



MINIFID

Portable heated FID

Data sheet

Detector	Flame Ionisation Detector (FID).
Ranges	0-10, 0-100, 0-1000, 0-10,000 ppm. (0-10% option)
Gas supplies	Detachable bottle rack to hold 1 litre fuel and calibration gas. Can also connect to larger cylinders.
Zero air	Field replaceable carbon scrubber cartridge.
Sample system	Type 316 stainless steel, internal 191°C oven and sample pump.
Sample filter	0.4 micron PTFE filter, field replaceable
Ignition	Glow plug with fuel enrichment via front-panel needle valve and flow meter.
Safety interlocks	Fuel shut off if flame fails, sample inhibit until oven and heated line are at temperature
Display	3.5 digit backlight LCD display for reading (ppm), switch selectable readout of oven and H/L temperatures
Heated line	Built in controller for 5 or 10 meter heated line to 191°C
Outputs	0-10V dc and isolated 4-20mA analogue outputs of displayed range, Volt-free relay contacts for analyser fault indication
Power requirements	115V ac +/-15% via BS4343 industrial mains plug
Power consumption	350VA plus 400VA (5 metre) or 800VA (10m metre) max power during warm up
Dimensions	FID - 7Kg, 210mm(w) x 300(h) x 240(d). Bottle rack and bottles add 113 mm to depth and 5Kg.
Operating Conditions	Ambient temperature 5-40°C, Relative humidity up to 95%, non condensing
Options	Hydrogen fuel for ambient monitoring
Response time	From 2 seconds (5-95%) at 2 litres/min flow rate.
Flow rate	0.4 to 3 l/min in to ambient pressure exhaust
Accuracy & repeatability	Better than +/-1% range or +/-0.2ppm, whichever greater
Ambient temperature effects	Zero: less than +/-0.15ppm/°C or +/-0.02% of range/°C Span: less than +/-0.1% of range/°C
Detector noise	less than +/-0.1ppm or +/-0.1% of range, whichever greater
Linearity	Better than +/-2% of point or +/-0.5% FSD on all ranges down to 10% of range
Carbon Number correlation	Less than 5% difference in carbon count between toluene, hexane, propylene and propane, when using H ₂ He fuel.
Oxygen Synergism	100ppm C ₃ H ₈ in air changed to 100ppm in N ₂ has less than 2% effect when using H ₂ He fuel.

Subject to change, Signal not responsible for any damage arising from this. issueA