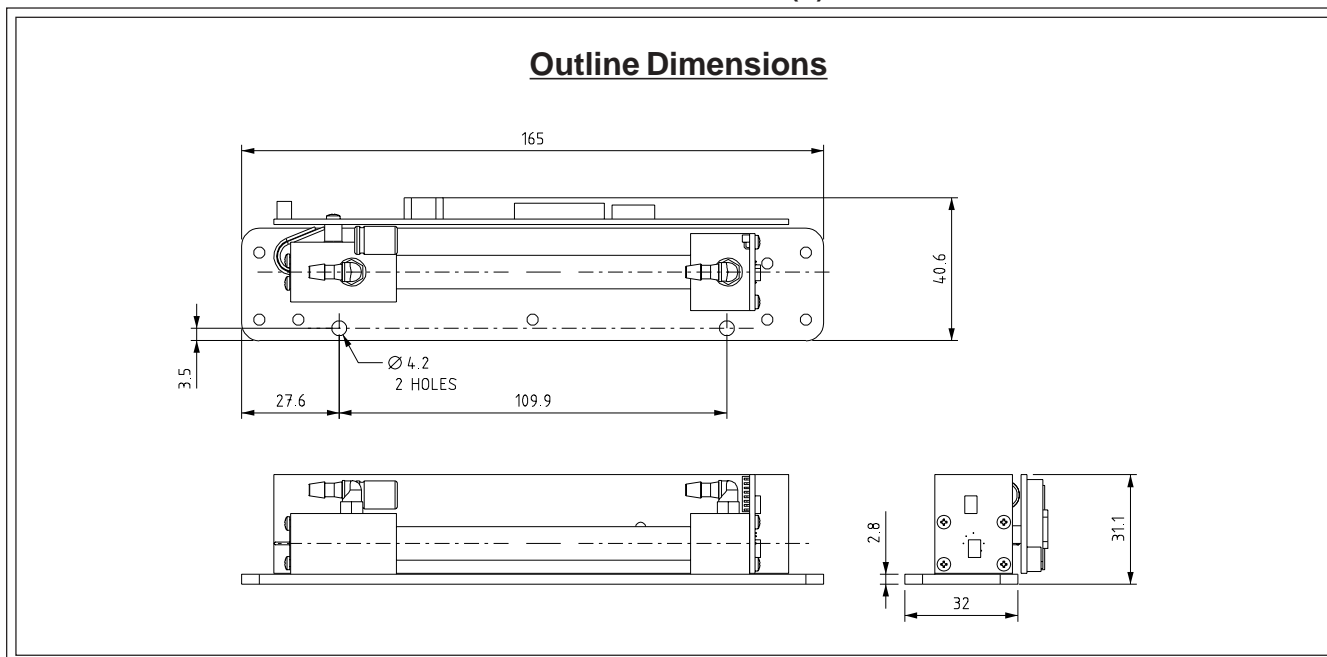


## IRidium® Specification



# IRidium®50

Reference 2 gas infrared bench for repair grade markets  
Conforms to OIML R 99:2000(E) Class II



### Performance Characteristics

### Physical Characteristics

<b>Range</b>	
<b>HC</b>	0-10000ppm
<b>CO</b>	0.00-15.00%
<b>O<sub>2</sub> (Option)*</b>	0.00-25.00%
<b>NO (Option)*</b>	0-5000ppm
<b>Response Time T<sub>10-90%</sub></b>	
<b>NDIR (HC, CO)</b>	<8 seconds
<b>O<sub>2</sub> and NO options*</b>	see relevant data sheets
<b>Operating Temperature Range</b>	0 to 50°C
<b>Relative Humidity Range</b>	0 to 90% RH (non-condensing)
<b>Input voltage range</b>	8.0 to 36.0 VDC unregulated
<b>Power consumption</b>	<1.0 watt average power <1.5 watt peak power
<b>Recommended flow rate</b>	1L/min
<b>Warm-up time</b>	Full accuracy in less than 60 seconds
<b>Operating pressure range</b>	813 to 1060 mBar

<b>Weight</b>	114g
<b>Length</b>	165mm
<b>Width</b>	31.3mm
<b>Height</b>	40.3mm
<b>Recommended Storage Temperature Range</b>	-40 to 70°C
<b>Warranty Period</b>	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)

\* O<sub>2</sub> and NO are measured via optional electrochemical sensors. For further details see the relevant data sheets  
N.B. All performance data is based on conditions at 20°C, 50%RH, and 1013mBar



**Attention**  
Observe precautions for handling electrostatic sensitive devices

# IRidium® Specification



Gas	Measuring range	Accuracy	Repeatability
<b>HC n-hexane</b>	0 to 2000 ppm 2001 to 10000 ppm	±20ppm abs. or 5% rel. ±15% rel.	±10ppm abs. or ±3% rel.
<b>CO</b>	0.00% to 7.00% 7.01% to 15.00%	±0.15% abs. or ±5% rel. ±15% rel.	±0.06% abs. or ±3% rel.
<b>NOx</b>	0 to 5 volts 8bit resolution		
<b>O2</b>	0 to 5 volts 8bit resolution		

## 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

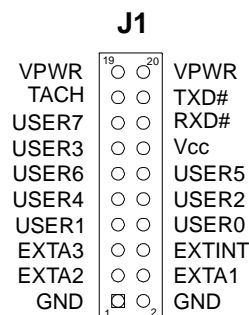
Control signals: Eight user-defined TTL outputs and digital ground  
 Input signals: Tachometer input - 0 to 5 volt pulse.  
 Three analog signals. 0 to 5 VDC. 8bit resolution

## 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®50 Ordering information

The IRidium®50 is available as a reference 2 gas bench for CO and HC measurement. For O2 and NO additional parts are required:

Type	Contents	Product Code
IRidium®50	Reference 2 Gas Bench	AUTO-IR50
O2 upgrade kit	AO2, manifold and lead	AUTO-SP04
NOX upgrade kit	NX-1, PCB lead and manifold	AUTO-4NX1
NOX upgrade kit	NX-3, PCB lead and manifold	AUTO-4NX3

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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.