

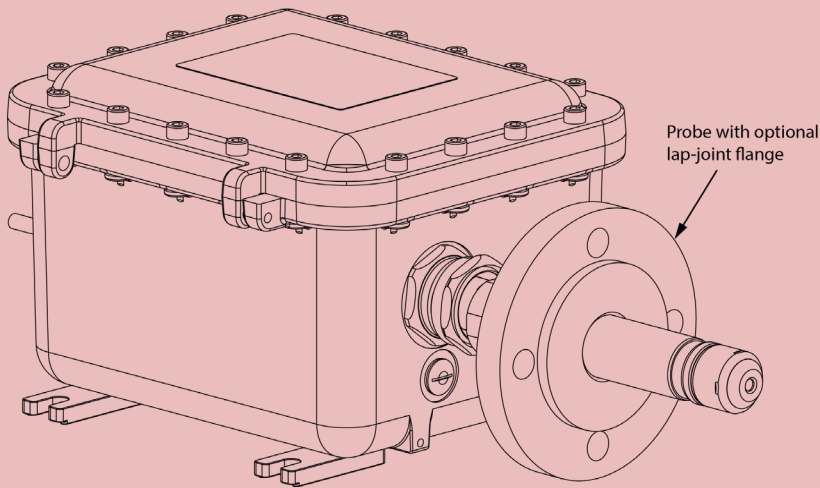




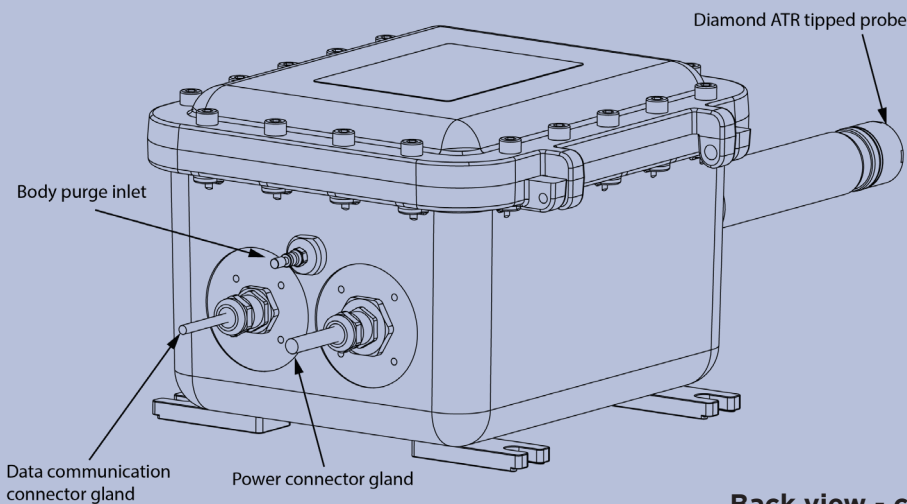
Technical Specifications

| Parameter | IRmadilloEx | IRmadilloNA |
|---|--|---|
| Model number(s) | ASM0627-09-E-Cx-O-Gx-D3x | ASM0627-09-N-Cx-O-Gx-D3x |
| Hazardous environment certifications |  II 1/2 G Ex db IIB+H2 T4 Ga/Gb IECEX CML 22.0082X CML 22ATEX1522X CML 22UKEX1523X |  E115838 Class I, Zone 0/1, AEx db IIB+H2 T4 Ga/Gb Ex db IIB+H2 T4 Ga/Gb Class I, Division 2, Groups B, C, D, T4 |
| 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 | |
| Body casing material | Cast aluminium - epoxy painted | |
| Process conditions | Temperature (analyte): -20°C to +220°C (-4°F to +428°F) Pressure (analyte): -0.999 to 41.37 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 max. insertion (without flange): 195 mm (approx. 7.7 in) Probe max. insertion (with flange): 181 mm (approx. 7.1 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) | |
| 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 Communications grade fibre-optic cable to external controller | |
| Software operating system | Windows 10 IoT Enterprise LTSC | |
| Max length fibre-optic lead to controller | 275 m (Type OMI, 62.5/125 µm) Optional OMI extension | |
| 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 | |



Front view

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.