

KIN-TEK

Analytical, Inc.

Span Chek™ 2400 by KIN-TEK Analytical, Inc.



Key Indicators

- Calibration for the following gases:
 - Hydrogen sulfide
 - Sulfur dioxide
 - Methyl mercaptan
 - Chloride
 - Hydrogen cyanide
 - Hydrogen fluoride
 - Ammonia
 - Ethylene oxide
 - Nitrogen dioxide
 - And others
- Internal compressor – provides dilution air up to ~ 3 lpm.
- Rechargeable, long life battery – for over 8 hours of continuous operation
- Intake filter, selectable for different gases – cleans ambient air, 1 included.
- Exhaust filter – scrubs vent exhaust
- Safety key switch for power on
- Removable, reusable permeation adapter bottle.
- Enclosed in weatherproof, polypropylene case
- Compact, portable, lightweight design with handle or shoulder strap for carrying.

Span Chek™ 2400 Portable Calibrator

The Span Chek™ 2400 (or SC2400) is a portable permeation system designed for field calibration of air quality analyzers, toxic gas analyzers, area gas monitors, and other gas sensing devices. It may be used with passive sensors as well as instruments that have a built-in sample pump. Interchangeable Trace Source™ disposable permeation tubes provide a stable output of pure analyte gas that mixes with a larger controlled flow of filtered ambient air to form a calibration gas standard. Accurate concentrations of gas standard mixtures can be generated to “verify” or calibrate devices throughout the plant or facility. Sulfur detectors, Nitrogen dioxide detectors, fixed Ammonia detectors, or others can be “bump” checked to ensure proper operation.

The SC2400 has a durable carrying case with an adjustable shoulder strap for easy transport. It weighs approximately 11 pounds and can easily be carried up steps or ladders to ensure safe responses of gas monitors for selected gases.

The SC2400 can produce trace gas concentrations from <1 ppm to 100 ppm (depending on permeation tubes and operating parameters). Concentrations are varied by adjusting the ambient air pump rate, the permeation oven temperature, or the number or type of permeation tubes. The instrument can be used with a variety of compounds by installing the appropriate permeation tubes. Multiple compatible tubes can be used to generate a mixture or increase component concentration.

Operation

The Span Chek™ 2400 is light-weight, portable, and equipped with a long-lasting rechargeable battery. Permeation tubes can be preheated on the charger until “ready” for use, and up to 8 hours of operation is capable on battery life. Dilution gas air is provided by a small internal pump that draws in ambient air and purifies it through a chemical cartridge type filter. Filtered air sweeps through the glass permeation tube adapter bottle to dilute the pure chemical gas emitting from the permeation tube(s). Precise Span Gas concentration mixtures are made dynamically and variations in flow volume provide dilution capabilities that create a range of output concentrations.

Changes in oven temperature extend the SC2400 capabilities and encompass a broad range of tubes and concentration possibilities. The permeation tube oven temperature is controlled by a PID controller that provides a temperature range from 5 °C above ambient to 60 °C. The flow rate of the SC2400 is measured by a flow meter and output flow can be diverted to vent/scrubber or connected directly to a monitor, placed over a sensing head, or exposed to a passive detector. The calibration mixture simulates real samples in all respects including relative humidity and oxygen content of the ambient air source.

An exhaust filter scrubs vent exhaust during transport and/or until safe removal of permeation tubes and storage of the device.

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Shut Down and Storage

An internal scrubber cleans vented gas until easy removal and storage of the permeation tube is done. Once the permeation tube is removed, an on/off key shuts off power to the oven and pump, extending battery life and allowing safe transport of the unit. The Span Check™ 2400 is an economical, easy to use, and safe alternative to using gas cylinders or small lecture bottles and can be carried easily from point to point. If you have never used permeation tubes before, this is a great starter instrument and an easy affordable alternative to other methods of gas calibration.

Specifications

- Concentration Range:
1 – 100 ppm, depending on tubes.
- Oven Capacity:
3/16" diameter type SRT tube up to 5 tubes
1/4" diameter type SRT-2 or HRT tube up to 4 tubes
Maximum internal diameter 3/4"
Maximum overall length 15 cm
- Output Flow: <500 – 3000 cc/min,
Repeatability: +/- 1% Full Scale
- Operating Temperature:
~5 °C above ambient to 60 °C (PID Controller)
- Battery Pack: 12V 7Ah, Rechargeable Battery,
Battery Charger included.
- Charger Rating: 100-240 Volts 50/60 Hz, Output
14.4 Volts, 3.0 Amps. Can operate from battery or
connected to battery charger/power supply.
- Dimension: 11.26" L x 8.66" W x 10.35" D
- Weight: 11 lbs.

Benefits

SAFETY

- No high pressure cylinders required
- Removes risk of exposure
- Light weight and portable
- Does not require cylinder gas or high pressure cartridges for operation

REPEATABLE

- Drift-free output
- Can calibrate all sensors to the same standard
- Excellent temperature and flow control

EASY TO USE

- Set the temperature and air flow –
no other adjustments required
- Operates over 8 hours without recharging

ECONOMICAL

- No false results
- Reduces the time required for calibration
- One permeation tube can do hundreds of calibration checks

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KIN-TEK products are manufactured in a facility whose Quality Management System is certified as being in conformity with ISO 9001:2015 by Intertek.

For more information: <https://kin-tek.com/kin-tek-quality>

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