

Humidity Indicator Inline
For low-flow filters
Humidity BTI LFF Inline
(PN: 668-0000)



Manual



1. Application

The Humidity indicator inline, BTI LFF In-line, (PN: 668-0000) is qualitative (yes/no) colorimetric indicator for the end-of-service life of filters. It is designed to provide real-time indication of the breakthrough of water vapor.

2. Specifications

- a. Weight: 8g (0.28oz)
- b. Dimensions: See figure 1
- c. Operating temperature: 0°C to 65°C (32°F to 149°F)
- d. Minimum detectable limit: 10.3µg/cm³ (50%RH at 23°C) in 1 hour at 5cm/min air flow*
- e. Color change: See figure 2
- f. Storage temperature: 4°C to 25°C, (39°F to 77°F)
- g. Shelf life: 1 year at 4°C to 25°C, (39°F to 77°F)
- h. Service life: 1 year
- i. Light effect: None

* At certain percentage relative humidity (%RH), the absolute humidity (µg/cm³) varies significantly with temperature and accordingly the indicator response time. For example, at 50% RH and 10°C, absolute humidity is 4.7µg/cm³. Therefore, it takes the indicator 2.2 hours to show noticeable color change, whereas at 50% RH and 35°C, absolute humidity is 19.7µg/cm³. Accordingly, it takes the indicator 30 minutes to show noticeable color change.

Cross interferences: No interferences are known.

3. Operating Instructions

- a. Ensure that packaging pouch is intact.
- b. Open packaging pouch by tearing off the top part from one of side notches.
- c. Remove the Breakthrough Indicator from the packaging pouch.
- d. Remove the ¼" threaded plugs from inline tubing.
- e. Remove the protective red plugs to activate the breakthrough indicator.
- f. Thread the Breakthrough Indicator into the ¼" threaded inline tubing.

 Caution: Only hand-tied indicator into carbon absorber

- g. Replace filter when the Breakthrough Indicator changes color to pink (Figure 2).

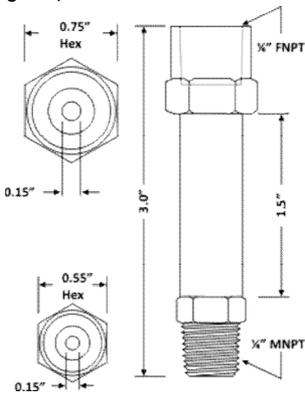


Figure 1

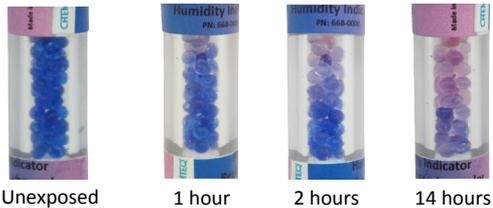


Figure 2: Exposures to 10.3µg/cm³ water vapor at 5 cm/min airflow

