



# IRmadillo25H™

High Temperature Process Analyser with ATEX, IECEx Certification



## Technical Specifications

Parameter	IRmadillo25H FTIR Spectrometer
Spectral range	Mid-infrared (800-3800 cm <sup>-1</sup> /2.6-12.5 μm)
Sampling material environment	Liquids and slurries
Sample interface	ATR insertion probe
Wetted materials	ATR: Infrared transparent glass (chalcogenide) Probe: Hastelloy C276 Sealing O-ring: FFKM
Enclosure rating	IP65
Long-term stability	Fixed interior components ensure high stability and vibration tolerance.
Sensitivity	LoD 100 ppm (typical)
Minimum acquisition time	10 s
Signal-to-noise ratio (SNR)	Peak SNR 15500 (2 min sampling time)
Dimensions	Body (H x W x D): 200 x 281 x 310 mm (approx. 8 x 11 x 12 in) Probe (Diameter): 25 mm (approx. 1 in) Probe (Maximum insertable length): 187 mm (approx. 7.4 in)
Weight	Approx. 18.5 kg (40.8 lb)
Maximum distance to controller (safe zone)	275 m (approx. 902 ft)
Fibre-optic coupling	None. Instrument's fixed probe is inserted directly into reaction vessel or pipework.
Input requirements	Purge gas: Instrument grade air or N <sub>2</sub> (0.5 to 5 L/min at < 0.5 barg)
Data output	OPC-UA (Ethernet) Modbus RTU (RS-485, RS-232) Modbus TCP (Ethernet) Export as text file (eg, CSV, SPC) Compatible with all major analysis packages
Temperature (ambient)	-15°C to +55°C (5°F to 131°F) Maximum range
Temperature (analyte)	-15°C to +220°C (5°F to 428°F) / Maximum rate of change = 50°C/min
Humidity (ambient)	0 to 95% RH
pH range	0 to 9
Power requirements	100-240 Vac, 50/60 Hz, 110 W max
Pressure (analyte)	0.3 to 42.37 bara
Hazardous environment certification	Ex II 2G Ex db IIB+H <sub>2</sub> T4 Ga/Gb IECEX BAS 17.0030X Baseefa17ATEX0037X
Installation	Multiple interface options available. Please contact Keit for more information.
Patents	Keit's IRmadillo FTIR spectrometer is the subject of patents and patent applications, details of which may be found at: <a href="http://www.keit.co.uk/legal">www.keit.co.uk/legal</a>

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