MultiTox

DG-TT7 Solid-State (MOS) Gas Detector

Flexible configuration
Reduced maintenance
Local display

The MultiTox DG-TT7 is an intelligent solid-state (MOS) hydrogen sulphide (H_2S) gas detector. The device has been designed for ease of operation and maintenance in hot and dry environments.

HART
COMMUNICATION PROTOCOL

Description

The DG-TT7 is a solid-state metal oxide semiconductor (MOS) gas detector used mainly for the detection of hydrogen sulphide in arid locations having air present. The DG-TT7 can also be configured for other gases, such as refrigerants (e.g. R22). The unit employs a robust sensing element that needs recalibration just once a year. In addition the device does not need a high gas concentration dose to reactive the active sensing material.

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.

Applications

- Refineries
- Drilling and Production Platforms
- Processing and storage plants
- Chemical plants

Features

Recalibration only once a year Cartridge easily removeable	
Non-consumable process	
Resistant to high gas concentrations	
Integrated daylight readable backlit LED display	
Hand-held maintenance terminal	
Hot swap field cabling	
HART(R) output option available	

Benefits

Reduced maintenance & service costs
Long service life
Suitable for extreme conditions
Local status and alarm level indication
Reduced service costs
Detector (if unpowered) can be changed without area declassification
Full configuration and diagnostics over non-proprietary interface

TLU Wireless (IR)
Hand-held Terminal

SIMTRONICS
Fire & Gas

DG-TT7

Technical Data

GENERAL

Technology	Solid-state Metal Oxide Semiconductor
Detects	Hydrogen Sulphide
Range	0 - 50 ppm H_2S
	0 - 100 ppm H_2S

PERFORMANCE

Response time	T50 < 30 s
	T90 < 120 s
Accuracy	+/- 4 ppm or +/- 15% reading
Zero drift	+/2 ppm
Sensor life	Better than 5 years

OUTPUT SIGNAL

Standard	4-20mA, max. load impedance 700Ω (Std.)
	2 x configurable Relays max 1A / 30V
option HART(R)	HART Protocol (7th edition)
option	0-22mA (User configurable)
option	Lonworks (Syntel)
Local display	4 digit led display and backlight color status with automatic intensity adjustment

ELECTRICAL

Power supply	24V DC, range (18 - 28V DC)
Power consumption	2W normal, 5W max (backlight at max)
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)
Operation	-40°C to +65°C (-40°F to +149°F)
Option	Sunshade, max. temp. 85°C (185°F)
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	⟨Ex⟩ II 2 G Ex d IIC T6 Gb (-40°C to +65°C / -40°F to +149°F)
Certificate number	LCIE 11 ATEX 3081X
IECEx	Ex d IIC T6 Gb IECEx LCI 11.0060X

OTHER PRODUCTS (STAINLESS STEEL RANGE)

DGI-TT7	MultiTox, (EC Cell) Gas Detector
DF-TV7	MultiFlame, Flame Detector
DG-TX7	MultiXplo, Flammable Gas Detector
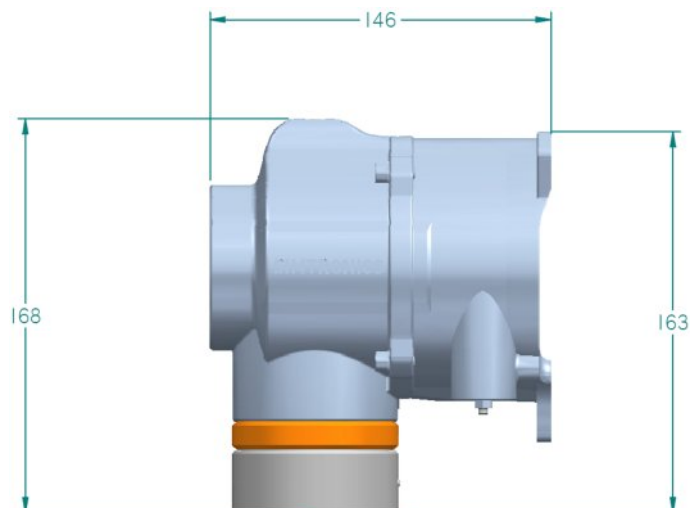
ACCESSORIES

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-31AE-1A1-00	Calibration kit 20ppm H_2S
CAL-K1C-31AF-1A1-00	Calibration kit 50ppm H_2S
AS047	Display protection

SIMTRONICS
Fire & Gas

Simtronics AS
Kabelgaten 8, Økern Næringspark
P.O. Box 314, Økern, NO-0511 Oslo, Norway
Tel. +47 2264 5055
Email: mail@simtronics.no

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Distributed by:
Air-Met Scientific Pty Ltd

Air-Met Sales/Service
P: 1800 000 744
F: 1800 000 774
E: sales@airmet.com.au

Air-Met Rental
P: 1300 137 067
E: hire@airmet.com.au
W: www.airmet.com.au