



## Model 8014BAK Compressed Breathing Air Analysis Kit



### Description

The Matheson Model 8014BAK is an on-line analysis kit for ensuring the quality of compressed breathing air. It quickly and easily measures the levels of carbon monoxide, carbon dioxide, oil mist, water vapor, and oxygen.

Unlike other methods, there is no need to take a grab sample and analyze it off line; the 8014BAK is designed to connect directly to the compressed breathing air source. It is available with a choice of three connections—CGA 346, CGA 347, and 1/4" NPT Female.

It is very important that the correct connection type be selected to match the application:

The Model 8014BAK-01 is fitted with a CGA 346 connection, and is rated for inlet pressures of 0-3000 psig. This model should be selected for analyzing compressed air in U.S. D.O.T. approved cylinders with a Stamped Service Pressure in the range of 0-3000 psig.

The Model 8014BAK-03 is fitted with a CGA 347 connection, and is rated for inlet pressures of 3001-5500 psig. This model should be selected for analyzing compressed air in U.S. D.O.T. approved cylinders with a Stamped Service Pressure in the range of 3001-5500 psig.

The Model 8014 BAK-02 is fitted with a 1/4" NPT Female connection, and is rated for inlet pressures of 0-400 psig. This model should be selected for analyzing compressed air from non-cylinder sources having pressures no greater than 400 psig.

**CAUTION:** Adapters must not be used that connect a high pressure source to equipment rated at a lower pressure.

### Some Typical Applications

The Model 8014BAK is ideal for anyone involved with the filling, generating, or usage of compressed breathing air. It has been proven through use in a variety of industries and applications.

- Emergency air packs/respirators
- Fire departments/rescue squads
- Scuba/diving
- Hazardous waste cleanup

Components Measured	Range	Sampling Time
Carbon Monoxide	5-100 ppm	2 min.
Carbon Dioxide	100-3000 ppm	2 min.
Oil Mist (Hydrocarbon)	0.3-5 mg/m <sup>3</sup>	25 min.
Water Vapor	20-160 mg/m <sup>3</sup>	1 min.
Oxygen	2-24%	1 min.

### Principle of Operation

The Model 8014BAK system is essentially comprised of a pressure regulator, flowmeter, and a variety of detector tubes.

In operation, measurements are made by passing the breathing air through each detector tube at a specified flow rate, pressure, and time interval. Each detector tube is formulated with a high purity reagent which absorbs and reacts with the component being measured. This causes a colorimetric stain whose length is directly proportional to the amount of component in the breathing air. Its concentration can be read directly from the scale printed on each tube.

### Ordering Information

Model Number	Description
8014BAK-01	Compressed Breathing Air Analysis Kit, complete with CGA 346 Connection, Regulator, Flowmeter, Tube Connector, Tube Tip Cutter, Timer, Wrench, and Carrying Case. No Detector Tubes Included.
8014BAK-02	Same as above except with 1/4 NPT Connection
8014BAK-03	Same as above except with CGA 347 Connection
8014-600SP	Carbon Monoxide Detector Tubes*
8014-601SP	Carbon Dioxide Detector Tubes*
8014-602SP	Oil Mist Hydrocarbon Detector Tubes*
8014-603SPA	Water Vapor Detector Tubes*
8014-604SP	Oxygen Detector Tubes*
8014-002	Replacement Rubber Tube Connector (pkg 6)

\*1 box containing 10 detector tubes

For more information, request Matheson Brochure, BR-56.

