Frequently asked questions
Prima PRO 700 & 710, Sentinel PRO 700 & 710

Guidance note: The previous versions of Thermo Scientific™ Prima PRO and Thermo Scientific™ Sentinel PRO will be referred to as PRO while the new versions of Prima PRO 700/710 and Sentinel PRO 700/710 will be referred to as PRO 700/710.

Comparison of the Prima PRO/ Sentinel PRO to the new models PRO 700 & PRO 710

Does the PRO 700/710 have the same magnetic sector MS as the PRO?
Yes, we have retained the ultra-high performance scanning magnetic sector technology.

With the release of the PRO 700/710, what improvements have been made over the PRO?
1. The inclusion of a large touch screen graphical interface providing access to many analyser functions and diagnostics directly at the analyzer.

2. An upgraded cooling system to a heating and cooling AC system which enables cabinet operation across the whole range of ambient temperature 12°C to 40°C

3. An increase in AC health monitoring capability from one monitoring signal to 12, allowing efficient fault finding and avoiding unnecessary field AC replacements.

Will the PRO 700/710 have the same cabinet footprint as the PRO?
Yes, the PRO 700/710 will have the same sized cabinet and can be installed directly in place of the PRO.

Are there any changes to the maintenance procedures?
Yes, we have made it easier to access the rotary pumps for oil changes.

Is the analytical performance of the PRO 700/710 the same as the PRO?
Yes, performance will be equal to that of the earlier PRO.

Features of the PRO 710 front panel user interface

How does the PRO 710 differ from the PRO 700?
The PRO 710 has all the same improvements as the PRO 700 but with the addition of the front panel mounted Graphical User Interface.

Can I calibrate the PRO 710 from the front panel user interface?
Yes you can.

Is it possible to see data trends at the front panel user interface?
Yes, multiple trends (up to 12) of concentrations, derived values and hardware devices can be configured by the user to be displayed, the items to display in trends can be changed during analysis if required.

What diagnostic data can be seen at the user interface?
All of the analyzer hardware data that you can see in GasWorks PC based interface are now available at the front panel user interface. The additional hardware status monitors of the cabinet AC will also be accessible at the user interface.

Is access to the user interface protected?
Yes, there will be different levels of access according to the role of each user and each user will have to enter a PIN to gain access to the interface.

Can stored data be reviewed at the user interface?
Yes, the user can review stored data, depending on the number of variables that are stored this may facilitate ~24 hours of data review at the user interface.

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Will alarms be displayed at the user interface?

Yes, when hardware devices or stream concentrations are in an alarm condition, this will be indicated on the user interface. Alarm severity and status will be indicated by a colour system (green, amber, red).

Will the user interface be available in different languages?

We are implementing multi-language options in the same way as we have with GasWorks, at the first release English and Spanish language will be supported, later releases will include more language options.

Is it possible to place the PRO 710 into "out of service" status from the user interface?

Yes this is available, and this condition is displayed prominently on the user interface.

Is there a log of events shown at the user interface?

Yes, the Instrument Log will record events such as calibration, schedule start and schedule stop.

Will the PRO 710 with the front panel user interface be available for hazardous area installation?

Yes, we will maintain all the same hazardous area approvals as the PRO Ex.

Can I upgrade my PRO to have the PRO 710 front panel user interface?

In the future we will have an upgrade path, please contact your local service center for advice.

Software and communications

What is the operating system of the PRO 700/710?

The PC based GasWorks interface continues to run on Windows OS. The front panel user interface uses embedded software that does not require an operating system.

What serial, analogue & digital IO is available?

The Prima and Sentinel systems have 3 serial comms ports (to connect to the user systems) and a number of digital I/O as standard, analogue IO is optional from the price list.

For Ex systems an extensive range of serial, analogue and digital IO is available from the price book.

All Prima and Sentinel systems have Modbus (ASCII or RTU, Slave or Master) as standard.

OPC UA communications software is also included.

Installation & utilities

What utilities are required for the PRO 700/710?

All systems require mains power and calibration gas standards according to the application.

For some applications we recommend a purge gas for the rotary backing pump.

Ex systems require an air purge; details of these requirements are provided in our proposals.

Carrier gases and detector gases and not required for any of our mass spectrometers.

What hazardous area approvals are available?

ATEX, NEC, IECEx and UKEX approvals are available; for full details please contact our applications team.

What are the minimum and maximum ambient temperatures where the PRO 700/710 can be installed?

The ambient temperature must be within 12°C and 40°C. Check with our applications team for a full guide to site requirements.

What is the power consumption of the PRO 700/710?

The model 700/710 normal average operating power consumption is ~2.0KVA: for the hazardous area (Ex) versions this is ~2.5KVA.

Cabinet temperature control

How is the cabinet temperature control different on the model PRO 700/710?

The new temperature controller now includes a heater as well as the original cooling system.

What impact does this update to the cabinet temperature controller have?

The PRO 700/710 will more effectively control the temperature when the ambient temperature is low, reliably holding the cabinet temperature at the set point and eliminating alarms associated with cabinet temperature. This important upgrade will enable greater analyzer availability and fewer instances of AC replacement lowering the long-term cost of ownership.

Learn more at **thermofisher.com/ProcessMassSpectrometers**

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