

## Connections

Reference the figure at right.

1. Terminal 3 (EARTH GROUND) must be grounded per the National Electric Code (NEC). Failure to properly ground the T425 voids the warranty.
2. A twisted-pair cable (20 AWG min.) is required for best performance. Use metal conduits to isolate signal wiring from electrically noisy environments.
3. The 4-20 mADC loop must be powered by a UL approved Class 2 supply.
4. The T425 (terminals 1 & 2) requires a minimum of 12 VDC (the lift-off voltage) and accepts a maximum of 28 VDC. The Class 2 power supply must be sized to accommodate the sum of the loop resistance and the in-circuit resistance of all connected controllers.
  - The Min voltage = 12 VDC + (resistance X 0.02)
  - The Max voltage = 28 VDC + (resistance X 0.02)
  - The Max load = (supply voltage - 12) X 50

The maximum load includes loop resistance and the resistance of all connected equipment.

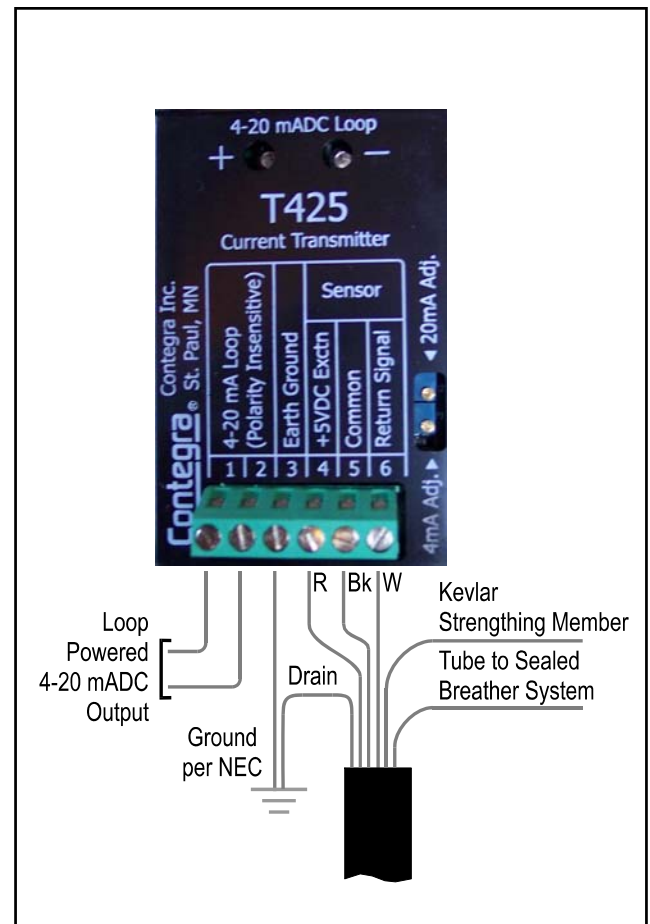
## Benchtop Cal

(w/Cal Stand)

1. Monitor the 4-20 mADC loop current<sup>1</sup>. (Placing the DVM's probes in the T425's 4-20 mADC test points found at the top of the transmitter.)
2. Apply the "zero scale" pressure to the sensor (i.e. the pressure at which 4 mA is to be transmitted).
3. Adjust the potentiometer labeled "**4 mA Adj.**" until 4 mA is measured.
6. Apply full-scale pressure to the sensor.
7. Adjust the potentiometer labeled "**20 mA Adj.**" until 20 mA is measured.

## Field Calibration

1. Monitor the 4-20 mADC loop current<sup>1</sup>. (Placing the DVM's probes in the T425's 4-20 mADC test points found at the top of the transmitter.)
2. Apply the "zero scale" pressure to the sensor by removing it from the media.
3. Adjust the potentiometer labeled "**4 mA Adj.**" until 4 mA is measured.
6. Apply full-scale pressure to the sensor by "installing" it in situ.



7. Adjust the potentiometer labeled "**20 mA Adj.**" until 20 mA is measured.
8. If full-scale pressure cannot be applied to the sensor, determine the percentage of full-scale which is being applied and adjust the "**20 mA Adj.**" potentiometer until the appropriate (proportional) mA is transmitted.

### NOTES:

- 1) When using the T425's 4-20 mADC test points, best accuracy is achieved by using DVM's with a burden voltage less than 5.0 mV/mA (i.e 5 ohm sense resistance). If using a DVM with a higher sense resistance the installing technician should calibrate by intercepting the 4-20 mADC current loop.