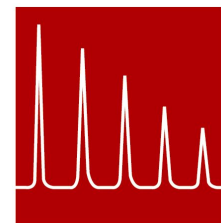


50 Series Binary Stream Gas Analyser

AGC
INSTRUMENTS

Gas Chromatography since 1965



Continuous Gas Analyser for ppm or % monitoring



Features:

- New Version
- 5.7" QVGA LCD Display
- Electronic Mass Flow
- Alarm/Fault Status LED
- Direct value reading
- Debug Diagnostic function
- Autovalidation/Autocheck

The 2009 model of the legendary Binary Stream Gas Analyser from AGC Instruments is used to measure N_2 , H_2 , He, CO_2 or other gases in Binary gas mixtures or pure gases. We monitor impurities in a major gas based on the difference of thermal conductivities.

Using Hotwire or thermistor elements, an analyser which has accuracy and sensitivity, coupled with a robust platform is achieved with a response time of < 30 second (t_{90}).

To interface with the analyser is via the new 5.7" QVGA LCD touch screen display, where all status, alarm conditions, diagnostics and direct reading of results are available with ease.

Using a high quality Mass Flow Device, the gas flows are measured & displayed to the LCD display ensuring accuracy and stability to allow great confidence in all results.

The 50 Series model contains a temperature regulated TCD which allows continuous monitoring of the gas stream. Through the use of solenoid valves, drift has been eliminated as a constant reference to Zero Gas is utilised for greater accuracy. Using temperature control of the measuring sensor, excellent stability is guaranteed with <1% drift over a 24 hour period.

The Detector consists of an electrically heated hot-wire (or thermistor) element in a temperature regulated metal housing. The detection principle is based on any change in the thermal conductivity of a gas flowing through the detector will change the rate of heat loss from the element to the metal housing. The signal resulting from the temperature change is proportional to the change in sample gas conductivity.

Target Market:

Power Generation Plants

Air Liquefaction Plants

Chemical Plants

Refrigeration Plants

Iron & Steel Industry

Air Separation Units

Gas Blending equipment

Refineries

Ammonia Plants

Industrial Gas Production Units

Gas Chromatography since 1965

Applications:

Please contact AGC Instruments for other binary gas combinations if not listed below.

Air in He	<10ppm
Ar in He	<10ppm
N ₂ in He	<10ppm
O ₂ in He	<10ppm

Ar in N ₂	<200ppm
CO ₂ in N ₂	<200ppm
He in N ₂	<20ppm
H ₂ in N ₂	<20ppm

Air in Ar or CO ₂	<100ppm
He in Ar or CO ₂	<20ppm
H ₂ in Ar or CO ₂	<20ppm
N ₂ in Ar or CO ₂	<100ppm
O ₂ in Ar or CO ₂	<100ppm

Air in H ₂	<10ppm
Ar in H ₂	<10ppm
N ₂ in H ₂	<10ppm
O ₂ in H ₂	<10ppm

Ar in O ₂	<200ppm
CO ₂ in O ₂	<200ppm
He in O ₂	<50ppm
H ₂ in O ₂	<50ppm

Ar in Air	<100ppm
CH ₄ in Air	<500ppm
CO ₂ in Air	<100ppm
He in Air	<50ppm
H ₂ in Air	<50ppm

Note: ppm values shown are Minimum Detectible Levels only (MDL), under stable conditions

Specifications:

Display:	5.7" Touch Screen LCD Display with CCFL backlight QVGA 320 x 240 pixel resolution Easy to use interface Backlight/Contrast adjustable	Sensitivity:	Dependent on Application Equal to 1ppm of Air in He
Ranges:	0.01 – 100% / 0.001 – 10.00% 0-1000ppm	4-20mA Outputs:	2 off Measurement available as current loop 3kV isolation - passive. Reverse voltage protected
Maximum Resolution:	1ppm	Alarms:	Yes System alarm relays providing voltage free relay contacts. High / Low / Fault Alarms. Fault alarm can be used for system debug.
Zero Drift:	±5ppm **		
Auto Signal Drift:	Zero drift can be removed by periodic automatic instrument Zero (suitable Zero Gas required)		
Response Time(t ₉₀):	< 30 seconds	Solenoids:	Internal Zero/Span/ Sample solenoids provided
Warm Up Time:	1 Hour typically	Auto Calibration Check:	To be used to validate current measurement against a known calibration gas
Sample Flow Range:	Max inlet pressure 2 bar [200kPa]	Data Logger:	Data can be logged live via RS 232 to a remote station. 10,000 measurements can be stored internally for retrieval at a later date.
Minimum Pressure required:	0.015 Bar	Diagnostics:	20 Debug fault codes To quickly identify and correct faults
Flow Measurement:	Digitally monitored flow control on sample line. Range 0-100ml/min Visual High/Low alarms provided	Power:	100/115Vac. 220Vac, 50/60Hz, 300W
		Configurations:	19" Rack / Bench Top / Wall Mounted
		Dimensions:	W = 19" Rack H = 4U (180mm) D = 450mm
Calibration:	5 point calibration curve	Weight:	17 kg
Detector:	Model 10-454 TCD (Default) Filaments/Thermistor choice dependent on application and levels of detection required. The TCD is temperature stabilised with internal cabinet heater for additional stability for ppm applications	Pump:	Optional

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