



INDUSTRIAL GRADE **GAS DETECTION**

“DETECTING THE DIFFERENCE”



PO Box 8067
The Woodlands, TX 77387
888-367-4286 (toll free)
713-559-9200
281-292-2860 (fax)
sales@detcon.com

www.detcon.com
ISO 9001: 2000 • *Certified*

Company Profile



Detcon is located in The Woodlands, Texas just outside of Houston.

ISO 9001: 2000
Certified



Company Mission

Detcon designs and manufactures a wide range of industrial grade gas detection sensors and electronic control systems. Detcon was established in 1983 and began commercial activity with its first products in early 1985. The company has continued to grow in product base and market share. Application experience includes virtually every conceivable type of industrial facility. Detcon's wide range of sensor technology and electronic product design establishes a competitive advantage in providing practical and affordable gas detection solutions in even the most difficult and challenging industrial environments. Our corporate objective can be stated rather simply:

"Provide products and services of the highest quality such that we establish an unequaled level of trade name recognition and trust."

Detcon accomplishes this objective by adhering to a rigid quality assurance program and by keeping in close contact with the needs of its customers.

ISO 9001: 2000 Certified

Detcon's product design and manufacturing process is based on continuous quality improvement and a TOTAL QUALITY MANAGEMENT program. The program is designed to address and satisfy the needs of its customers and improve overall management of the company. The Detcon Quality Program has been certified to the ISO 9001: 2000 standard by an accredited third party registrar.

Quality Policy

Detcon, Inc. will continuously improve its products to better satisfy the needs of its customers and will deliver, on time and every time, defect free products and services.

Model Series 700 Sensors

Environmentally Bulletproof

- ▶ Water-Proof
- ▶ Corrosion-Proof
- ▶ Vibration-Proof
- ▶ Multi-Layer Surge Protection
- ▶ Pre-emptive Fault Diagnostics

Detcon Model Series 700 industrial gas detection sensors are a new generation of intelligent sensor modules. This new level of environmental durability includes an electropolished 316 stainless steel housing, multi-layered transient spike protection circuitry and 100% encapsulated electronics. The sensor electronics are completely protected and immune to water ingress and corrosion. The gas detector sensor elements are all plug-in components and can easily be replaced in the field.

Detcon Model Series 700 sensors have been assessed a SIL2 rating by Exida, a leading assessment organization.

Integration Options

- ▶ Remote Control Module
- ▶ Alarm Relay Module
- ▶ Profibus Module
- ▶ Hart Module
- ▶ Foundation Fieldbus Module
- ▶ Wireless Interface Module

Detcon's Model Series 700 can be configured to meet a wide range of applications by utilizing available integration options. Remote operation, communication protocol options, relay output and other options are available.



CHEMFET MOS

Solid State H2S Sensor

CATALYTIC

Combustible Gas Sensor

INFRARED

Combustible Hydrocarbons & CO2 Sensors

ELECTROCHEMICAL

Wide Range of Toxic Sensors

OXYGEN

O2 Deficiency Sensor

PHOTO IONIZATION

Volatile Organic Compound Sensors

M Model Series 500 & 600 Sensors

MicroSafe™ Intelligent Sensors

- ▶ Non-Intrusive Interface
- ▶ 4-20 Milliamp Output
- ▶ Class I, Division 1, Groups B,C,D
- ▶ Options
 - Modbus RTU RS-485
 - Alarm Relays
- ▶ Modular Design
 - Easy Maintenance
 - Plug and Play Sensors and Transmitters
 - Intuitive Operating Software



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O2 Deficiency Sensor

PHOTO IONIZATION

Volatile Organic Compound Sensors

M Model Series 200 Sensors

UniTox™ Universal Toxic Gas Sensors

- ▶ Intrinsically Safe
- ▶ Universal Transmitter
- ▶ 2-Wire Loop Powered
- ▶ 4-20 mA Output
- ▶ Non-Intrusive Interface
- ▶ NEMA 4X Class I, Div. 1, Groups A,B,C,D
- ▶ 40 Different Toxic Gases (plus oxygen)

- C2H3O
- C2H2
- C3H3N
- NH3
- AsH3
- Br2
- C4H6
- CS2
- CO
- COS
- Cl2
- ClO2
- B2H6
- C2H6S
- C3H5OCI
- C2H5OH
- C2H5SH
- C2H4
- C2H4O
- F2
- CH2O
- GeH4
- N2H4
- H2
- HBr
- HCl
- HCN
- HF
- H2S
- CH3OH
- CH3SH
- NO
- NO2
- O3
- COCl2
- PH3
- SiH4
- SO2
- C4H8S
- C4H4S
- C6H5CH3
- C4H6O2
- C2H3Cl



ELECTROCHEMICAL
Wide Range of Toxic Sensors

OXYGEN
O2 Deficiency Sensor

Single Sensor Control Card Systems

Model 10 Series - 2 Alarm

- ▶ 2 to 16 Channel Packaging
- ▶ Programmable Relays (2 Alarms + Fault)
- ▶ NEMA 1, 4X, and 7
- ▶ Modular Plug-in Design
- ▶ Compatible with PLC's, SCADA, DCS
- ▶ Outputs: 4-20 mA, RS-485, & 2 Alarms
- ▶ Addressable via RS-485 Serial Communication
- ▶ Alarm Disable Function

Model 12 Series - 3 Alarm

- ▶ 4 to 12 Channel Packaging
- ▶ Programmable Relays (3 Alarms + Fault)
- ▶ NEMA 1, 4X, and 7
- ▶ Modular Plug-in Design
- ▶ Compatible with PLC's, SCADA, DCS
- ▶ Outputs: 4-20 mA, RS-485, & 3 Alarms
- ▶ Addressable via RS-485 Serial Communication
- ▶ Alarm Disable Function



Detcon Model 10 single channel digital control modules are designed to supervise and display the status of a single remote sensor assembly. Modules are available for a variety of toxic and combustible gases and are compatible with a complete line of Detcon enclosures and mainframe hardware assemblies.

410-N1-24VDC

810-N1-24VDC



1610-N1-24VDC



Detcon Model 12 single channel digital control modules are designed to supervise and display the status of a single remote sensor assembly. Modules are available for a variety of toxic and combustible gases and are compatible with a complete line of Detcon enclosures and mainframe hardware assemblies.

612-N1



1212-N1



610-N4X



610-N7



412-N4X



812-N4X



1212-N4X



1610-N4X



Multichannel Control Systems

Model X40 Series Control Systems - 1 to 8 Channels

- ▶ Completely User & Field Programmable
- ▶ 3 Adjustable Alarm Level Relays, 1 Fault Relay
- ▶ Alarm Silence and Alarm Reset Feature
- ▶ Data Logging of TWA, Peak, Cal & Alarm Events
- ▶ Addressable RS-485 Serial Communication

Detcon's Model X40 family of gas detection control systems are available in 1, 2, 4, and 8 channel versions. A microprocessor based control card supervises and displays the condition of any field mounted gas detection sensor with a 4-20 mA or serial RS-485 output. A backlit alpha/numeric display provides indication of gas type and current reading and also provides a simple menu driven interface used for system configuration of gas type, range, alarm set-points, and relay outputs.



Model 1600/6400 Control System - 64 Input Channels

- ▶ User Friendly, Field Programmable
- ▶ Readily Field Expandable
- ▶ Supports Distributed I/O
- ▶ Backlit LCD Touch-Screen Interface
- ▶ Alarm Silence and Reset Feature
- ▶ Serial interface to sensors
- ▶ Data Logging of TWA, Peak, Cal & Alarm Events

Detcon's Model 1600/6400 Controllers are user configurable multi-channel controllers available in two versions. The Model 1600 version accepts up to 16 input channels. The Model 6400 accepts up to 64 input channels. The Model 1600 is field upgradeable to a 64 channel version. Both controllers use din-rail mount I/O modules that provide for analog 4-20 mA inputs & outputs and, relay contact inputs and outputs. The backlit LCD screen displays status readings and the menu interface for configuration. Configuration via download from a PC is another key feature.

1600-N4X



Model 880 Control System - 8 to 80 Channels

- ▶ Field Programmable
- ▶ 40 Channel Analog and 80 Channel Serial Input
- ▶ 10" Color Touch-Screen with Simplified Interface
- ▶ Programmable Discrete or Zoned Alarm Relays
- ▶ Front Panel LED Alarm Function Indicators
- ▶ Onboard Logging of Alarm/Fault Conditions
- ▶ Addressable RS-485 Serial Communication

Detcon Model 880 is a PLC-based control and alarm system used for monitoring networks of 8 to 80 gas detection sensors using 4-20 mA or RS-485 serial inputs. The graphical system displays the current reading and alarm status of each device. The system logs alarms and abnormal conditions to a removeable USB flash drive. It is fully compatible with SCADA, DCS, and PC-based systems.

Model 880



Engineered Systems

Systems Engineering Services

- ▶ Hardwire & PLC Based Systems
- ▶ Addressable & PC MMI Systems
- ▶ Field Device Selection and Location
- ▶ Installation Drawings and Details
- ▶ Cabinet Design and Manufacture
- ▶ System Start-Up, Training & After Sale Support

Detcon gas detection systems have established a high level of reliability and performance in the world's most challenging industrial environments. Detcon offers a wide range of standard pre-engineered systems for low density applications. For high density applications Detcon provides extensive engineering and design services utilizing proven data acquisition and data distribution platforms. Detcon partners with leading systems integrators and designers around the world to provide single source process, security, and fire and gas systems.

PC Based MMI High Density Systems

- ▶ Windows® Based Package
- ▶ Animated Graphic Pages
- ▶ Real Time and Historical Trending
- ▶ Pop-up Windows with Detailed Device Information
- ▶ Alarm and Command Logging, & System Security

The Detcon Site Manager is an operator interface designed specifically for Detcon gas detection systems. The Windows® based package includes standard features such as animated graphic pages, real time and historical trending, pop-up windows with detailed device information, alarm and command logging, and system security.



Process Analyzers

- ▶ Uses Low Maintenance Sensor Technology
- ▶ Available as H2S and CO2 Dual Package
- ▶ H2S Ranges: 0-2 ppm up to 0-10%
- ▶ CO2 Ranges: 0-0.3% up to 0-100%
- ▶ On-board Calibration Gas Sources
- ▶ Sample Pre-Conditioning Components are Standard
- ▶ Optional Nema 4X Packaging
- ▶ Portable Available in H2S

Detcon Model 1000 Process Analyzers provide continuous measurements of H2S and/or CO2 in natural gas pipelines, tail gas lines, SRU overhead lines as well as other applications. H2S is measured using Detcon's proprietary solid state MOS sensor element and the CO2 is measured using the Detcon NDIR infrared detector. The analyzer features a microprocessor based signal conditioning transmitter module with local digital display, fault supervision, calibration mode indicator, 3 alarm relays and RS-485 serial port. A complete gas sample pre-conditioning system and on-board calibration source are standard.

