

■ F-920 Comparison Chart

	Felix Instruments	Dansensor	Dansensor	WITT	WITT	AGC
Specification	F-920 Check It! Gas Analyzer	CheckPoint - Handheld Gas Analyzer	Checkpoint II- Portable Headspace Analyzer	OXYBABY® 6.0 O₂/CO₂	OXYBABY® M+ O₂/CO₂	AGC Map-Pak Headspace Gas Analyser
Air sampling rate	65 mL/min	92 mL/min	48 - 64 mL/min	60 mL/min	60 mL/min	Varies depending sampling volume
Typical sampling volume	6.5 mL	23 mL	6 mL	6 mL	< 10 mL	6 mL - 50 mL
Data saving	Automated, 2 second intervals	Automatically stores up to 10, memory must be cleared before making additional measurements	Stores 100 products with 99 measurements per product	Not listed	Not listed	Stored internally
Display	Sunlight visible transfective LCD with back light	Digital	3.1" monochrome display (128 x 64 pixels) with back light	Backlit	Backlit	Graphic display with back light 30 x 60 mm
Operating environment	0 °C - 45 °C (0-90% humidity non-condensing)	Not listed; measurements are impacted by temperature	0 to 40 °C, < 85% RH, non condensing	5-40 °C	5-40 °C	0 to 40 °C
Dimensions	180mm x 135mm x 55mm	74mm x 63mm x 135mm	65mm x 130mm x 160mm	~188mm x 107mm x 91.5mm	~188mm x 107mm x 91.5mm	228mm x 72mm x 47mm

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Weight	950g	500g	700g	580g	600g	450g
Enclosure	Powder coated aluminum	IP53 & anodized aluminium	IP53 & anodized aluminium	Shock resistant plastic	Shock resistant plastic	Strengthened & wipe-clean ABS Plastic with integrated probe holder and needle cover
Power source & lifetime	<u>Removable</u> rechargeable lithium-ion batteries which last for 8+ hours and can be exchanged with another set of batteries to extend use	Battery powered (AA batteries), up to 2000 measurements	Rechargeable lithium-ion battery, up to 2,000 measurements.	3 integrated rechargeable batteries with charging device	2 integrated rechargeable batteries with mains adaptor and charging device	4 NiMH rechargeable cells with 9V wall adapter
PC Interface	USB and SD card, Bluetooth	n/a	USB	USB, Bluetooth adaptor	USB, Bluetooth adaptor	USB
Data recorded with each measurement	CO ₂ and O ₂ concentrations, date, time, RH, GPS location	Stores 10 measurements total	Stores 100 products with 99 measurements per product	500 measurements interface for transfer of logged data	Last 100 measurements	Not listed
Calibration method	Simple, rapid zero calibration in ambient air	Two-button automatic offset	Two-button automatic offset	Simple two point calibration	Simple two point calibration	Simple two point calibration
CO₂ SENSOR						
Sensor type	Infrared sensor, pyroelectric detector	Electrochemical and dual beam infrared	Electrochemical and dual beam infrared	IR-absorption	IR-absorption	Nondispersive infrared sensor
Range	0-100%	0-100%	0-100%	0-100%	0-100%	0-100%
Resolution	0.01% absolute	0.1% oxygen and carbon dioxide	0.1% oxygen and carbon dioxide	0.01%	0.01%	0.10%

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Accuracy	±1% absolute and ±3% of measured value	± 2% absolute in range 0-20% ± 3% in range 20-100%	± 2% absolute in range 0-20% ± 3% in range 20-100%	±2% FS at 20 °C (±2% CO ₂)	±2% FS at 20 °C (±2% CO ₂)	CO ₂ ± 5% (of reading e.g. 20% CO ₂ = accuracy of ± 1%)
Sampling time	6-9 seconds	15 seconds	6 seconds	6-10 seconds	10 seconds maximum	<10 seconds
Calibration Schedule	Annually	Annually	Annually	Weekly (or before each test)	Weekly (or before each test)	Not listed
Lifetime	>5 years	>3 years	>5 years	Long	Unlimited	2 years
O₂ SENSOR						
Sensor type	Electrochemical	Electrochemical	Electrochemical	Electrochemical	Electrochemical	Electrochemical
Range	0-100%	0-100%	0-100%	0-100%	0-100%	0-100%
Resolution	0.1% absolute	0.1% oxygen	0.1% oxygen	0.1% oxygen	0.1% oxygen	0.10%
Accuracy	0.25% absolute + 2% relative	Better than ± 0.25% oxygen	± 0.25% absolute + 2% relative	0.1% absolute with O ₂ concentrations ≤ 10 per cent by vol. 1% relative with O ₂ concentrations 10-100 per cent by vol. at 20 °C, measured under calibration conditions	0.1% absolute with O ₂ concentrations ≤ 10 per cent by vol. 1% relative with O ₂ concentrations 10-100 per cent by vol. at 20 °C, measured under calibration conditions	O ₂ ± 1% (full scale)
Sampling time	6-9 seconds	15 seconds	9 seconds	6 seconds	10 seconds maximum	<10 seconds
Calibration Schedule	6 months	6 months	6 months	Weekly (or before each test)	Weekly (or before each test)	Not listed
Lifetime	1 year (in use), 2 years (in air)	>1 year	Typically 9 months at O ₂ levels up to 20.9%, derating applies when used at higher concentrations!	2 years (in air 68 °F)	2 years (in air)	Indefinitely