

# ***Technical Note***

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## ***Hydrogen Sulfide Scrubber Filter***

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### **Hydrogen Sulfide (H<sub>2</sub>S) Scrubber Filter (P/N 1295K0497)**

When monitoring for ultra low levels of gas using the following Chemcassettes<sup>®</sup>, it may be beneficial to remove the background levels of Hydrogen Sulfide (H<sub>2</sub>S) from the sample stream.

1. Hydrides Chemcassettes<sup>®</sup> (PN: 705502, 700300 711300, 856300, 874300 and 1295-0300\*).
2. XP Hydrides Chemcassettes<sup>®</sup> (PN: 1750-9300, 1740-9300, 1830-9300, 1756-9300, 1874-9300, and 1295-0226\*).
3. Hydrogen Cyanide Chemcassettes<sup>®</sup> (PN: 704510, 856510, 874510 and 1295-0222\*).

**\*Note:**

Usage of these filters may cause some performance issues depending upon system configuration. Contact Honeywell Analytics' Service Department with questions.

The Hydrogen Sulfide (H<sub>2</sub>S) Scrubber Filter (P/N: 1295K0497) was designed primarily for use on the Vertex product. It may be used on other products, including the TLD-1 Series, SPM Single Point Monitor, Series 7100, EGM, PSM-8 Series, System 16, and CM4, but the user must understand the limitations of the filter.

For all installations, the H<sub>2</sub>S Scrubber filter should be located in the sample line as close to the instrument as possible. This will permit easy access to visual inspection and replacement of the filter.

### **Notes on Use of the Filter:**

- The life was calculated based on an ambient level of 20 ppb of H<sub>2</sub>S in air, and airflow of 1.5 LPM. From our accelerated tests, we measured a life equal to three months with approximately 20% safety margin.
- The life of the filter will be extended or reduced with changes to the air flow in an approximately proportional manner.
- Install filter in the direction of airflow.
- The filter causes a pressure drop of approximately 0.3 inHg at 1.5 LPM. This pressure drop may reduce the airflow to the instrument or affect the maximum length of sample tubing. However, for most instruments the effect is negligible.

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- When exposed to H<sub>2</sub>S, the filter media will change color from white to dark brown. We recommend replacing the filter when the color change is observed approximately  $\frac{3}{4}$  of the length of the filter (dotted line).
- The filter was filled by weight, and some settling may occur during shipment or use. To reduce the effect of settling, install the filter in vertical orientation, to allow the filter media to settle in the direction of the flow.
- This filter should not be installed in a horizontal or slanted position, due to “channeling” of the flow stream around the filter media.
- Shelf life is two years from date of manufacture (marked on the filter).

**Note:**

This filter will also remove any Hydrogen Selenide (H<sub>2</sub>Se), Diborane (B<sub>2</sub>H<sub>6</sub>) and Ammonia (NH<sub>3</sub>) from the sample stream.



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