

RED LINE PLUS XDI-F1

HAZARDOUS AREA GAS DETECTOR

Hydrocarbon Infra Red Gas Sensor

Specification Sheet
ref C1572

- Rugged and reliable
- Explosion proof
- Automatic diagnostic system surveillance and fault monitoring
- Harsh environmental use
- Engineered for ease of maintenance and reduced running costs
- Optional 2 alarm relays plus fault relay



The GDS Red Line XDI sensor uses proven non-dispersive single beam dual-wave length infrared principles to detect and monitor the presence of gases. This non-poisoning sensing technique relies on the target gas having a unique well-defined absorption signature. This is used to identify the presence of the target gas and is highly specific. Using a suitable infrared source, an analysis of the optical absorption through the gas allows the concentration of the target gas to be determined. All sensor driving is internal to the transmitter and full fault monitoring of the sensor and transmitter is continuous.

General Data

This information relates to the device operating continuously.

Hydrocarbon Sensor

Operation – continuous diffusion	NDIR (dual wave-length)
Measuring Range – Standard	0~100% LEL 0~100% Vol
Others available	
Accuracy	± 5% F.S.D
Warm up time to zero	< 20 seconds
Response time to target gas T90	< 35 seconds
Long term zero drift	± 5% F.S.D

The 4~20mA output provides a fault indication by reducing the output to below 2mA, with the recovery from fault condition being automatic.

ELECTRICAL DATA

Input voltage – 3 wire device

18 to 35V DC – 24v DC nominal
(polarity protected)

Output

4~20mA (selectable as sink or source)

Fail signal

4~20mA reduced to 2mA

Maximum current consumption

130mA

Maximum loop resistance in source mode

250R

Resolution

0.15% of span

Output resolution

0.02mA

Maximum offset drift

± 20uA

Relays Optional

Low / high / fault alarms S.P.C.O. 0.5A @30v DC

ENVIRONMENTAL DATA

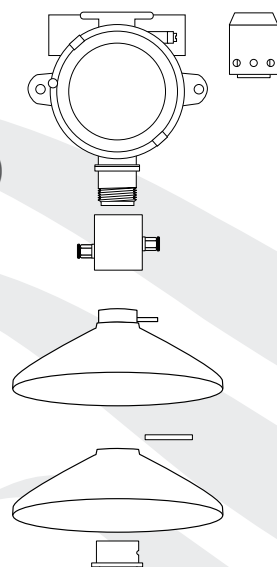
IP64 + Water Shield IP65

Operating Conditions

0 ~100% RH (non-condensing)
-15 ~ +55°C

Storage Conditions

0~99% RH non-condensing
-20 ~ +60°C



MECHANICAL DATA

Certification

Explosion proof ATEX-IECEX
II2G Exd IIC T6-T3 Gb
II2D Extb IIIC T85°C Db

Replaceable plug in sensor

In-situe

Sensor accessory mounting thread

33mm ø 1.25 pitch – 6 full threads

Enclosure – Type XDI

Aluminium alloy - optional stainless steel

Gas Sensor – Type F1

Stainless steel – 316 S16

Weight

3.95Kg

Cable Entry

One – 20 mm 1.5 pitch
Options 25 mm – 3/4 NPT

Mounting Detail

Two M5 (126 mm CRS)

Approximate dimensions-terminal enclosure

126 mm dia. 83 mm deep

Accessories:

Collector Cone + universal fitting
Universal Fitting (Test Gas Applicator Spray Deflector)
Flow Block - nylatron
Flow Block - stainless steel
Water Shield - stainless steel
Duct Mount Kit
Detector head Weather Shield
F1 sensor Thermal Jacket

This document is not contractual and the equipment specification may be modified at any time without prior notice.

