

# TOXIC GAS DETECTOR

# INSTRUMENT DATA SHEET

0	INSTALLATION	
0.01	Location	
0.02	Tag no.	
0.03		
0.04		
1	GENERAL	
1.01	Type	Gas detector
1.02	Product	GD1
1.03	Product code	GD1-L0P-31KH-0XH-A0
1.04	Manufacturer	Simtronics
2	GAS DETECTOR	
2.01	Type	Laser Open Path Gas Detector
2.02	Design principle	Near IR Laser Scanning
2.03	IR Source	Tuneable laser diode, Laser Class 1, eye safe
2.04	Calibrated gas	Hydrogen sulphide (H2S)
2.05	Detected gases	Target gas only
2.06	Calibrated range	0 – 200 ppm.m
2.07	Path length	5 – 50m
3	PERFORMANCE	
3.01	Zero point stability	±2%, Relative to full scale deflection (FS)
3.02	Span stability	±3% FS
3.03	Response time	5 sec
3.04	Obscuration	>90% (Allowable optical signal loss)
3.05	Calibration interval	Fixed factory calibrated. No field calibration required.
4	ELECTRICAL	
4.01	Power supply	24V DC, (range 18 - 32V DC)
4.02	Power consumption	15W max (TX: 10W + Rx: 5W)
4.03	Cable entry	M20
4.04	Heated Optics	Yes
4.05	Junction box	Supplied with Exe junction box for Transmitter (Tx) and Receiver (Rx).
4.06	Connection	0.5 mm <sup>2</sup> (20 AWG) - 2.5 mm <sup>2</sup> (14 AWG), 3 wires
4.07	Analogue output signal	0-20mA, max. load impedance 500Ω.
4.08	Fault signalling	Diagnosis signalling in the 0.4 - 3.0mA range
4.09	Maintenance interface	HART v6.0 Universal Commands
5	ENVIRONMENT	
5.01	Storage	-40°C to +70°C (-40°F to 158°F)
5.02	Operation	-40°C to +65°C (-4°F to 149°F)
5.03	ATEX flameproof	-55°C to +75°C (-67°F to 167°F)
5.04	Humidity	100% RH (non-condensing)
5.05	Ingress	IP66 / IP67 DIN 60529
5.06	RFI/EMI	Complies with EN 61000-6-2, EN 61000-6-4, EN 50270, EN 60945
6	HOUSING	
6.01	Ex Classification	Tx/Rx: ATEX II 2 G EExd IIC T5 JB: ATEX II 2 G EEx e T6
6.02	Material	316 L stainless steel
6.03	Weight	Tx/Rx: 5.5 Kg (12 lbs), JB: 2.0 Kg (4.4 lbs)
6.04	Dimensions	205L x 115W x 248H (mm), 8.1 x 4.3 x 9.8 (inches)
7	APPROVALS	
7.01	ATEX	DNV 2008 ATEX 18877X
7.02	IECEX	DNV 10.0002X
7.03	SIL	Suitable for use in SIL2 systems
8	ACCESSORIES	
8.01	GD1-X00-TT01	Alignment kit
8.02	GD1-X00-TT02	Test cell
8.03		

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	Project		Prepared	
	Location		Checked	
	Client ref		Approved	
			Date	
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