

Regenerating the T-SDX-93030-010 Desiccant Cartridge Technical Note

Product: Stevens SDX Sensor

Summary: This technical note provides details on how to regenerate the desiccant cartridge (T-SDX-93030-010) used with the Stevens SDX water level monitoring pressure sensor.

An optional desiccant cartridge (T-SDX-93030-010) is available for use with the Stevens SDX water level monitoring pressure sensor. This cartridge contains Drierite® desiccant, which can be regenerated for reuse once the crystals turn from blue to pink after normal use.



To regenerate the indicating Drierite desiccant:

1. Open the cartridge to access the crystal and allow for ventilation to remove vapors.
2. Spread the granules in layers one granule deep on a shallow glass or metal pan.
3. Heat the granules in an oven for 1 hour at 210°C or 425°F.
4. While still hot, place the regenerated granules back in the desiccant cartridge and seal it. **Note:** The color of the indicating Drierite may become less distinct on successive regenerations due to the migration of the indicator into the interior of the granule and sublimation of the indicator (as stated by W.A. Hammond DRIERITE Co. LTD).

The Importance of Temperature

When regenerating the crystals in the desiccant cartridge, consider the importance of temperature. W.A. Hammond DRIERITE Co. LTD states:

“The temperature at which Drierite desiccants are regenerated is crucial in restoring Drierite to its original condition. Absorbed moisture is water of hydration and is chemically bound to the calcium sulfate of Drierite. Temperatures in the range of 400° to 450°F are required to break these bonds and release absorbed moisture. Lower temperatures, regardless of heating time, will not regenerate Drierite unless applied under vacuum (26 in. Hg, 325°F or 28 in. Hg, 275°F). Care should be taken not to overheat Drierite desiccants. High temperatures can alter the crystal structure and render the desiccants permanently inactive.”