940 Professional IC Vario ONE/SeS/HPG

2.940.1440

The 940 Professional IC Vario ONE/SeS/HPG is the intelligent IC instrument with **sequential suppression** and **binary high-pressure gradient**. It can be extended with the 942 Extension Modules to up to a quaternary gradient system. An 800 Dosino can be used for the regeneration of the suppressor. The instrument can be used with any separation and detection methods.

Typical areas of application:

– Gradient applications for anion or cation determinations with sequential suppression

Below, the accessories are grouped into Scope of delivery and Optional accessories.
Please keep this printout at hand for ordering replacement material.
These lists may be subject to change.

Scope of delivery 2.940.1440

Order Number	Description	Quantity
1.940.1440	**940 Professional IC Vario ONE/SeS/HPG** The 940 Professional IC Vario ONE/SeS/HPG is the intelligent IC instrument with sequential suppression and binary high-pressure gradient. It can be extended with the 942 Extension Modules to up to a quaternary gradient system. An 800 Dosino can be used for the regeneration of the suppressor. The instrument can be used with any separation and detection methods. Typical areas of application: – Gradient applications for anion or cation determinations with sequential suppression	1 PCS
6.5000.000	**Accessory kit: Vario/Flex Basic** Basic set of accessories for a Professional IC Vario or Compact IC Flex.	1 PCS

6.5000.010

Accessory kit: Vario/Flex ONE 1 PCS

Set of accessories for the ONE Module (IC pump with injector) for Professional IC Vario and Compact IC Flex instruments.

6.5000.020

Accessory kit: Vario/Flex SeS 1 PCS

Set of accessories for sequential suppression (SeS) for Professional IC Vario and Compact IC Flex instruments. Without Suppressor Rotor.

6.1602.160

Bottle attachment GL 45 for eluents and reagents 1 PCS

For eluent, reagent, and rinsing bottles, with connectors for the adsorber tube and the aspiration tubing.

6.1608.070

Eluent bottle / 2 L / GL 45 1 PCS

6.1609.000

Adsorbing tube, large and bent 1 PCS

For filling with adsorber material.

6.2023.020

Clip for SGJ 14/15 1 PCS

Clip for SGJ 14/16

6.2744.040

2 x UNF 10/32 coupling 1 PCS

For connecting 1/16 in. capillaries. For IC instruments

6.2744.070

Pressure screw short 1 PCS

Short version. With UNF 10/32 connection. 5 pieces. For the connection of PEEK capillaries

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6.2744.210

Tubing adapter for aspiration filter (ProfIC) 1 PCS

For Professional IC instruments

6.2816.020

Syringe 10 mL with Luer connection 1 PCS

For various applications in IC and VA

6.2821.090

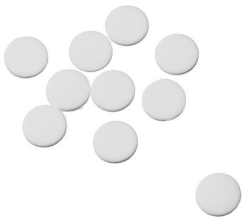
Aspiration filter 1 PCS

Pore size: 27 µm. Set of 5 pieces. For aspiration tubing (6.1834.000, 6.01834.010) and filter tubes (6.1821.040, 6.1821.050).

6.2821.130

Spare filter for inline filter 1 PCS

Spare filter for inline filter.

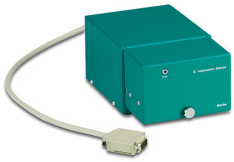


Optional accessories

2.850.9010
IC Conductivity Detector

Compact and intelligent high performance conductivity detector for intelligent IC instruments. Outstanding temperature stability, the complete signal processing within the protected detector block and the latest generation of DSP – Digital Signal Processing – guarantee the highest precision of the measurement. No change of measuring ranges (not even automatic ones) is required, due to the dynamic working range.

2.850.9110
IC Amperometric Detector



Compact and intelligent amperometric detector for intelligent IC instruments. Outstanding selectivity due to the four measuring modes: DC, PAD, flexIPAD and CV, as well as the excellent signal /noise ratio and the very fast stabilization of the measuring signal guarantee the highest in measurement precision.

2.800.0010
800 Dosino (cable: 1.5 m)

The 800 Dosino is a drive with write/read hardware for intelligent dosing units. With permanently attached cable (length 1.5 m).

2.800.0020
800 Dosino (cable: 0.65 m)

Drive with write/read hardware for intelligent dosing units. With permanently attached cable (length 0.65 m).

2.858.0010
858 Professional Sample Processor

The 858 Professional Sample Processor processes samples from 500 µL to 500 mL. The sample transfer takes place either by means of a peristaltic pump on the 850 Professional IC system or with an 800 Dosino.

2.858.0020
858 Professional Sample Processor – Pump

The 858 Professional Sample Processor – Pump processes samples from 500 µL to 500 mL. The sample transfer takes place either with the installed bidirectional two-channel peristaltic pump or with an 800 Dosino.

2.858.0030

858 Professional Sample Processor – Pump – Injector

The 858 Professional Sample Processor – Pump – Injector processes samples from 500 µL to 500 mL. The sample transfer takes place either with the installed bidirectional two-channel peristaltic pump or by means of an 800 Dosino. In addition, a six-way injection valve is available for the sample preparation.

2.863.0010

863 Compact IC Autosampler

The 863 Compact IC Autosampler is the ideal help for routine analysis. It enables automation of the full range of Metrohm IC instruments.

2.889.0010

889 IC Sample Center

The 889 IC Sample Center is a robust Autosampler for high sample throughput, optimized for the challenges of the modern analytic laboratory. It works in accordance with the x-y-z principle and a syringe control with high resolution for precise sample injection. A double needle system enables the penetration of vessel caps and septa. A PEEK injection valve completes the automation system of the 889 IC Sample Center. It is the appropriate automation solution when you have only a very small amount of sample.

2.889.0020

889 IC Sample Center – cool

The 889 IC Sample Center – cool is the appropriate automation solution when you have only a very small amount of sample. In comparison with the 889 IC Sample Center, it possesses in addition a cooling function and is thus the ideal sample changer for biochemically relevant or thermally unstable samples.

2.919.0020

919 IC Autosampler plus

The 919 IC Autosampler plus fulfills the requirements of laboratories with medium sample numbers. It enables automation of the full range of Metrohm IC instruments.

2.941.0010

941 Eluent Production Module

The 941 Eluent Production Module enables the automatic production of an eluent. It enables continuous working without manual intervention and guarantees stable retention times. It can be combined with all Metrohm IC instruments and is monitored by MagIC Net.

2.815.4110

815 Robotic Soliprep for LC

The 815 Robotic Soliprep for LC is a complete system for the completely automatic preparation of samples which need to be dissolved, homogenized, diluted or filtered prior to their determination. The samples are conveyed directly into the injector of the chromatograph after preparation.

Comprised of:

1 x 815 Robotic USB Sample Processor XL

1 x 136 Polytron with power supply

1 x 772 Pump Unit

2 x 786 Swing Head

2 x 800 Dosino

2.942.0020
942 Extension Module Vario Prep 2

The 942 Extension Module Vario Prep 2 is an extension module for the Professional IC Vario line of instruments. It multiplies the possibilities of **Inline Sample Preparation** and **Liquid Handling** in Professional IC Vario systems.

Typical applications
– Inline Dialysis in two-channel Vario systems
– Inline Dialysis in systems without sample changers
– Column switching and cutting techniques

2.942.0040
942 Extension Module Vario HPG

The 942 Extension Module Vario HPG is an extension module for the Professional IC Vario line of instruments. It permits the addition of a further eluent in a Professional IC Vario **high-pressure gradient system**.

Typical applications
– High-pressure gradient systems with up to four eluents

2.942.0070
942 Extension Module Vario LQH

The 942 Extension Module Vario LQH is an extension module for the Professional IC Vario line of instruments. It expands the possibilities of **Metrohm Inline Sample Preparation "MISP"** and **Liquid Handling** and opens a Professional IC system for **Online Monitoring**.
Typical applications:
– Extended Inline Sample Preparation
– Online monitoring
– Dilution without sample changers
– Fully automatic sample derivation reactions

2.942.0300
942 Extension Module Vario ChS/PP

The 942 Extension Module Vario ChS/PP is an extension module for the Professional IC Vario line of instruments. It permits the integration of a complete **chemical suppression** with a **peristaltic pump** for suppressor regeneration or **Inline Neutralization** or **Inline Cation Removal**, respectively, in a Professional IC Vario system.

Typical applications:
– Chemical suppression for 2nd analysis channel
– Inline Neutralization/Cation Removal

2.942.0500
942 Extension Module Vario SeS/PP

The 942 Extension Module Vario SeS/PP is an extension module for the Professional IC Vario line of instruments. It permits the integration of a complete **sequential suppression** with a **peristaltic pump** for suppressor regeneration in a Professional IC Vario system.

Typical applications:
– Sequential suppression for an additional analysis channel

2.942.1060
942 Extension Module Vario ONE/Deg

The 942 Extension Module Vario ONE/Deg is an extension module for the Professional IC Vario line of instruments. It permits the installation of an additional **IC analysis channel** in a Professional IC Vario system.

Typical applications:
– Parallel anion and cation analysis with low-pressure gradient
– Parallel anion and cation analysis with Inline Neutralization
– Additional analysis channel with UV/VIS or amperometric detector

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2.943.0110
943 Professional Reactor Vario

The 943 Professional Reactor Vario is a heatable reactor, especially developed for pre- and post-column derivatization. It captivates by its robustness, the fast heating rate and the possibility of carrying out reactions at up to 150 °C.

2.943.0210
943 Professional Thermostat Vario

The 943 Professional Thermostat Vario is a stand-alone column oven for up to two columns with a maximum length of 150 mm. It captivates by its fast heating rate and the possibility of operating two separation columns together at up to 80°C.

2.945.0010
945 Professional Detector Vario – Conductivity

Intelligent stand-alone detector equipped with a high-performance IC Conductivity Detector. For use with intelligent IC instruments or as independent conductivity detector.

2.945.0020
945 Professional Detector Vario – Amperometry

Intelligent stand-alone detector equipped with the IC Amperometric Detector. Outstanding selectivity due to the four measuring modes: DC, PAD, flexIPAD, CV. The excellent signal /noise ratio and the very fast start-up guarantee the highest in measurement precision. For use with intelligent IC instruments or as independent detector.

2.945.0030
945 Professional Detector Vario – Conductivity & Amperometry

Intelligent stand-alone detector equipped with the high performance IC Conductivity Detector and the IC Amperometric Detector, with the four measuring modes DC, PAD, flexIPAD and CV. For use with intelligent IC instruments or as independent detector for conductivity and amperometric detection.

6.2832.000
MSM Rotor A

Suppressor rotor for all IC instruments with MSM (Metrohm Suppressor Module)

6.2842.000
MSM-HC Rotor A

Suppressor rotor for all IC instruments with MSM-HC (Metrohm Suppressor Module with high capacity)

6.2842.020
Adapter sleeve, MSM

Not only the MSM Rotor A but also the MSM-LC Rotor A can be installed in the rotor housing with the aid of the adapter sleeve.

6.2844.000
MSM-LC Rotor A

Suppressor rotor for use with 2 mm columns.

6.2824.130
Macro pump head PEEK

Macro pump head for intelligente IC instruments, flow range 0.1...20 mL/min, maximum pressure 12.5 MPa.

6.2617.040
Tool for piston seal, macro

For removing and assembling the piston seal for all macro pump heads

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6.2741.040
PE/PTFE piston seal, macro

For all macro pump heads

6.2842.200
MSM-HC Rotor C

Suppressor rotor for all IC instruments with MSM-HC drive (Metrohm Suppressor Module with high capacity) for cation suppression.

6.2755.000
Tubing cartridge

For the peristaltic pumps of IC instruments. Contact pressure adjustable.

6.5330.190
IC equipment: Dosino regeneration

Accessory set for the assembly of a Dosino for automatic regeneration of the Metrohm Suppressor Module (MSM).

2.947.0020
947 Professional UV/VIS Detector Vario MW

As an intelligent. multi-wavelength detector, the 947 Professional UV/VIS Detector Vario MW permits a secure and reliable quantification of substances active in the ultraviolet or visible range. Up to eight wavelengths can be freely selected. A diode array is used for detection.

2.947.0010
947 Professional UV/VIS Detector Vario SW

As an intelligent, single-wavelength detector, the 947 Professional UV/VIS Detector Vario SW permits a secure and reliable quantification of substances active in the ultraviolet or visible range. One wavelength can be selected.

6.2061.130
Safety bottle holder for Professional IC instruments

Additional bottle holder for Professional IC instruments.

2.889.0030
889 IC Sample Center Basic

The 889 IC Sample Center Basic – is a robust Autosampler for high sample throughput, optimized for the challenges of the modern analytic laboratory. It uses the x-y-z principle. A double needle system enables the penetration of vessel caps and septa.
The sample transfer takes place either with a peristaltic pump in the IC system or with an 800 Dosino, e.g. when applying the intelligent Partial Loop Injection Technique.
Supported with MagIC Net 4.1 and higher.

2.889.0040
889 IC Sample Center Basic - cool

The 889 IC Sample Center Basic – cool is the appropriate automation solution when you have only a very small amount of sample. In comparison with the 889 IC Sample Center Basic, it possesses in addition a cooling function and is thus the ideal sample changer for biochemically relevant or thermally unstable samples.
The sample transfer takes place either with a peristaltic pump in the IC system or with an 800 Dosino, e.g. when applying the intelligent Partial Loop Injection Technique.
Supported with MagIC Net 4.1 and higher.

6.6059.422

MagIC Net 4.2 Professional: 1 license

Professional chromatography software from Metrohm for controlling all intelligent Professional IC systems, Compact IC systems and their peripherals, all detectors and the various Auto samplers, 800 Dosino, 771 Compact Interface, etc. The software permits checks, data acquisition, data evaluation and data monitoring as well as report generation of ion chromatographic analyses.

Graphical user interface for routine operations, extensive database programs, method development, configuration and manual control panel; very flexible user management, efficient database operations, extensive data export functions, individually configurable report generator, control and monitoring of all system components and the chromatography results.

MagIC Net Professional complies fully with FDA Regulation 21 CFR Part 11 as well as GLP.

MagIC Net is available in 15 dialog languages: German, English, Chinese, Traditional Chinese, French, Italian, Spanish, Portuguese, Bulgarian, Czech, Hungarian, Japanese, Korean, Russian, Slovakian

With this version, the graphic user interface has been modernized, which improves, among other things, the scaling and sharpness of the user interface on 4K monitors.

1 license

The installation and documents are supplied on a USB flash drive.

6.6059.423
MagIC Net 4.2 Multi: 3 licenses

Client/server-compatible chromatography software from Metrohm for controlling all intelligent Professional IC systems, Compact IC systems and their peripherals, all detectors and the various Autosamplers, 800 Dosino, 771 Compact Interface, etc.
The software permits checks, data acquisition, data evaluation and data monitoring as well as report generation of ion chromatographic analyses.
Data and method are centrally stored on a Server.

Graphical user interface for routine operations, extensive database programs, method development, configuration and manual control panel; very flexible user management, efficient database operations, extensive data export functions, individually configurable report generator, control and monitoring of all system components and the chromatography results.
MagIC Net Multi complies fully with FDA Regulation 21 CFR Part 11 as well as with GLP.
MagIC Net is available in 15 dialog languages: German, English, Chinese, Traditional Chinese, French, Italian, Spanish, Portuguese, Bulgarian, Czech, Hungarian, Japanese, Korean, Russian, Slovakian
With this version, the graphic user interface has been modernized, which improves, among other things, the scaling and sharpness of the user interface on 4K monitors.
Performance for client/server systems with servers outside the in-house company network has been improved.
Client/server version with 3 licenses

2.948.0010
948 Continuous IC Module, CEP

Automated hydroxide eluent production takes place with the 948 Continuous IC Module. Isocratic eluents can be produced and gradients can be run.
The 948 Continuous IC Module, CEP is comprised of the following parts:
– 948 Continuous IC Module
– Eluent Producer Cartridge (EPC, 6.02850.200)
– Continuous anion trap (CT, 6.02850.100)
– High-pressure degasser (H-DEG, 6.02850.000)

Example methods according to 948 Continuous IC Module manual.

6.2842.100

MSM-HC Rotor A, Hydroxide

Suppressor rotor with high capacity for hydroxide eluents for all IC instruments with MSM-HC (Metrohm Suppressor Module with high capacity).