OMNIS IC M Module

2.1051.0010

The OMNIS IC M Module is a high-class single-channel instrument in the OMNIS IC world and gives the entire flexibility for complete customization. It includes an OMNIS High-Pressure Pump Unit, an OMNIS Actuator Unit with a flexible choice of the injection valve, an OMNIS MISP Unit, and an OMNIS Column Thermostat Unit 1 (one channel, upgradeable), and features a transparent door for easy access.

The OMNIS MISP Unit offers complete flexibility to add the Metrohm Inline Sample Preparation (MISP) options, which perfectly suit the application needs, such as Ultrafiltration, Metrohm intelligent Partial Loop Injection Technique (MiPT), or can be used as a holder for a trap column. The MISP techniques improve efficiency and accuracy while reducing the number of manual steps typically involved in sample preparation.

The built-in Multi Flow Monitor Unit enables smart flow monitoring for up to four channels. It detects flow trend variations, for example, induced by worn tubings or fouled filtration membranes, and can trigger software actions to minimize disturbances.

The additional 8 free units enable the creation of a fully personalized IC system. Tailored to meet the individual application needs, the OMNIS IC M Module can be equipped with various units, such as the OMNIS Conductivity Detector Unit, the OMNIS MSM Unit, the OMNIS MCS Unit, the OMNIS Degasser Unit, the OMNIS Peristaltic Pump Unit, or even with automatic eluent production, low-pressure gradient, or dual-column use.

Blind Cover Units are standard not provided and need to be added additionally.

A baseplate or autosampler is required, along with a Reagent Organizer or Reagent Organizer Liquid Control. For full automation, there is the free choice to add an integrated OMNIS IC Autosampler or an OMNIS IC Autosampler COOL.

At any time, the OMNIS IC M Module can be upgraded with freely configurable OMNIS Extension Modules, to further improve the performance.

The OMNIS IC instrument is compatible with the 947 Professional UV/VIS Detector Vario, and the 945 Professional Detector Vario – Amperometry, expanding the options for detection.

Reach out to your local IC specialist to configure your own fully customized ion chromatograph tailored to your specific application needs.

Phạm vi giao hàng 2.1051.0010

Order Number	Description	Quantity
1.1051.0010	**OMNIS IC M Module**	1 PCS

The OMNIS IC M Module is a high-class single-channel instrument in the OMNIS IC world and gives the entire flexibility for complete customization. It includes an OMNIS High-Pressure Pump Unit, an OMNIS Actuator Unit with a flexible choice of the injection valve, an OMNIS MISP Unit, and an OMNIS Column Thermostat Unit 1 (one channel, upgradeable), and features a transparent door for easy access.

The OMNIS MISP Unit offers complete flexibility to add the Metrohm Inline Sample Preparation (MISP) options, which perfectly suit the application needs, such as Ultrafiltration, Metrohm intelligent Partial Loop Injection Technique (MiPT), or can be used as a holder for a trap column. The MISP techniques improve efficiency and accuracy while reducing the number of manual steps typically involved in sample preparation.

The built-in Multi Flow Monitor Unit enables smart flow monitoring for up to four channels. It detects flow trend variations, for example, induced by worn tubings or fouled filtration membranes, and can trigger software actions to minimize disturbances.

The additional 8 free units enable the creation of a fully personalized IC system. Tailored to meet the individual application needs, the OMNIS IC M Module can be equipped with various units, such as the OMNIS Conductivity Detector Unit, the OMNIS MSM Unit, the OMNIS MCS Unit, the OMNIS Degasser Unit, the OMNIS Peristaltic Pump Unit, or even with automatic eluent production, low-pressure gradient, or dual-column use.

A baseplate or autosampler is required, along with a Reagent Organizer or Reagent Organizer Liquid Control. For full automation, there is the free choice to add an integrated OMNIS IC Autosampler or an OMNIS IC Autosampler COOL.

At any time, the OMNIS IC M Module can be upgraded with freely configurable OMNIS Extension Modules, to further improve the performance.

The OMNIS IC instrument is compatible with the 947 Professional UV/VIS Detector Vario, and the 945 Professional Detector Vario – Amperometry, expanding the options for detection.

Reach out to your local IC specialist to configure your own fully customized ion chromatograph tailored to your specific application needs.

6.02837.030

CO2 Absorber (Tube) 1 PCS

CO2 Absorber (Tube) with a Luer adapter; protects reagents and eluents from particles and ensures consistent retention times for CO2-sensitive eluents.

6.05000.000

Accessory kit: OMNIS IC 1 PCS

OMNIS IC accessory set required for installation, daily work, and maintenance.
The set contains the most necessary tools and accessories for simple tasks related to the OMNIS IC device.

6.05000.010

Accessory kit: Bottle OMNIS IC, PP, 2 L 1 PCS

OMNIS IC accessory set to install the reagent bottle onto the Reagent Organizer / Reagent Organizer Liquid Control.

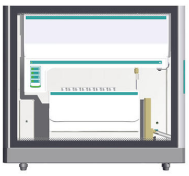
6.05000.030

Accessory kit: OMNIS IC M Module 1 PCS

Accessory set to complete the installation of the OMNIS IC M module.

Phụ kiện tùy chọn

2.1054.0010
OMNIS IC Autosampler Module



The OMNIS IC Autosampler automates the sample change in the OMNIS IC System and enables efficient processing of up to 160 vials of 5 mL each, depending on the selected rack. As the first fully integrated autosampler of the new OMNIS IC generation, it is installed directly below the OMNIS IC as standard. It is not a stand-alone device, but an integral part of the OMNIS IC System, which is conveniently controlled via the OMNIS Software.

Key features:

– Compact footprint: Can be placed directly under the OMNIS IC
– High sample throughput: 96 x 10 mL vials, 160 x 5 mL vials, 192 x (1500, 700, 300) µL HPLC vials, 384 x 2 mL well format (deep well plate)
– High speed (30 s/injection of 5 µL)
– Removable autosampler tray for easy loading and unloading
– Interior lighting for easy loading and unloading
– Fast and precise xyz needle drive with automatic vial detection
– Follow-up light and status display for visual traceability of needle movement and autosampler status
– High flexibility for different sample vessels and rack types (including customer-specific racks)
– Six integrated positions for 50 mL bottles, e.g., for standards or rinsing solutions
– Integrated rinsing station and leak detection as standard for maximum safety
– Fully integrated into the OMNIS Software
– Optional upgrades: 3/2-way valves, dilution station, barcode reader

2.1054.0020
OMNIS IC Autosampler Module COOL

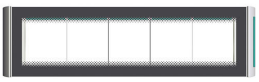
The OMNIS IC Autosampler COOL automates the sample change in the OMNIS IC System and enables efficient processing of up to 160 vials of 5 mL each, depending on the selected rack. In addition, the OMNIS IC Autosampler COOL offers the option of precisely controlling the temperature in the range from 4 °C to 22 °C, enabling a large number of samples to be cooled. The cooling function is ideal for thermally unstable and biochemically relevant samples, for example in the analysis of organic acids, halogenated acetic acids, amino acids, and carbohydrates.

Key features:

– Compact footprint: Can be placed directly under the OMNIS IC
– Temperature control from 4 °C to 22 °C
– High sample throughput, large quantity of coolable samples: (96 x 10 mL vials, 160 x 5 mL vials, 192 x (1500, 700, 300) µL HPLC vials, 384 x 2 mL well format (deep well plate)
– High speed (30 s/injection of 5 µL)
– Removable autosampler tray for easy loading and unloading
– Interior lighting for easy loading and unloading
– Fast and precise xyz needle drive with automatic vial detection
– Follow-up light and status display for visual traceability of needle movement and autosampler status
– High flexibility for different sample vessels and rack types (including customer-specific racks)
– Six integrated positions for 50 mL bottles, e.g., for standards or rinsing solutions
– Integrated rinsing station and leak detection as standard for maximum safety
– Fully integrated into the OMNIS Software
– Optional upgrades: 3/2-way valves, dilution station, barcode reader

---

2.1055.0020
OMNIS Extension Module

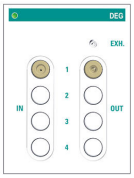


The OMNIS Extension Module serves as an extension module for an OMNIS IC and is always operated together with a main module. An OMNIS IC can thus be expanded to a maximum of 5 levels. An OMNIS Extension Module can accommodate up to 5 functional units, such as the OMNIS Degasser Unit, OMNIS High-Pressure Pump Unit or OMNIS Conductivity Detector Unit.

Blind Cover Units are standard not provided with the extension module and need to be added additionally.

2.1056.0110

OMNIS Degasser Unit 1-Channel



The OMNIS Degasser Unit 1-Channel is used for the automated removal of dissolved gases and air bubbles from eluents and samples in the OMNIS IC System. The degassing of the eluent ensures a stable baseline and thus enhances the precision of the chromatographic measurement. For samples with a high gas content, the integrated sample degasser ensures that a constant sample volume enters the sample loop with each injection. This improves the reproducibility of the analysis significantly, and manual degassing is omitted in its entirety. Thanks to the new technical Film Degassing Chamber concept, thee OMNIS Degasser Unit is considerably more efficient.

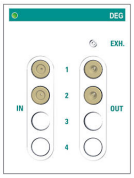
The OMNIS Degasser Unit is integrated in space-saving fashion in the OMNIS Extension Module. The OMNIS Degasser Unit 1-Channel can be expanded to comprise 2, 3 or 4 chambers. The Degasser Unit can at this time be equipped with either up to 4 eluent degassers (4 chambers) or with 1 sample degasser and up to 3 eluent degassers.

Specifications:

– Time to establish vacuum: 10 s
– Degassing efficiency: > 150 µL air / min at 1 mL/min
– Resistance against solvents: No restrictions (except PFC)
– Expandable: Yes, up to 4 channels
– Flow path: Free of metal

2.1056.0120

OMNIS Degasser Unit 2-Channel



The OMNIS Degasser Unit 2-Channel is used for the automated removal of dissolved gases and air bubbles from eluents and samples in the OMNIS IC System. The degassing of the eluent ensures a stable baseline and thus enhances the precision of the chromatographic measurement. For samples with a high gas content, the integrated sample degasser ensures that a constant sample volume enters the sample loop with each injection. This improves the reproducibility of the analysis significantly, and manual degassing is omitted in its entirety.

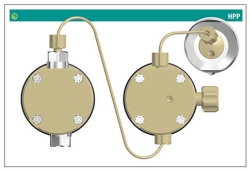
The OMNIS Degasser Unit is integrated in space-saving fashion in the OMNIS Extension Module. The OMNIS Degasser Unit 2-Channel can be expanded to comprise 3 or 4 chambers. The Degasser Unit can at this time be equipped with either up to 4 eluent degassers (4 chambers) or with 1 sample degasser and up to 3 eluent degassers.

Specifications:

– Time to establish vacuum: 10 s
– Degassing efficiency: > 150 µL air / min at 1 mL/min
– Resistance against solvents: No restrictions (except PFC)
– Expandable: Yes, up to 4 channels
– Flow path: Free of metal

2.1056.0210

OMNIS High-Pressure Pump Unit



The OMNIS IC High-Pressure Pump Unit is an advanced, chemically resistant high-pressure pump specifically designed for ion chromatography.

It features pulsation-controlled delivery of eluents, whereby the delivery volume is automatically compensated, eliminating the need for additional pulsation dampers. The stroke is dynamically optimized according to the operating conditions, ensuring optimal performance. Two synchronized individual drives enable precise control and consistent flow rates. The piston is connected to the drive rather than the pump head, which enhances stability and simplifies maintenance. The flow path is free of metal and chemically inert, guaranteeing maximum compatibility with aggressive media. Additionally, the pump is resistant to substances across a wide pH range from 0 to 14, making it suitable for a broad spectrum of applications.

The OMNIS IC High-Pressure Pump Unit can optionally be equipped with a piston seal wash to prevent crystallization and minimize maintenance. The OMNIS High-Pressure Pump Unit includes a manual purge valve. If a 7/3 injector is installed in the OMNIS IC system, then the purging process can be fully automated.

Specifications:

– Pressure range: 0–42 MPa
– Flow range: 0.0001–10.000 mL/min
– Flow accuracy: 0.1%
– Flow reproducibility: 0.1%
– Pulsation: 0.1%
– Pump head material: PEEK

2.1056.0310

OMNIS Dosing Drive Unit

The OMNIS Dosing Drive Unit functions as a dosing drive for attachable cylinder units used for the precise aspiration and dosing of liquid volumes.

The OMNIS Dosing Drive Unit is compatible with various cylinder units (2 to 50 mL). Thanks to the new design, a higher resolution and accuracy can be achieved during dosing.

Specifications:

– Resolution: 250,000 steps per cylinder volume
– Dosing times/filling times: 10 seconds

2.1056.0410

OMNIS Actuator Unit

The OMNIS Actuator Unit functions as a drive for various injectors, selectors, and the OMNIS MSM Unit in the OMNIS IC System:

– In combination with an injector valve, the OMNIS Actuator Unit is used for the injection of sample into the flow of the eluent.
– Equipped with a selector valve, the OMNIS Actuator Unit serves as a toggle switch between multiple liquids.
– Together with a suppressor rotor, the OMNIS MSM Unit forms a Metrohm Suppressor Module (MSM). The MSM serves as a chemical suppressor in the OMNIS IC System.

2.1056.0510

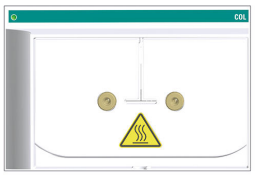
OMNIS Column Holder Unit

The OMNIS Column Holder Unit functions as an intelligent column holder in the OMNIS IC System, upon which a separation column with guard column can be fastened. The OMNIS Column Holder Unit has a column holder with chip contacts to fasten the column. The other end of the column is supported on a clip on the fixation bar. The memory chip enables column recognition by the software and the reading of data, e.g., the number of injections, production data (product number, serial number), etc.
Find here the matching column for your OMNIS IC application: Column Finder

---

2.1056.0520

OMNIS Column Thermostat Unit 1



The OMNIS Column Thermostat Unit 1 functions as an intelligent column thermostat with removable column tray in the OMNIS IC System. With the aid of the installed Peltier technology, which functions without fans, the thermostat can cause heating as well as cooling, and ensures a stable baseline. The horizontal installation as column tray enables simple installation and removal of the column and thus facilitates column replacement.

The column is fastened to and stowed on the column tray. The column is fastened to the intelligent memory chip which enables the reading of important column parameters, e.g., number of injections or production data (product number, serial number).

The column thermostat regulates the temperature for the separation columns and the eluent, thereby providing stable measuring conditions. The eluent in the preheating cartridge is preheated or cooled to the defined temperature to avoid temperature fluctuations within the separation column. In the OMNIS Column Thermostat Unit, up to 2 columns can not only be heated but also cooled.

The Column Thermostat Unit 1 is equipped for operation with 1 column. It can however be retrofitted with a second preheating capillary for a second column.

For multiple temperature zones, additional OMNIS Column Thermostat Units can be installed in further OMNIS Extension Modules.

The OMNIS Column Thermostat Unit 1 has a leak sensor and an external overflow. Leakages are thus detected immediately and the escaped liquid is discharged without damage to the OMNIS IC System.

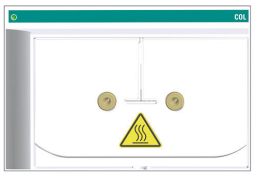
Find here the matching column for your OMNIS IC application: Column Finder.

Specifications:

– Temperature range: 5 to 80 °C
– Temperature resolution (adjustable): 1 °C
– Minimum temperature: 5 °C
– Maximum temperature: 80 °C
– Heating time: 5 min (from 25 °C to 50 °C)
– Cooling time: 14 min (from 50 °C to 25 °C)
– Temperature stability: 0.05 °C
– Temperature reproducibility: 0.2 °C

2.1056.0530

OMNIS Column Thermostat Unit 2



The OMNIS Column Thermostat Unit 2 functions as an intelligent column thermostat with removable column tray in the OMNIS IC System. With the aid of the installed Peltier technology, which functions without fans, the thermostat can cause heating as well as cooling, and ensures a stable baseline. The horizontal installation as column tray enables simple installation and removal of the column and thus facilitates column replacement.

The column is fastened to and stowed on the column tray. The column is fastened to the intelligent memory chip which enables the reading of important column parameters, e.g., number of injections or production data (product number, serial number).

The column thermostat regulates the temperature for the separation columns and the eluent, thereby providing stable measuring conditions. The eluent in the preheating cartridge is preheated or cooled to the defined temperature to avoid temperature fluctuations within the separation column. In the OMNIS Column Thermostat Unit, up to 2 columns can not only be heated but also cooled.

The Column Thermostat Unit 2 is equipped for operation with 2 columns.

For multiple temperature zones, additional OMNIS Column Thermostat Units can be installed in further OMNIS Extension Modules.

The OMNIS Column Thermostat Unit 2 has a leak sensor and an external overflow. Leakages are thus detected immediately and the escaped liquid is discharged without damage to the OMNIS IC System.

Find here the matching column for your OMNIS IC application: Column Finder.

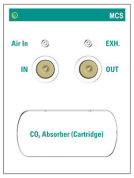
Specifications:

– Temperature range: 5 to 80 °C
– Temperature resolution (adjustable): 1 °C
– Minimum temperature: 5 °C
– Maximum temperature: 80 °C
– Heating time: 5 min (from 25 °C to 50 °C)
– Cooling time: 14 min (from 50 °C to 25 °C)
– Temperature stability: 0.05 °C
– Temperature reproducibility: 0.2 °C

2.1056.0610
OMNIS MSM Unit

Together with a suppressor rotor, the OMNIS MSM Unit forms the Metrohm Suppressor Module (MSM). The MSM serves as a chemical suppressor in the OMNIS IC System.
In chemical suppression, conductive counterions from the eluent are replaced by ions of lower conductivity by means of ion exchange. Doing so greatly reduces background conductivity and considerably improves detection sensitivity. When used in combination with an OMNIS MCS Unit (Metrohm CO_2 Suppressor), and with the aid of sequential suppression, background conductivity can be reduced to an absolute minimum and sensitivity can be further enhanced.
Learn more about suppression: Monograph Ion Chromatography.
In addition to the suppressor rotors, an SPM rotor (Sample Preparation Module rotor) can be mounted on the OMNIS MSM Unit. In combination with an SPM rotor, the OMNIS MSM Unit is used for Metrohm Inline Neutralization. The pH value of strongly alkaline or acidic samples is neutralized to a pH value of 5 to 7.
If required, an injector or selector can be installed on the OMNIS MSM Unit instead of a suppressor rotor.

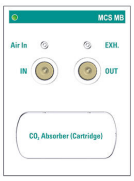
2.1056.0710
OMNIS MCS Unit



The OMNIS MCS Unit serves as a CO_2 suppressor in the OMNIS IC System. The Metrohm CO_2 Suppressor (MCS) removes CO_2 from the eluent flow. Together with the MSM, the MCS acts as a sequential suppressor. This lowers the background conductivity and reduces the baseline noise, which improves detection sensitivity. The system peak is minimized.
In the MCS, the eluent flows through a capillary that is permeable for gases. A vacuum pump is used to create a difference in pressure and concentration and the CO_2 is diffused out of the capillary in the eluent flow. To remove the CO_2 from the MCS, a constant CO_2-free air flow is drawn through the air inlet.
Learn more about sequential suppression: Monograph Ion Chromatography.
Specifications:
– Time to establish vacuum: 10 s
– Flow path: Free of metal

2.1056.0720

OMNIS MCS MB Unit



The OMNIS MCS MB Unit serves as a CO_2 suppressor in the OMNIS IC System and is specifically suited for microbore columns. The Metrohm CO_2 Suppressor (MCS) removes CO_2 from the eluent flow. Together with the MSM, the MCS acts as a sequential suppressor. This lowers the background conductivity and reduces the baseline noise, which improves detection sensitivity. The system peak is minimized.

In the MCS, the eluent flows through a capillary that is permeable for gases. A vacuum pump is used to create a difference in pressure and concentration and the CO_2 is diffused out of the capillary in the eluent flow. To remove the CO_2 from the MCS, a constant CO_2-free air flow is drawn through the air inlet.

Learn more about sequential suppression: Monograph Ion Chromatography.

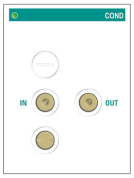
Specifications:

– Time to establish vacuum: 10 s

– Flow path: Free of metal

2.1056.0810

OMNIS Conductivity Detector Unit



The OMNIS Conductivity Detector Unit functions as a conductivity detector in the OMNIS IC System.

The conductivity detector continuously measures the conductivity of the pumped liquid. The sample is separated into its ionic components in the separation column. Afterwards, the separated ions generate a change in the measurement signal in the conductivity detector compared to the baseline. This manifests itself in the form of evaluable peaks in the chromatogram.

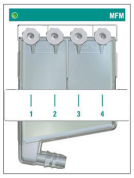
The conductivity change depends on the type and concentration of the electrolyte and on the sample volume applied. Low baseline noise enables low limits of detection and therefore more precise measurements. The conductivity detector exhibits high thermal stability and thus guarantees reproducible measuring conditions.

Specifications:

- 0–35000 µS/cm without range switching
- Cell volume: 0.3 µL
- Ring-shaped electrodes made of stainless steel X2CrNiMo17-12-2 (316 L), compatible with MSA
- Maximum operating pressure: 10.0 MPa (100 bar)
- Peltier controlled cell temperature: 15–60 °C in increments of 1 °C
- Temperature stability: 0.001 °C
- Baseline noise: 0.1 nS/cm typical for sequential suppression
- Capillaries: ID 0.18 mm

2.1056.0910

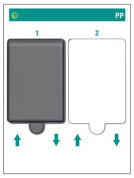
OMNIS Multi Flow Monitor Unit



The OMNIS Multi Flow Monitor Unit is used for flow monitoring in the OMNIS IC System. It can detect trend changes in the behavior of the flow. If corresponding measures have been defined in the OMNIS Software, then the OMNIS IC System will execute them.
Constant monitoring of the flow rate helps to ensure the smooth operation of the entire OMNIS IC System. Changes in the flow rate indicate a functional disruption, caused for example by worn pump tubings or a dirty filtration membrane.
The liquids drained by the OMNIS IC System flow through up to 4 channels into the waste collector of the OMNIS Multi Flow Monitor Unit. The flow rate of each channel can be monitored individually and independently of the other channels. If more than 4 channels are fed into the drainage system, then an additional waste collector can be installed on the reagent organizer (without flow monitoring).
Specifications:
– Flow range: 0.1 ml/min to 8 ml/min for water
– Number of measuring channels: 4

2.1056.1010

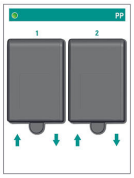
OMNIS Peristaltic Pump Unit 1-Channel



The OMNIS Peristaltic Pump Unit is used as the peristaltic pump in the OMNIS IC System to convey the samples and auxiliary solutions.
It works according to the displacement principle, i.e., liquids are forced through the pump tubing by external mechanical deformation of the pump tubing. The pump tubing is deformed by pressing it against a rotating roller head.
The 1-channel peristaltic pump can be expanded into a 2-channel peristaltic pump, after which the 2 channels can be operated at different rotational speeds.
Specifications:
– Number of channels: 1 (can be expanded to 2)
– Rotational speed increment: 2.5 rpm
– Minimum rotational speed: 2.5 rpm
– Maximum rotational speed: 250 rpm
– Rotation direction: Clockwise

2.1056.1020

OMNIS Peristaltic Pump Unit 2-Channel



The OMNIS Peristaltic Pump Unit is used as the peristaltic pump in the OMNIS IC System to convey the samples and auxiliary solutions.

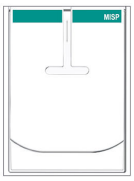
It works according to the displacement principle, i.e., liquids are forced through the pump tubing by external mechanical deformation of the pump tubing. The pump tubing is deformed by pressing it against a rotating roller head.

The two channels can be operated independently of each other at different speeds, increasing flexibility for a wide range of applications.

Specifications:

– Number of channels: 2
– Rotational speed increment: 2.5 rpm
– Minimum rotational speed: 2.5 rpm
– Maximum rotational speed: 250 rpm
– Rotation direction: Clockwise

2.1056.1110
OMNIS MISP Unit



The OMNIS MISP Unit acts as a holder and pullout for the accessories of the various Metrohm inline sample preparation techniques (Metrohm Inline Sample Preparation "MISP") and liquid handling processes. The innovative pull-out design makes it easy to insert or change accessories. As a result, they are stored in an orderly and space-saving way and integrated in the flow path.
With the corresponding accessories, the following Metrohm inline sample preparation techniques can be carried out with the OMNIS MISP Unit:

– Metrohm Inline Ultrafiltration (UF)
– Metrohm Inline Dilution (MIDT)
– Metrohm inline dilution in combination with Metrohm inline ultrafiltration (MIDT-UF)
– Metrohm Inline Dialysis
– Metrohm intelligent Partial Loop injection Technique (MiPT)
– Metrohm inline ultrafiltration and Metrohm intelligent Partial Loop injection Technique in combination (UF-MiPT)
– Metrohm intelligent Preconcentration Technique (MiPCT)
– Metrohm intelligent Preconcentration Technique with matrix elimination (MiPCT-ME)
– Metrohm intelligent Pick-up injection Technique (MiPuT)
– Metrohm Inline Neutralization and Metrohm Inline Cation Removal
– Metrohm intelligent Preconcentration Technique with inline neutralization (MiPCT-NE)

Ultrafiltration or dialysis cell, transfer tubings or transfer capillaries can be used in the OMNIS MISP Unit. All trap columns available from Metrohm can be mounted with the optional MISP holder. Various connectors can be fastened to the optional MISP base plate and integrated into the flow path.

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.

2.947.0020
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.

6.05000.100
Installation kit: OMNIS IC M/L

6.05000.120
Installation kit: OMNIS IC M, cable

6.05331.010
OMNIS IC equip.: D-INJ, DD

Accessory set for Full Loop Injection in OMNIS IC: With this technique, the sample loop can be filled with an OMNIS Dosing Drive Unit in combination with the OMNIS cylinder unit.
Prerequisites:
OMNIS IC S/M/L with OMNIS IC AS/ASCOOL, including:
– available OMNIS Dosing Drive Unit
– available OMNIS MISP Unit

6.05331.030

OMNIS IC equip.: UF, PP/DD

Accessory set for Ultrafiltration in OMNIS IC: Inline ultrafiltration allows the sample to be separated from contained particles. The main component of the Metrohm Inline Ultrafiltration system is the ultrafiltration cell. The ultrafiltration cell is suitable for sample filtration with high demands on filtration efficiency and sample throughput. This equipment is for the setup with a combination of the Peristaltic Pump Unit and the Dosing Drive Unit.

Prerequisites:

OMNIS IC S/M/L with OMNIS IC AS/ASCOOL, including:

– available OMNIS Dosing Drive Unit

– available OMNIS Peristaltic Pump Unit channel

– available OMNIS MISP Unit

– AS/ASCOOL equipped with a switching valve 3/2, UNF

6.05331.040

OMNIS IC equip.: MIDT

Accessory set for dilution in OMNIS IC: This technique allows samples with excessively high ion concentrations or highly concentrated sample matrices to be diluted. The required sample volume is precisely aspirated by the OMNIS Dosing Drive Unit.

The sample and the dilution solution are mixed in the dilution station, ensuring the sample is diluted and completely homogenized. Additionally, with the Inline Dilution technique, calibration using a single standard solution is possible.

Specifications:

– Maximum dilution factor: 2000

– Accuracy: <1.5% up to DF 100, <2.5% up to DF 1000

– Reproducibility (n=9): <1% up to DF 1000

– Carry over: < 0.003%

Prerequisites:

OMNIS IC S/M/L, including:

– available OMNIS Dosing Drive Unit

– available OMNIS MISP Unit

AS/ASCOOL equipped with:

– dilution station and

– switching valve 3/2, M6

6.05331.050
OMNIS IC equip.: UF, PP/PP

Accessory set for Ultrafiltration in OMNIS IC: Inline ultrafiltration allows the sample to be separated from contained particles. The main component of the Metrohm inline ultrafiltration system is the ultrafiltration cell. The ultrafiltration cell is suitable for sample filtration with high demands on filtration efficiency and sample throughput. This equipment is for the setup with a Peristaltic Pump Unit only.

Prerequisites:

OMNIS IC S/M/L with OMNIS IC AS/ASCOOL, including:
– 2 available OMNIS Peristaltic Pump Unit channels
– available OMNIS MISP Unit

6.05331.060
OMNIS IC equip.: MIDT-UF, PP /DD

Accessory set for the combination of dilution with Ultrafiltration in OMNIS IC: This technique allows samples with excessively high ion concentrations or highly concentrated sample matrices to be diluted. The required sample volume is precisely aspirated by the OMNIS Dosing Drive Unit.

Additionally, inline ultrafiltration allows the sample to be separated from the particles it contains. This combined technique allows calibration with only one standard solution.

Prerequisites:

OMNIS IC S/M/L with OMNIS IC AS/ASCOOL, including:
– available OMNIS Dosing Drive Unit
– available OMNIS Peristaltic Pump Unit channel
– available OMNIS MISP Unit
– AS/ASCOOL equipped with dilution station and switching valve 3/2, M6

6.05331.070
OMNIS IC equip.: MiPT

Accessory set for Partial Loop Injection in OMNIS IC: With this technique, the 250 µL sample loop can be filled with a defined volume. The OMNIS Dosing Drive Unit, with the attached OMNIS cylinder unit, performs precise dosing steps. The intelligent partial-loop injection technique allows calibration using a single standard solution because the injection volume can be freely selected. The same applies to sample injection: a small injection volume can be chosen for a highly concentrated sample, or a larger one for low-concentration samples.

Prerequisites:
OMNIS IC S/M/L with OMNIS IC AS/ASCOOL, including:
– available OMNIS Dosing Drive Unit
– available OMNIS MISP Unit

6.05331.080
OMNIS IC equip.: UF-MiPT, PP /DD

Accessory set for the combination of Partial Loop Injection Technique with Ultrafiltration in OMNIS IC: The inline ultrafiltration allows the sample to be separated from contained particles. Additionally, with the partial loop injection, the 250 µL sample loop can be filled with a defined volume of the filtered sample. The OMNIS Dosing Drive Unit, with the attached OMNIS cylinder unit, performs precise dosing steps. This combined technique allows calibration using a single standard solution.

Prerequisites:
OMNIS IC S/M/L with OMNIS IC AS/ASCOOL, including:
– available OMNIS Dosing Drive Unit
– available OMNIS Peristaltic Pump Unit channel
– available OMNIS MISP Unit
– AS/ASCOOL equipped with a switching valve 3/2, UNF

6.05332.000
OMNIS IC equip.: Container 10 L, LC

Accessory set for automatic monitoring of 10 L container.

Prerequisites:
OMNIS IC with ROLC

6.05332.010
OMNIS IC equip.: Container 10 L, drain

Accessory set for connecting drain to 10 L container.
Prerequisites:
OMNIS IC S/M/L

6.05332.020
OMNIS IC equip.: HPP piston seal wash, DD

Accessory set for HPP piston seal wash: The HPP piston seal wash for the OMNIS IC HPP is standard foreseen with a free port on a dosing system on the OMNIS Cylinder Unit. After each sample analysis, the piston is rinsed with a small portion of UPW.
When no free Cylinder Unit channel is available, the UPW can alternatively be transferred via a peristaltic pump channel equipped with 601826010 peristaltic pump tubing.
Prerequisites:
OMNIS IC S/M/L, including:
– available OMNIS Cylinder Unit port (with UPW as working medium) or
– available OMNIS Peristaltic Pump Unit channel

6.05332.040
OMNIS IC equip.: PP Reg.

Accessory set for MSM regeneration with Peristaltic Pump Unit.
Prerequisites:
OMNIS IC S/M/L, including:
– available OMNIS Peristaltic Pump Unit channel

6.05332.050
OMNIS IC equip.: DD Reg.

Accessory set for MSM regeneration with Dosing Drive Unit with STREAM setup.
Prerequisites:
OMNIS IC S/M/L, including:
– available OMNIS Dosing Drive Unit

6.05332.060
OMNIS IC equip.: Base plate

Accessory set for an OMNIS IC without OMNIS IC AS or ASCOOL: With this equipment, the OMNIS IC (S/M/L) can be provided as a standalone solution without automation below the IC. This equipment is also required when the OMNIS IC is used in combination with an 858 Professional Sample Processor or a 919 IC Autosampler plus.
Prerequisites:
OMNIS IC S/M/L without AS/ASCOOL automation

6.05332.070
OMNIS IC equip.: PCR, DD

Accessory set for PCR in OMNIS IC: PCR-UV/VIS detection is used to photometrically detect analytes through a chemical reaction following chromatographic separation. In the PCR cartridge, the eluent is mixed with a reagent behind the separation column, thereby enabling a specific reaction with the analyte. The eluent-reagent mixture, along with the reacted analytes, is then transported to the UV detector. This set is specific for the PCR application in combination with the dosing drive unit, including an additional bottle for rinsing purposes.
Prerequisites:
OMNIS IC S/M/L, including:
– available OMNIS Dosing Drive Unit
– available OMNIS Column Thermostat Unit

6.05332.080
OMNIS IC equip.: EPOD

Accessory set for automatic eluent production in OMNIS IC.
Prerequisites:
OMNIS IC S/M/L including:
– available OMNIS Dosing Drive Unit
– OMNIS Reagent Organizer Liquid Control with 2 volume sensors (1 for eluent bottle, 1 for concentrate bottle)

6.05332.090
OMNIS IC equip.: Dose-in Gradient

Accessory set for Dose-in Gradient in OMNIS IC: A gradient is created by mixing different eluents in a mixing ratio that varies over the analysis duration.
An OMNIS Cylinder Unit doses a concentrated or diluted eluent into the main eluent stream in a defined ratio. This changes the overall concentration of the mobile phase. The result is optimal separation of all ions within an acceptable analysis time.
Prerequisites:
OMNIS IC S/M/L, including:
– available OMNIS Dosing Drive Unit

6.05332.100
OMNIS IC equip.: DD Reg., Rinse

Accessory set for MSM regeneration with Dosing Drive Unit without STREAM setup.
Prerequisites:
OMNIS IC S/M/L, including:
– available OMNIS Dosing Drive Unit

6.05332.110
OMNIS IC equip.: PCR, PP

Accessory set for PCR in OMNIS IC: PCR-UV/VIS detection is used to photometrically detect analytes through a chemical reaction following chromatographic separation. In the PCR cartridge, the eluent is mixed with a reagent behind the separation column, thereby specifically reacting with the analyte. The eluent-reagent mixture, along with the reacted analytes, is then transported to the UV detector. This set is specific for the PCR application in combination with the peristaltic pump unit.

Prerequisites:

OMNIS IC S/M/L, including:

– available OMNIS Peristaltic Pump Unit channel

– available OMNIS Column Thermostat Unit

6.05332.120
OMNIS IC equip.: Two tower setup

Accessory set for an OMNIS IC without OMNIS IC AS or ASCOOL: If the OMNIS IC system is to be set up in 2 stacks (two-tower setup), the OMNIS IC must be equipped with a base plate, and the AS/ASCOOL with a reagent organizer.

Prerequisites:

OMNIS IC S/M/L

6.05332.130
OMNIS IC equip.: AutoSwitch

Accessory set for AutoSwitch in OMNIS IC: Many samples require analysis of multiple analytes, such as anions and cations. The OMNIS IC M can be easily upgraded to perform AutoSwitch analysis. This enables automated serial execution, for example, of anion and cation analyses. Automatic switching between different analyses is possible with an additional injector and two 3 /2-way valves.

Prerequisites:

OMNIS IC M, including:

– available OMNIS Actuator Unit equipped with 6/2 or 7/3 injector (minimum 1 x 7/3 injector is required)

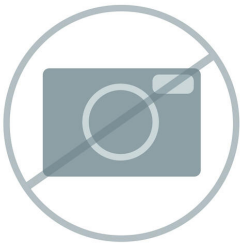
– available position on the OMNIS Column Thermostat Unit

– AS/ASCOOL equipped with 1x switching valve 3/2, M6 and 1x switching valve 3/2, UNF

6.05801.290
Drain kit, M

Drain kit to replace the drain tubing and connections in the OMNIS IC M.
Prerequisites:
2105100x0 OMNIS IC M

6.02800.000
Blind Cover Unit



Blind cover for an empty unit spot.

2.1056.1200
OMNIS Reagent Organizer Liquid Control

The OMNIS Reagent Organizer Liquid Control serves as Reagent Organizer and provides the illumination of the interior in the OMNIS IC System. In addition, it offers a software-integrated leak detection.
The OMNIS Reagent Organizer Liquid Control is always located on the topmost OMNIS Extension Module and also forms the lid of the OMNIS IC System. A leak sensor is installed at the drain of the OMNIS Reagent Organizer Liquid Control. The lighting integrated into the OMNIS Reagent Organizer Liquid Control illuminates the interior of the OMNIS IC System as soon as at least one door is opened.
The OMNIS Reagent Organizer Liquid Control offers space for up to 6 bottles and can be equipped with additional accessories, as for example bottle holder, bottle fixation, volume sensor, magnetic stirrer or waste container with external canister sensor.

6.02061.000
Reagent Organizer

Organizer for reagent and eluent bottles for OMNIS IC instruments.