



Metrohm AG
CH-9100 Herisau
Switzerland
+41 71 353 85 85
info@metrohm.com
www.metrohm.com

IC equipment

**IC equipment: MiPT, 889 Basic
(6.05330.230)**

Manual

Technical Communication
Metrohm AG
CH-9100 Herisau

This documentation is protected by copyright. All rights reserved.

This documentation is an original document.

This documentation has been prepared with great care. However, errors can never be entirely ruled out. Please send comments regarding possible errors to the address above.

Disclaimer

Deficiencies arising from circumstances that are not the responsibility of Metrohm, such as improper storage or improper use, etc., are expressly excluded from the warranty. Unauthorized modifications to the product (e.g., conversions or attachments) exclude any liability on the part of the manufacturer for resulting damage and its consequences. Instructions and notes in the Metrohm product documentation must be strictly followed. Otherwise, Metrohm's liability is excluded.

Table of contents

1	Introduction	1
1.1	Description	1
1.2	About the documentation	2
1.2.1	Symbols and conventions	2
1.3	Displaying accessories	3
2	Overview	5
2.1	Parts of the IC equipment: MiPT, 889 Basic	5
2.2	Mode of operation of the intelligent Partial Loop Injection Technique	6
3	Installation	7
3.1	Mounting the Dosino	7
3.2	Equipping the supply bottle	8
3.3	Mounting the FEP tubing	10
3.4	Mounting the transfer capillary	10
3.5	Installing capillaries	11
3.6	Replacing the sample loop	11
4	Operation and maintenance	12
4.1	807 Dosing Unit 2 mL without accessories (6.1580.120)	12
4.2	889 IC Sample Center Basic (2.889.0030, 2.889.0040) ..	12
	Index	13



Table of figures

Figure 1	IC equipment: MiPT, 889 Basic – Flow path	1
Figure 2	IC equipment: MiPT, 889 Basic – Parts	5

1 Introduction

1.1 Description

The IC equipment: MiPT, 889 Basic expands your ion chromatograph and 889 IC Sample Center Basic (2.889.0030, 2.889.0040) system to include the Metrohm intelligent Partial Loop Technique ("MiPT").

This technique allows you to fill the 250 μL sample loop with a precisely measured volume. In this process, the 800 Dosino with a 807 Dosing Unit 2 mL performs the precise dosing steps. MiPT enables calibration with only one standard solution, as the injection volume can be selected freely. The same also applies to sample injection, so that you can for instance select a small injection volume for a highly concentrated sample.

The sample needle is rinsed with ultrapure water in the wash position of the 889 IC Sample Center Basic after each sample aspiration.

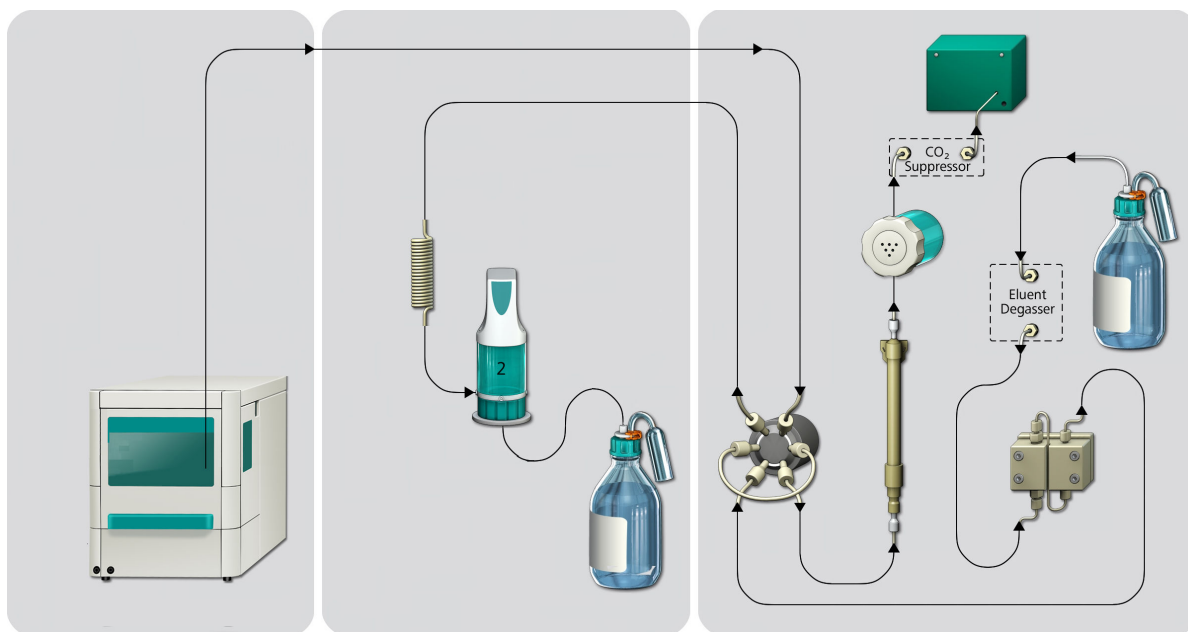


Figure 1 IC equipment: MiPT, 889 Basic – Flow path

1.2 About the documentation

This manual describes the installation of the IC equipment: MiPT, 889 Basic and the connection of the capillary connections between the supply bottle, the Dosino and the injection valve in the ion chromatograph.



CAUTION

Read through this documentation carefully before putting the IC equipment: MiPT, 889 Basic into operation. The documentation contains information and warnings which the user must follow in order to ensure safe operation of the IC equipment: MiPT, 889 Basic.

Additional documentation

Topic	Document
Installation of the Dosino	Manual for the Dosino (8.800.8002)
Care and maintenance of the 807 Dosing Unit	Manual for 807 Dosing Unit (8.807.8002)
Care and maintenance of the 889 IC Sample Center Basic	Manual for the 889 IC Sample Center Basic (8.889.8004)

1.2.1 Symbols and conventions

The following symbols and formatting may appear in this documentation:

(5-12)

Cross-reference to figure legend

The first number refers to the figure number, the second to the instrument part in the figure.

1

Instruction step

Perform the steps one after the other.

Method

Dialog text, parameter in the software

File ► New

Menu or menu item

[Continue]

Button or **key**



WARNING

This symbol draws attention to a possible life-threatening hazard or risk of injury.



WARNING

This symbol draws attention to a possible hazard due to electrical current.

**WARNING**

This symbol draws attention to a possible hazard due to heat or hot instrument parts.

**WARNING**

This symbol draws attention to a possible biological hazard.

**WARNING**

Warning of optical radiation

**CAUTION**

This symbol draws attention to possible damage to instruments or instrument parts.


**NOTICE**

This symbol highlights additional information and tips.

1.3 Displaying accessories

Up-to-date information on the scope of delivery and on optional accessories can be found on the Metrohm website.

1 Searching for a product on the website

- Go to <https://www.metrohm.com>.
- Click on .
- Enter the article number of the product (e.g. **2.1001.0010**) into the search field and press **[Enter]**.

The search result is displayed.

2 Displaying product information

- To display the products matching the search term, click on **Product models**.
- Click on the desired product.

Detailed information regarding the product is displayed.

3 Displaying accessories and downloading the accessories list

- To display the accessories, scroll down to **Accessories and more**.
 - The **scope of delivery** is displayed.
 - Click on **[Optional parts]** for the optional accessories.



- To download the accessories list, click on **[Download accessories PDF]** under **Accessories and more**.



NOTE

Metrohm recommends keeping the accessories list for reference purposes.

2 Overview

2.1 Parts of the IC equipment: MiPT, 889 Basic

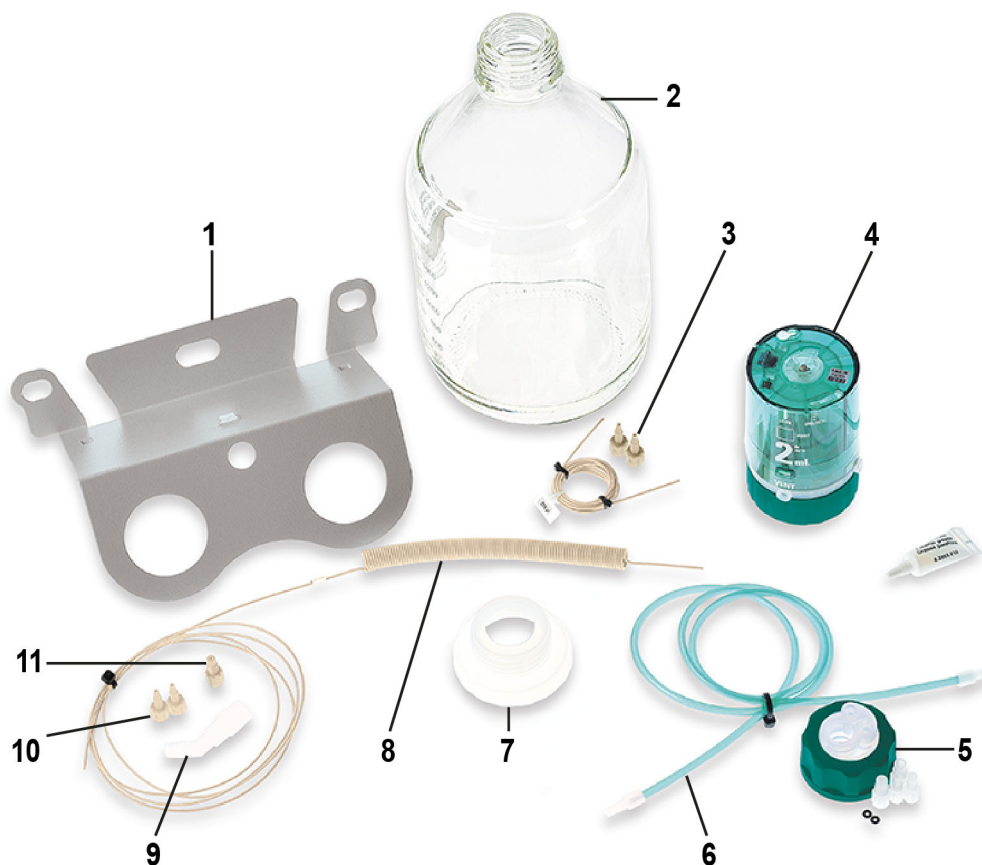


Figure 2 IC equipment: MiPT, 889 Basic – Parts

1	Dosino holder for IC devices (6.2057.210)	2	Eluent bottle / 2 L / GL 45 (6.1608.070)
3	PEEK sample loop 250 µL (6.1825.290)	4	807 Dosing Unit 2 mL without accessories (6.1580.120)
5	Bottle cap for eluents and reagents GL 45 (6.1602.160)	6	FEP tubing / M6 / 100 cm (6.1805.120)
7	Thread adapter / S40 on GL 45 (6.1618.020)	8	PEEK transfer capillary 2 mL, 5 m (6.1841.000)

3 Installation

3.1 Mounting the Dosino

Attaching the Dosino to the 807 Dosing Unit

Required accessories

- 800 Dosino (2.800.0010)
- 807 Dosing Unit 2 mL without accessories (6.1580.120)



CAUTION

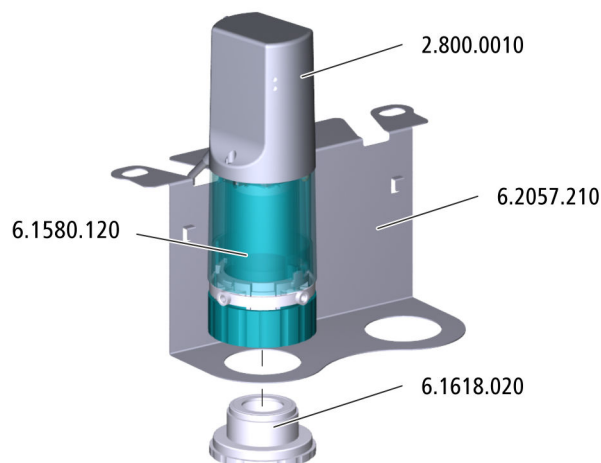
Please read through the correct procedure in the *Manual for the 800 Dosino (8.800.8002)* before you attach the Dosino to the 807 Dosing Unit.

- 1 Attach the Dosino to the 807 Dosing Unit, *see Manual for the 800 Dosino (8.800.8002)*.

Fastening the Dosino to the ion chromatograph

Required accessories

- Dosino (2.800.010) with 807 Dosing Unit (6.1580.120)
- Dosino holder (6.2057.210)
- Thread adapter (6.1618.020)



- 1 **Fitting the Dosino holder onto the ion chromatograph**

- Loosen the bottle holder on the ion chromatograph.



- Clamp the Dosino holder under it.
- Fasten the bottle holder again.

2 Attaching the Dosino to the holder

- Place the Dosino onto the Dosino holder.
- Fasten the Dosino to the Dosino holder by tightening the thread adapter from below.

3 Connecting the Dosino to the ion chromatograph



NOTE

The ion chromatograph **must** be switched off when the Dosino is being plugged to the MSB connector.

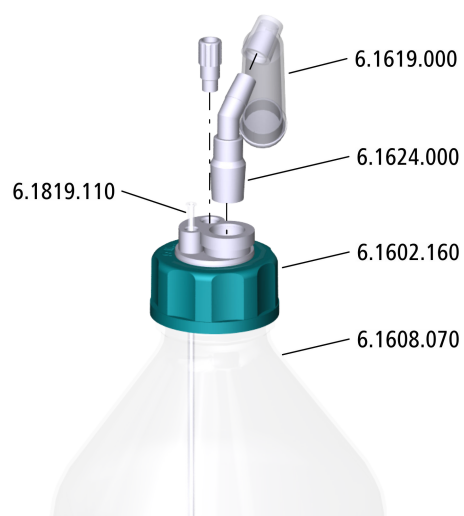
- Check whether the ion chromatograph is switched on. If this is the case, switch off the ion chromatograph.
- Plug the Dosino cable into one of the ion chromatograph's MSB connectors.

Alternatively, the Dosino can also be mounted to the Sample Processor (see the manual for the Dosino).

3.2 Equipping the supply bottle

Required accessories

- Bottle (6.1608.070) filled with ultrapure water
- Eluent bottle cap (6.1602.160)
- Adsorber tube (6.1619.000)
- Adapter for adsorber tube (6.1624.000)
- FEP aspiration tubing (6.1819.110)
- M8 stopper (6.1446.080), included in the accessories for the eluent bottle cap (6.1602.160)



1 Mounting the aspiration tubing

- Insert the aspiration tubing into the M6 opening of the eluent bottle cap.
- Use the capillary cutter to cut the aspiration tubing to such a length that it touches the bottom of the bottle.

2 Inserting the stopper

- Tighten the M8 stopper in the M8 opening of the eluent bottle cap.

3 Mounting the adsorber tube

- Fill the adsorber tube with some cotton and adsorber material.
- Place the adsorber tube onto the adapter.
- Insert the adapter into the SGJ opening of the eluent bottle cap.

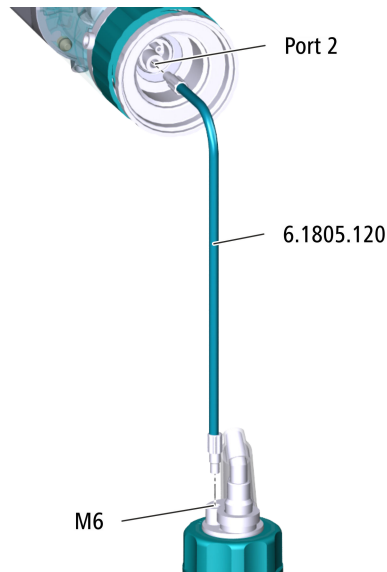
4 Mounting the eluent bottle cap

- Screw the eluent bottle cap onto the bottle filled with ultrapure water.



3.3 Mounting the FEP tubing

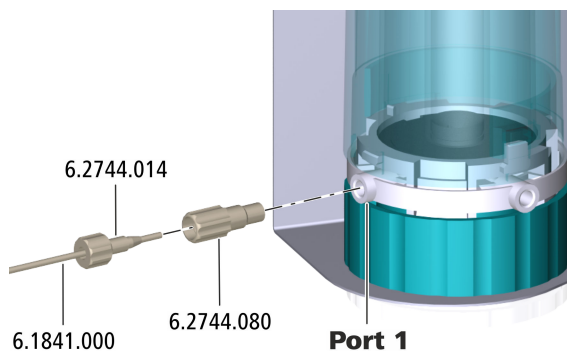
- Required accessories*
- FEP tubing (6.1805.120)



- 1 ▪ Tighten one end of the FEP tubing in the M6 opening of the eluent bottle cap.
▪ Tighten the other end of the FEP tubing in port 2 of the Dosino.

3.4 Mounting the transfer capillary

- Required accessories*
- Transfer capillary (6.1841.000)
 - Pressure screws (6.2744.014)
 - Coupling M6 / UNF (6.2744.080)



- 1 ▪ Tighten the coupling to Port 1 of the Dosino.

- 2 ▪ Tighten one end of the transfer capillary to the coupling using a pressure screw.

3.5 Installing capillaries

- Required accessories*
- Transfer capillary (6.1841.000)
 - Capillary cutter (6.2621.080)

1 Connecting the transfer capillary

- Guide the free end of the transfer capillary through one of the ion chromatograph's capillary feed-throughs.
- Tighten the end of the transfer capillary to Port 2 of the injection valve.

2 Connecting the sample needle capillary

- A sample needle with capillary (6.2816.220) is installed in the 889 IC Sample Center Basic. Guide the sample needle capillary into the ion chromatograph through one of the capillary feed-throughs.
- Shorten the sample needle capillary using the capillary cutter so that it can be connected easily to the injection valve. Keep the dead volume to a minimum.
- Tighten the sample needle capillary to Port 1 of the injection valve.

3.6 Replacing the sample loop

- Required accessories*
- Sample loop 250 μL (6.1825.290)

- 1 Replace the sample loop on the injection valve with the 250 μL sample loop (*see the manual for the ion chromatograph*).

Index

807 Dosing Unit	
Maintenance	12
889 IC Sample Center Basic	
Maintenance	12

B

Bottle	
Equip	8

D

Dosino	
Mount	7

F

FEP tubing	
Mount	10

I

Install	
Bottle cap	8
Dosino	7
FEP tubing	10
Transfer capillary	10

M

Maintenance	
807 Dosing Unit	12

889 IC Sample Center Basic	12
----------------------------	----

S

Sample loop	
Replace	11

T

Transfer capillary	
Mount	10