

**Basic Vapors  
Breakthrough Indicator (BTI)  
For Carbon Absorbers**

(PN: 181)



*Manual*



### 1. Application

The Basic Vapors BTI (PN: 181) is qualitative (yes/no) colorimetric indicator for the saturation and end-of-service life of carbon absorbers. It is designed to provide real-time indication of the breakthrough of basic vapors.

### 2. Specifications

- a. Weight: 28g (1.0oz)
- b. Dimensions: 89.9mm (3.5in), diameter 24.5mm (1.0in)
- c. Inlet dimensions: 3/4" MNPT [reducer and expander adapters are available (not included)]
- d. Operating temperature: -20°C to 55°C (-4°F to 131°F)
- e. Operating humidity: 5% RH to 90%RH
- f. Minimum detectable limit: 4ppm•min at 30 cm/sec face velocity
- g. Color change: Yellow ● to green ● to blue ●
- h. Storage temperature: 4°C to 25°C, (39°F to 77°F)
- i. Shelf life: 14 months at 4°C to 25°C, (39°F to 77°F)
- j. Service life: 1 year

**Cross interferences:** Acidic vapors in high concentrations impair the performance of the Basic 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 the Breakthrough Indicator from the packaging pouch.
- d. Remove the 3/4" threaded plug from the carbon absorber outlet lid.
- e. Remove the protective red plug to activate the breakthrough indicator.
- f. Screw in the Breakthrough Indicator into the 3/4" threaded carbon absorber outlet lid.



- g. Replace carbon absorber when the Breakthrough Indicator changes color to green or blue.

