

FREEDOM DIRECT

FIXED GAS DETECTOR



SCOTT[®]
HEALTH & SAFETY



ADVANCED SENSOR TECHN

FREEDOM DIRECT DETECTOR

Reduce inventory and installation costs associated with multiple-gas detection points throughout a facility by as much as 40 percent with the Scott® Freedom® Direct gas detector. Specifically designed to detect combustible gases and carbon dioxide using IR or Catalytic Bead sensor technologies, the Scott Freedom Direct detector delivers information on gas concentrations directly to a controller that is designed to accept Catalytic Bead sensors without the need for a transmitter. By eliminating the use of the transmitter, the Freedom Direct detector reduces the initial investment needed to maintain plant safety.

Improved facility safety

Facility safety is improved with greater coverage of potentially hazardous areas. With a Freedom Direct detector, additional points of detection can be economically added to remote locations or areas where local display is not required.

Easy to install & maintain

The Freedom Direct detector's simple design allows for easy installation, maintenance and quick sensor change-out in the field. The ability to switch between sensor technologies in the field expands the detector's capabilities and provides customers the ultimate flexibility.

Tough, durable construction

The Freedom Direct detector's rugged stainless steel housing withstands the harshest of environments, while maintaining the life and operation of the advanced sensor technology inside. When combined with the 5.5 volt Catalytic Bead sensor, the detector can operate in temperatures up to 200° Celsius.

Interoperability with Freedom 6000 transmitter

When local display is required, the Freedom Direct detector can be upgraded seamlessly to the Freedom 6000 transmitter in the field, providing customers the functionality that they desire.

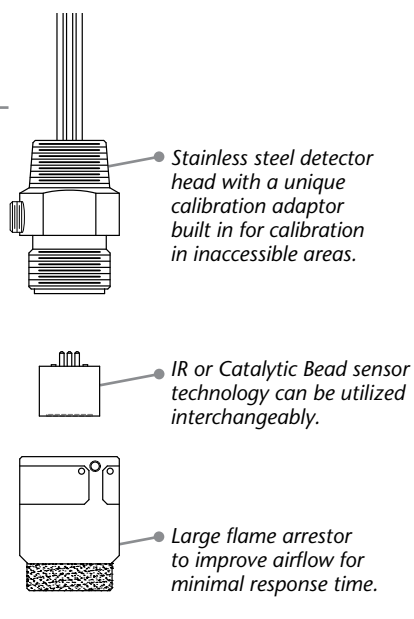


Freedom 6000
Transmitter

TECHNOLOGY AT A LOWER COST



The Freedom Direct detector can be used with a junction box to allow easier access to wiring, making unit change-out easier. (Shown with optional junction box)



PRODUCT FEATURES:

- Simple, Low-Cost Design
- Remote, Stand-Alone Operation
- Simple, Flexible Installation
- Plug-and-Play Sensor Technology
- IR or Catalytic Bead Sensor Capable
- Upgradable to the Freedom 6000 in the Field

KEY MARKETS:

- Oil and Gas Production Platforms
- Refineries
- Chemical Processing Facilities
- Wastewater Treatment Facilities
- General Industry
- Terminal Storage Facilities
- Food and Beverage



At Scott, we've been developing ways to protect people since 1945. Our founder Earl Scott began the company by tinkering with inventions in his basement in Lancaster, NY. Since that time, the Scott name has stood for unquestioned quality when safety is critical. Facilities across hundreds of industries rely on Scott's attention to detail, fail-safe measures, attentive service and constant innovation. The Freedom Direct is another offering in our long, proud history of safety equipment.

SPECIFICATIONS AND ORDERING INFORMATION

Physical Characteristics

- Size: 1.3" W, 1.3" H, 4" L
- Weight: .6 lb.
- Housing: 303/304 stainless steel
- Flame Arrestor: 316 stainless steel 100 micron
- Threads: .75" NPT
- Cal Port Threads: .125" NPT

User Interface

- Zero calibration, performed via bridge sensor compatible transmitter/controller/receiver
- Span and calibration must be performed via bridge sensor compatible transmitter/controller/receiver
- IR source failure: sensor sends voltage corresponding with -100% full scale

Instrument Power

- 5.5 Volt Catalytic Bead: 60 mA
- 5.5 Volt Poison Resistant Catalytic Bead: 60 mA
- 4.25 Volt Catalytic Bead: 60 mA
- IR Voltage: 3-5 VDC 4.25 nominal
- IR: 85 mA
- Wiring Length From Controller: In excess of 3,500 feet, utilizing 14-18 gauge stranded wire from a controller providing 7 VDC nominal output

Environmental Performance

- Temperature IR: -20 to 50°C
- Humidity IR: 0-95%
- Temperature 4.25 Volt Catalytic Bead: -40 to 55°C
- Humidity 4.25 Volt Catalytic Bead 0-80% RH
- Temperature 5.5 Volt Catalytic Bead: -40 to 200°C
- Humidity 5.5 Volt Catalytic Bead 0-99% RH

Warranty

- 10 Years: Sensor Housing
- 2 Years: IR Sensor
- 1 Year Catalytic Bead Sensor
- 1 Year All Accessories

Certifications

- cULus (UL 1203, CSA 22.2 No 30-M1986)
- ATEX*
- Approved as an explosive proof device for use in Class I, Div 1, Groups A, B, C, D

Available Accessories

- Weathershield Assembly (40012041)
- Calibration Adapter (096-3242)
- Round Duct Mount (40007994-1)
- Flat Duct Mount (40007994)
- Break-out Board (096-3369)

Standard Equipment

- Manual
- Allen tool

Sensor Options

Part Number	Description
093-0500	IR, 0-5% Methane, 0-100% LEL
093-0515	IR, 0-2% Propane, 0-100% LEL
093-0536	IR, 0-5% CO2
096-3368-1	IR, Ethane, 0-100% LEL
096-3368-2	IR, Propylene, 0-100% LEL
096-3368-3	IR, Methanol, 0-100% LEL
096-3368-4	IR, Cyclohexane, 0-100% LEL
096-3368-5	IR, Acetone, 0-100% LEL
40011528	5.5 V Catalytic Bead, 0-100% LEL
40012111	Catalytic Bead, Poison Resistant, 0-100% LEL
093-0524	4.25 V Catalytic Bead, 0-100% LEL

Order Information

Part Number	Description
096-3349	Combustible Head Assembly
096-3363	Detector Guard Assembly
40012040	Junction Box
40012041	Rainshield Assembly
096-3369	Break-out Board (Used for setting the voltage at the head)



*Approval pending.

Scott Health & Safety is a global business unit of Tyco International that supplies a variety of industries through manufacturing facilities located in the United States, United Kingdom, Asia, Finland and Australia.

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