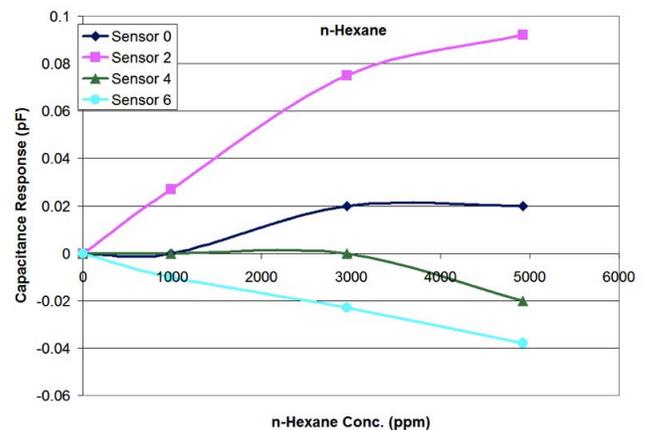


# SC-210

## Chemical Detection System



Each pair of sensors responds differently when detecting n-Hexane from 0 to 5,000 ppm

### Standard Features

- Advanced microprocessor control system
- Eight sensor array
- Sensor air flow chamber
- Pump
- Plastic enclosure
- Swagelok 1/8" tube fitting inlet nut & ferrule
- USB 2.0 A to Mini-B cable
- USB and TTL data output
- SC-200 series data logger installer
- User manual
- Device drivers

The SC-210 model is the sensitivity leader in our chemical sensor lineup. Designed to detect a broad range of chemical gases in ambient air, the unit features an advanced microprocessor control system combined with an array of patented parallel plate capacitive sensors.

Our SC-210 eight sensor array contains four pairs of sensors. Each pair of sensors is coated with a custom polymer designed to give maximum responses to specific classes of chemicals. This allows us to tune the system for custom applications.

# Specifications

## Specification

Sensor: Patented Fixed Plate Capacitor  
 Operating temperature range: -5 to +45C  
 Operating humidity range: Non-condensing  
 Flow Rate: Tunable from 0 to 0.7 L/Min  
 Weight: 3.6oz  
 Power: 5VDC  
 Communication: USB 2.0 Mini-B or 4-pin TTL Serial Port  
 Dimensions: 3 1/16"W x 2 1/16"D x 1 1/2"H  
 Gas and sample inlet: Swagelok 1/8" tube fitting nut and two part ferrule  
 Exhaust gas outlet: Hose barb for 1/16" ID flexible tubing  
 Warranty: Limited 30 day warranty from date of delivery

## Optional Accessories

SC-Demo: Replacement eight sensor array  
 SC-CustomArray: Custom designed sensor array with one to eight sensors  
 Male TTL port connector (Digikey-3-644083-4-ND) & matching socket connector(s)

# Detection Capabilities

Each sensor pair will have selective responses to a broad range of chemicals. The magnitude of response can be described as strong (large peak) or weak (little or no peak). Our sensors can measure positive (above baseline) or negative (below baseline) capacitance changes.

Compound Family	Compound Size	Sensors 0 & 1	Sensors 2 & 3	Sensors 4 & 5	Sensors 6 & 7
Alcohols	C1 - C8	None	Strong (+)	Weak (+)	Weak (+)
Aldehydes	C2 - C8	None	Strong (+)	Weak (+)	Weak (+)
Amines	C2 - C6	None	Strong (+)	Weak (+)	Weak (+)
Aromatic Hydrocarbons	C6 - C12	None	Weak (+)	Strong (-)	Strong (-)
Carboxylic Acids	C1 - C4	None	Weak (+)	None	None
Halogenated Hydrocarbons	C1 - C8	None	Strong (+)	Weak (+)	Weak (-)
Esters	C2 - C10	None	Strong (+)	Weak (+)	Weak (+)
Ethers	C4 - C8	None	Strong (+)	Weak (+)	Weak (+)
Ketons	C3 - C8	None	Strong (+)	Weak (+)	Weak (+)
Nitriles	C2 - C5	None	Strong (+)	Weak (+)	Weak (+)
Water	-	Strong (+)	Weak (+)	Weak (+)	Weak (+)