



# Detcon Model DM-700-C2H5OH

ISO 9001: 2000  
Certified

888-367-4286  
281-367-4100  
fax 281-292-2860  
www.detcon.com  
sales@detcon.com

## Specifications

### Sensor Type

Electrochemical Fuel Cell

### Measurement Range

0-100 ppm, Other ranges available

### Accuracy/Repeatability

±2% FS

### Response/Clearing Time

T90 <140 seconds

### Span Drift

<5% signal loss per year

### Operating Temperature Range

-20°C to +50°C; -4°F to +122°F

### Operating Humidity Range

15-90% RH non-condensing

### Outputs

Linear 4-20 mA DC  
RS-485 MODBUS-RTU

### Input Voltage

11.5-28 VDC

### Power Consumption

<2 1/2 watts @ 24 VDC

### Electrical Classification

Explosion proof  
Class I, Division 1, Groups A, B, C, D  
Class I, Zone 1, Group IIC (ATEX)

### Safety Approvals

cCSAus, ATEX  
SIL1 FMEDA Rating

### Sensor Life/Warranty

Sensor - 2 years; Transmitter 2 Years

### Dimensions

7" High x 2 1/8" Diameter (sensor only)

## Ethanol Sensor

### Electrochemical Fuel Cell

(shown as PN 967-12E094-100 in SS junction box)



## Description

Detcon Model DM-700-C2H5OH Ethanol sensors are non-intrusive "Smart" sensors designed to detect and monitor C2H5OH in air over the range of 0-100 ppm. The sensor assembly is constructed of electropolished 316SS and consists of two parts – an encapsulated universal Intelligent Transmitter Module (ITM), and a plug-in electrochemical cell with intelligent sensor interface. The plug-in intelligent sensor automatically identifies itself to the ITM and allows for seamless field interchangeability. Operator interface is via a small handheld magnet. One of the main features is the embedded intuitive software that guides the user through routine calibration and configuration menus using a built-in LED alpha/numeric display. Included is a splash-guard with integral cal port.



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## Features

### Failsafe User-Friendly Interface

- ▶ LED Display (With Antiglare Cover)
- ▶ Full Text Display Method
- ▶ Non-intrusive Interface
- ▶ Auto Zero/Auto Span
- ▶ Pre-emptive Fault Diagnostics

▶ Scrolling Full Message/Text Display



(Input Voltage Range, Operating Temperature Range, Detector Signal Amplitude, Output Signal Loop Integrity)

### Environmentally Bulletproof

- ▶ Electropolished 316SS Construction
- ▶ 100% Epoxy Encapsulated Circuitry
- ▶ Bullet-Proof I/O Protection (Over-voltage, Miswiring, EMI/RFI Immunity)
- ▶ Water-Proof, Corrosion-Proof, Vibration-Proof

### Modular and Serviceable

- ▶ Modular Design
- ▶ Plug and Play Components
- ▶ Quick Thread Release (For Sensor Replacement)
- ▶ Integral Calibration Port

### Order Guide Specify junction box options (below)

- | Part Number    | Description  |
|----------------|--|
| 967-12E090-100 | DM-700-C2H5OH Sensor Assembly (no junction box)          |
| 967-12E091-100 | DM-700-C2H5OH Sensor Assembly with Aluminum Junction Box |
| 967-12E094-100 | DM-700-C2H5OH Sensor Assembly with 316 SS Junction Box   |

### Accessory Modules

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