

WatchGas Red Line PRIME 15/30J

CARBON DIOXIDE INFRA RED GAS SENSOR

Safe Area Use

Specification Sheet ref C1615

- 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
- 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
Prime 3	0~10% volume
	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.

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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

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

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

Accessories - Optional

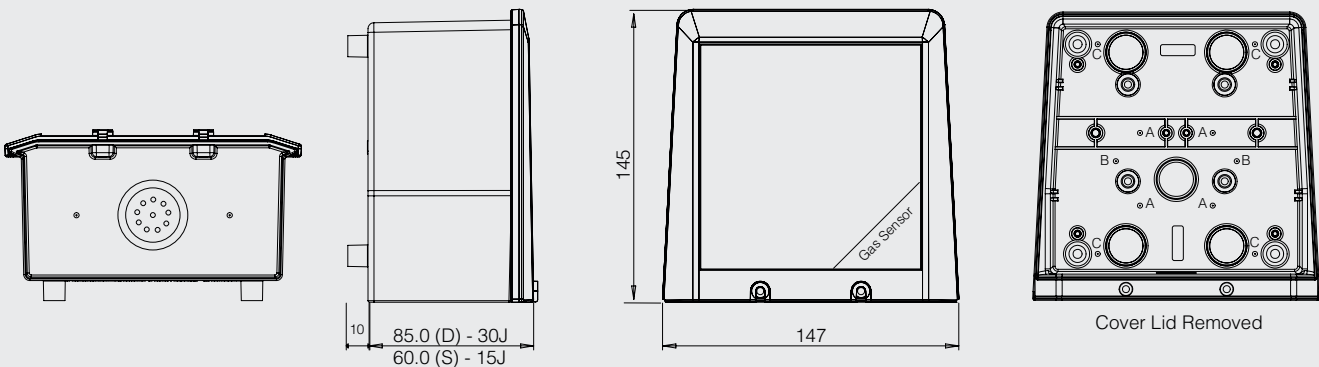
Collector Cone + Universal Fitting

Flow Block

Duct Mount Kit

Detector Head Weather Shield

Aspirated Sensor (pump)



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