

Small but super: power for your automation

731 Relay Box is the name of the new switchable power supply

Automated systems require the switching of heating systems, pumps, valves, thermostats or other external devices. For this relays are needed that can switch the line voltage or low

voltage on and off when required. The switching step should be effected by a Titrino, Titroprocessor, sample changer or any other Metrohm instrument via «Remote» lines. The new 731 Relay Box combines all these requirements in a housing of only 10 cm x 19 cm x 23 cm!

Alternating voltage ...

The 731 Relay Box offers four voltage outputs. Two 115/230 V alternating voltage outputs are used for switching the line voltage. As the maximum power output is 1150 W per output, the instrument is also suitable for the power supply of loads with a high power consumption such as heating baths or thermostats.

... or direct voltage

The 731 Relay box also has two direct voltage outputs whose voltage can be set to values of 5, 10, 18 or 24 V.

One cable is enough

A very wide range of Metrohm instruments can control the Relay Box via their «Remote» interfaces. No matter what type of instrument you are using, one single standard cable (6.2125.100) suffices for communication. The 731 Relay Box scans the 14 input lines and switches the assigned voltage outputs correspondingly.

Everything configured at the turn of a switch

The user has the possibility to connect each voltage output to its own signal line or to link one signal line with several outputs. Simply turning the selector switch is all that is needed to configure the instrument.



Fig. 1: Back and front of the practical 731 Relay Box.

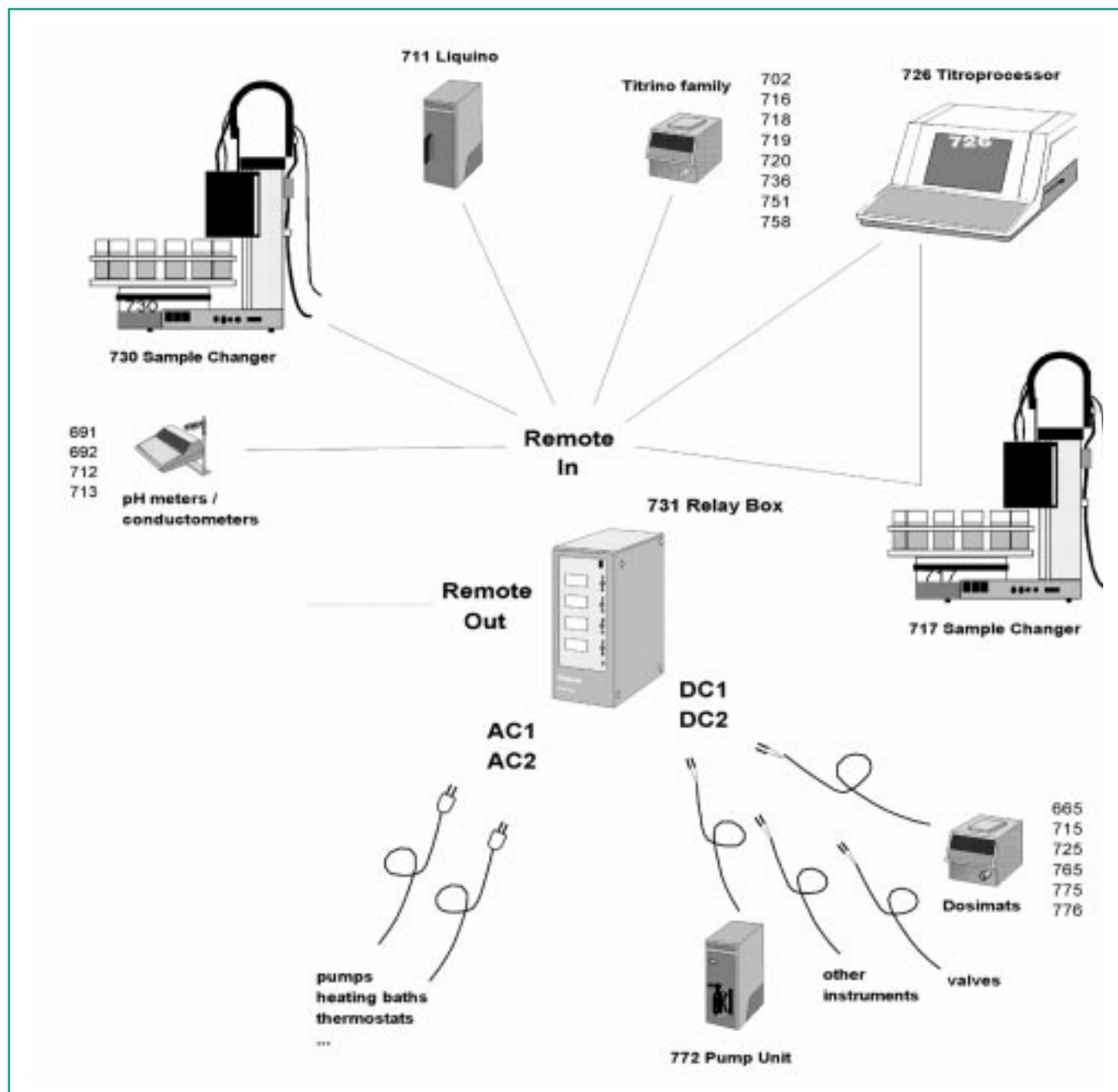


Fig. 2: Metrohm automated systems using the 731 Relay Box.

Multiple application possibilities

In combination with other instruments the Relay Box offers a wide range of applications in the laboratory and plant. It allows to set up even highly complex automated systems.

- Together with the 731 Relay Box the new 772 Pump Unit can be used to siphon off the sample after the titration has been completed, rinse the titration vessel and prepare it for the next determination (cf. Fig. 4). In contrast to diaphragm pumps, the Pump Unit allows to deliver even critical media such as samples containing solid particles or organic solvents.
- Heating plates or stirrers can be connected to the AC outputs of the 731 Relay Box and thus controlled, i.e. switched on and off, by Titrinos or 726 Titroprocessors.
- Using the 731 Relay Box, the 772 Pump Unit, the 711 Liquino as well as 700 Dosimats, flexible liquid handling units can be set up.
- A gas valve (6.2726.080) can be connected to the DC voltage output of the Relay Box, which makes it possible to carry out determinations in an inert gas atmosphere.

- In bigger automated systems, e.g. PC-controlled titration systems, different instruments (e.g. Titrinos) can be selectively switched on and off using the 731 Relay Box. These switching steps can take place simultaneously.

Technical specifications of the 731 Relay Box

Two DC outputs:

Voltage

Output voltage adjustable: 0, 5, 10, 18, 24 V

Current

Max. 1 A per output

Two AC outputs:

Voltage

Output voltage = line voltage

Current

Max. 5 A per output

«Remote» interface:

Functioning

The «Remote» signals are passed through the Relay Box without being modified in any way and transmitted to an instrument connected to the «Remote Out» socket

Input

25 pin D-Sub instrument plug
14 input lines

Output

25 pin D-Sub instrument socket
14 output lines

Line connection:

Voltage

Voltage selector 115/230 V

Frequency

50 ... 60 Hz

Power consumption

Line voltage 115 V:
max. 1150 W

Line voltage 230 V:
max. 2300 W



Fig. 3: The Relay Box with the new 772 Pump Unit.

Ordering information

2.731.0010 Relay Box

Instrument with two AC and two DC voltage outputs for controlling external devices such as pumps (e.g. 772 Pump Unit) or valves via «Remote» signals; includes 6.2125.100 connecting cable for instruments with 25 pin «Remote» interface, e.g. Titrinos, Titroprocessors, sample changers, Liquinos, conductometers or pH meters.

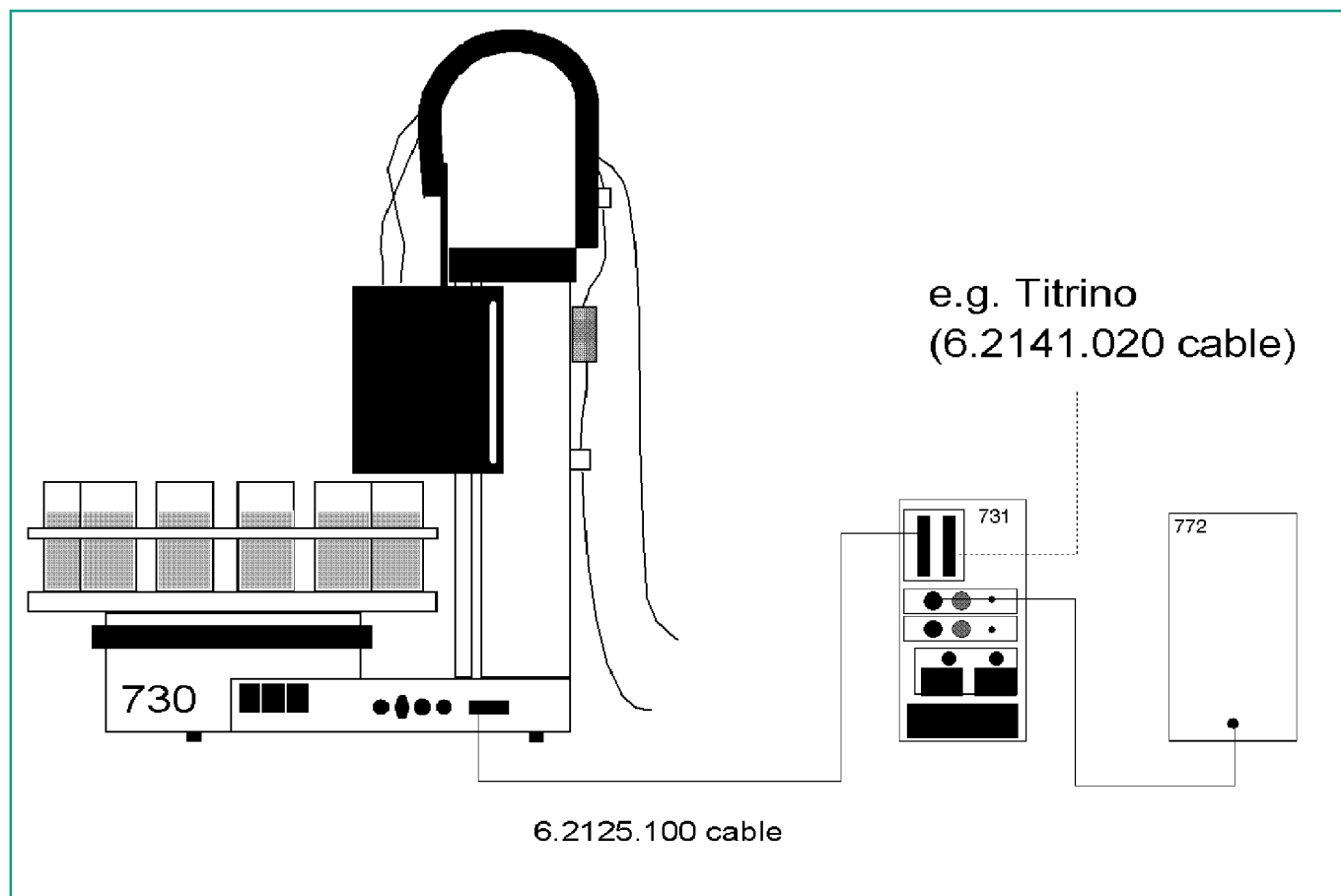


Fig. 4: 772 Pump Unit in combination with the 731 Relay Box, used to siphon off the titrated sample and rinse the titration vessel (on the 730 Sample Changer).