

# RED LINE PRIME-4 Cool Sensor

## REFRIGERANT GASSES

Safe Area Detector Head / offering local control and display

Specification Sheet C1905A

- Robust and weatherproof
- CANbus, 4~20mA output
- Addressable or stand alone
- Data logging
- Optional back lit alpha numeric full status display
- Optional 3 selectable alarm relays
- Optional sounder/relay
- Optional pumped aspirated sensor



The Red Line Prime sensor uses proven NDIR 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. This product is available with a range of options.

### General Data

This information relates to the device operating continuously.

Operation – continuous diffusion	NDIR (dual wave-length)
Measuring Range	0~2000 ppm
Accuracy	± 5% F.S.D
Response time to target gas T90	< 30 seconds
Operating temperature range	-20 ~ +50 °C
Operating humidity range	0-95%

### Gas Types

R404a	R134a	R125
R407a	R417a	R448a
R1234ze	R32	R407f
R1234yf	R449a	R507
R123	R410a	R452b
R227	R143	R22
R513a	R422d	R1233zd

### Display (optional)

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

### Indicators

- Alarm – Red L.E.D  
Fault / Inhibit – Amber L.E.D

### Relays 1,2,3 (optional)

- Selectable – Low, High, Overrange, Fault  
Default settings:  
1 Low alarm  
2 High alarm  
3 Fault alarm  
Rating 3A @30vDC S.P.C.O  
Inhibit option during servicing

### 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

500Ω

### Resolution

< 2% of range

### Output resolution

0.02mA

### Logging

Intervals – variable time  
Rollover/stop  
Storage – 2880 readings

## ENVIRONMENTAL DATA

IP64 + Weather Shield IP65

### Operating Conditions

0~95% RH (non-condensing)  
-20 ~ +50 °C

### Storage Conditions

0~99% RH non-condensing  
-20 ~ +60 °C

## JUNCTION BOX

Type – 15/30J safe area use only  
15J – shallow box (S) basic model  
30J – deep box (D) + options

### 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

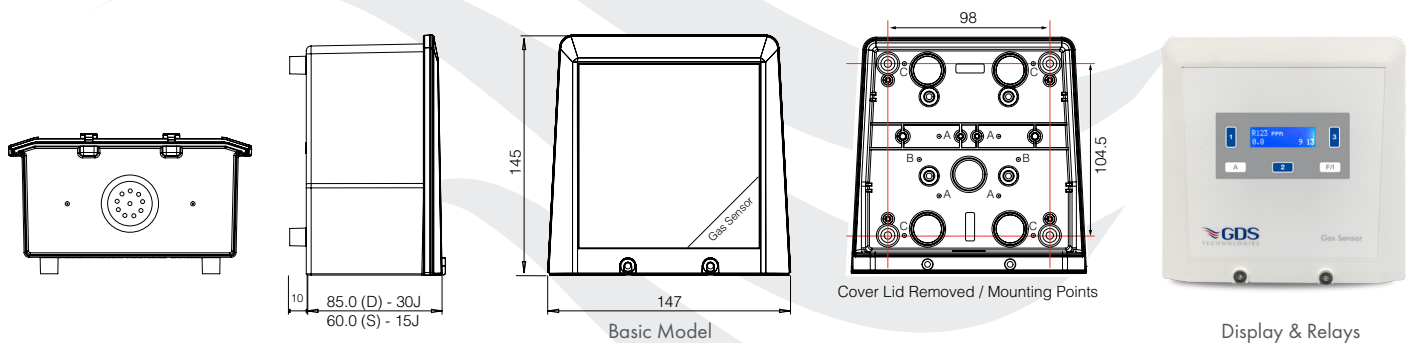
### Accessories – Optional

Collector Cone + Universal Fitting  
Flow Block  
Duct Mount Kit  
Detector Head Weather Shield  
Aspirated Sensor (pump)

## TRANSMITTER TECHNICAL DATA

### Documents

Prime – C1884



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

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