

**Formaldehyde Vapor
Filter Breakthrough Indicator
HCHO BTI LFF
(PN: 136-0000)**



Manual



1. Application

The Formaldehyde Breakthrough Indicator (BTI LFF) (PN: 136-0000) is qualitative (yes/no) colorimetric indicator for the saturation and end-of-service life of filters. The indicator is designed to provide real-time indication of the breakthrough of Formaldehyde vapor.

2. Specifications

a. Weight:	4.4g (0.16oz)
b. Dimensions:	79mm (3.1in), diameter: 10mm(0.39in)
c. Operating temperature:	4°C to 40°C (39°F to 104°F)
d. Operating humidity:	5% RH to 85%RH
e. Minimum detectable limit:	0.5ppm•hr at 30 cm/sec face velocity
f. Color change:	Brown ● to dark brown ● to purple ●
g. Storage temperature:	4°C to 25°C, (39°F to 77°F)
h. Shelf life:	1 year at 4°C to 25°C, (39°F to 77°F)

Cross interferences: Acrolein and aldehydes found in cigarette smoke react with approximately the same sensitivity. The formaldehyde breakthrough detector was exposed to atmospheres containing at least two times the Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) for the following substances: alcohols (methanol, ethanol and isopropanol), aromatic hydrocarbons (benzene, toluene and xylene), halogenated hydrocarbons (chloroform, methylene chloride and carbon tetrachloride), ammonia, carbon monoxide, chlorine, glutaraldehyde, hydrogen sulfide, nitrogen dioxide, phenol and sulfur dioxide. These substances showed no effect on the performance of the formaldehyde breakthrough detector. No other interferences are known.

3. Operating Instructions

- Ensure that packaging pouch is intact.
- Open packaging pouch by tearing off the top part from one of side notches.
- Remove the Breakthrough Indicator from the packaging pouch and reseal Pouch.
- Remove the protective red plug to activate the breakthrough indicator.
- Attach Breakthrough Indicator into filter outlet (close pore foam adapter is required; please contact us for details).
- Replace filter when the Breakthrough Indicator changes color to dark brown or purple.



Filter is good



Replace filter