

RED LINE PRIME 2 15/30Jwin

CARBON DIOXIDE INFRA RED GAS SENSOR

Safe Area Use

Specification Sheet C1812A
Doc No. 296 D12C

- CANbus 4~20mA output
- Addressable or standalone
- Robust and weatherproof
- Automatic diagnostic system surveillance and fault monitoring
- Engineered for ease of maintenance and reduced running costs
- Optional 2 alarm relays plus fault relay or 3 alarm relays
- Data logging
- Backlit alpha numeric full status display
- Hyperterminal communications RS232
- Pumped aspirated sensor option



The Red Line Prime 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.

Carbon Dioxide Sensor

Operation – continuous diffusion		NDIR (dual wave-length)
Measuring Ranges	Prime 2	0~2000 ppm
		0~5000 ppm
		0~2% volume
		0~5% volume
		0~10% volume
	Prime 3	0~100% volume
Accuracy		± 5% F.S.D
Warm up time to zero		< 30 seconds
Response time to target gas T90		< 30 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.

Display

- 2 line alpha numeric back lit status display:
- gas type
 - concentrating units
 - alarm levels
 - alarm status (low/high/over range)
 - sensor ID

Sounder/Relay (optional)

- Single relay – low/high alarm selectable.
- S.P.C.O 0.5A @30vDC
- Sounder – not less than 85dB @ 30 cm

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

< 2% of range

Output resolution

0.02mA

Relays – optional

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

Logging

Intervals – variable time

Rollover/stop

Storage – 2880 readings

JUNCTION BOX

Type – 15/30J safe area use only

15J – shallow box (S)

30J – deep box (D)

Ingress Protection

IP65

Material

ABS Flame retardant FR40

Lid Screws M4SS

Finish

Signal White RAL 9003

Weight

380gms

Entries

Rear 5-20mm knock outs

Sides, Top, Bottom – not specified

Mounting

Standoffs – M4 or No 8 screws

Drill at (C) when standoffs removed

Conduit box – drill at (A) 4.5mm

Surface mount box – drill at (B) 4.5mm

EU Design No.

01359723-000

ENVIRONMENTAL DATA

IP64 + Water Shield IP65

Operating Conditions

0 ~ 99% RH (non-condensing)

-20s ~ +55°C

Storage Conditions

0~99% RH non-condensing

-20 ~ +60°C

Accessories – Optional

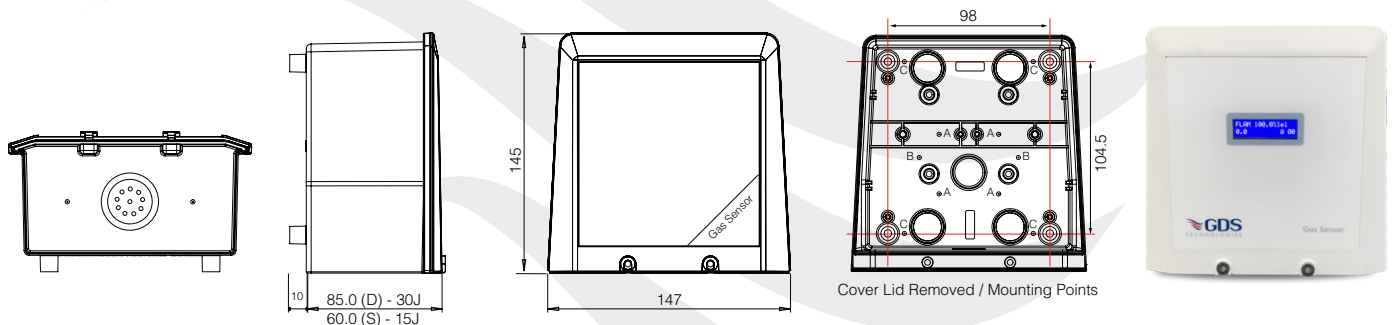
Collector Cone + Universal Fitting

Flow Block

Duct Mount Kit

Detector Head Weather Shield

Aspirated Sensor (pump)



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