



World leaders in diving equipment technology

DEFENCE
COMMERCIAL



Divex G30 Carbon Dioxide Analyser

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The G30 Analyser is ideal for monitoring diving chamber carbon dioxide levels. A simple reduced pressure (0.9 to 1.1 Bar) gas supply, can be supplied from the diving chamber at a rate of 0.5lt/min. The bright LED read-out displays the CO₂ level in parts per million to within 2% accuracy. It is anticipated that the analyser will be panel mounted as part of a saturation dive control and is therefore supplied in a splash proof housing to special order only.

GLOBAL LOCATIONS
Aberdeen
Portsmouth
Bremen
Cape Town
Perth
Sydney

The G30 provides a continuously digital display of parts per million CO₂ in the gas sample flowing through the sensor unit. The instrument displays the measured value on a 4 digit LED display and supplied to read over the range 0-5000ppm CO₂. The technology used in the manufacture of the G30 has decreased the unit's physical size and weight, increased the accuracy and reduced the cost significantly.

Sensor: The transducer used in the instrument is a single beam, single wavelength device being achieved by a carefully specified narrow band optical filter. The source is pulsed to give an infra-red carrier signal, which is attenuated by the infra-red absorption of Carbon Dioxide and a detection system converts changes in this attenuation into an electrical output.

The entire optical bench and electronics are precisely temperature controlled to ensure long-term stability. Gas law effects are calculated and compensated for by the microprocessor. Long term sensor drift is virtually eliminated using our unique drift compensation software that actually measures the ageing of the IR source and automatically corrects the readings.

Specification

General

Range	0 - 5000 ppm CO ₂
Resolution	50 ppm CO ₂
Accuracy	± 2% of Full Scale
Linearity	1% of Full Scale
Repeatability	1% of Full Scale
Response Time	30 Seconds (typical)
Stability	1% of Full Scale per week (typical)
Warm-Up Time	40 seconds
Gas Flow Rate	0.5 litres/minute
Pressure Effects	0.15% of reading per millibar
Operating Pressure	± 5 psig (nominal)
Display	4 Digit High Bright Red LED
Power Supply	110 - 240v AC (to be specified at time of ordering)

Outputs

Outputs	0-1 Volt for Chart Recorder Plus 4 - 20mA internally powered
Alarm Relays	2 x Single pole change over Rated 7 Amp 240v AC 7 Amp 30v DC Energised in alarm

Mechanical

Depth Overall	235 mm
Depth Behind Panel	300 mm (min)
Height Overall	129 mm (3U)
Width Overall	212 mm (1/2 Rack)
Weight	2.0 kg Rack Mounted

Environmental

Operating Temp	-5 to 40°C
Storage Temp	-20 to 70°C
R.H. Non-condensing	95% at 40°C

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Order Code G30

Replacement Infra Red Sensor

Order Code SE43190

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