Phenol and Acidic Vapors
Filter Breakthrough Indicator Sticker
(BTIS LFF)
(PN: 133)





Replace Filter



Filter Over Saturated



Manual

## 1. Application

The Phenol and Acidic Vapors Breakthrough Indicator (PN: 133) is qualitative (yes/no) colorimetric indicator for the exhaustion and end-of-service life of low-flow filters. The indicator is designed to provide real-time indication of the breakthrough of phenol and acidic Vapors.

## 2. Specifications

## 2.1. Overall Specification

a. Weight: 0.4g (0.02oz)

b. Dimensions: 1.5 mm (0.06 in), p: 19.05 mm (0.75in)

c. Operating temperature: 4°C to 35°C (39°F to 95°F)

d. Operating humidity: 5% RH to 85%RH

e. Minimum detectable limit: 1ppm-hr @ face velocity 30cm/sec

f. Color change: Orange to red

g. Storage temperature: 4°C to 25°C, (39°F to 77°F)

h. Service life: 1 year

i. Shelf life: 1 year at 4°C to 25°C, (39°F to 77°F)

2.1. Cross interferences: Basic vapors in high concentrations impair the performance of the breakthrough indicator. No other 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 indicator sticker from the packaging pouch.
- d. Peel off the protective liner to expose the bottom adhesive (Figure 1).



Caution: Do not touch bottom adhesive or the exposure area

- Hold the sticker from the edges, as shown in Figure 2, and place it on center clean area
  of the filter's outlet with the reading area (glossy surface) of the sticker facing up.
- f. For closed pores filter plug, ensure that indicator is centered on filter opening (Figure 3)
- g. For open pores filter plug, attach indicator on center area of filter outlet.
- h. Press firmly to attach the indicator to the filter's outlet (Figure 4).
- i. Replace filter when the reading area of the indicator changes color to red.



Figure 1



Figure 3



Figure 2



Figure 4

