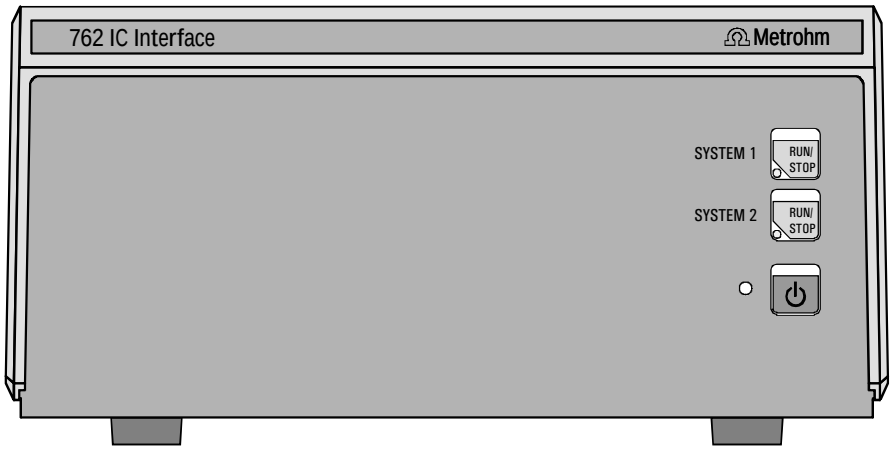
762 IC Interface



Metrohm
Ion analysis

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8.762.1003
Instructions for Use

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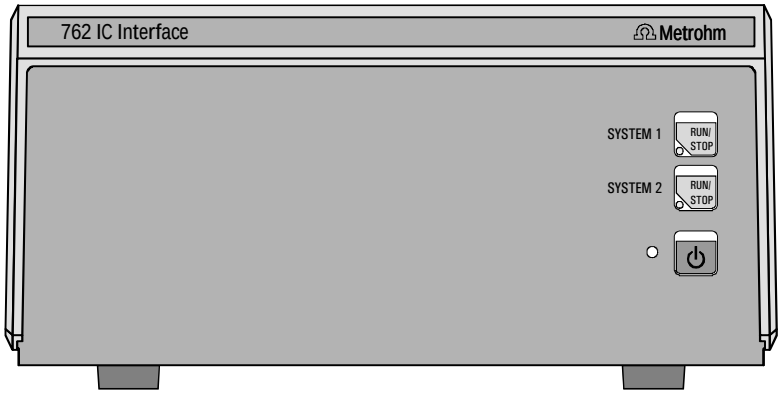
E-Mail info@metrohm.ch

762 IC Interface



8.762.1003 Instructions for Use

16.02.2000 / dö

Table of contents

List of figures

1 Introduction

1.1 Instrument description

The **762 IC Interface** provides the connection between the PC and external IC or HPLC peripheral instruments. Up to 16 instruments including 4 detectors can be connected to the 762 IC Interface and controlled either uniformly or independently by means of the «IC Net» PC software. The IC 762 Interface can also record and convert the analog signals from a maximum of 4 channels (two at once) which are processed at very high resolution.

Fig. 1 shows an overview of all the Metrohm instruments which can be connected to the 762 IC Interface and are described in these 'Instructions for Use'. It is also possible to connect Bischoff instruments; please refer to the «IC Net» on-line program help as well as the relevant Bischoff instruction manuals.

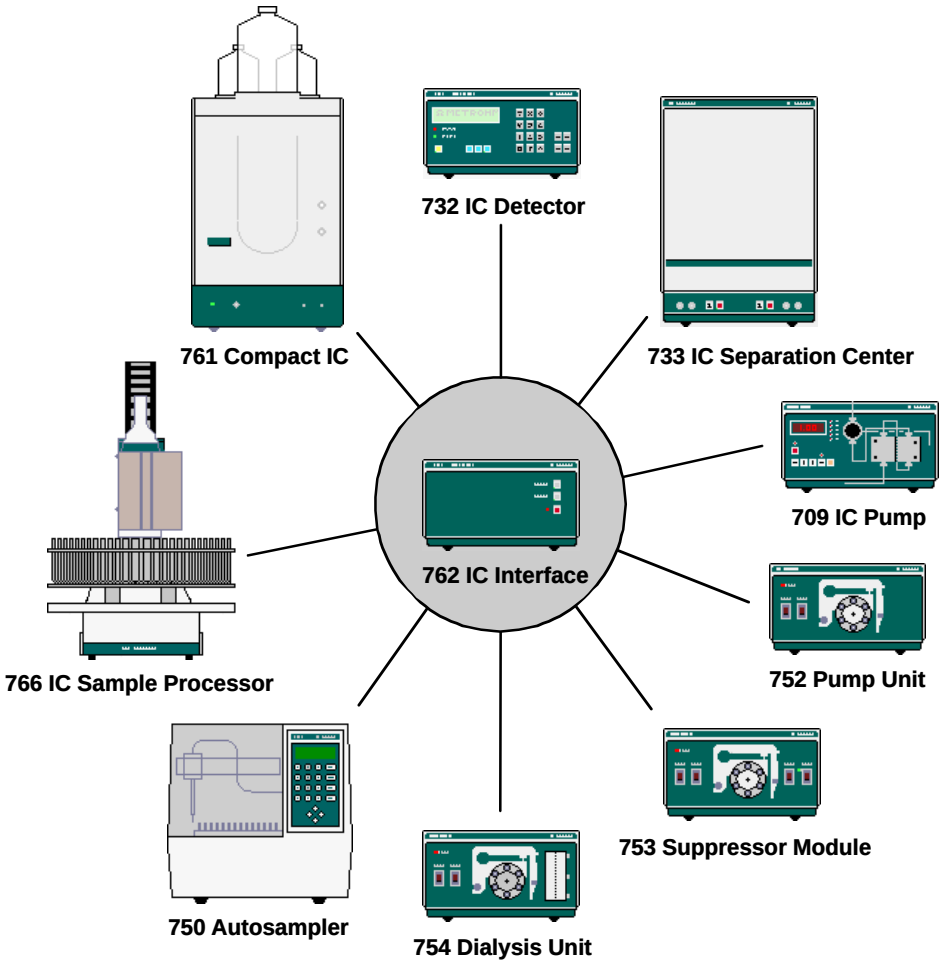


Fig. 1: Connection possibilities at 762 IC Interface

1.2 Parts and controls

1.2.1 2.762.0010 IC Interface

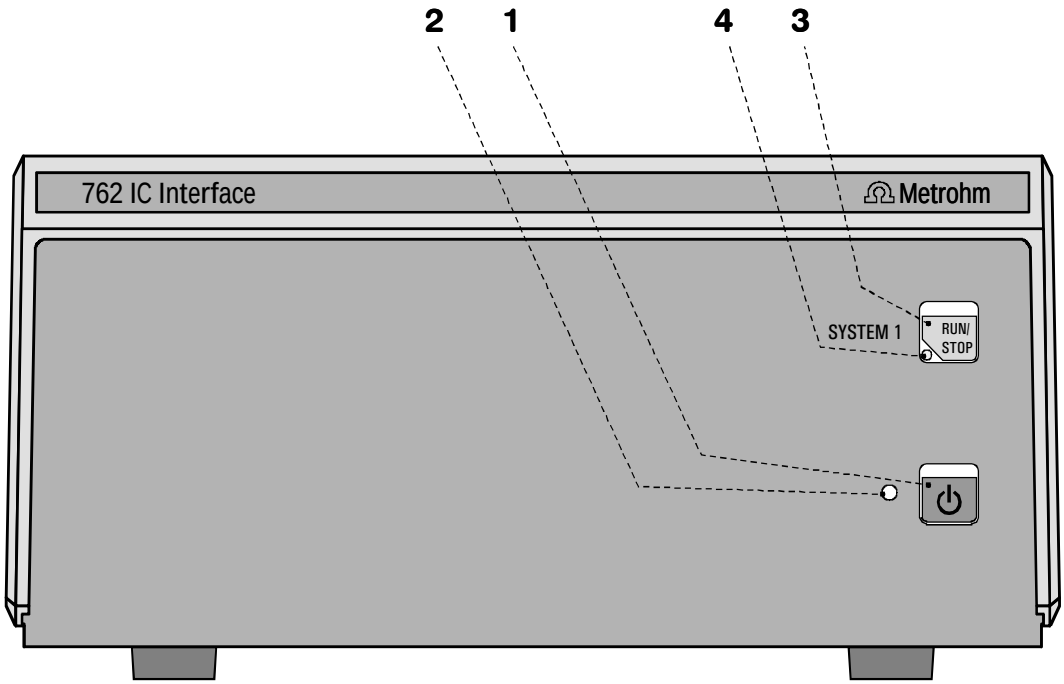


Fig. 2: Front of 2.762.0010 IC Interface

1 Mains switch
For switching the instrument on/off

2 Mains pilot lamp
Lights up when instrument is switched on

3 Run/Stop key for System 1
RUN: Manual start of a determination (external start)
STOP: Manual stop of a determination or data acquisition (if defined in «IC Net»)

4 Status display for System 1
LED dark: No system loaded
LED lit up: Instrument ready (waiting for external start)
LED flashes: Determination running

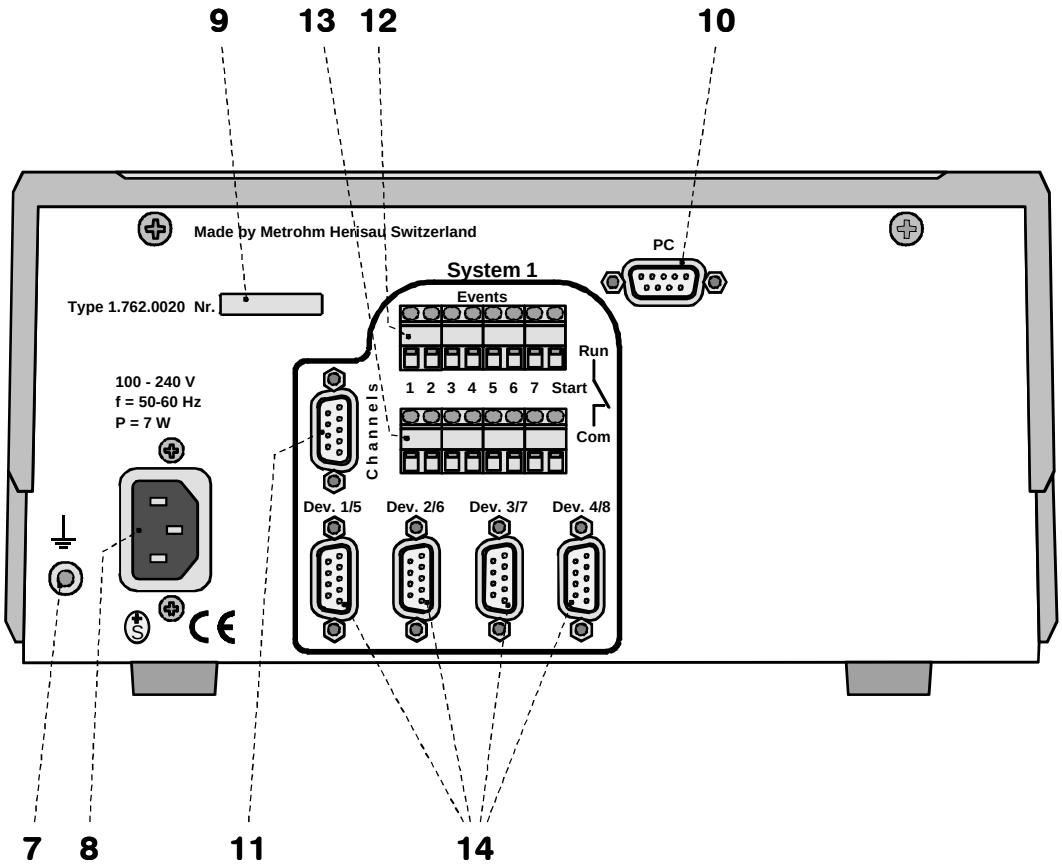


Fig. 3: Rear of 2.762.0010 IC Interface

7	**Earthing socket**	**11**	**Analog signal connection**
8	**Mains connection plug** Mains connection see *section 2.2*	**12**	**Remote input/output lines connection (RUN)**
9	**Serial number**	**13**	**Remote input/output lines connection (COM)**
10	**PC connection** RS232 interface	**14**	**RS232 interfaces**

1.2.2 2.762.0020 IC Interface

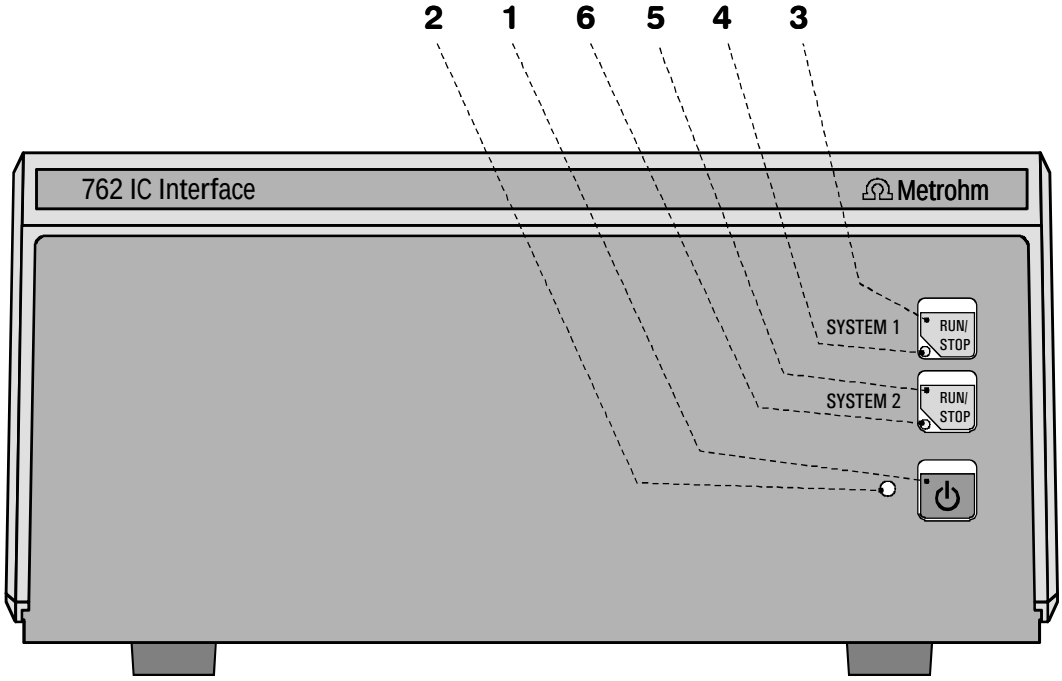


Fig. 4: Front of 2.762.0020 IC Interface

1 Mains switch
For switching the instrument on/off

2 Mains pilot lamp
Lights up when instrument is switched on

3 Run/Stop key for System 1
RUN: Manual start of a determination (external start)
STOP: Manual stop of a determination or data acquisition (if defined in «IC Net»)

4 Status display for System 1
LED dark: No system loaded
LED lit up: Instrument ready (waiting for external start)
LED flashes: Determination running

5 Run/Stop key for System 2
RUN: Manual start of a determination (external start)
STOP: Manual stop of a determination or data acquisition (if defined in «IC Net»)

6 Status display for System 2
LED dark: No system loaded
LED lit up: Instrument ready (waiting for external start)
LED flashes: Determination running

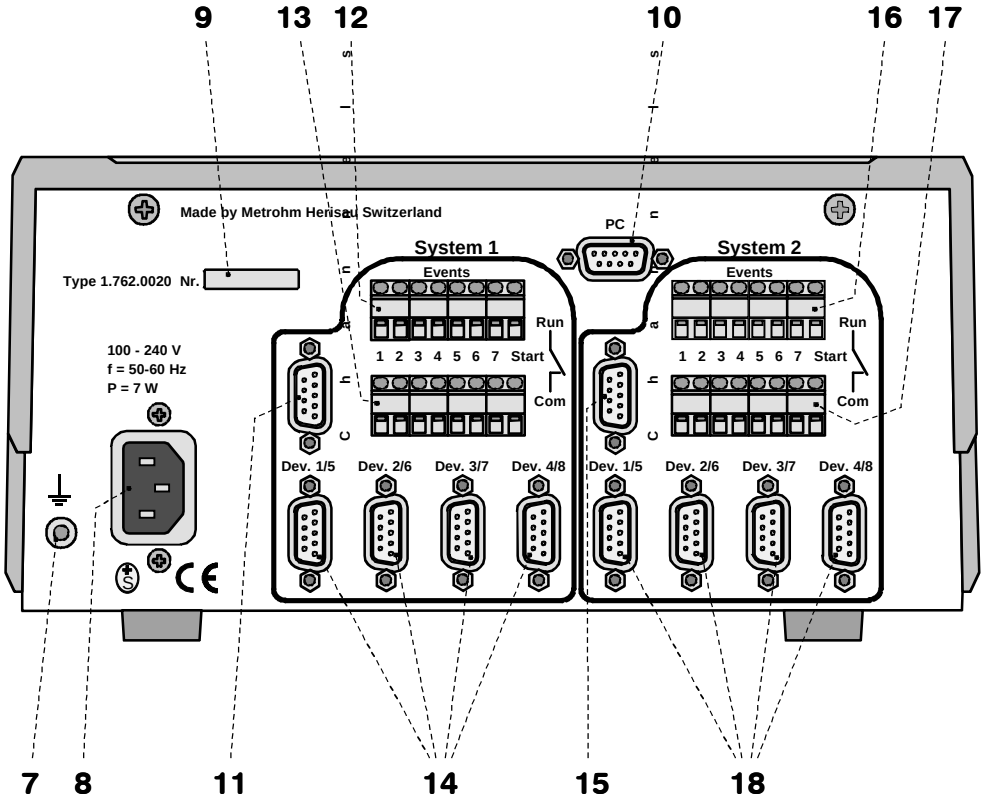


Fig. 5: Rear of 2.762.0020 IC Interface

7	**Earthing socket**	**13**	**Remote input/output lines connection (COM)**
8	**Mains connection plug** Mains connection see *section 2.2*	**14**	**RS232 interfaces**
9	**Serial number**	**15**	**Analog signal connection**
10	**PC connection** RS232 interface	**16**	**Remote input/output lines connection (RUN)**
11	**Analog signal connection**	**17**	**Remote input/output lines connection (COM)**
12	**Remote input/output lines connection (RUN)**	**18**	**RS232 interfaces**

1.3 Information on the Instructions for Use

Please read through these Instructions for Use carefully before you put the 762 IC Interface into operation. The Instructions for Use contain information and warnings to which the user must pay attention in order to assure safe operation of the instrument.

1.3.1 Organization

These **8.762.1003 Instructions for Use** for the 762 IC Interface provide a comprehensive overview of the installation, startup procedure, operation and technical specifications of this instrument. The Instructions for Use are organized as follows:

Section 1 **Introduction**
General description of instrument, parts and controls and safety notes

Section 2 **Installation**
Mains connection, connection to PC, connection of external instruments

Section 3 **Operation**
Manual operation and operation via «IC Net»

Section 4 **Operation**
Technical data, standard equipment, options, warranty, declarations of conformity, index

To find the required information on the instruments you will find it an advantage to use either the **Table of contents** or the **Index** at the back.

1.3.2 Notation and pictograms

The following notations and pictograms (symbols) are used in these Instructions for Use:

Range	**Menu item, parameter or entry value** in «IC Net» program
SYSTEM STATE	**Program window** in «IC Net» program
<OK>	**Button** in «IC Net» program
[RUN/STOP]	**Switch or key**
15	**Part or control of 762**
	**Hazard** This symbol draws attention to a possible danger to life or of injury if the associated directions are not followed correctly.
	**Warning** This symbol draws attention to possible damage to instruments or instrument parts if the associated directions are not followed correctly.
	**Caution** This symbol marks important information. First read the associated directions before you continue.
	**Comment** This symbol marks additional information and tips.

1.4 Safety notes

While electrical safety in the handling of the 762 IC Interface is assured in the context of the specifications IEC 1010-1 (protection class 1, degree of protection IP40), the following points should be noted:

- **Mains connection**

*The **mains connection** must be effected in accordance with the instructions in section 2.2.*

- **Opening the instrument**

Inside the instrument there are no parts which must be set or adjusted by the user.

*If the 762 IC Interface is connected to the power supply, the instrument must not be opened nor must parts be removed from it, otherwise there is a danger of coming into contact with components which are live. Hence, always disconnect the instrument from all voltage sources before you open it and ensure that the **mains cable is disconnected from mains connection** **8** !*

- **Protection against static charges**

Electronic components are sensitive to static charging and can be destroyed by discharges. Before you touch any of the components inside the 762 IC Interface, you should earth yourself and any tools you are using by touching an earthed object (e.g. housing of the instrument or a radiator) to eliminate any static charges which exist.

2 Installation

2.1 Setting up the instrument

2.1.1 Packaging

The 762 IC Interface is supplied together with the separately packed accessories in special packagings containing shock-absorbing foam linings designed to provide excellent protection. The instrument itself is packed in an evacuated polyethylene bag to prevent the ingress of dust. Please store all these special packagings as only they assure transport of the instrument free from damage.

2.1.2 Check

After receipt, immediately check whether the shipment is complete and has arrived without damage (compare with delivery note and list of accessories in *section 4.2*). In the case of transport damage, see instructions in *section 4.4.1* "Warranty".

2.1.3 Location

Position the instrument in the laboratory at a location convenient for operation, free from vibrations and protected against a corrosive atmosphere and contamination by chemicals.

2.1.4 Arrangement of the instruments

The 762 IC Interface can be piled up together with other IC instruments (e.g. 732, 733, 709).

2.2 Mains connection

2.2.1 Mains voltage and fuses

The 762 Interface has a power supply which automatically adjusts itself to the existing mains voltage (100…240 V) and frequency (50…60 Hz). It is equipped with an electronic overload protection device and also has two fuses; however, these should only be exchanged by Metrohm service technicians.

2.2.2 Mains cable

The instrument is supplied with one of three mains cables

- 6.2122.020 with plug SEV 12 (Switzerland, …)
- 6.2122.040 with plug CEE(7), VII (Germany, …)
- 6.2133.070 with plug NEMA 5-15 (USA, …)

which are three-cored and fitted with a plug with an earthing pin. If a different plug has to be fitted, the yellow/green lead (IEC standard) must be connected to the earthing socket **7** (protection class 1).

Any break in the earthing inside or outside the instrument can make it a hazard!

Plug the mains cable into mains connection plug **8** at the 762 IC Interface (see *Fig. 3* and *Fig. 5*).

2.2.3 Switching the instrument on/off

The 762 IC Interface is switched on and off using mains switch **1** (see *Fig. 2* and *Fig. 4*). When the instrument is switched on the mains pilot lamp **2** lights up.

2.3 Connection to the PC

2.3.1 Connecting cable

Always switch off 762 IC Interface and PC before you connect the two instruments with the 6.2134.100 Cable.

Connect the PC connection **10** at the 762 IC Interface to one of the serial COM ports at the PC using the 6.2134.100 Cable (9 pin/9 pin). If only a 25-pin COM interface is available on the PC then the 6.2125.110 Adapter cable or a commercially available adapter must be used.

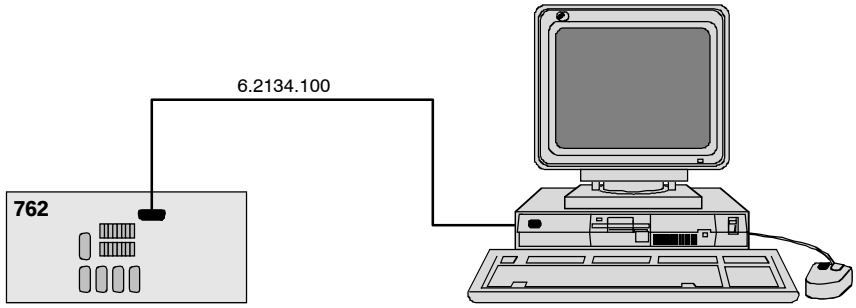


Fig. 6: Connection of 762 IC Interface to PC

2.3.2 Software installation

The PC program **«IC Net 2.0»** is required for the operation of the 762 IC Interface; this is contained on the 6.6034.003 CD included in the accessories. This program runs under Windows 95, Windows 98 and Windows NT operating systems and is installed according to *section 1.4.2* of the *«IC Net» Instructions for Use*.

2.4 Connection of external instruments

2.4.1 General information

Before an external instrument is connected to the 762 IC Interface, the 762 IC Interface must always be switched off using mains switch **1** *!*

Each system of the two versions of the 762 IC Interface has four RS232 interfaces **14** or **18** for connection of a maximum of 8 external instruments, an **11** or **15** interface for analog signals from a maximum of 2 detectors and 8 remote output lines **12**/**13** or **16**/**17** for controlling external instruments by making contacts or impulses (see *Fig. 2* and *Fig. 4*). Information about the technical data of these interfaces is given in section *4.1*.

For installation and startup of external instruments proceed as follows:

1 Switch off all instruments

- Switch off 762 IC Interface and all external instruments using the mains switch.

2 Connect instruments

- Connect the instruments to the 762 IC Interface according to the connection diagrams shown in sections *2.4.2* to *2.4.9* by using the cables named in the diagrams. Other instrument combinations can be set up by using these examples as a guide.

3 Switch on all instruments

- Switch on 762 IC Interface and all external instruments using the mains switch.

4 Instrument settings

Operation with the 762 IC Interface requires that the following settings must be made:

- **732 IC Detector:**

```
>CONFIG/RS settings
handshake:        SWchar
```

```
>CONFIG/RS settings
RS control:           on
```

- **709 IC Pump:**
  Switch on external control of the 709 IC Pump using the **[EXT.]** key.
- **752 Pump Unit, 753 Suppressor Module, 754 Dialysis Unit:**
  Switch on external control via remote interface using the **[Remote]** switch.

- **750 Autosampler:**
  Always switch on the 762 IC Interface first and then the 750 Autosampler.
- **766 IC Sample Processor:**

```
>RS232 settings
handshake:        SWchar
```

```
>RS232 settings
RS control:           on
```

5 Create new system in «IC Net»

- Start the «IC Net» program.
- Create a new system file with the selected instruments (details see *IC Net Instructions for Use*).

2.4.2 732 IC Detector, 733 IC Separation Center, 709 IC Pump

Example

Analysis of anions or cations on a modular system with electronic suppression.

Instruments

- 2.762.0010 IC Interface for 1 system
- 2.732.0010 IC Detector with standard detector block
- 2.733.0010 IC Separation Center with 1 injector
- 2.709.0010 IC Pump

Interconnection

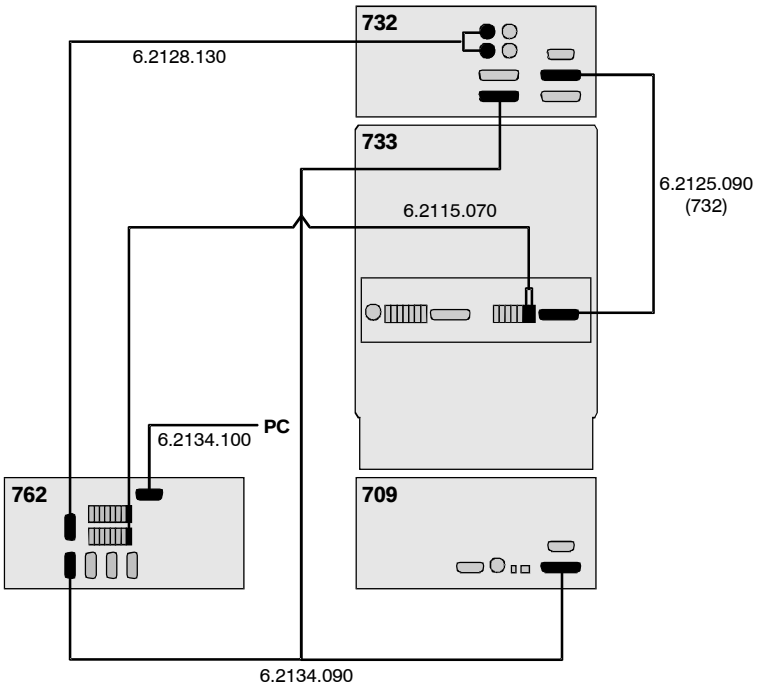


Fig. 7: Connection of 732, 733 and 709

2.4.3 752 Pump Unit

Example

Analysis of anions or cations on a modular system with chemical suppression.

Instruments

- 2.762.0010 IC Interface for 1 system
- 2.732.0110 IC Detector with metal-free detector block
- 2.733.0130 IC Separation Center with 1 injector and suppressor module, metal-free
- 2.709.0110 IC Pump, metal-free
- 2.752.0010 Pump Unit

Interconnection

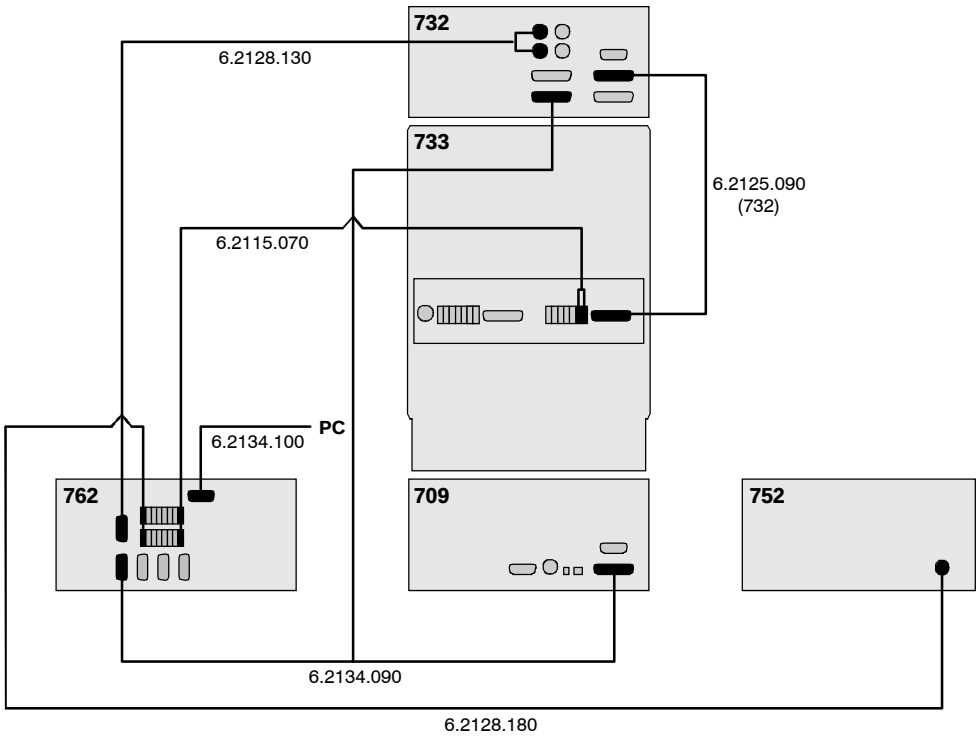


Fig. 8: Connection of 732, 733, 709 and 752

2.4.4 753 Suppressor Module

Example

Simultaneous analysis of cations and anions on a modular system with two independent detectors.

Instruments

- 2.762.0020 IC Interface for 2 systems
- 2.732.0110 IC Detector with metal-free detector block for System 1 (cations)
- 2.732.0110 IC Detector 732 with metal-free detector block for System 2 (anions)
- 2.733.0120 IC Separation Center with 2 injectors, metal-free
- 2.709.0110 IC Pump, metal-free, for System 1 (cations)
- 2.709.0110 IC Pump, metal-free, for System 2 (anions)
- 2.753.0010 Suppressor Module, for System 2 (anions)

Interconnection

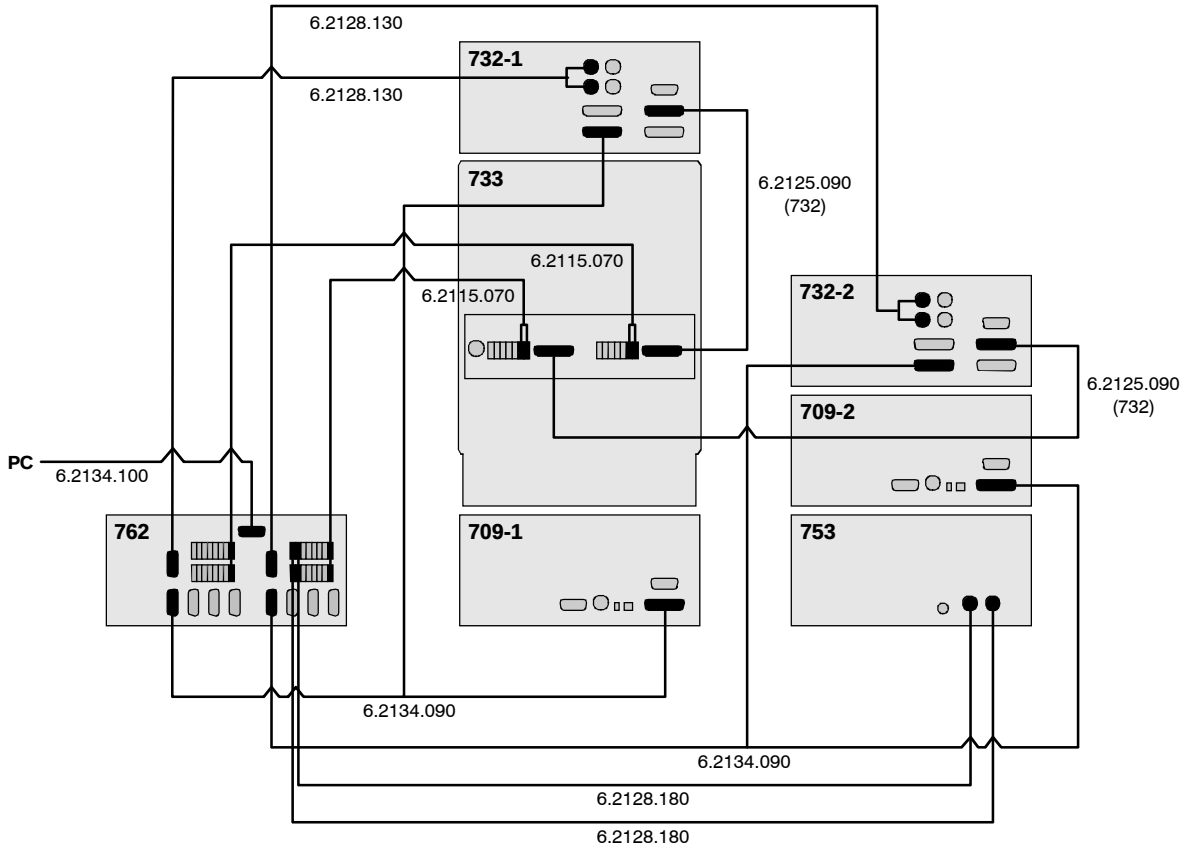


Fig. 9: Connection of 2´732, 733, 2´709 and 753

2.4.5 754 Dialysis Unit

Example

Analysis of anions on a modular system with chemical suppression after preceding sample dialysis.

Instruments

- 2.762.0010 IC Interface for 1 system
- 2.732.0110 IC Detector 732 with metal-free detector block
- 2.733.0120 IC Separation Center with 2 injectors, metal-free
- 2.709.0110 IC Pump, metal-free
- 2.753.0010 Suppressor Module
- 2.754.0010 Dialysis Unit

Interconnection

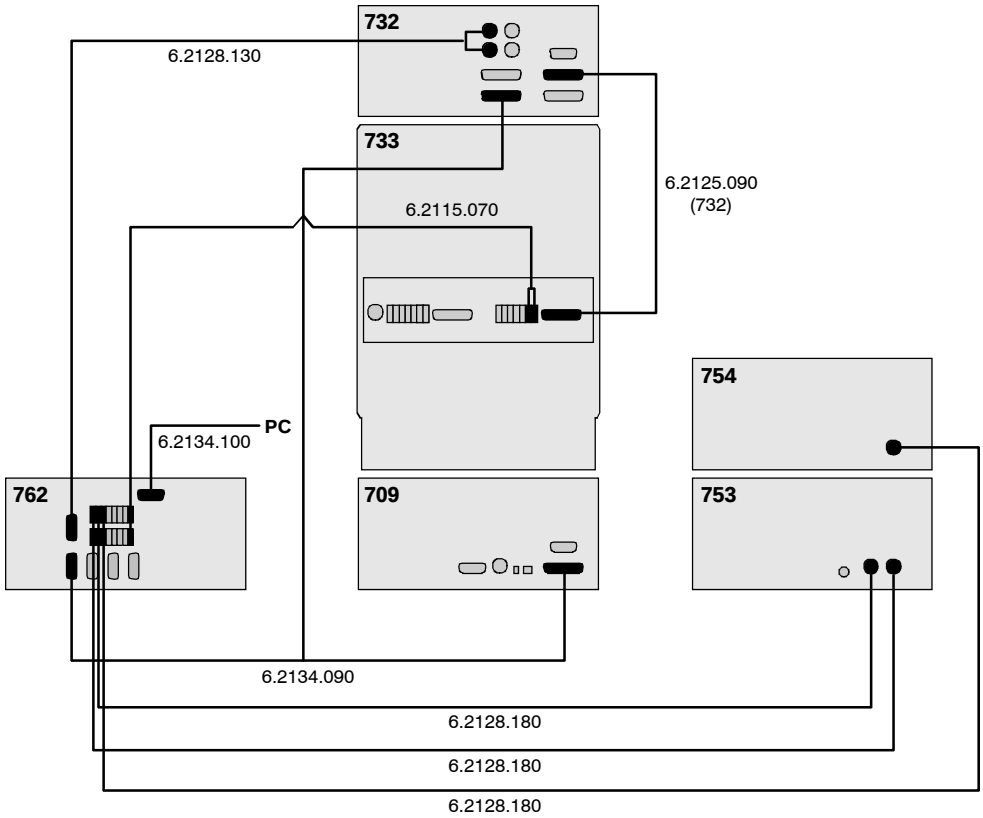


Fig. 10: Connection of 732, 733, 709, 752 and 754

2.4.6 750 Autosampler

Example

Automatic analysis of anions or cations on a modular system with electronic suppression using the 750 Autosampler.

Instruments

- 2.762.0010 IC Interface for 1 system
- 2.732.0010 IC Detector with standard detector block
- 2.733.0010 IC Separation Center with 1 injector
- 2.709.0010 IC Pump
- 2.750.0010 Autosampler

Interconnection

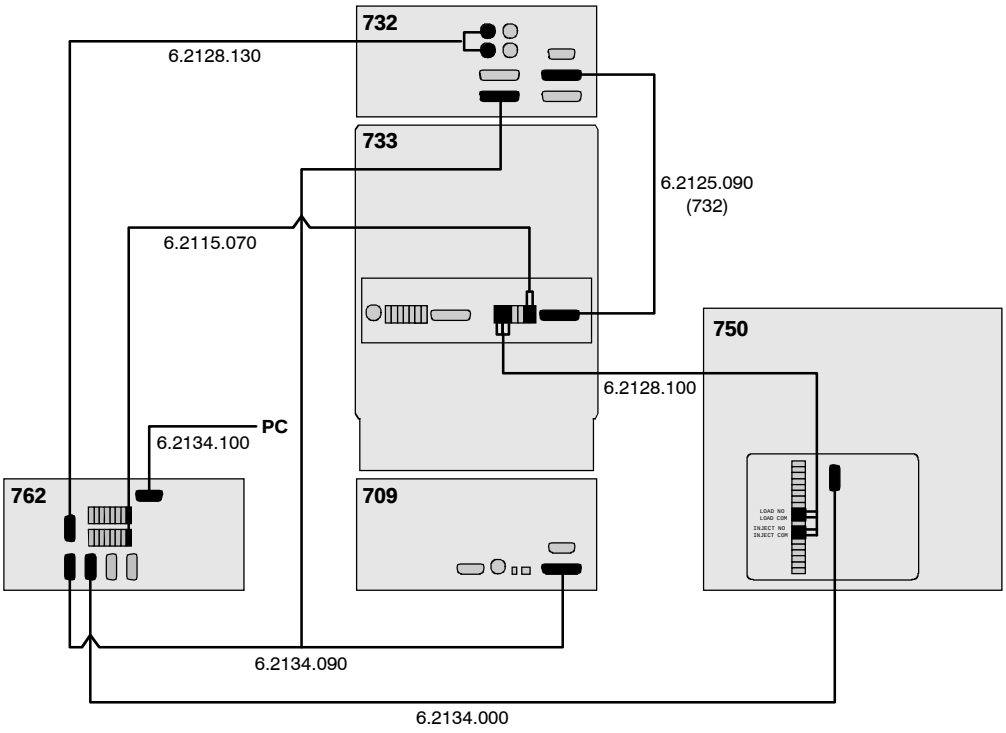


Fig. 11: Connection of 732, 733, 709 and 750

2.4.7 766 IC Sample Processor

Example

Automatic analysis of anions or cations on a modular system with electronic suppression using the 766 IC Sample Processor.

Instruments

- 2.762.0010 IC Interface for 1 system
- 2.732.0010 IC Detector with standard detector block
- 2.733.0010 IC Separation Center with 1 injector
- 2.709.0010 IC Pump
- 2.766.0010 IC Sample Processor

Interconnection

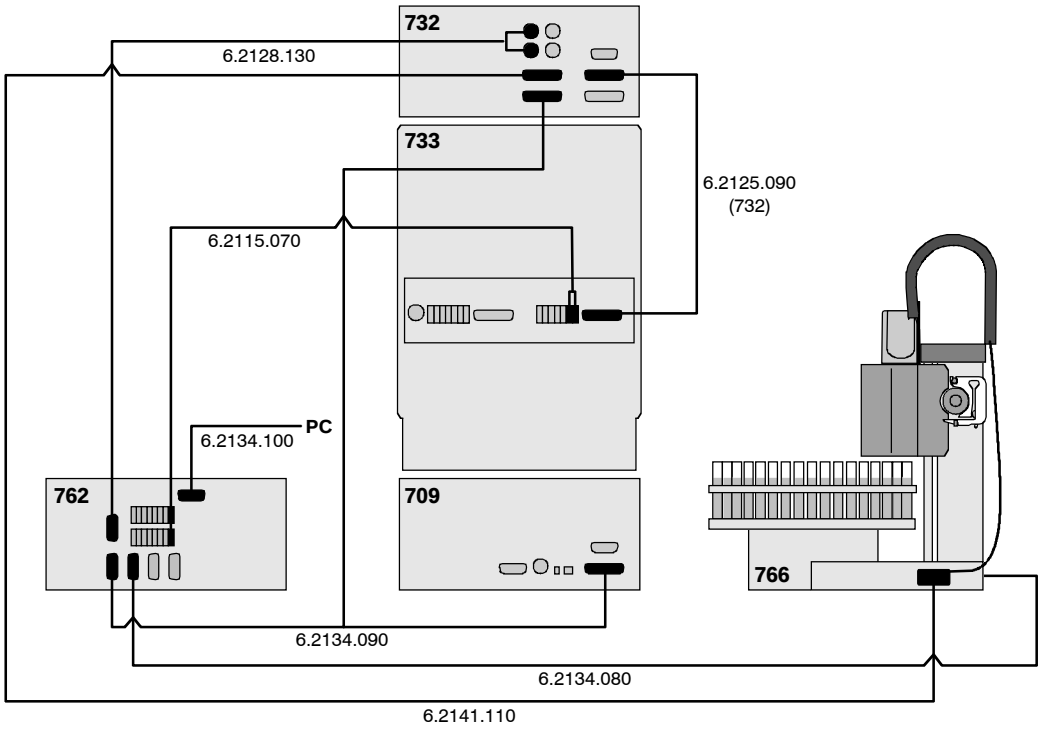


Fig. 12: Connection of 732, 733, 709 and 766

2.4.8 791 VA Detector

Example

Analysis of anions or cations on a modular system with electronic suppression with simultaneous conductometric and electrochemical detection.

Instruments

- 2.762.0010 IC Interface for 1 system
- 2.732.0010 IC Detector with standard detector block
- 2.733.0010 IC Separation Center with 1 injector
- 2.709.0010 IC Pump
- 2.791.0020 VA Detector

Interconnection

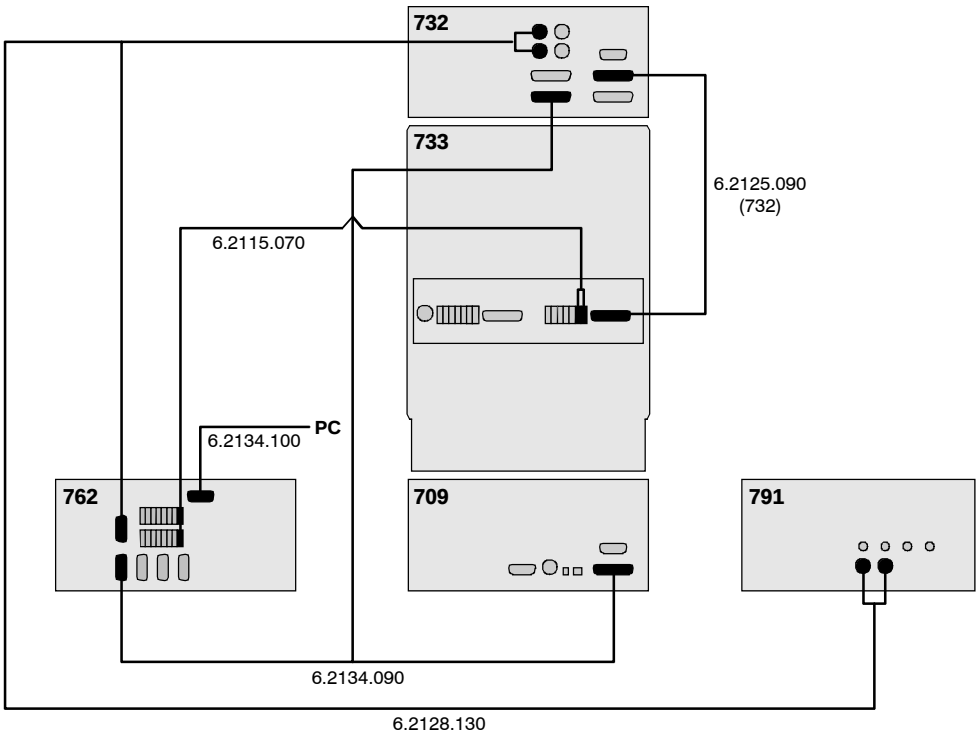


Fig. 13: Connection of 732, 733, 709 and 791

2.4.9 761 Compact IC

Example

Connection of a modular system and a 761 Compact IC to a 762 IC Interface (if not enough COM ports are available at the PC).

Instruments

- 2.762.0010 IC Interface for 1 system
- 2.732.0010 IC Detector with standard detector block
- 2.733.0010 IC Separation Center with 1 injector
- 2.709.0010 IC Pump
- 2.761.0020 Compact IC with suppressor module

Interconnection

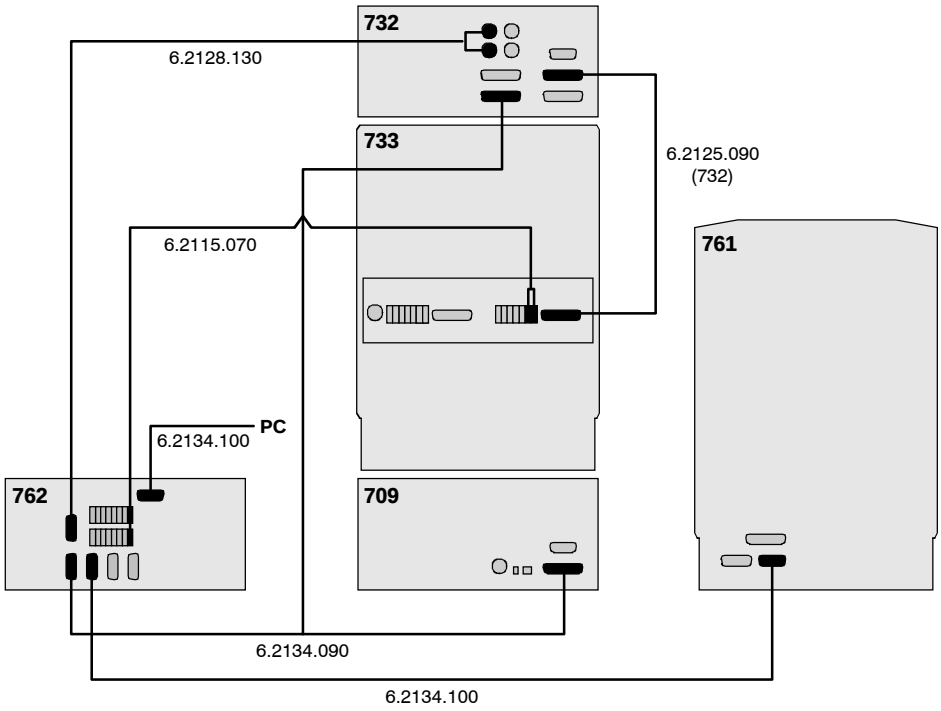
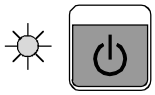


Fig. 14: Connection of 732, 733, 709 and 761

3 Operation

3.1 Manual operation

Switch instrument on/off



The 762 IC Interface 762 is switched on and off using mains switch **1** on the front of the instrument (see *Fig. 2* and *Fig. 4*).

After the instrument has been switched on the mains pilot lamp **2** lights up to show that the instrument is ready for use.

Start/stop determination

Determination on System 1 or System 2 can be started or stopped manually using the key **3** or key **5**.

RUN: Manual start of a determination (**Start determination**).

STOP: Manual stop of a determination or data acquisition (**Stop determination** or **Stop data acquisition**).
This function is only available if the **Second press of Run/Stop button means 'stop' when measuring** option is enabled in the **762 IC Interface** window.

The status display **4** or **6** within the RUN/STOP key **3** or **5** have the following meaning:

LED dark: No system loaded

LED lit up: Instrument ready (waiting for external start)

LED flashes: Determination running

3.2 Operation via «IC Net»

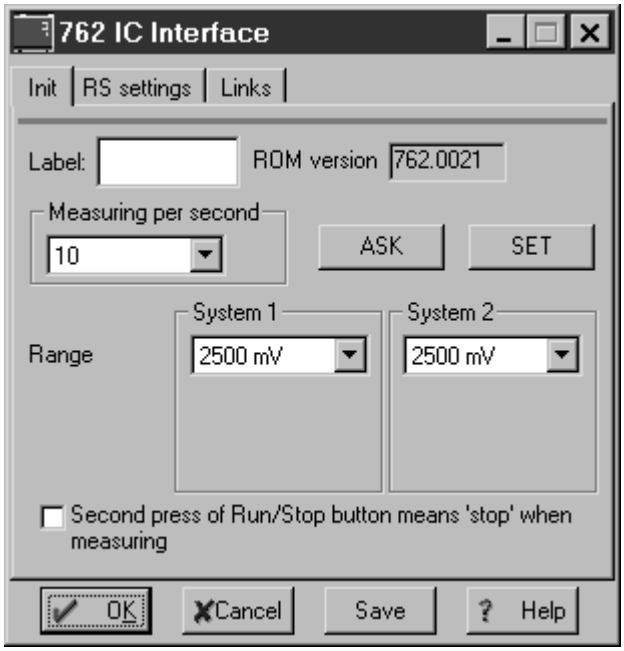
This section describes only the most important points concerning the operation of the 762 IC Interface. For further details please refer to the «IC Net» Instructions for Use and to the on-line help in the PC program.

3.2.1 Settings in the "762 IC Interface" window

By clicking the 762 icon in the toolbar with the left mouse button or by clicking this icon with the right mouse button and selecting the **Open** menu item the **762 IC Interface** window for parameter settings is opened. It consists of three tabs **Init**, **RS settings**, and **Links**.

Init

The **Init** tab of the **762 IC Interface** window contains data acquisition parameters for the 762 IC Interface.

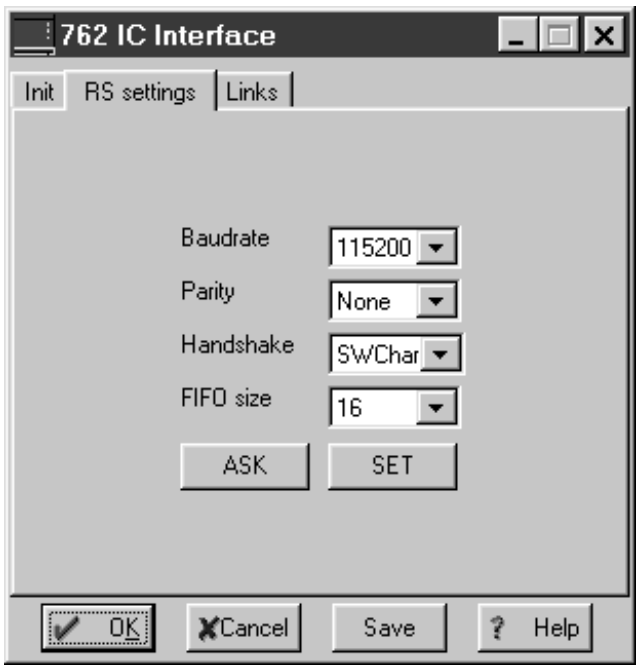


Label	Optional label to **name** the interface with maximum 8 characters.
ROM version	Instrument program version number.
Measuring per second	Number of data points measured per s. Entry range: **10, 20, 30, 50, 60 points/s**
Range	Range for AD converter . Example: converts ± 2500 mV to 2^{24} bits Entry range: **2500, 1250, 625, 312.5, 156.25, 78.125, 39.062 mV**

Second press on RUN/STOP means 'stop' when measuring	If this option is **enabled**, the running data acquisition will be stopped if key **3** or key **5** [RUN/STOP] on the 762 IC Interface front panel is pressed. This is equal to **Stop determination**. If this option is **disabled**, the running data acquisition will not be stopped if key **3** or key **5** [RUN/STOP] on the 762 IC Interface front panel is pressed.
<ASK>	Read current parameters from 762 IC Interface.
<SET>	Send current parameters to 762 IC Interface.

RS settings

The **RS settings** tab of the **762 IC Interface** window contains RS232 parameters for the 762 IC Interface.

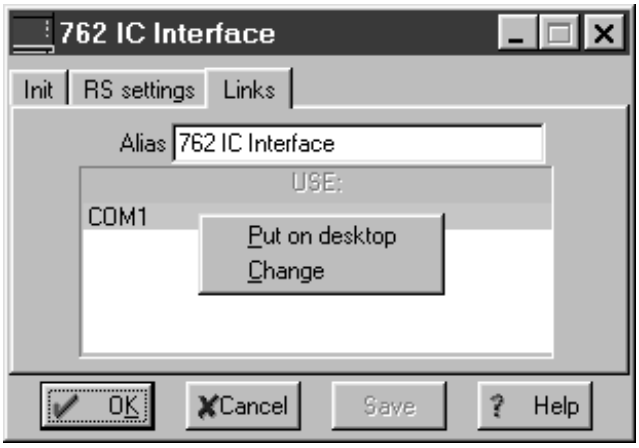


Baud Rate	Baud rate of the device. Selection: **1200...115200** Default value: **115200**
Parity	Parity check. Selection: **None**, **Even**, **Odd** Default value: **None**
Handshake	Enable/disable software handshake mode. Selection: **Swchar**, **none** Default value: **SWchar**

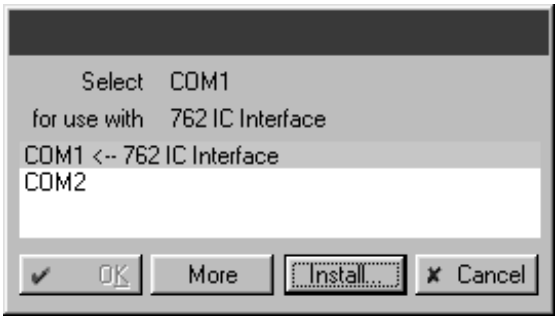
FIFO size	Intermediate memory in byte. Selection: **1...16** Default value: **16**
<ASK>	Read current parameters from 762 IC Interface.
<SET>	Send current parameters to 762 IC Interface.

Links

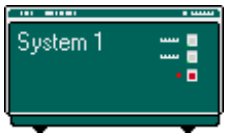
The **Links** tab of the **762 IC Interface** is used for RS232 interface (COM port) selection and settings.



Alias	Name of the instrument.
COM #	If this entry is clicked with the right mouse button, the following menu appears:
Put on desktop	Possibility for setting RS232 interface parameters (details see on-line help).
Change	Possibility for changing the RS232 interface. The following window is opened, where the COM port can be changed by clicking on the desired entry.



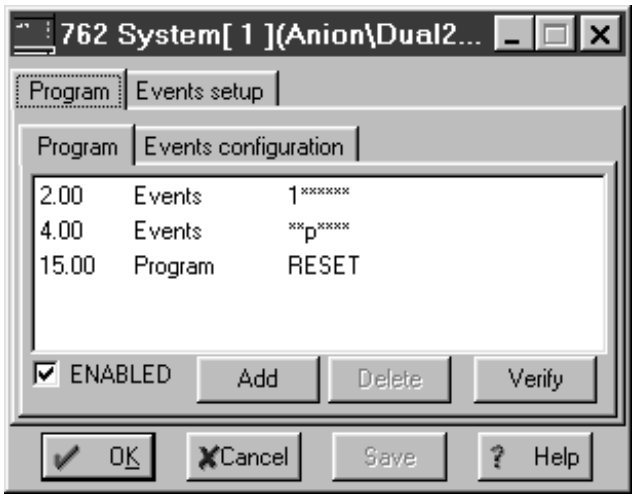
3.2.2 Event output lines



The **762 System [#]** window with programs and settings for the seven event output lines is opened by selecting the **Open** menu item with the right mouse button or by double-clicking the **762 icon** added to the **SYSTEM** window. It consists of the tabs **Program** and **Events setup**.

Time program

On the **Program** tab of the **762 System [#]** window a user-defined time program for the event output lines of the 762 IC Interface can be entered. This program is started automatically as defined in the **Start mode** window either at the moment the determination is started (**Start with determination**) or at the moment the sample is injected (**Start with inject**).



The **Program** tab contains the two following subpages:

Program	Main time program with all program steps.
Events configuration	Possibility for creation of user-defined remote commands.

Program

On the **Program** subpage, program steps including time, program instruction and parameter can be entered.

First column	**Time** at which program instruction is applied. Entry range: **0.0 ... 999.9 min** If no time is entered, the program instruction is applied together with the last instruction with time entry.
Second column	**Program instruction** (see below). In addition to these predefined instructions, user-defined remote commands can be entered if activated on the **Events configuration** tab.
Third column	**Parameter** for program instruction (see below).
ENABLED	Enable program start (a disabled program is not started).
<Add>	Add new program instruction.
<Delete>	Delete selected program instruction.
<Verify>	Test the time program (error messages are displayed if program is wrong).

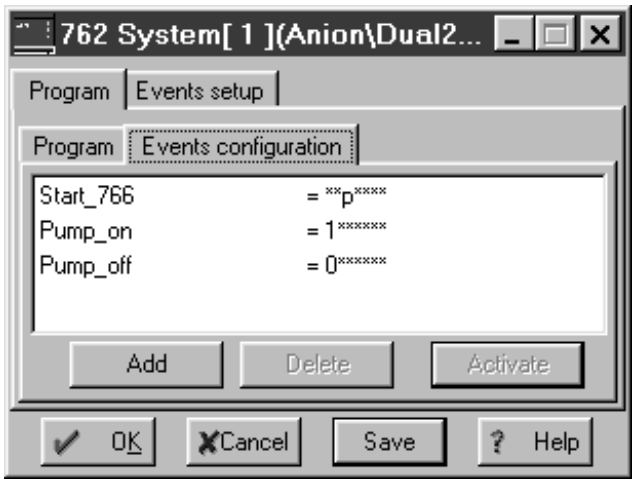
List of program instructions

The following program instructions can be added to the time program on the **Program** subpage:

Instruction	*Entry*	*Meaning*
Events	**0, 1, p, ***	Set **event output lines** 1...7 to the desired values. For entry of the first value, enter **1**, **0**, **p** or *****. For entry of the other values, move the cursor in front of the value to be changed and enter **1**, **0**, **p** or *****.
Program	**END, RESET**	The **END** flag can be used to end a program, especially if the program time should be longer than the chromatogram duration. Additional steps after this flag are not allowed. The **RESET** flag is used to reset the parameters to the system startup values.

Events configuration

On the **Events configuration** subtab user-defined event commands can be defined, which can be inserted into a time program after being activated with **<Activate>**.



Name (1st column) User-definable name of the event command (e.g. **Start_766**).

Event command (2nd column)

Setting the event output lines 1…7.
Selection:

- **0** (line off, inactive, open)
- **1** (line on, active, 0 V)
- **p** (pulse, pulse length 150 ms)
- ***** (leave line in current status)

For entry of the first value, enter **1**, **0**, **p** or *****. For entry of the other values, move the cursor in front of the value to be changed and enter **1**, **0**, **p** or *****.

<Add> Add new remote command.

<Delete> Delete selected remote command.

<Activate> Activate the defined remote commands for insertion into the time program.

Events setup

The **Events setup** tab of the **762 System [#]** window contains the **startup values** for the seven event output lines of system 1 or system 2 of the 762 IC Interface. These startup values are sent each time the system is connected or a determination is started.

Each event output line can be set to the following values:

0 Line off, inactive (open)

1 Line on, active (0 V)

For technical data to the event output lines see *section 4.1*.

4 Appendix

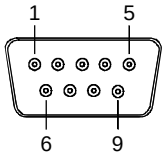
4.1 Technical data

Mains connection

Voltage	100...240 V
Frequency	50...60 Hz
Power consumption	7 VA
Fuse	2 × 1 ATH (to be replaced by Metrohm Service only using the same type) Additional electronic overload protection

PC interface (RS232)

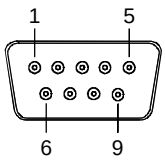
Connector	Dsub connector 9 pin (male)



Baud rate	1'200…115'200
Data bits	8
Stop bits	1
Handshake	Xon/Xoff, none
Parity	none, even, odd
FIFO	0…16 Bytes
Pin assignment	Pin 1,4,6: internally connected Pin 2: RxD (Received Data) Pin 3: TxD (Transmitted Data) Pin 5: GND (Signal Ground) Pin 7,8: internally connected

RS232 interfaces

Connector	Dsub connector 9 pin (male)



Baud rate	1'200…115'200 (for Dev. 8 1'200…19'200)
Data bits	7, 8
Stop bits	1, 2
Handshake	Xon/Xoff, none
Parity	none, even, odd

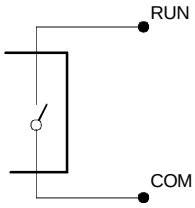
FIFO 0…16 Bytes (for Dev. 8 not available)

Pin assignment

Pin 2: RxD (Received Data) for Dev. 1…4
Pin 3: TxD (Transmitted Data) for Dev. 1…4
Pin 5: GND (Signal Ground) for Dev. 1…4
Pin 7: TxD (Transmitted Data) for Dev. 5…8
Pin 8: RxD (Received Data) for Dev. 5…8
Pin 9: GND (Signal Ground) for Dev. 5…8

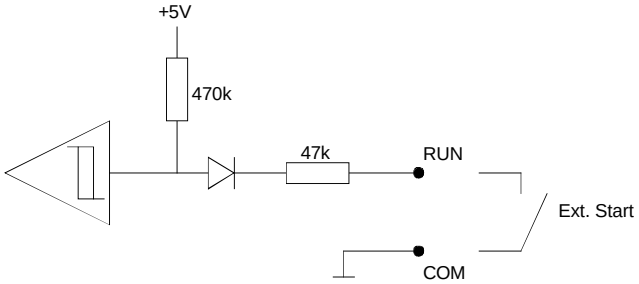
Remote interface (Events)

Output lines 7 potential-free relay contacts per system for controlling external instruments.



Maximum contact load:
30 V / 1 A DC

Input lines 1 digital input per system for external method start.

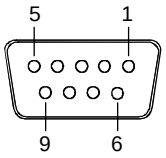


Maximum load for external contact:
approx. 0.1 mA at max. cut-off voltage of approx. 5 V

Analog signal interface

Function 2 potential-free analog signal inputs per system.

Connector Dsub connector 9 pin (female)



Input voltage range ± 2.5 V

Input amplification 1, 2, 4, 8, 16, 32, 64 (selectable)

Sampling rate 10, 20, 30, 50, 60 measuring points/s

Resolution 24 bit (1 LSP = 0.298 µV at amplification 1)

Noise < 20 µVpp
< 3 µVrms (at 0 V input voltage, amplification 1 and sampling rate 10 Hz)

Zero error	± 2.5 mV
Pin assignment	Pin 1,4,5,8,9: GND (ground, connected to housing) Pin 2: Analog 1+ Pin 3: Analog 1– Pin 6: Analog 2+ Pin 7: Analog 2–

Safety specifications

Construction/testing	According to IEC 1010 / EN 61010 / UL 3101-1, protection class 1, degree of protection IP40
Safety directions	The Instructions for Use include information and warnings which must be heeded by the user to assure safe operation of the instrument.

Electromagnetic compatibility (EMC)

Emitted interference	Standards met: EN55011 (level B), EN55022 (level B), EN 50081-1/2, EN61000-3-2
Immunity to interference	Standards met: IEC61000-4-2/EN61000-4-2 (level 3), IEC61000-4-3/EN61000-4-3 (level 3), IEC61000-4-4/EN61000-4-4 (level 4), IEC61000-4-5/EN61000-4-5 (level 2/3), IEC61000-4-6/EN61000-4-6 (level 3), IEC61000-4-11/EN61000-4-11, IEC61000-4-14/EN61000-4-14 (level 3), EN50082-2, NAMUR

Ambient temperature

Nominal operating range	+5…+45°C (at 20…80 % atmospheric humidity)
Storage, transport	–40…+70°C

Housing

Material of cover	Polyurethane rigid foam (PUR) with fire protection for fire class UL94VO, CFC-free
Material of base	Steel, enameled

Dimensions

Width	255 mm
Height	128 mm
Depth	340 mm
Weight (with accessories)	2.762.0010: 4.3 kg 2.762.0020: 4.9 kg

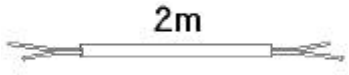
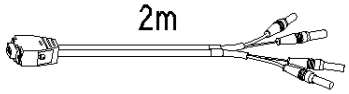
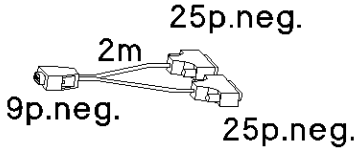
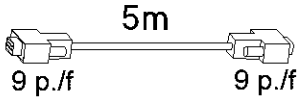
4.2 Scope of delivery

Subject to changes !
All dimensions are given in mm.

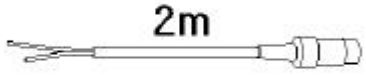
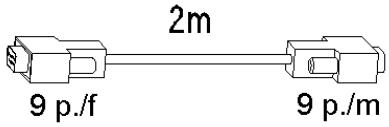
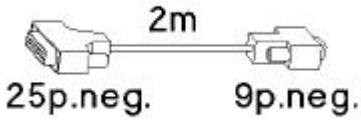
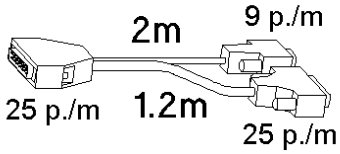
The 762 IC Interface is available in the two following versions:

- **2.762.0010 IC Interface for 1 IC system with 2 channels**
- **2.762.0020 IC Interface for 2 IC systems with 4 channels**

The two instruments include the following parts:

Quant.		Order No.	Description
2.762.0010	2.762.0020		
1	2	6.2115.070	**Connection cable** Connection cable 762 IC Interface – 733 IC Separation Center 
1	2	6.2128.130	**Connection cable** Connection cable 762 IC Interface – analog output (channel 1/2 or 3/4) 
1	2	6.2134.090	**RS232 connection cable** Connection cable 762 IC Interface – 2 external devices (709, 732, 766, etc.) 
1	1	6.2134.100	**RS232 connection cable** Connection cable 762 IC Interface – PC 
1	1	6.6034.003	**Software CD «IC Net 2.0»**
1	1	6.2122.0X0	**Mains cable** according to customer's specification: Cable socket / Cable plug Type IEC 320/C 13 – Type SEV 12 (CH…) .....6.2122.020 Type IEC 320/C 13 – Type CEE (7), VII (D…) .....6.2122.040 Type CEE (22), V – Type NEMA 5-15 (USA…).....6.2122.070
1	1	8.762.1003	**Instructions for Use (English)** for 762 IC Interface
1	1	8.110.8193	**Instructions for Use (English)** for «IC Net 2.0» PC program
1	1	8.110.8213	**Instructions for Use (English)** for «Autodatabase 1.0» PC program
1	1	8.110.8207	**Registration card**

4.3 Optional accessories

6.2128.180	**Remote connection cable** Connection cable 762 IC Interface – 752, 753, 754	
6.2134.000	**RS232 connection cable** Connection cable 762 IC Interface – 750 Autosampler	
6.2134.080	**RS232 connection cable** Connection cable 762 IC Interface – 1 external device (709, 732, 766, etc.)	
6.2141.110	**Connection cable** Connection cable 762 IC Interface – 732 IC Detector– 766 IC Sample Processor (accessory part of 766)	

4.4 Warranty and conformity

4.4.1 Warranty

The warranty on our products is limited to defects that are traceable to material, construction or manufacturing error which occur within 12 months from the day of delivery. In this case, the defects will be rectified in our workshops free of charge. Transport costs are to be paid by the customer.

For day and night operation, the warranty is limited to 6 months.

Glass breakage in the case of electrodes or other parts is not covered by the warranty. Checks which are not a result of material or manufacturing faults are also charged during the warranty period. For parts of outside manufacture insofar as these constitute an appreciable part of our instrument, the warranty stipulations of the manufacturer in question apply.

With the regard to the guarantee of accuracy, the technical specifications in the instruction manual are authoritative.

Concerning defects in material, construction or design as well as the absence of guaranteed features, the orderer has no rights or claims except those mentioned above.

If damage of the packaging is evident on receipt of a consignment or if the goods show signs of transport damage after unpacking, the carrier must be informed immediately and a written damage report demanded. lack of an official damage report releases Metrohm from any liability to pay compensation.

If any instruments and parts have to be returned, the original packaging should be used if at all possible. This applies above all to instruments, electrodes, burette cylinders and PTFE pistons. Before embedment in wood shavings or similar material, the parts must be packed in a dust-proof package (for instruments, use of a plastic bag is imperative). If open assemblies are enclosed in the scope of delivery that are sensitive to electromagnetic voltages (e.g. data interfaces etc.) these must be returned in the associated original protective packaging (e.g. conductive protective bag). (Exception: assemblies with built-in voltage source belong in a non-conductive protective packaging).

No warranty responsibility whatsoever will be accepted by Metrohm for damage which arises as a result of non-compliance with these instructions.

4.4.2 EU Declaration of conformity

CE

EU Declaration of Conformity

The Metrohm AG company, Herisau, Switzerland hereby certifies that the instrument:

762 IC Interface

meets the requirements of EC Directives 89/336/EWG and 73/23/EWG.

Source of the specifications:

EN 50081-1/2	Electromagnetic compatibility, basic specification Emitted Interference
EN 50082-2	Electromagnetic compatibility, basic specification Interference Immunity
EN 61010	Safety requirements for electrical laboratory measurement and control equipment

Description of the instrument:

PC controlled chromatography data system for remote control of IC instruments and for automatic evaluation of chromatograms

Herisau, April 21, 1999

Dr. J. Frank	Ch. Buchmann
Development Manager	Production and Quality Assurance Manager

4.4.3 Certificate of conformity and system validation

Certificate of Conformity and System Validation

This is to certify the conformity to the standard specifications for electrical appliances and accessories, as well as to the standard specifications for security and to system validation issued by the manufacturing company.

Name of commodity:	**762 IC Interface**	
Name of manufacturer:	Metrohm Ltd., Herisau, Switzerland	
Technical specifications:	Voltages:	100-240 V
	Frequency:	50-60 Hz

This Metrohm instrument has been built and has undergone final type testing according to the standards:

EN55011 (level B), EN55022 (level B), EN 50081-1/2, EN61000-3-2, IEC61000-4-2/EN61000-4-2 (level 3), IEC61000-4-3/EN61000-4-3 (level 3), IEC61000-4-4/EN61000-4-4 (level 4), IEC61000-4-5/EN61000-4-5 (level 2/3), IEC61000-4-6/EN61000-4-6 (level 3), IEC61000-4-11/EN61000-4-11, IEC61000-4-14/EN61000-4-14 (level 3), EN50082-2, NAMUR
— Electromagnetic compatibility

IEC1010, EN61010, UL3101-1 *— Security specifications*

It has also been certified by the Swiss Electrotechnical Association (SEV), which is member of the International Certification Body (CB/IEC).

The technical specifications are documented in the instruction manual.

Metrohm Ltd. is holder of the SQS-certificate of the quality system ISO 9001 for quality assurance in design/development, production, installation and servicing.

Herisau, April 21, 1999

Dr. J. Frank	Ch. Buchmann
Development Manager	Production and Quality Assurance Manager

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