



## Description

The MultiTox DGI-TT7-E gas detectors employ a wide array of sensor types. The device has been designed for ease of operation and maintenance.

The DGI-TT7-E are constructed from a common housing and electronics with the detection properties being determined by the type of sensor (cartridge) used. A wide range of cells are available, including hydrogen sulfide, ammonia and carbon monoxide to name a few. The cells are intrinsically safe protected, and may be replaced with the detector powered.

The intelligent, microprocessor driven unit is fully configurable using a wireless handheld terminal (TLU) or optionally via HART giving true flexibility to the installer. Parameters such as relay operation and alarm levels are all set via the TLU, hazardous area approved handheld unit.

The unit may be interfaced directly with a wide range of panels, controllers and PLC's etc.

The device offers HART Protocol 7th edition output as an option.



Flexible Configuration  
IS Cartridges  
Local Display



TLU Wireless (IR)  
Handheld Terminal



## Applications

- ▶ Refineries
- ▶ Offshore Drilling and Production Platforms
- ▶ Processing and Storage Plants
- ▶ Chemical Plants

## Features

- ▶ Standard detector platform
- ▶ Auto heating of EC cell
- ▶ Hot change of cells
- ▶ Integral day light readable alphanumeric display
- ▶ Hand held maintenance terminal
- ▶ "No-touch" field cabling
- ▶ HART® output option available

## Benefits

- Wide range of cells
- Suitable for low temperature
- Minimizes system down time
- Local status and alarm level indication
- Reduced service costs
- Detector can be replaced without disassembling the cable glands
- Full configuration and diagnostics over non-proprietary interface

# MultiTox DG-TT7 ■ Electrochemical Gas Detector

R02 062012

## Technical Data

### General

**Technology:** Electrochemical cell

**Detects:** See table below

**Range:** See table below

### Performance

See table below

### Output Signal

**Standard:** 4-20 mA, max load impedance 700 Ohm (Std.)  
2 x configurable Relays max 1A / 30V

**Option HART®:** HART Protocol (7th edition) (pending)

**Option:** 0-22mA (User configurable)

**Option:** Lonworks (Syntel)

**Local Display:** 4 digit LED display with automatic intensity adjustment

### Electrical

**Power Supply:** 24V DC, range (18-28V DC)

**Power Consumption:** 0.7W normal; 4.5W when heating

**Connection:** 0.14 mm<sup>2</sup> (28 AWG) - 1.5mm<sup>2</sup> (16 AWG)  
Shielded cable recommended.

### Environmental

**Storage Transmitter:** -40°C to +70°C (-40°F to +158°F)

**Cartridge/Cell:** 0°C to +20°C (+32°F to +60°F)

**Operating:** See table below

**Humidity:** 0-95% RH (non-condensing)

**Pressure:** Atmospheric pressure +/- 10%

**Ingress:** IP66

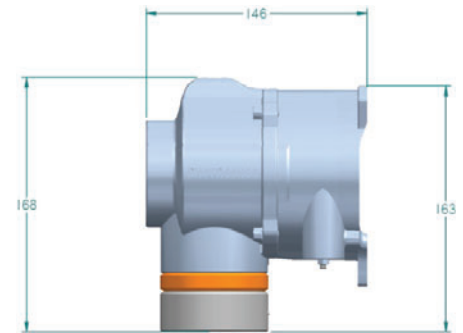
**RFI/EMI:** Complies with EN50270

### Approvals

**ATEX:** II 2 G Ex dia IIC T6 Gb (-40°C to +65°C)

**Certificate Number:** LCIE 12 ATEX xxxxxxxxxxxxxx

**IECEX:** Ex dia IIC T6 Gb  
IECEX LCI 12.xxxxxxxxxxxxxx



### Housing

**Material:** 316 L stainless steel

**Weight:** 4kg (8 lbs)

### Accessories

**TLU600:** Infrared remote control unit

**AS008:** Sun shade

**AS005:** Calibration cup

**AS051:** Calibration cup for breakable ampoules

**AS011-2:** Sample flow housing

**AS019:** Splash guard

**CAL-K1C-xxAE-1A1-00:** Calibration kit

**CAL-A00-xxAF-000-00:** Box of 10 breakable gas ampoule  
(xx = 31 for 100ppm NH<sub>3</sub>, 39 for 50ppm H<sub>2</sub>S)  
For use with AS051 cup

**AS047:** Display protection

### Other Products (Stainless Steel Range)

**DG-TT7-S:** MultiTox, Solid-State (MOS) Gas Detector

**DF-TV7-T:** MultiFlame, Flame Detector

**DG-TX7:** MultiXplo, Flammable Gas Detector

Gas	O <sub>2</sub>	H <sub>2</sub> S	NH <sub>3</sub>	CO	NO	NO <sub>2</sub>	H <sub>2</sub>	SO <sub>2</sub>	Cl <sub>2</sub>	HCl	HCN
Range (ppm)	0-5	0-20	0-50	0-100	0-100	0-20	0-1000	0-20	0-10	0-50	0-50
(except )2 % Vol.)	0-25	0-50	0-100	0-200			0-2000	0-100	0-20	0-100	
		0-100	0-1000	0-500			0-10000*		0-50		
		0-200		0-1000							
Zero Drift in % Scale	<0.1	<1	<3	<2	<3	<0.5	<1.5	<1	<0.5	<3	<1
90 (seconds)	<20	<60	<120	<35	<20	<45	<50 * <70	<30	<30	<160	<40
Cell Lifetime (months)	12 to 18	24	18	18	36	24	24	24	24	24	18
Temperature°C	-10/+40	-20/+50	-20/+40	-20/+50	-20/+50	-20/+50	-20/+50	-20/+50	-20/+40	-20/+50	-20/+40

Specifications subject to change without notice



Tel: 713-559-9200  
Toll Free: 888-367-4286  
Fax: 281-292-2860  
Email: sales@detcon.com  
Web: www.detcon.com

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