

Intelligent Ion Chromatography – IC for Professionals

More flexibility for the Professional IC instrument family

Metrohm's 850 Professional IC ion chromatograph has now been on the market for one year. It is offered together with the 858 Professional Sample Processor and MagIC Net™ software in several versions as a ProfIC system. The ion chromatography system can be optimally adapted to suit your application. Since its introduction, numerous users have been able to convince themselves of the outstanding performance and user-friendliness of the 850 Professional IC and the different ProfIC systems. The Professional IC family has now been extended by **two new versions of the 850 Professional IC** and **two 872 Extension Modules**.

850 Professional IC Anion – MCS – LP Gradient

The new low-pressure gradient version of the 850 Professional IC is a favorably-priced alternative to the high-performance high-pressure gradient version 850 Professional IC Anion – MCS – Gradient. Step, linear, convex and concave profiles can also be selected with low-pressure gradients. These profiles can be combined at will in a time program. The new low-pressure gradient version of the 850 Professional IC is equipped with sequential suppression. Only Metrohm can offer you this unique combination of chemical suppression with the Metrohm Suppressor Module «MSM II» and CO₂ suppression using the Metrohm CO₂ Suppressor «MCS». Up to three different eluents can be degassed and mixed with high precision. This results in excellent chromatographic results. The high resolution and flexibility of the system also permit the use of the low-pressure gradient module as an eluent selector for automatic switching between applications. The low-pressure gradient version of the 850 Professional IC offers additional optimization possibilities that are extremely helpful in developing new methods.

Tip: An isocratic elution system always provides the best possible separation. Gradients are only used to accelerate late-eluting peaks. The separation itself cannot be improved with gradients, but in some applications a lot of time can be saved by their use.



The 850 Professional IC Anion – MCS – LP Gradient can degas and mix up to three eluents. The low-pressure gradient instrument is supplied pre-installed.

850 Professional IC AnCat – non-suppressed

With the new AnCat version of the 850 Professional IC, which deliberately dispenses with chemical and CO₂ suppression, flexibility is again in the foreground. This system has two mutually independent flow paths. This allows, for example, the parallel determination of anions and cations, organic acids and cations, organic acids and sugars or also the parallel execution of two different cation applications. The 850 Professional IC AnCat – non-suppressed additionally offers the possibility of combining different detectors. In this way, alternative detectors such as electro-

chemical or UV/VIS detectors can be used in addition to the conductivity detector. In combination with one of these detectors, applications with high-pressure gradients can also be carried out with this system.

872 Extension Module

The new 872 Extension Module increases the flexibility of the Professional IC family. It offers more space for extensions and provides an 850 Professional IC with added functionality, which makes additional applications possible. Two different versions are currently available: the 872 IC Pump Extension Module and the 872 Sample Prep Extension Module. Up to three 872 Extension Modules can be combined with one 850 Professional IC. The latter supplies them with power and controls them. The Extension Modules can be placed beneath, on top of or beside the 850 Professional IC. Additional base and cover plates are also available.

872 IC Pump Extension Module

This Extension Module adds an additional high-pressure pump to the 850 Professional IC. The module consists of an IC pump with eluent degasser, a purge valve, an inline filter and a pulsation dampener. By the addition of maximum three 872 IC Pump Extension Modules, an isocratic Professional IC system can be extended at any time to form a quaternary high-pressure gradient system.

Extension Module 872 Sample Prep

The proven Metrohm Inline Sample Preparation (MISP) is also available for the 850 Professional IC family. It includes ultrafiltration, dialysis, dilution, preconcentration, matrix elimination, neutralization, cation exchange and much more. The possibilities for the configuration of a Professional IC system with inline sample preparation or integrated liquid handling are considerably extended by the use of the 872 Sample Prep Extension Module. In this way, inline dialysis becomes also possible with an AnCat system or a system without sample changer. The 872 Sample Prep Extension Module consists of a peristaltic pump and a 6-way injection valve.

Additional flexibility in chromatography is possible by applying column selection systems, cutting techniques or multidimensional IC applications.

Thanks to the great flexibility of the Metrohm 850 Professional IC chromatographs and the additional possibilities provided by the new 872 Extension Modules, the separation system can be optimally adapted to suit your application. The large choice of Metrosep columns is also a great benefit. Additionally, you can also profit from our well-founded application development know-how.



An 850 Professional IC AnCat system with 858 Professional Sample Processor, shown here in combination with the 872 IC Pump Extension Module. The latter allows the parallel determination of anions and cations using a high-pressure gradient.