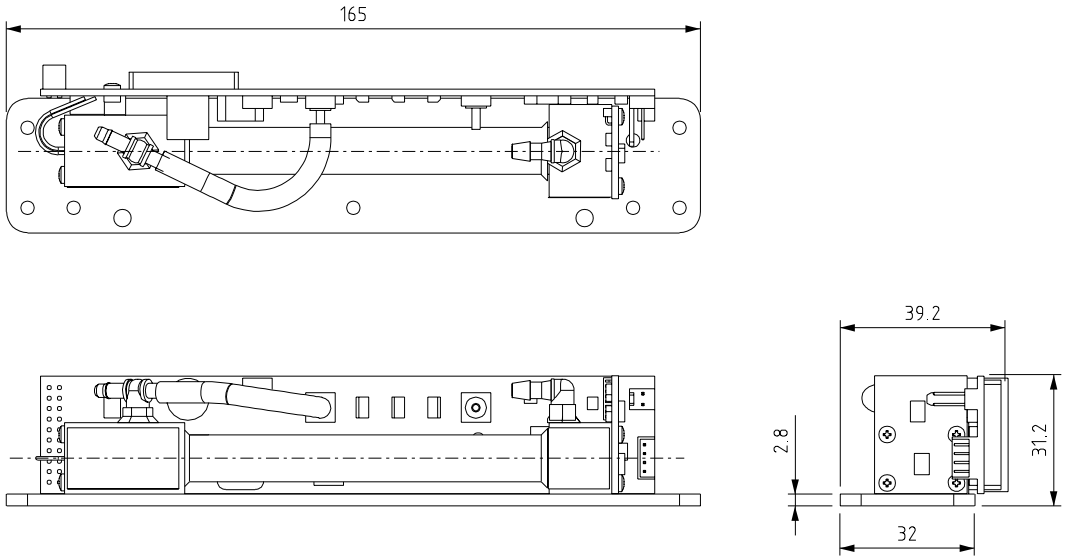
IRidium®100

Reference 3 gas infrared bench for BAR 97 markets
Conforms to BAR97 and OIML R 99:2000(E) Class 0

Outline Dimensions



Performance Characteristics

Range	
HC	0-30000ppm
CO	0.00-15.00%
CO_2	0.00-20.00%
O_2 (Option)*	0.00-25.00%
NO (Option)*	0-5000ppm
Response Time $T_{10-90\%}$	
NDIR (HC, CO, CO_2)	<3 seconds
O_2 and NO options*	see relevant data sheets
Operating Temperature Range	0 to 50°C
Relative Humidity Range	0 to 90% RH (non-condensing)
Input voltage range	8.0 to 36.0 VDC unregulated
Power consumption	<1.0 watt average power <1.5 watt peak power
Recommended flow rate	1L/min
Warm-up time	60 seconds (full accuracy) 2 minutes (span functions)
Operating pressure range	813 to 1060 mBar

* O_2 and NO are measured via optional electrochemical sensors. For further details see the relevant data sheets.

* Without an O_2 sensor connected to bench, a simulated 9-13mV input to the O_2 channel is required to avoid error codes being generated.

Physical Characteristics

Weight	114g
Length	165mm
Width	31mm
Height	39mm
Recommended Storage Temperature Range	-40 to 70°C
Warranty Period	12 months from date of despatch, please refer to IRidium warranty terms. (This amounts to a variation of condition 6 of our standard terms and conditions which otherwise apply)

N.B. All performance data is based on conditions at 20°C, 50%RH, and 1013mBar

Attention
Observe precautions for handling electrostatic sensitive devices

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Gas	Measuring range	Accuracy	Repeatability	Noise
HC n-hexane	0 to 2000 ppm 2001 to 15000 ppm 15001 to 30000 ppm	±4ppm abs. or 3% rel. ±5% rel. ±8% rel.	±3ppm abs. or ±2% rel. ±3% rel. ±4% rel.	2ppm abs. or 0.8% rel.
CO	0.00% to 10.00% 10.01% to 15.00%	±0.02% abs. or ±3% rel. ±5% rel.	±0.02% abs. or ±2% rel. ±3% rel.	0.01% abs. or 0.8% rel.
CO2	0.00% to 16.00% 16.01% to 20.00%	±0.3% abs. or ±3% rel. ±5% rel.	±0.1% abs. or ±2% rel. ±3% rel.	0.10% abs. or 0.8% rel.
NOx	0 to 4000 ppm 4001 to 5000 ppm	±20ppm abs. or 4% rel. ±5% rel.	±20ppm abs. or 3% rel. ±4% rel.	10ppm abs. or 1% rel.
O2	0.00% to 25.00%	±0.01% abs.	±0.1% abs.	0.05% abs.

User Interfaces

Host Communications Interface

Interface type: RS232, asynchronous
Baud rate: 9600bps
Format: 1 start bit, 8 data bits, no parity, 1 stop bit
Signals: Transmit data, receive data, signal ground

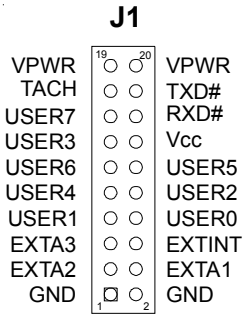
Auxiliary I/O

Control signals: Eight user-defined TTL outputs and digital ground
Input signals: Tachometer input - 0 to 5 volt pulse.
Three analog signals. 0 to 5 VDC. 8bit ADC resolution

Connector J1 - Main connector

The main connector is marked J1 and is a 2x10 way block.
Mating parts are available from a number of suppliers, a selection of which include:

Leotronics	Part number:	2045-3201
FCI	Part number:	89947-320 (Minitek)
Samtec	Part number:	TCSD-10-01-N
DonConnex	Part number:	AO5a-20BSB1



IRidium®100 Ordering information

The IRidium®100 is available in four configurations as follows:

Type	*Contents*	*Product Code*
IRidium® 5 Gas BAR 97	Reference 3 Gas Bench AO2, NX-1 Sensors, 2 Manifolds and Leads	AUTO-5NX1
IRidium® 5 Gas NON BAR 97	Reference 3 Gas Bench AO2, NX-3 Sensors, 2 Manifolds and Leads	AUTO-5NX3
IRidium® 4 Gas OIML 0	Reference 3 Gas Bench AO2 Oxygen Sensor, Manifold and lead	AUTO-4AO2
IRidium® 3 Gas OIML 0	Reference 3 Gas Bench	AUTO-3

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Performance characteristics on this data sheet outline the performance of newly supplied sensors. Output signal can drift below the lower limit over time.

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