



IRmadilloDiamond CETM

Process Analyser



Technical Specifications

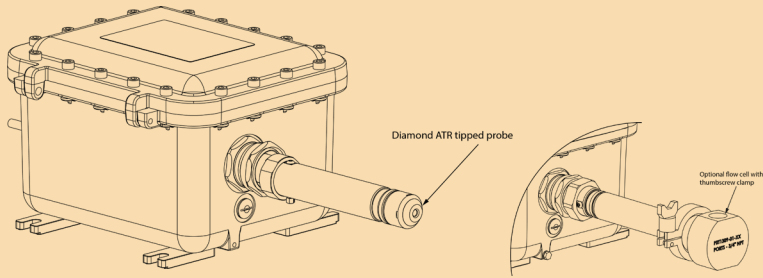
Parameter	IRmadilloDiamond CE
Model number(s)	ASM0627-09-Z-Cx-O-Gx-D3x
Spectral range	Mid-infrared (648 to 1800 cm ⁻¹ and 2700 to 3800 cm ⁻¹)
Sampling material environment	Liquids and slurries
Sample interface	ATR Insertion probe
Wetted materials	ATR: Diamond Probe: Hastelloy C276 Sealing O-rings: FFKM (options available upon request)
Body casing material	Cast aluminium - epoxy painted
Process conditions	Temperature (analyte): -20°C to +220°C (-4°F to +428°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: 212 mm (approx. 8.3 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 ₂ (minimum quality according to ISO8573-1:2010 of Class 1:2:1 or better)
Cleaning system compatibility	Clean in place (CIP): Yes Sterilise in place (SIP): Yes
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
CE Mark / EEA certification	CE
Patents	Keit's IRmadillo FTIR spectrometer is the subject of patents and patent applications, details of which may be found at: www.keit.co.uk/legal

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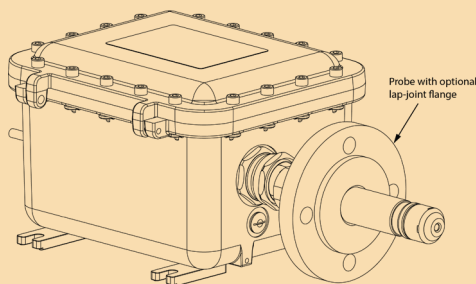
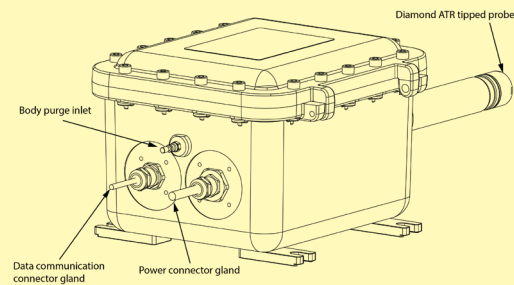
Front view & optional flow cell

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

Optional flow cell secured to the probe tip enables by-pass flow measurements.

Back view

Power and data ports visible. Highly vibration-tolerant design results in a uniquely tough, compact process analyser.

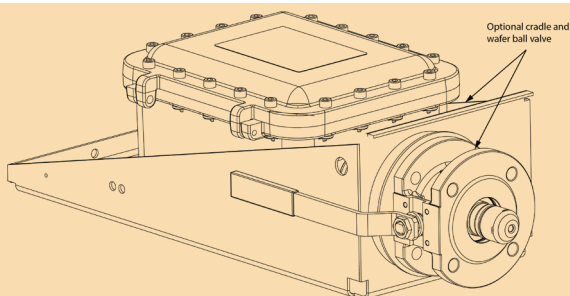
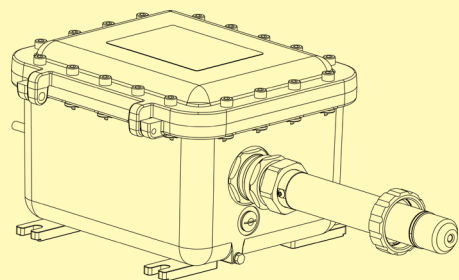


Installation option - flange

With suitable support, the optional flange on the probe allows the spectrometer to be bolted directly into pipework (probe compatible with any ANSI or DIN flange over 2 inches or DN50).

Installation option - Ingold port

An optional Ingold DN40 nut on the probe enables the spectrometer to be fitted to a welded Ingold 40 mm port and installed into a vessel.



Installation option - port tube, valve, and cradle

Port tube with optional cradle and wafer ball valve for ease of insertion and removal to assist in cleaning and maintenance.