Product Data Sheet

P/N : GS+701

GS+701
Combustible Sensor

Introduction The GS+701 is a high quality combustible sensor, ideal for use in portable gas detectors.

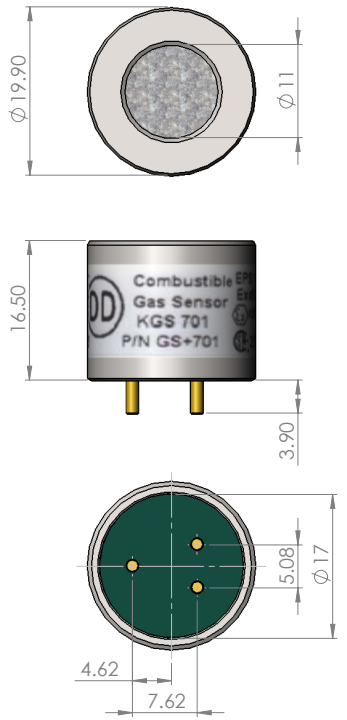
Key Features: high stability, poison resistant, fast response and recovery, robust design.

Performance Characteristics	
Operating Principle	Catalytic Oxidation
Gases Detected	Most combustible gases and vapours
Range	0 - 100% LEL
Operating Voltage	3.0 VDC
Operating Current	76 ± 7 mA
Sensitivity	29 ± 5 mV / %methane
T90 Response Time	< 20 seconds (methane)
Initial Warm-up Time	< 30 seconds
Linearity	3% methane
Baseline Stability	±0.3% LEL propane
Short-term Baseline Drift	±0.3% LEL propane

Environmental Details	
Temperature Range Continuous	-20°C to +50°C
Pressure Range	800 to 1200 mbar
Operating Humidity Range	0% to 90% RH

Important Note:
All performance data is based on conditions at 23±2°C, 60%RH and 1 atm, using DD Scientific recommended circuitry.

Sensor performance is temperature dependent, and please contact DD Scientific for temperature performance other than 20°C.



Product Dimensions
All dimensions in mm
All tolerances ±0.15 mm

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Lifetime Details	
Long Term Sensitivity Drift	< 5% signal / month
Long Term Zero Drift	< 5% LEL / month (methane) in clean air
Recommended Storage Temp	0°C to 20°C
Expected Operating Life	24 months
Standard Warranty	24 months from date of dispatch

- Product Approval

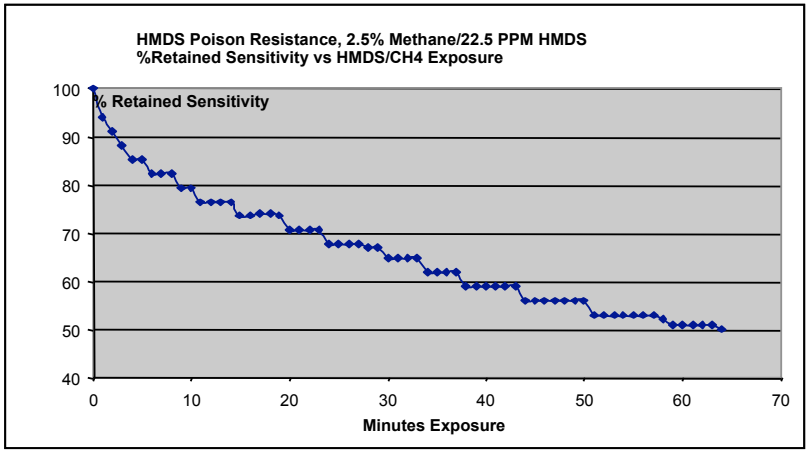
Approval Body : Underwriters Laboratories Inc.
Test Standard : UL 913
Product Categories : Class 1, Division 1, Groups A, B, C, D
Certificate Number : E248963

Approval Body : Canadian Standards Association
Test Standard : CAN/CSA-C22.2 No. 0-M91
CSA Std C22.2 No. 30-M1986
File Number : 237868

Approval Body : Bureau Veritas
Test Standard : EN60079-0:2012+A11:2013
EN60079-1:2014
Product Categories:
II 2G Ex db IIC Gb, -40°C≤Tamb≤+55°C
II 1G Ex da IIC Ga, -20°C≤Tamb≤+55°C
Certificate Number: EPS 17 ATEX 1 107 U

Test Standard : IEC60079-0:2011, Edition 6.0
IEC60079-1:2014-06, Edition 7.0
Product Categories : Ex db IIC Gb, Ex da IIC Ga
Certificate Number : IECEx EPS 17.0058U

Gas/Vapour	% Relative Sensitivity		
	Average	Range	StDev
Methane	100	-	-
Hydrogen	140	96-225	30
Acetylene	58	51-65	3
Ethylene	152	76-237	39
Propane	78	64-93	4.7
Isobutane	79	60-97	9
n-Pentane	77 est.	N/D	N/D
Hexanes	76	57-108	10



Website: www.ddscientific.com Email: info@ddscientific.com

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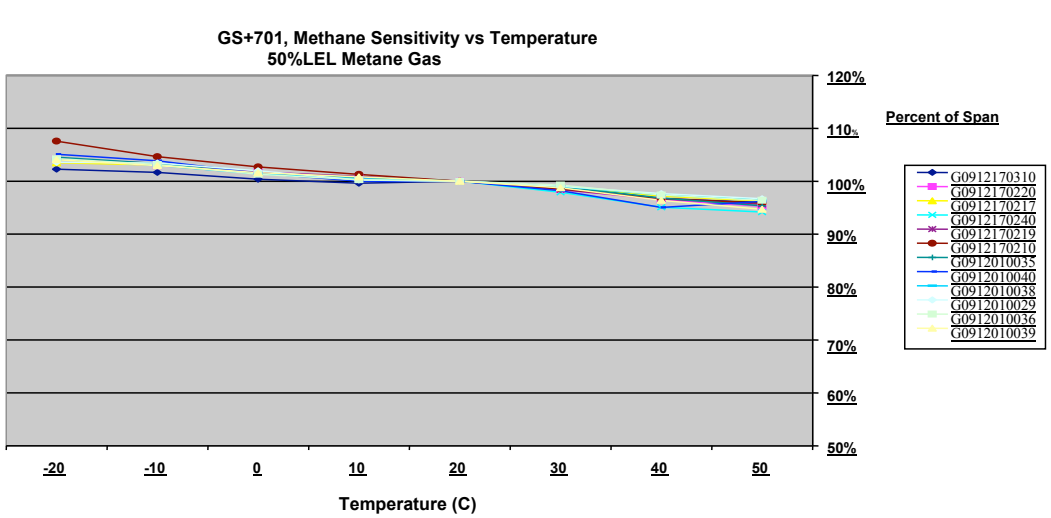

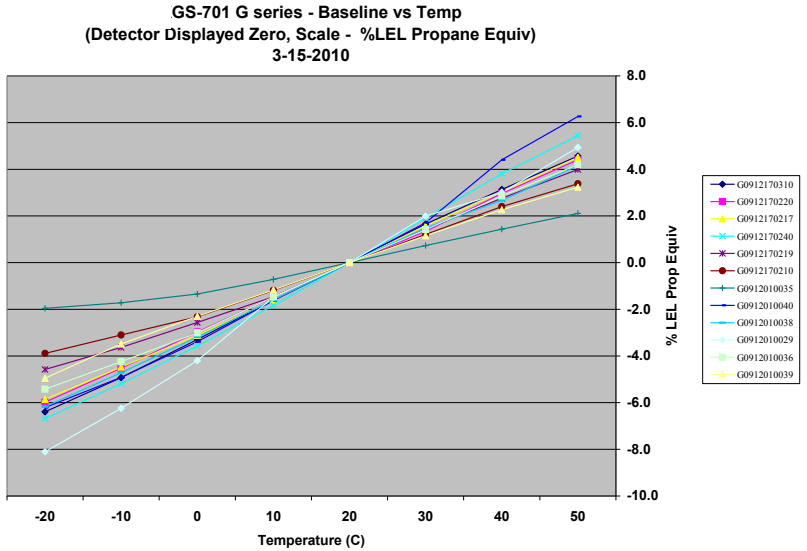

Poisoning:

Poisoning: some compounds will decompose on the catalyst and form a solid barrier over the catalyst surface. This action is cumulative and prolonged exposure will result in an irreversible decrease in sensitivity. The most common of these substances are: volatile lead or sulphur containing compounds; silicones; phosphates.

Inhibition: certain other compounds, especially hydrogen sulphide and halogenated hydrocarbons, are absorbed or form compounds that are absorbed by the catalyst. The resultant loss of sensitivity is temporary and in most cases a sensor will recover after a period of operation in clean air.

Please note gluing or soldering direct to the pins of DD Scientific Ltd gas sensors will void warranty, please use PCB sockets when connecting DD Scientific sensors.

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