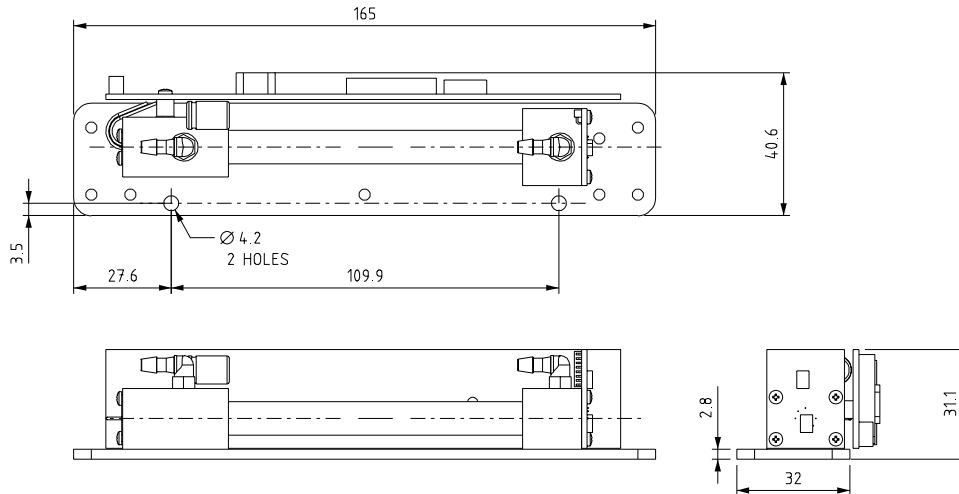




IRidium®50

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

Outline Dimensions



Performance Characteristics

Range	
HC	0-10000ppm
CO	0.00-15.00%
O₂ (Option)*	0.00-25.00%
NO (Option)*	0-5000ppm
Response Time T_{10-90%}	
NDIR (HC, CO)	<8 seconds
O₂ 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	Full accuracy in less than 60 seconds
Operating pressure range	813 to 1060 mBar

Physical Characteristics

Weight	114g
Length	165mm
Width	31.3mm
Height	40.3mm
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)



Attention
Observe precautions for handling electrostatic sensitive devices

* O₂ 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



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

J1

VPWR	19	20	VPWR
TACH	○	○	TXD#
USER7	○	○	RXD#
USER3	○	○	Vcc
USER6	○	○	USER5
USER4	○	○	USER2
USER1	○	○	USER0
EXTA3	○	○	EXTINT
EXTA2	○	○	EXTA1
GND	1	2	GND

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.