

IST Accessories

FIELD CALIBRATOR (P/N 8000/8001)

The P/N 8000 Field Calibrator provides a premixed metered sample of gas of known concentration which can be applied to gas sensors to perform calibration adjustments. It consists of a lecture bottle of premixed calibration gas, a regulator with pressure flow gauge, and a sensor adapter cup with sample tubing. The lecture bottle has a volume of 0.44 liters and is pressurized to 1200 psi. The regulator keeps the flow rate of the gas sample constant at 1 SCFH. At this flow rate, it takes approximately 90 minutes to completely exhaust the gas from the lecture bottle. Thus, assuming a typical calibration exposure of 1 minute, each lecture bottle can perform about 90 calibrations. Calibration times can vary depending on the gas and concentration. Empty lecture bottles can be returned to IST for refilling. P/N 8000 is available for the following gases/concentration:

<u>GAS</u>	<u>CONCENTRATION (Balance Air)</u>
Air	
Butane	50% LEL
Carbon Monoxide	50, 100, 200, 500 ppm
Ethylene	50% LEL
Hydrogen	50, 100, 1000, 5000 ppm, 50% LEL
Isobutane	50% LEL
Methane	5000 ppm, 50% LEL
Nitrogen (for O ₂ calibration)	Pure
Propane	50% LEL

Other gases/concentrations may also be available. Please contact IST for information.

Spare lecture bottles (P/N 8001) are available also.

ALTERNATE GAS CYLINDERS

IST can also supply the following premixed gas cylinders. These cylinders are not manufactured by IST. IST can have these cylinders drop-shipped directly from the manufacturer to the customer. Other gases/concentrations may also be available. Please contact IST for information. (Domestic only.)

<u>GAS</u>	<u>CONCENTRATION (Balance Air)</u>
Ammonia	50, 100, 200 ppm
Chlorine	50, 100 ppm
Ethylene Oxide	0, 20, 50, 100 ppm
Hydrogen Sulfide	5, 10, 20, 50, 100 ppm

IQ1000 CALIBRATION BAG (P/N 1005)

The P/N 1005 is a 4-liter Calibration Bag which is used to calibrate IST's portable models which employ sampling pumps. The bag includes a one-way valve and rubber stopper connected to the bag through a sample hose. The bag can be filled with ambient air using a pump (IST P/N P100) or hand bellows. Then, like the P/N 9905 canister, sample gas taken from a P/N 9106 pure gas bottle can be injected into the bag to produce a mixture of known concentration. The unit's built-in sample pump can then be used to draw this sample into the unit for calibration. After calibration is complete, the sample can be purged by unzipping the top of the bag. Calibration instructions are silk-screened onto the bag.

AMBIENT AIR SAMPLING PUMP (P/N P100)

P/N P100 is a sampling pump used to fill IST P/N 1005 or equivalent with fresh, ambient air. The pump comes with AC adapter and runs on 9 VDC. The pump generates a flow rate in excess of 1500 cc/min and takes approximately 2-4 minutes to fill a four liter calibration bag.



WATER GUARD (P/N F44G)

P/N F44G is a sintered water guard to protect sensors during hose downs or direct exposures to water. Available for all applications although sensor performance can be affected depending on the full scale range of the application. The water guard can decrease the sensitivity of the sensor for low ppm full scale ranges.

DUCT MOUNTING FIXTURE (P/N F44DM)

P/N F44DM offers the same protection as F44G except F44DM comes with standard 1" NPT male threading to fit into ducts.

PURE GAS BOTTLE (P/N 9106)

P/N 9106 is a 2 oz. bottle of pure gas which can be used in conjunction with IST's P/N 9905 Calibration Canister or P/N 1005 Calibration Bag to produce gas mixtures of known concentration for calibration of IST gas sensors. Each 9106 bottle contains pure sample gas under slight pressure. A septum on the top of the bottle allows gas to be drawn out of the bottle using a syringe. By injecting the appropriate amount of pure gas into the 1-liter P/N 9905 Canister or 4-liter P/N 1005 Bag, calibration mixtures for a wide range of gases and concentration ranges can be prepared.

The following gases are available in 9106 bottles:

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|------------------------|------------------------------|------------------------------|
| * Acetic Acid Solution | Acetylene | * Acrylic Acid |
| * Acrylonitrile | * Allyl Chloride | Ammonia |
| * Benzene | Boron Trichloride | Boron Trifluoride |
| Butadiene | * Butyl Phenol | * Carbon Disulfide |
| Carbon Monoxide | * Carbon Tetrachloride | Chlorine |
| * Chloroform | Cyanogen Chloride | Dichlorosilane |
| * Diesel Fuel | Dimethylamine, Anhydrous | Dinitrogen Tetroxide |
| * Epichlorohydrin | Ethylene, Compressed | * Ethylene Dichloride |
| Ethylene Oxide, Pure | * Formaldehyde, Solutions | * Hexane |
| Hydrogen, Compressed | Hydrogen Bromide, Anhydrous | Hydrogen Chloride, Anhydrous |
| Hydrogen Cyanide | Hydrogen Fluoride, Anhydrous | Hydrogen Sulfide |
| Isobutane | * Isopropanol | Methane, Compressed |
| * Methanol | Methyl Bromide | Methyl Chloride |
| * Methyl Ethyl, Ketone | Methyl Mercaptan | * Methylene Chloride |
| * Naphtha | Nitric Acid | Nitric Oxide |
| Nitrogen Trifluoride | * Nonyl Phenol | Propylene |
| * Propylene Oxide | Sulfur Dioxide | * Toluene |
| * Triallylamine | * Trichloroethylene | * Vinyl Acetate |
| Vinyl Chloride | | |

Consult factory for availability of other gases.

**Liquid*

CALIBRATION CANISTER WITH SYRINGE (P/N 9905)

The P/N 9905 is a 1-liter (1000 cc) Calibration Canister with a grommated opening in the top cover which allows it to be placed over the sensor rainshield of a stationary IST gas sensor. The canister can be filled with clean air to adjust the zero point of a sensor. Likewise, using the syringe, sample gas can be injected into the canister to produce a mixture of known concentration for calibrating the span point of the sensor. Pure sample gas for many gases can be provided using IST's P/N 9106 bottles. These 2 oz. bottles contain a sample of pure calibration gas which is accessible through a septum in the bottle lid. 0.1 cc of this pure gas injected into the 1000 cc Calibration Canister will produce a 100 part per million (ppm) mixture. Similarly, 0.5 cc of pure gas will produce 500 ppm, 1.0 cc will produce 1000 ppm, and so forth.