# 802 Stirrer



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Metrohm AG CH-9100 Herisau Switzerland Phone +41 71 353 85 85 Fax +41 71 353 89 01 info@metrohm.com www.metrohm.com

# **802 Stirrer**

# **Manual**

Technical Communication Metrohm AG CH-9100 Herisau techcom@metrohm.com

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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.

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1 Introduction

### 1 Introduction

## 1.1 Instrument description

The propeller rod stirrer 802 Stirrer is controlled by a Touch Control or a computer software.

It however has its own control. The stirring rate is set by a controller.

The 802 Stirrer can be connected to a titration stand, a tower of a sample changer or directly to a sample changer.

### 1.2 About the documentation



#### **CAUTION**

Please read through this documentation carefully before putting the instrument into operation. The documentation contains information and warnings which the user must follow in order to ensure safe operation of the instrument.

### 1.2.1 Symbols and conventions

The following symbols and styles are used in this documentation:

(5- <b>12</b> )	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			
	Carry out these steps in the sequence shown.			
	Warning			
<b>/:</b>	This symbol draws attention to a possible life hazard or risk of injury.			
	Warning			
7	This symbol draws attention to a possible hazard duto electrical current.			
	Warning			
<u> </u>	This symbol draws attention to a possible hazard due to heat or hot instrument parts.			

----- 1

1.3 Safety instructions

	Warning			
	This symbol draws attention to a possible biologica hazard.			
	Caution			
	This symbol draws attention to a possible damage of instruments or instrument parts.			
•	Note			
	This symbol marks additional information and tips.			

## 1.3 Safety instructions

### 1.3.1 General notes on safety



#### **WARNING**

Operate this instrument only according to the information contained in this documentation.

This instrument left the factory in a flawless state in terms of technical safety. To maintain this state and ensure non-hazardous operation of the instrument, the following instructions must be observed carefully.

### 1.3.2 Electrical safety

The electrical safety when working with the instrument is ensured as part of the international standard IEC 61010.



#### **WARNING**

Only personnel qualified by Metrohm are authorized to carry out service work on electronic components.



#### **WARNING**

Never open the housing of the instrument. The instrument could be damaged by this. There is also a risk of serious injury if live components are touched.

There are no parts inside the housing which can be serviced or replaced by the user.

1 Introduction

### **Supply voltage**



#### WARNING

An incorrect supply voltage can damage the instrument.

Only operate this instrument with a supply voltage specified for it (see rear panel of the instrument).

### **Protection against electrostatic charges**



#### WARNING

Electronic components are sensitive to electrostatic charges and can be destroyed by discharges.

Do not fail to pull the power cord out of the power socket before you set up or disconnect electrical plug connections at the rear of the instrument.

### 1.3.3 Working with liquids



#### CAUTION

Periodically check all system connections for leaks. Observe the relevant regulations in respect to working with flammable and/or toxic fluids and their disposal.

#### 1.3.4 Flammable solvents and chemicals



### WARNING

All relevant safety measures are to be observed when working with flammable solvents and chemicals.

- Set up the instrument in a well-ventilated location (e.g. fume cupboard).
- Keep all sources of flame far from the workplace.
- Clean up spilled liquids and solids immediately.
- Follow the safety instructions of the chemical manufacturer.

1.3 Safety instructions

### 1.3.5 Recycling and disposal



This product is covered by European Directive 2012/19/EU, WEEE – Waste Electrical and Electronic Equipment.

The correct disposal of your old instrument will help to prevent negative effects on the environment and public health.

More details about the disposal of your old instrument can be obtained from your local authorities, from waste disposal companies or from your local dealer.

2 Device overview

# 2 Device overview

## 2.1 802 Stirrer

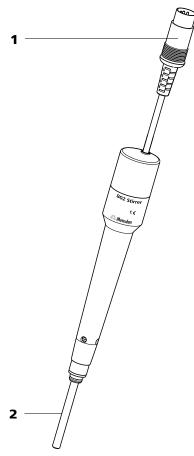


Figure 1 802 Stirrer

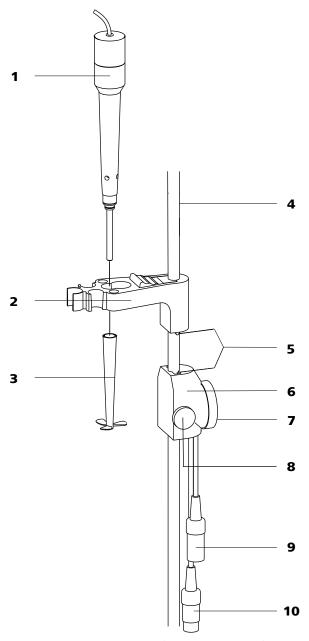
### 1 Connector plug

For connecting the propeller stirrer to the stirrer connector of a device or to a control-

### 2 Metal rod

For fastening a stirring propeller.

# 2.2 802 Stirrer with its own control



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Figure 2 802 Stirrer with its own control

1	Drive of the propeller stirrer	2	Electrode holder (6.2021.020)
3	Stirring propeller (6.1909.0104)	4	<b>Support rod (6.2016.070)</b> Length 40 cm
5	<b>Switching contacts</b> The stirrer is switched on by a suitably attached electrode holder.	6	Controller (6.2137.000)  For controlling the stirring rate

2 Device overview

### **7** Rotary wheel

For setting the stirring rate. If the end of the scale is reached, turn to the other end in order to readjust the scale.

### 9 Connector plug

For connecting the propeller stirrer.

### 8 Clamping screw

For fixing the positioning height of the 6.2137.000 rotary controller on the support rod.

### 10 Connector plug

For connecting a power supply: EU 230V / 9V DC USA 110V / 9V DC

### 3 Installation

## 3.1 Setting up the instrument

### 3.1.1 Packaging

The instrument is supplied in protective packaging together with the separately packed accessories. Keep this packaging, as only this ensures safe transportation of the instrument.

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### **3.1.2** Checks

Immediately after receipt, check whether the shipment has arrived complete and without damage by comparing it with the delivery note.

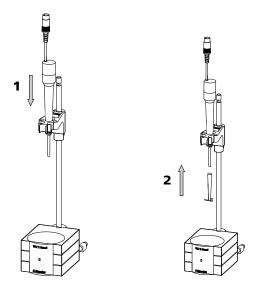
### 3.1.3 Location

The instrument has been developed for operation indoors and may not be used in explosive environments.

Place the instrument in a location of the laboratory which is suitable for operation and free of vibrations and which provides protection against corrosive atmosphere and contamination by chemicals.

The instrument should be protected against excessive temperature fluctuations and direct sunlight.

## 3.2 Mounting the 802 Stirrer to the titration stand



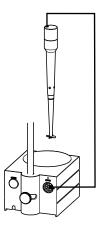
3 Installation

Mounting the propeller stirrer as follows:

1 Insert the propeller stirrer 802 Stirrer without the stirring propeller from above into the center opening of the electrode holder.

**2** Plug the stirring propeller from below to the propeller stirrer.

# 3.3 Connecting the 802 Stirrer to the titration stand



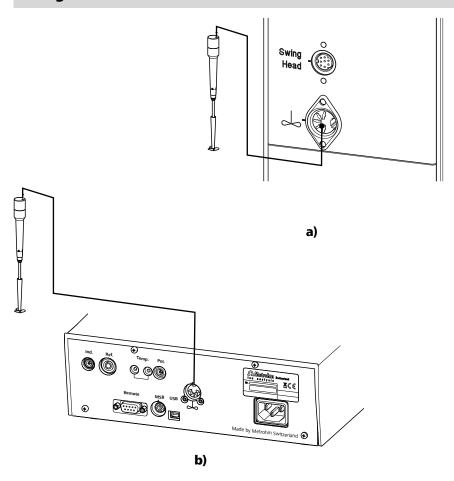
Connect the propeller stirrer as follows:

1 Connect the cable of the 802 Stirrer to the corresponding stirrer connector (with stirrer symbol) of the titration stand.

# 3.4 Connecting the 802 Stirrer to the sample changer

# Connecting the propeller stirrer directly to the sample changer

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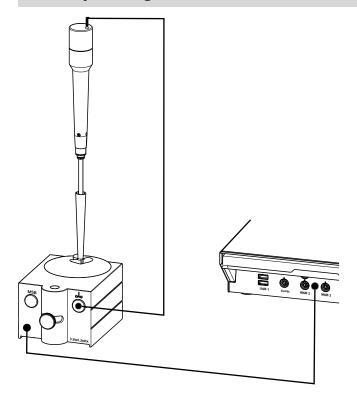


Connect the propeller stirrer as follows:

1 Connect the cable of the 802 Stirrer to the stirrer connector (with stirrer symbol) on the rear of the tower (a) or directly to the sample changer (b).

3 Installation

# Connecting the propeller stirrer with the titration stand to the sample changer



Connect the propeller stirrer with the titration stand as follows:

- **1** Exit the control software.
- Connect the connection cable of the titration stand to one of the sockets marked with **MSB** on the rear of the control device.
- **3** Connect the propeller stirrer to the stirrer socket (with stirrer symbol) of the titration stand.
- 4 Start the control software.

4.1 Ambient conditions

# 4 Technical specifications

### 4.1 Ambient conditions

Nominal function +5 - +45 °C

range at max. 80% relative humidity

non-condensing

*Storage* +5 - +45 °C

## 4.2 Energy supply

Nominal voltage ±12 VDC

+5 VDC

Power consump-

tion

Protection Electronic overload protection

4 W

## 4.3 Dimensions

Diameter max. 27 mm

Height 250 mm

without propeller

Weight 300 g

# 4.4 Housing

Material Polypropylene (PP)

IP degree of pro-

tection

IP 20

4 Technical specifications

# 4.5 Connectors specifications

Energy supply 5-pin DIN plug

# 4.6 Stirrer specifications

Maximum rota-

2,250 rpm

tional speed

Rotational speed

-15 - +15

settings

Change in rotational speed per 140 - 150 rpm

step

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### 5 Accessories

Up-to-date information on the scope of delivery and optional accessories for your product can be found on the Internet. You can download this information using the article number as follows:

### **Downloading the accessories list**

- **1** Enter *https://www.metrohm.com/* into your Internet browser.
- **2** Enter the article number (e.g. **802**) into the search field. The search result is displayed.
- Click on the product.

  Detailed information regarding the product is shown on various tabs.
- 4 On the **Included parts** tab, click on **Download the PDF**.

  The PDF file with the accessories data is created.



#### NOTICE

Once you have received your new product, we recommend downloading the accessories list from the Internet, printing it out and keeping it together with the manual for reference purposes.