

Analytical Specifications

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

Technical Specifications

Number of Gas Inlets	16 gas inlets in flow-through configuration, heatable up to 120°C
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 700 x 570 mm (w x h x d), approx. 70 kg 23 x 28 x 23 in. (w x h x d), approx. 155 lbs

System Requirements

Gas Quality	Temperature > Dew point Humidity Not condensing Particles < 4 µm particle size
Environmental Conditions (During Operation)	Temperature +15 to +35 °C (59 to 95 °F) Humidity < 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

Telesto

Gas Analysis System

- Multi-Port gas inlet for up to 16 sampling points
- Easy to operate
- Flexible and user-friendly software suite
- Reliable and accurate gas concentration determination
- Gas inlet system heatable up to 120 °C



InProcess Instruments
Gesellschaft für Prozessanalytik mbH

Sophie-Germain-Str. 1 phone +49 421 525 93 0
28201 Bremen fax +49 421 525 93 10
Germany e-mail mail@in-process.com

in-process.com

Telesto

Gas Analysis System

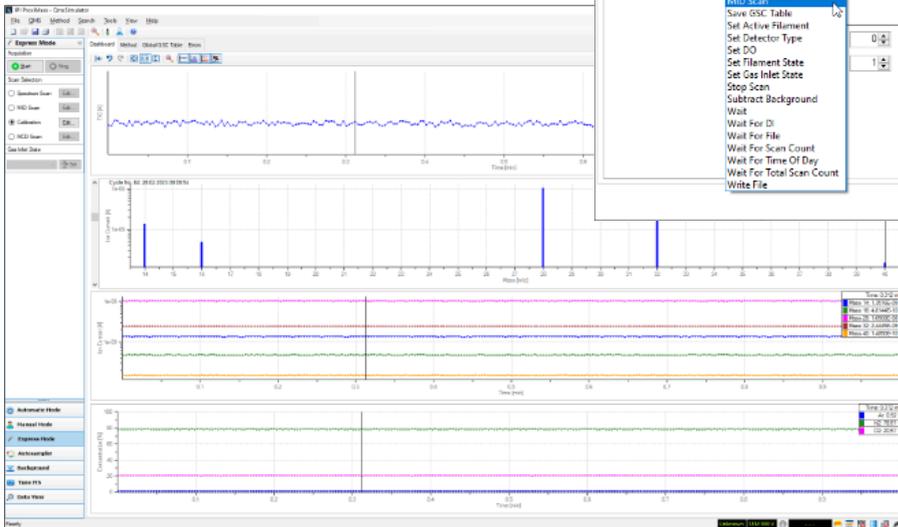
Mass spectrometry is a method of determining the mass-to-charge ratio of ions, and is frequently used to identify and quantify gaseous or volatile substances.

The Telesto - Gas Analysis System is a fully digital controlled mass spectrometer with an integrated heatable multi-port gas inlet system with 16 gas inlets in flow-through configuration. The gas inlet system consists of a heated multi-selector valve (up to 120 °C) and a heated gas inlet stage.

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 or gas streams with high humidity.

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 multiple gas sampling points of your process, or your bioreactors or use the gas inlet to manually connect gas sample cylinders 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 sequences. The methods can be used for the automation of measurement tasks or to perform sequential measurements across all 16 gas inlets of the Telesto.

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 Telesto 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 others.

Gas Analysis Made Easy

The compact table-top system allows the Telesto to be used nearly everywhere in the laboratory. If higher flexibility is required a matching system cart is available as accessory.

IPI ProxiMass as a turn-key software solution with its Express Mode guarantees a minimal timespan between system installation and first measurement. Telesto is the perfect tool for first-time users who are not familiar with mass spectrometers but whose projects require an accurate and precise gas concentration analysis.

For more experienced users, IPI ProxiMass offers plenty of possibilities to create methods and sequences that can also interact with third party equipment.



More Information

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.