Metrohm Combustion IC Manual - Quartz

2.930.9030

The Metrohm Combustion IC Manual - Quartz package enables the analysis of halogens and sulfur in flammable samples of all types using inline combustion digestion (pyrohydrolysis) with subsequent ion chromatography determination (Combustion IC). It comprises all required components, such as the Combustion Oven (TEI) from Trace Elemental Instruments (2.0136.0600), the quartz combustion tube (6.07311.100), the 920 Absorber Module, the 930 Compact IC Flex Oven/SeS/PP/Deg, and the MagIC Net software. If necessary, the Metrohm Combustion IC package can be supplemented with one of the following Autosamplers: Solid Autosampler CIC (TEI), Liquid Autosampler CIC (TEI) or GLS Sampler CIC (TEI).

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 2.930.9030

Order Number	Description	Quantity
1.0136.0600	**Combustion Oven (TEI)**	1 PCS
6.07311.010	**Boat Introduction Module, quartz** Boat Introduction Module for the Combustion IC for use with the quartz combustion tube. This module uses a sample boat to transfer samples into the oven for combustion. It also includes a pair of tweezers and a petri dish for handling the sample boat.	1 PCS
6.07311.100	**Quartz combustion tube (TEI)** Quartz combustion tube for the Combustion Oven (TEI).	1 PCS

1.800.0040

800 Dosino (cable length 0.65 m) 2 PCS

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

1.850.9010

IC Conductivity Detector 1 PCS

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.

1.920.0010

920 Absorber Module 1 PCS

The 920 Absorber Module combines the Combustion Module with the ion chromatograph. The 920 Absorber Module ensures that the gaseous compounds of the analytes are dissolved and channeled to the IC. It is responsible for the entire Liquid Handling. In addition to Combustion IC, it can also be used for gas analysis.

1.930.2560

930 Compact IC Flex Oven/SeS/PP/Deg 1 PCS

The 930 Compact IC Flex Oven/SeS/PP/Deg is the intelligent Compact IC instrument with column oven, sequential suppression, peristaltic pump for suppressor regeneration and built-in degasser. The instrument can be used with any separation and detection methods.

Typical areas of application:
– Anion or cation determinations with sequential suppression and conductivity detection

---

6.1006.340

Metrosep A PCC 2 HC/4.0 1 PCS

For anion preconcentration and matrix elimination. The enlargement of the packing bed increases the capacity of the two preconcentration columns completely made of PEEK. The high capacity is required primarily when matrix effects might cause an overloading of the preconcentration column or when samples with high ionic strength are to be analyzed.

6.1014.000

Metrosep A Trap 1 - 100/4.0 1 PCS

High-capacity anion column, which is used to purify the eluent flow. Even chemicals of the highest quality level, e. g. "Ultrapur" or "puriss", can still contain minimal anion contaminations. These are reliably held back by the Metrosep A Trap 1 - 100/4.0.
This column is primarily used with gradient applications.

6.1014.200

Metrosep I Trap 1 - 100/4.0 1 PCS

The Metrosep I Trap 1 - 100/4.0 column is used to eliminate ionic, i.e. cationic and anionic, contaminants from aqueous solutions. Its use is especially recommended for the purification of the transfer water in combination with "MISP" or "Metrohm Inline Sample Preparation". Using the Metrosep I Trap 1 - 100/4.0 column can significantly reduce the influence of the transfer water on the system blank.

6.1546.030

Piston tongs 2 PCS

For pistons for 807 Dosing Units or cylinder units OMNIS.

6.1602.150

Bottle attachment / GL 45 - 3 x UNF 10/32 1 PCS

For the connection of 1/16 in. capillaries. Used in conjunction with MSM auxiliary solutions and in Metrohm Inline Sample Preparation.

6.1602.160

Bottle attachment GL 45 for eluents and reagents 2 PCS

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

6.1608.050 **Drying bottle / 100 mL / GL 45** 1 PCS

6.1608.070 **Eluent bottle / 2 L / GL 45** 2 PCS

6.1609.000 **Adsorbing tube, large and bent** 2 PCS

For filling with adsorber material.

6.1618.020 **Thread adapter S 40 to GL 45** 2 PCS

Adapter for bottles with S40 thread (Merck...) to GL45.

6.1803.030

PTFE capillary 0.5 mm i.d. / 3 m 3 PCS

Capillary for inline dialysis, for Dialysis Unit, IC Dialysis Sample Processor, IC Liquid Handling Dialysis Unit

---

6.1803.160

PTFE capillary, 0.75 mm ID / 3 m 4 PCS

PTFE capillary for use with the 920 Absorber Module.

6.1805.010

FEP tubing / M6 / 13 cm 2 PCS

With light and kink protection.

6.1808.060

T connector / M6 inner 1 PCS

3 M6 inner threads.

6.1808.280

Adapter 807 Dosing Unit Port 4, M6 inner 1 PCS

Adapter for using Port 4 of the 807 dosing Unit for connection with an FEP tubing / M6.

6.1816.080

Silicone tubing 6 mm i.d. / 2 m 2 PCS

Drainage tubing to the "Waste Collector".

6.1825.290

PEEK sample loop 250 µL 1 PCS

Sample loop for «Metrohm intelligent Partial loop Technique» (MiPT) and for PILS (particle into liquid sampler). With 2 Peek pressure screws.

6.1826.420

PharMed® pump tubing (orange/yellow), 3-stopper 1 PCS

For MSM regeneration with peristaltic pump.

6.1831.040

PEEK capillary 0.5 mm i.d., 15 cm 1 PCS

For inline dialysis. For IC Dialysis Unit, IC Dialysis Sample Processor, IC Liquid Handling Dialysis Unit

---

6.1805.030

FEP tubing / M6 / 150 cm 2 PCS

With light and kink protection

6.1819.100

FEP aspiration tubing to 2 L bottle 2 PCS

Aspiration tubing to bottle attachment with M6 connector. For the production of eluents.

6.2023.020

Clip for SGJ 14/15 2 PCS

Clip for SGJ 14/16

6.2057.230

Dosino holder for the Absorber Module 2 PCS

Holder for fastening Dosinos to the Absorber Module.

6.2151.020

Cable USB A - USB B 1.8 m 1 PCS

USB connecting cable

6.2251.000

Colored sleeves for capillaries 1 PCS

Colored pieces of heat shrink tubing for capillary coding. Three pieces each of five different colors.

6.2421.000

Absorber tube to the Absorber Module 1 PCS

Absorber tube for the absorption of the combustion gases from the Combustion Module.

6.2621.080

Capillary cutter 1 PCS

Cutting tool for simple cutting of plastic capillaries, 1/16" and 1/8", including 5 replacement blades.

6.2744.010

Pressure screw 5x 3 PCS

With UNF 10/32 connection. For the connection of PEEK capillaries

---

6.2744.014

Pressure screw 2x 1 PCS

With UNF 10/32 connection. For the connection of PEEK capillaries

---

6.2744.034

Coupling olive/UNF 10/32, 2x 1 PCS

Connection between pressure screw and pump tubing. 2 pieces. For IC instruments with peristaltic pump.

6.2744.080

M6 thread / UNF 10/32 adapter 3 PCS

With M6 outer thread. For IC instruments.

6.2744.090

Pressure screw long 4 PCS

Long version. With UNF 10/32 connection. 2 pieces. For the connection of PEEK capillaries (MCS and Sample degasser)

6.2744.170

Pressure screw PEEK UNF 1/4-28, 3 pieces 1 PCS

Fixing connecting capillaries of the eluent components at the Eluent Synthesizer

---

6.2744.180

Pump tubing connector with security lock and filter 1 PCS

For the connection of a pump tubing and a capillary with built-in filter

---

6.2744.200

Adapter UNF 10/32 outer / M6 inner 1 PCS

Connecting 1/16 in. PEEK capillaries and transfer tubing (M6)

6.2744.220

Screw stopper 10/32 long 8 PCS

For Professional IC Instruments. For sealing unused ports of degassers and MCS.

6.2744.350

PEEK pressure screw 14 mm, 3 pcs. 2 PCS

With UNF 10/32 connector. For the connection of PEEK capillaries in the Absorber Module.

6.2766.000

Holder for absorber tubing 1 PCS

Holder for fastening the absorber tubing in the Absorber Module.

6.2766.010

Holder for inlet valve 1 PCS

Holder for inlet valve to the Absorber Module.

6.2824.170

Inlet valve PEEK 1 PCS

Metal-free check valve for the inlet side of the IC pump heads of the devices 940, 930, 925, 883, 882, 881, and 850.

6.2832.000

MSM Rotor A 1 PCS

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

6.2842.020

Adapter sleeve, MSM 1 PCS

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.

6.3032.150

807 Dosing Unit 5 mL 1 PCS

807 Dosing Unit with integrated data chip with 5 mL glass cylinder and light protection, mountable to a reagent bottle with ISO/DIN GL 45 glass thread. FEP tubing connection, antidiffusion tip.

6.3032.210

807 Dosing Unit 10 mL 1 PCS

807 Dosing Unit with integrated data chip with 10 mL glass cylinder and light protection, mountable to a reagent bottle with ISO/DIN GL 45 glass thread. FEP tubing connection, antidiffusion tip.

6.5000.000

Accessory kit: Vario/Flex Basic 1 PCS

Basic set of accessories for a Professional IC Vario or Compact IC Flex.

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.

6.6059.421

MagIC Net 4.2 Compact: 1 license 1 PCS

Professional chromatography software from Metrohm for controlling one intelligent Compact IC instrument, one detector and one Autosampler, or one 771 Compact Interface. 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 Compact 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.

Optional accessories

6.07311.020
Boat Introduction Module, ceramic

Boat Introduction Module for the Combustion IC for use with the ceramic combustion tube. This module uses a sample boat to transfer samples into the oven for combustion.
It also includes a pair of tweezers and a petri dish for handling the sample boat.

6.07311.040
Liquid Introduction Module, automated (TEI)

The Liquid Introduction Module enables the combustion of liquid samples by using the Liquid Autosampler CIC to inject the sample directly. The module can be used for samples with a boiling point < 420 °C.
This module can also guide gaseous or LPG samples from the GLS Sampler CIC into the oven.

6.07311.210
Sample cup, quartz, pk=30

Quartz cup for sample injection in Metrohm Combustion IC (TEI), 30 pcs.

6.6059.406
MagIC Net 4.x Compact Upgrade to MagIC Net 4.x Professional: 1 license

Program upgrade from MagIC Net Compact to MagIC Net Professional

---

6.6059.407
MagIC Net 4.x Compact Upgrade to MagIC Net 4.x Multi: 3 licenses

Program upgrade from MagIC Net Compact to MagIC Net Multi

6.6059.421

MagIC Net 4.2 Compact: 1 license

Professional chromatography software from Metrohm for controlling one intelligent Compact IC instrument, one detector and one Autosampler, or one 771 Compact Interface. 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 Compact 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.

6.6059.422

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).