
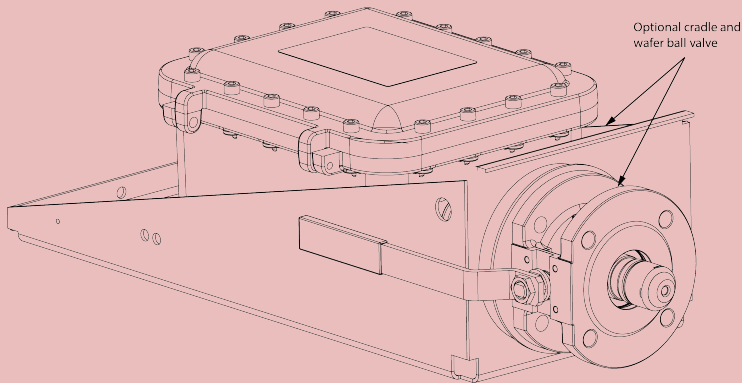


## Technical Specifications

Parameter	IRmadillo with External Controller	
Model number(s)	ASM0627-09-Z-Cx-O-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):	-0.999 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 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 RTU (over RS-485) Modbus TCP (over Ethernet) Export as text file Compatible with all major analysis packages	
Software operating system	Windows 10 IoT Enterprise LTSC	
Max length fibre-optic lead to controller	275 m (Type OM1, 62.5/125 µm) 500 m (Type OM3, 50/125 µm) Optional OM3 extension	
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™

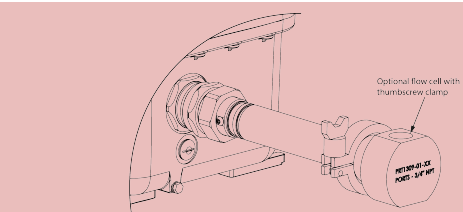
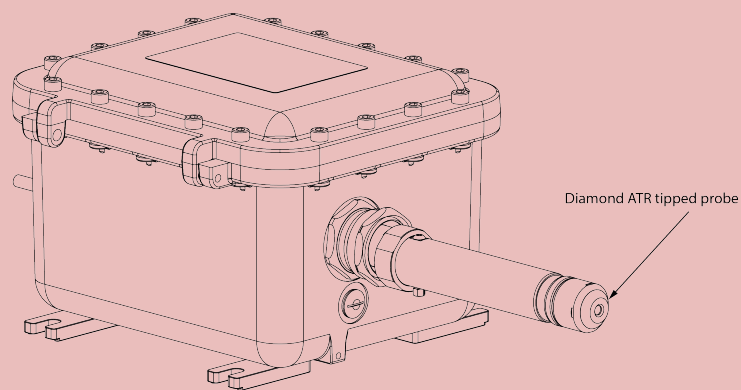
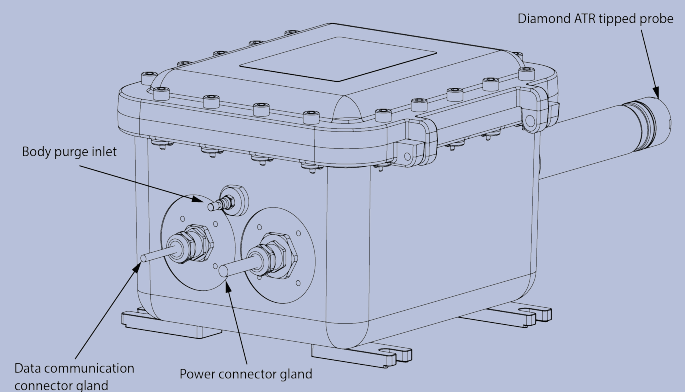


### Port tube, valve, and cradle

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

### Back view

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



### Front view & optional flow cell

IRmadillo'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.