

■ 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 | 6 months | 6 months | 6 months | 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 | Annually | Annually | Annually | 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 |