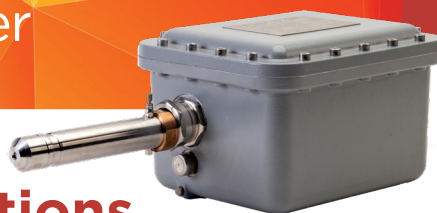





# IRmadilloDiamond Ex<sup>TM</sup>

## Process Analyser



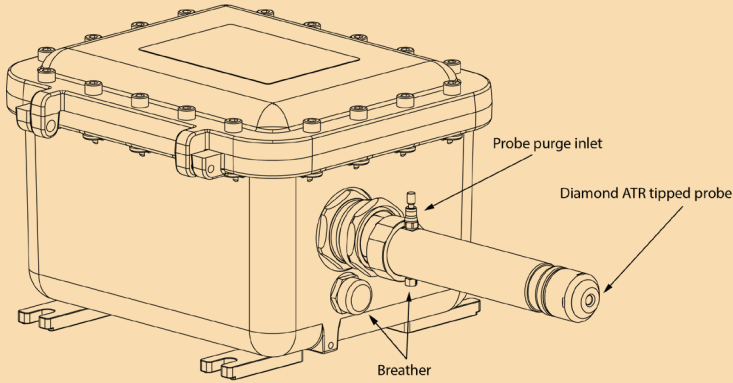
## Technical Specifications

Parameter	IRmadilloDiamond Ex
Model number(s)	ASM0627-08-E-Cx-O-Gx-Dx
Spectral range	Mid-infrared (650 to 1900 cm <sup>-1</sup> and 2700 to 3800 cm <sup>-1</sup> )
Sampling material environment	Liquids and slurries
Sample interface	ATR Insertion probe
Wetted materials	ATR: Diamond Probe: Hastelloy C276 Sealing O-rings: FFKM
Body casing material	Cast aluminium - epoxy painted
Process conditions	Temperature (analyte): -20°C to +80°C (-4°F to +176°F) Pressure (analyte): 0 to 20 barg (pressure rating may be affected by mechanical interface) pH range: 0 to 14
Operating environment	Temperature (ambient) Option 1: -10°C to +55°C (+14°F to +131°F) Temperature (ambient) Option 2: -20°C to +45°C (-4°F to +113°F) Humidity (ambient): 0 to 95% RH
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
Dimensions	Body (H x W x D): 200 x 281 x 310 mm (approx. 8 x 11 x 12 in) Probe maximum insertable length (without flange): 162 mm (approx. 6-½ in) Probe maximum insertable length (with flange): 125 mm (approx. 5 in) Probe diameter: 38 mm (approx. 1.5 in)
Weight	Approx. 18.5 kg (41 lb)
Fibre-optic coupling to probe	None. Instrument's fixed probe is inserted directly into vessel or pipework.
Power & input requirements	Power: 100-240 Vac, 50/60 Hz, 110 W max Purge gas: Zero / instrument grade air or N <sub>2</sub> (minimum quality according to ISO8573-1:2010 of Class 1:2:1 or better)
Data output	OPC-UA (over Ethernet) Modbus RTU (over RS-485) Modbus TCP (over Ethernet) Export as text file Compatible with all major analysis packages
Hazardous environment certifications	 II 2G Ex db IIB+H <sub>2</sub> T4 Ga/Gb IECEX BAS 17.0030X Baseefa17ATEX0037X Japanese approval CML 21JPN1201X
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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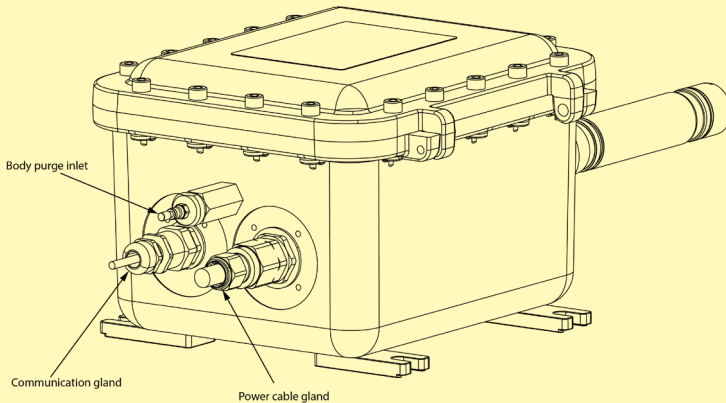


# IRmadilloDiamond Ex<sup>TM</sup> Process Analyser



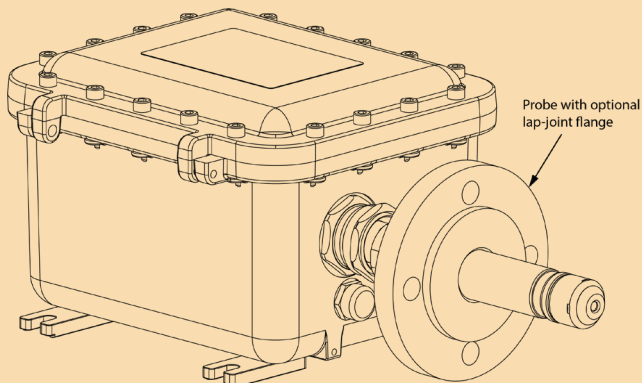
## Front view of IRmadilloDiamond

IRmadilloDiamond's durable exterior casing with fixed insertion probe suited for real-time process analysis.



## Back view - connections

Power, data and purge connections visible. The highly vibration-tolerant design results in a uniquely tough, compact process analyser safe for use in hazardous environments.



## Optional flange

With suitable support, an optional flange allows the spectrometer to be bolted directly into pipework.