Analytical Specifications

Detection Limits	SEM: < 100 ppb (without peak interference)
Mass Range	1 – 300 u (512 u on request)
Mass Resolution	Unit resolution
Measurement Time	Typical < 1s for one measurement cycle (process applications with 4 – 6 gas components) 4 ms per channel

Technical Specifications

Number of Channels		Up to 1024 channels per run
Ion Source Configuration	Standard	Crossbeam ion source with two yttrium filaments (tungsten on request)
Communication Interfaces		Ethernet to PC, IoT-enabled OPC UA, PROFIBUS, PROFINET, MQTT, others on request
External IO	Optional	Various IO options available through external satellite devices (digital/analog IO, thermocouples, etc.)
Dimensions		570 x 250 (800) x 570 mm (w x h x d), approx. 45 kg 23 x 10 (32) x 23 in. (w x h x d), approx. 100 lbs

System Requirements

Gas Quality	Temperature Humidity Particles	> Dew point Not condensing < 4 µm particle size
Environmental Conditions (During Operation)	Temperature Humidity	+15 to +35 °C (59 to 95 °F) < 75 %, not condensing
Power		230 VAC, 50 Hz, approx. 0.75 kVA (115 VAC, 50/60 Hz on request)
Exhaust		6mm push-in tube fitting to customer's exhaust system

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InProcess Instruments
Analytical Solutions. Tailor-made.

Calypso

Gas Analysis System

- Perfect fit for a wide variety of applications and projects
- Easy to operate
- Flexible and user-friendly software suite
- Reliable and accurate gas concentration determination
- Gas inlet system heatable up to 300 °C

Calypso

Gas Analysis System

Mass spectrometry is a method of determining the mass-to-charge ratio of ions, and is frequently used to identify and quantify gaseous or volatile substances.

The Calypso - Gas Analysis System is a fully digital controlled mass spectrometer with an integrated heatable gas inlet system. The gas inlet consists of a heated transfer line (up to 300 °C) and a heated gas inlet stage which can also be heated up to 300 °C. The sophisticated mechanical design of the inlet stage guarantees a high temperature gas transfer right up to the ion source of the mass spectrometer. The design without any cold spots makes the system extremely flexible regarding the measurement of substances with high boiling-points.

Calibration of the system is an easy routine task with a fully automated calibration routine and a built-in calibration substance dosing system.

Simply connect your process, bioreactor or gas sample cylinder and an exhaust line to the system and start analyzing.

Software

IPI ProxiMass, our user-friendly system control and automation software, allows full software control of the data acquisition via user definable methods and

The methods can be used for the automation of measurement tasks or to perform automated system

Several software interfaces can be used to connect IPI ProxiMass to third party software systems or to integrated into existing control environments. Thus enabling easy integration of the Calypso Mass Spectrometer System also into homebrewed laboratory control environments.

IPI ProxiMass can act as a Modbus Server or Client, can be integrated with OPC UA over PROFIBUS or PROFINET communication protocol networks or act as an MQTT client which can be easily addressed and queried for example via python™, LabVIEW™ or

Method - 142353_MID



IPI ProxiMass system control and automation software offers customizable dashboards and an intuitive user interface. Even complex methods to automate experimental procedures can be set up with ease with the Method Editor.

