

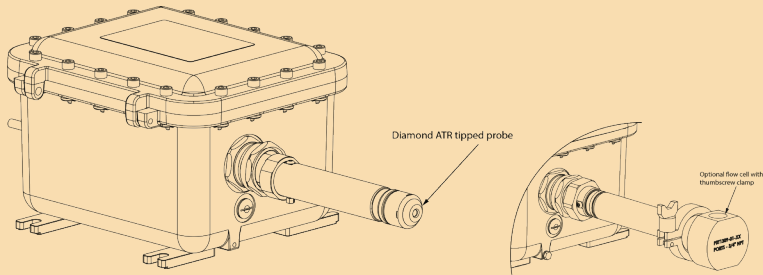


## Technical Specifications

Parameter	IRmadillo with integrated controller
Model number(s)	ASM0627-10-Z-Cx-Ex-Gx-D3x
Spectral range	Mid-infrared (648 to 1800 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 (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 <sub>2</sub> (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 TCP (over Ethernet) Export as text file Compatible with all major analysis packages Two flying ethernet cables
Software operating system	Microsoft Windows 10 IoT Enterprise LTSC
CE Mark / EEA certification	
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>



# IRmadillo™ Process Analyser



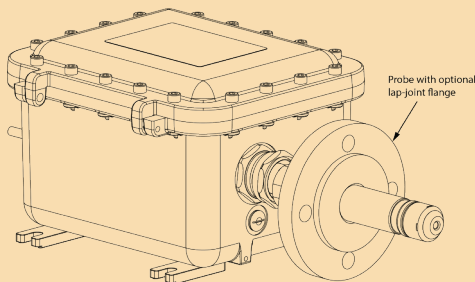
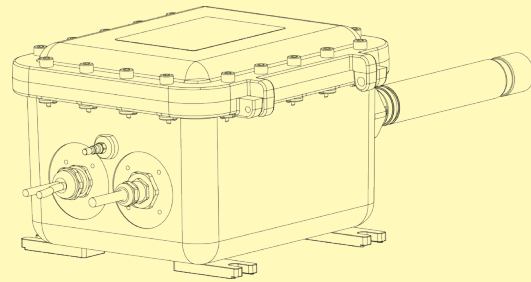
## Front view & optional flow cell

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

Location of the purge gas inlet, power and data connections are visible. The highly vibration-tolerant design results in a uniquely tough, compact process analyser.

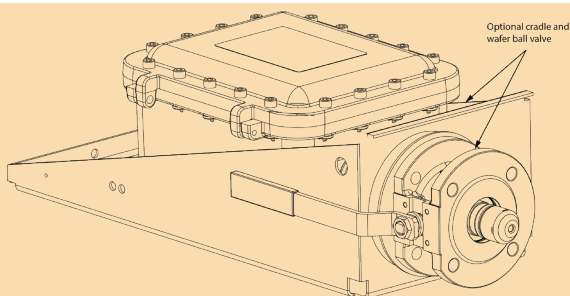
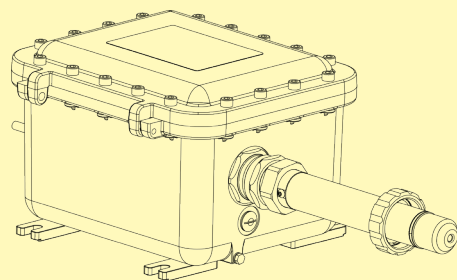


## Installation option - flange

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.