564 when the pressure is 25 PSIG (2 Bar) or less. Reasonable care must be taken to prevent damage or injury, even when the pressure is low.



**DELTA CONTROLS CORP**

# MODEL NUMBERING SYSTEM



## HIGH PRESSURE INSERTION PROCEDURE

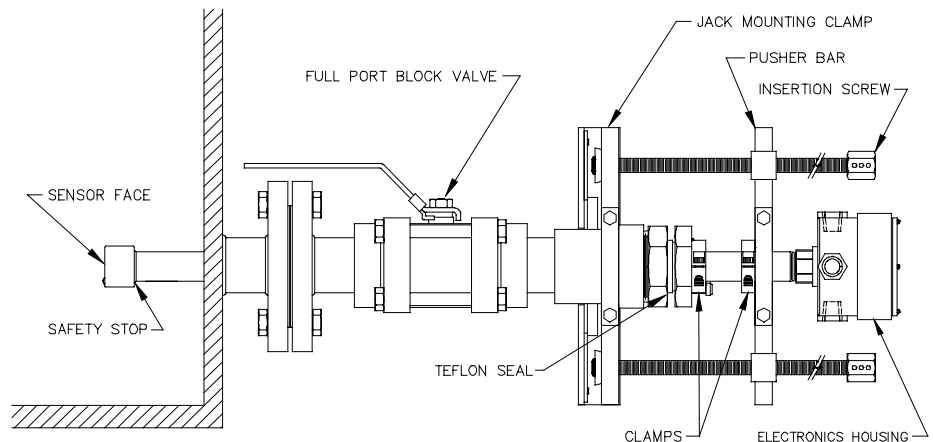
Made in the USA by Delta Controls Corp

When the pressure is higher than 25 PSIG, up to 1500 PSIG, then a mechanical jack unit must be used to insert or extract the Model 564. This is a requirement for both safety and ease of operation because the unit can be ejected with a force of 1300 pounds at 1500 PSI (max design pressure).  
**WARNING** - Without the jack, the unit will move out at a high rate of speed when the clamp collar is loosened. It will continue to accelerate until:

- A. It hits someone
- B. It hits equipment in its path
- C. It hits its safety stop

### Procedure for inserting the Model 564 with a jack:

1. Connect the transmitter to the block valve
2. If not already done, slide the jacking clamp into position from the side.
3. Bolt the two stay plates in position.
4. Slide the jacking clamp against the pusher bar and tighten to a torque of 14 foot-pounds.
5. Open the block valve and loosen the follower clamp collar.
6. Loosen the follower seal nut. Do not allow the process to leak.
7. Rotate the two insertion screws alternately. Screw one side in about 2" then switch to the other one. Continue until the sensor is in the desired position. Tighten the follower.
8. Tighten the follower clamp collar to a torque of 14 foot-pounds.
9. The jack may be left in place, removed for storage, or used to install another unit.



### THIRD PARTY APPROVALS

CSA (Canada)  
 NRTL/C (USA)  
 Intrinsically Safe  
 Explosion Proof  
 Environment Proof

## DELTA CONTROLS CORP

Engineered Sensors – For Difficult Services  
 585 Fortson Street  
 Shreveport, La. 71107 - USA



Voice: 318-424-8471  
 Fax: 318-425-2421  
 E-mail: delta@deltacnt.com  
 Technical Website: <http://www.deltacnt.com>