

MultiTox

Flexible configuration
IS Cartridges
Local display

DGI-TT7 Electrochemical Toxic Gas Detector

The MultiTox DGI-TT7-E is an intelligent gas detector employing an array of sensor types. The DGI-TT7-E is used for Toxic gases or Oxygen monitoring. The device has been designed for ease of operation and maintenance.



Description

All 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 sulphide, 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 hand-held terminal (TLU) or by using the hard wired HART option giving true flexibility to the installer. Elements such as relay operation and alarm levels are all set via the TLU; a hazardous area approved hand-held 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.

Application

- 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 daylight readable alphanumeric display

Hand-held maintenance terminal

Hot swap field cabling

HART(R) output option available

Benefits

Wide range of cells

Suitable for low temperature

Minimises system down time

Local status and alarm level indication

Reduced service costs

Sensor can be changed in a hazardous area without requiring area declassification

Full configuration and diagnostics over non-proprietary interface



TLU Wireless (IR)
Hand-held Terminal



Technical Data

GENERAL

Technology	Electrochemical cell
Detects	See table below
Range	See table below

PERFORMANCES

See table below

OUTPUT SIGNAL

Standard	4-20mA, max. load impedance 700Ω (Std.) 2 x configurable Relays max 1A / 30V
option HART(R)	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	2W nominal, 7.8W max. heating
Connection	0.3 mm ² (22 AWG) - 1.5 mm ² (16 AWG) Shielded cable recommended

ENVIRONMENTAL

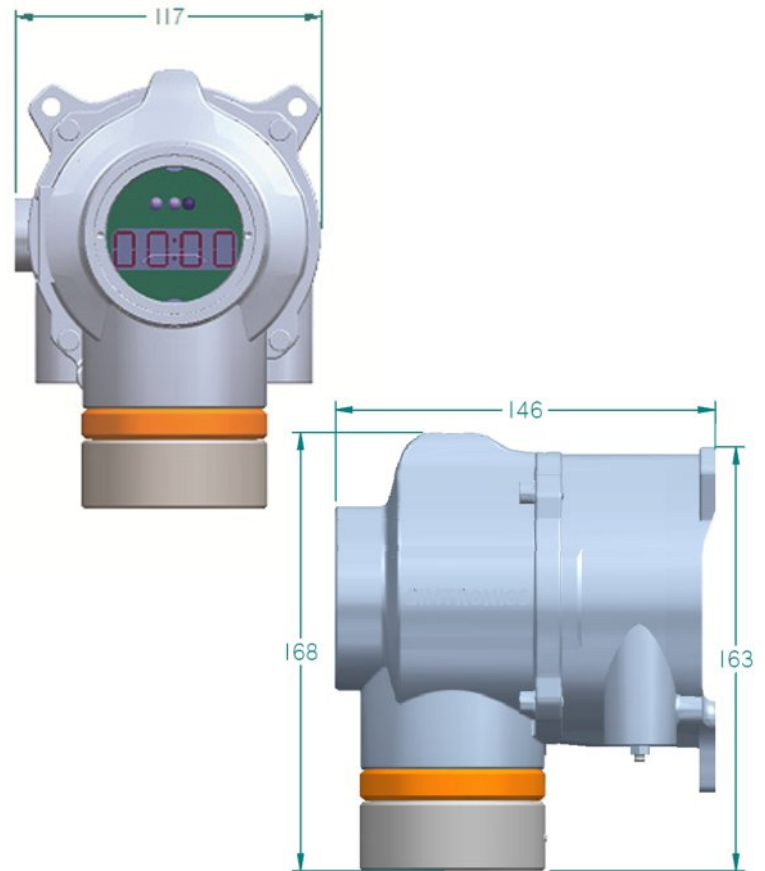
Storage	-40°C to +70°C (-40°F to +158°F) Transmitter 0°C to +20°C (0°F to +68°F) Cartridge / Cell
Operation	See table below
Humidity	99% RH (non-condensing)
Pressure	Atmospheric pressure +/- 10%
Ingress	IP66
RFI/EMI	Complies with EN50270

HOUSING

Material	316 L stainless steel
Weight	4 Kg (8Lbs)

APPROVALS

ATEX	⊕ II 2 G Ex d ia IIC T6 Gb (-20°C to +60°C)
Certificate number	LCIE 13 ATEX 3024X
IECEX	Ex d ia IIC T6 Gb IECEX LCIE 13.0021X



OTHER PRODUCTS (STAINLESS STEEL RANGE)

DG-TT7	MultiTox, Solid-State (MOS) Gas Detector
DF-TV7	MultiFlame, Flame Detector
DG-TX7	MultiXplo, Flammable Gas Detector

ACCESSORIES

TLU600	Infrared remote control unit
AS056-250	Sun shade
AS005	Calibration cup
AS011-2	Sample flow housing
AS019	Splash guard
CAL-K1C-xxAE-1A1-00	Calibration kit (xx = gas to be specified)
AS047	Display protection

GAS	02 M Type	02 G Type	H ₂ S	NH ₃	CO	NO	NO ₂	H ₂	SO ₂	CL ₂	HCl	HCN
Range (ppm) (except 02 %vol.)*	0-5 0-25	0-5 0-25	0-20 0-50 0-100 0-200	0-50 0-100 0-1000	0-100 0-200 0-500 0-1000	0-100	0-20	0-1000 0-2000 0-10000	0-20 0-100	0-10 0-20 0-50	0-50 0-100	0-50
Zero drift (ppm, except 02 %vol.)	< 0.1	< 0.1	+/- 1 +/- 2	+/- 2 +/- 2	+/- 4 +/- 10	+/- 3	+/- 0.5	+/- 40 +/- 200	+/- 0.5	+/- 0.5	+/- 3	+/- 1
T 90 (seconds)	< 25	< 25	< 60	< 120	< 35	< 20	< 45	< 70	< 30	< 30	< 150	< 60
Cell lifetime (months)	12 to 18	60	24	24	36	36	24	24	24	24	24	18
Temperature °C	-10 / +40	+5 / +40	-20 / +50	-20 / +40	-20 / +50	-20 / +50	-20 / +50	-20 / +50	-20 / +50	-20 / +40	-20 / +50	-20 / +40
Temperature °F	+14 / +104	+41 / +104	-4 / +122	-4 / +104	-4 / +122	-4 / +122	-4 / +122	-4 / +122	-4 / +122	-4 / +104	-4 / +122	-4 / +104

* The concentration depends directly on the pressure