



LKS (M) SDN. BHD. (470134-U)

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40460 Shah Alam, Selangor, Malaysia.

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Biogas Leak Safety Control System

- Explosion proof
- Extremely high quality and cost effective sensor
- High accuracy measurement
- Hazardous Area Rating Exd IIC T6
- Suruhanjaya Tenaga Approval



1. Fixed Type Gas Detection System

1.1 Industrial Range Gas Detection System

Gas Sensor



GDS – XDI
Explosion Proof
Hazardous Area
(Flammable &
Toxic/Oxygen:
F1/F6)

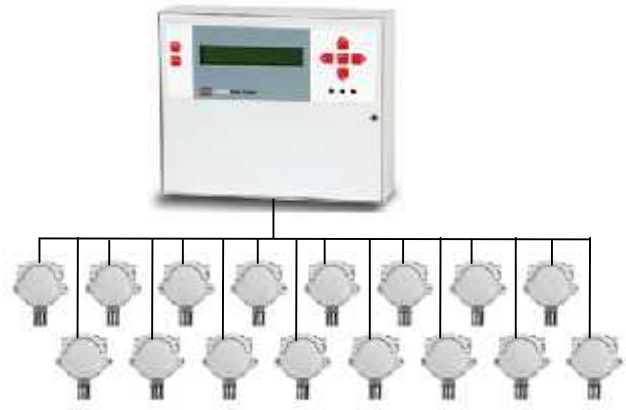


GDS – 30J
Safe Area
(Flammable: F1/F6
Toxic/Oxygen: P1)

Gas Controller



GDS404
1-4 Channel Gas Alarm
(Flammable, Oxygen,
Refrigerant and Toxic Gases)



COMBI
1-16 direct 4~20mA sensors
(Addressable/Direct Gas
Monitoring System)



Sensor Check Gas Kit
Calibration Kit - Regulator (fixed flow 1
ltr/min), tube (3M length), test gas
applicator cap and test gas bung plus
carry case (does not include test gas)



GDS 100
Single Point Gas Alarm
(Flammable, Oxygen and Toxic
Gases)

1.2 XDI Explosion Proof – Hazardous Area



XDI-F1

EXPLOSION PROOF - HAZARDOUS AREA

DETECTOR HEAD / JUNCTION BOX ASSEMBLY

Ref C744



JUNCTION BOX

Certification

Lid/Base

Ingress Protection

Material

Finish

Entries

Mounting Detail

Weight

Approx. Dimensions

Type - XDI

EExd IIC T6 II2GD
Certificate Sira 03ATEX10207U

Thread type with lock screw - 2mm

IP66

Body & Cover aluminium alloy
Option – stainless steel 316

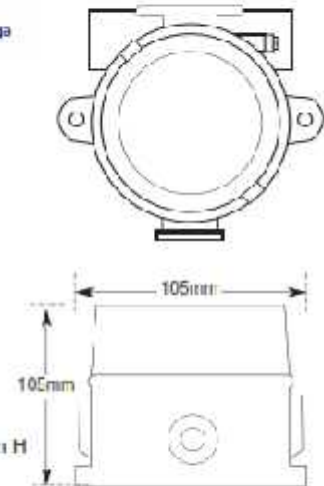
Standard – hot dipped galvanised
Option – marine grade finish

Two entry
20mm 1.5 pitch standard
alternative 25mm ¾ NPT

Two M5 (126mm CRS)

XDI-1.2Kg XDI-wir-1.5kg

XDI-105mm W x 105mm H XDI-wir -105mm W x 130mm H



DETECTOR HEAD

Data Sheet

Certification

Scanning Distance

Sensor Inserts

Type – F1

Ref C396

EExd IIC T6 (T3, T4, T5 options) II2GD

3 - 4 Meter

Intra Red
Electrochemical
Pellicle catalytic
Thermal Conductivity
Semiconductor

Mounting Thread (A)

Accessory Mount (B)

Material

Weight

Dimensions

Accessories

20mm 1.5mm Pitch options 25mm ¾ NPT

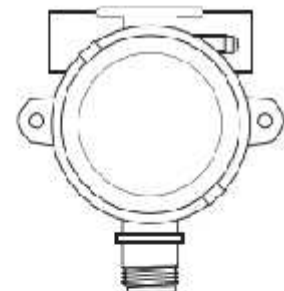
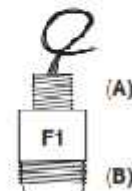
Fixing thread 33.3mm 1.25 pitch

Stainless Steel 316 S16

186gms

Body 32mm long 33mm dia.

Collection cone
Test gas applicator (universal fitting)
Water shield
Flow adaptor
Right angle mounting bracket
Flare mounting kit
Filters



Distribute by:

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Material and the equipment specification and detail may be modified at any time without prior notice.

1.3 F1 Sensor



GDS
TECHNOLOGIES LTD

F1 GAS SENSOR

Remote fixed detector for Flammable Oxygen and Toxic Gases



Specification Sheet
ref: G155-A

- Engineered for ease of maintenance and reduced running costs
- Widest range of sensors
- In situ replaceable plug in sensors
- Low cost stock holding
- Reduced replacement costs
- Catalytic
- Electrochemical
- Thermal Conductivity
- Semiconductor
- Infrared
- Replaceable sintered disc
- Harsh environment use
- Corrosion resistant stainless steel housing



Application

Extremely high quality and cost effective sensor providing a wide choice of sensor elements. Compact innovative design ensures fast response to gas with high accuracy measurement.

Designed to operate in a full range of environments from commercial premises through to heavy industrial applications which may require hazardous area sensing. A range of accessories is available enabling the sensor to be used in diverse applications such as HVAC ducting, flowline systems or freestanding open air applications.

Technical Data

Classification	<ul style="list-style-type: none"> • Certified flameproof • EExd IIC T6 (also available: T3, T4, T5) • CSA/US Class 1 Groups A, B, C, D.
SCS Cert No.	• 03ATEX1176X
CSA/US Cert No.	• LR115863-1
UK Design patent	• No. 2025396
Housing Material	• Stainless Steel 316 S18
Dimensions	• Body length 33mm dia 33mm
Weight	• 185gms
Cable Exit Mounting Thread	• 20mm 1.5 pitch – options available 25mm, 3/4 NPT
Accessory Mounting Thread	• 33mm 1.25 pitch
Lock Screw	• 3mm-1mm key
Housing Components	<ul style="list-style-type: none"> • Body ref. 001-002 • End cap ref. 001-003
Scanning Distance	• 3 - 4 Meter
Approved sensor junction boxes	<ul style="list-style-type: none"> • Type 3000 – EExd IIC T6 ref 002-005 • Material – Cast Iron – IP66 • Type 0000 – EExo II T6 ref 002-008 • Material – GRP - IP66

Sensor Detail					ref C135-A
Sensor Device	Gas Type	Range	3000 JB output	9030 JB output	Performance Data Sheet
Pellistor VQ21	Hydrocarbons	% L.E.L.	A,B	A	C397
Pellistor DCP	Hydrocarbons	% L.E.L.	A,B	A	C398
Thermal Conductivity	Hydrocarbons	100% vol	A,B	A	C399
Semiconductor	Refrigerant Gases	0-5000 ppm	A,B	A	C400
Semiconductor	Volatile Organics (VOC)	ppm	A,B	A	C401
Electrochemical	Oxygen	0-30% vol	E,C		C402
Electrochemical	Carbon Monoxide	0-250ppm	E,C		C103
Electrochemical	Hydrogen Sulphide	0-50ppm	E,C		C404
Electrochemical	Sulphur Dioxide	0-10ppm	E,C		C405
Electrochemical	Nitrogen Dioxide	0-10ppm	E,C		C406
Electrochemical	Hydrogen	0-200ppm	E,C		C407
Electrochemical	Hydrogen Cyanide	0-25ppm	E,C		C408
Electrochemical	Nitric Oxide	0-100ppm	E,C		C410
Electrochemical	Ammonia	0-100ppm	E,C		C411
Electrochemical	Ozone	0-2ppm	E,C		C412
Electrochemical	Ethylene Oxide	0-25ppm	F,C		C413
Electrochemical	Phosphine	0-1ppm	E,C		C414
Electrochemical	Arsine	0-5ppm	E,C		C415
Electrochemical	Silane	0-5ppm	F,C		C416
Electrochemical	Disilane	0-5ppm	E,C		C417
Electrochemical	Germane	0-5ppm	E,C		C418
Electrochemical	Fluorine	0-3ppm	E,C		C437
Electrochemical	Bromine	0-1ppm	E,C		C438
Infrared	Carbon Dioxide	0-2% vol	B		C510
Infrared	Hydrocarbons	% L.E.L. – % vol	B		C419

Detector Head



3000 JB



9030 JB

Electrical Outputs

- A – 3 wire mV
- B – 3 wire 4-20mA
- C – 2 wire 4-20mA

Sensor Accessories

- 003-010 Collector Cone
- 003-020 Universal Fitting, Test Gas Applicator/ Spray Detector
- 003-031 Dust Filter
- 008-311 Flow Adaptor
- 003-090 Duct Mount Kit
- 003-035 Water Shield



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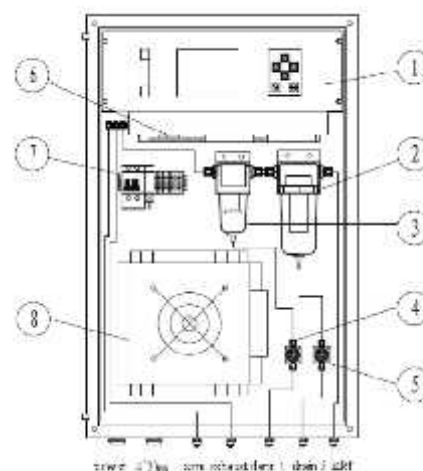
2. Biogas Analyzer (BGA-1000F)

2.1 Specification

Our equipment can be applied to detect the concentration of landfill gas, biogas and CO₂, CH₄, H₂S and O₂ produced in the biogas generating process.

It is applicable to various kinds of environment. Through analyzing parameter change, it helps to judge and alarm in industrial process. Meantime 4-20 mA DC output and digital alarm output interface are available.

- Power Supply : 230VAC, 50HZ to 60HZ
- Sample gas specification:
 - sampling pressure : 3 ~ 20Kpa
 - exhaust pressure : 0 ~ -10Kpa
 - Operating temperature : 0 ~ 80°C
- Ambient temperature : -10°C ~ 55°C
- Output : 4~20mA (maximum 750 Ω), DC/alarm output
- Cabinet housing : Stainless Steel

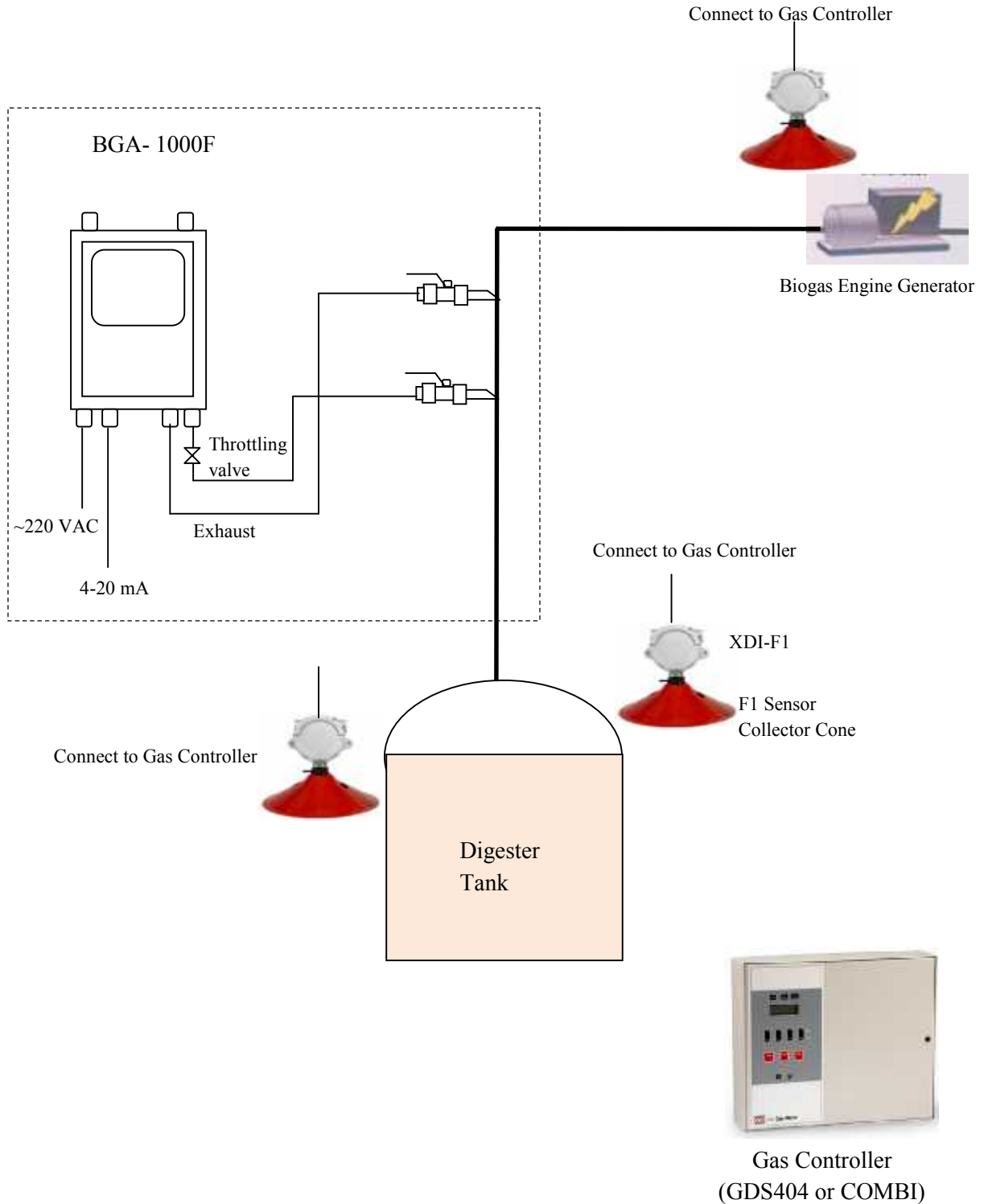


- ① Front panel ② Gas-water separator FIT1 ③ Ultra-filter
 FIT2 ④ Solenoid valve V4 ⑤ Solenoid valve V3 ⑥ Signal cable connecting terminal
 ⑦ Main switch QF ⑧ Inlet JRG


2.2 Technical Data

Gas	Range, % (vol)	Principle	Accuracy	Nonlinearity	Zero drift
CH ₄ Methane	0~100%	NDIR	±1% FS	≤ ±1% FS	≤ ±1% FS / week
CO ₂ Carbon Dioxide	0~50%	NDIR	±1% FS	≤ ±1% FS	≤ ±1% FS / week
H ₂ S Hydrogen Sulphide	0~1%	ECD	3% FS	≤ ±0.5% Full range	≤ ±0.05% (vol) / week
O ₂ Oxygen	0~25%	ECD	3% FS	≤ ±0.5% Full range	≤ ±0.05% (vol) / week

3. Installation Layout



4. Suruhanjaya Tenaga Approval Certificate



SALINAN ASAL

JADUAL PERTAMA

No: 02391

[Subperaturan 117(2)]

BORANG K

KERAJAAN MALAYSIA

AKTA BEKALAN GAS 1993

PERAKUAN KELULUSAN GEGASAN GAS/
PERKAKAS GAS/KELENGKAPAN GAS

Mengikut subperaturan 117(2) Peraturan-Peraturan Bekalan Gas 1997, saya dengan ini meluluskan barang yang disebut di bawah untuk jualan dan kegunaan :

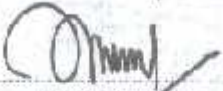
Perihal: gegasan gas/perkakas gas/keleengkapan gas*


Nama Trad : GDS
Jenis/mode : Gas Detector / XDL-F1
Kadaran KW : _____

Kelulusan ini dikeluarkan kepada
En. James Leow Kooi Seng (730604-02-5415)
No. 15, Jalan Anggerik Mokara 31/63,
Kota Kemuning, 40460 Shah Alam, Selangor.
(Nama, No. K/P dan Alamat Pemegang)

bagi pihak LKS (M) SDN. BHD.
(Syarikat)

Tempa dikeluarkan/diperbaharui* : Suruhanjaya Tenaga, Ibu Pejabat
Tarikh dikeluarkan/diperbaharui* : 26 September 2013
No. Kelulusan : ST(IP)JG-180/5/3/17.07
Fee : RM 100.00
Tarikh tarat : 25 September 2014


Tandatangan atau
cap jari Pemegang


Ir. AHMAD NORNADZMI BIN DATUK DR. DZULKARNAIN
b.p. Suruhanjaya Tenaga

Nota:
Sekiranya perakuan ini menjadi milik orang lain selain daripada orang yang kepadanya ia dikeluarkan, ia hendaklah dikembalikan dengan segera kepada Suruhanjaya Tenaga.

*Potong mana-mana yang tidak berkenaan



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Fax or Mail This Inquiry Message To Us.

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Web: www.lkssb.com.my E-mail : info@lkssb.com.my

Please fill up the following particular and send back to us as soon as possible.

INQUIRY FOR: Quotation Service

- 1. Company Name : _____
- 2. Message From : _____
- 3. Phone Number (TEL) : _____
- 4. Fax Number (FAX) : _____
- 5. E-mail address : _____

Dear Sir,

(Please tick which ever applicable to your need ✓)

- Yes, we are interested on your system
- No, we already have the system but need to have maintenance contract

Please contact us by,

- Visit our site/factory
- Fax us a Quote for following items:

Solution Provider: -

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