

**Intelligent Control System**

**NERO**



# What is the NERO system?

NERO is a system designed for complex automation of roller shutters, gates, barriers and other electrical loads, which is based on the newest technologies of control command transmission.

## Control network

The Internet, the worldwide masterbrain, is made of individual computers with a limited degree of intelligence. The important thing is that they can communicate with each other.

Similarly, the NERO system consists of individual control modules that turn it into a powerful control system, whose intelligence grows with the number of modules connected to it.

Power line, in this case, becomes a communication medium for NERO.



*elegant...*

*magic...*

*simple...*



# How does NERO function



A control signal is transmitted in a separately coded format to the other modules over the existing home power line.

The transmission procedure is based on a specific algorithm, which guarantees that the information is received on the other end of the line, even in case of severe electrical pollution.

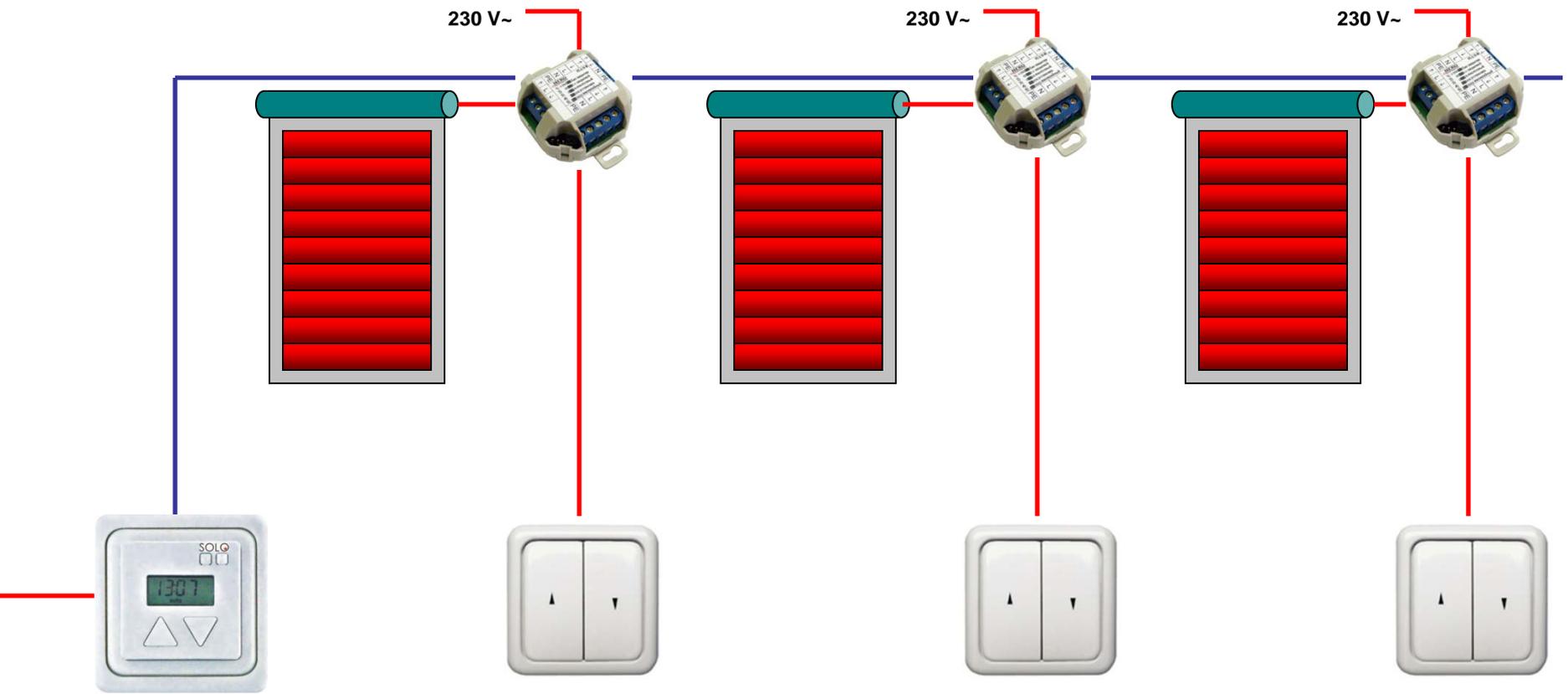


For reliable communication between the individual devices, a phase coupler is installed in the distribution box.



## What do you need to control several roller shutters as one group with switches?

You need motors, switches, a central control unit, wiring, cutoff relays US-2.15M and a signal cable to forward the group command from the central unit to the other controllers.

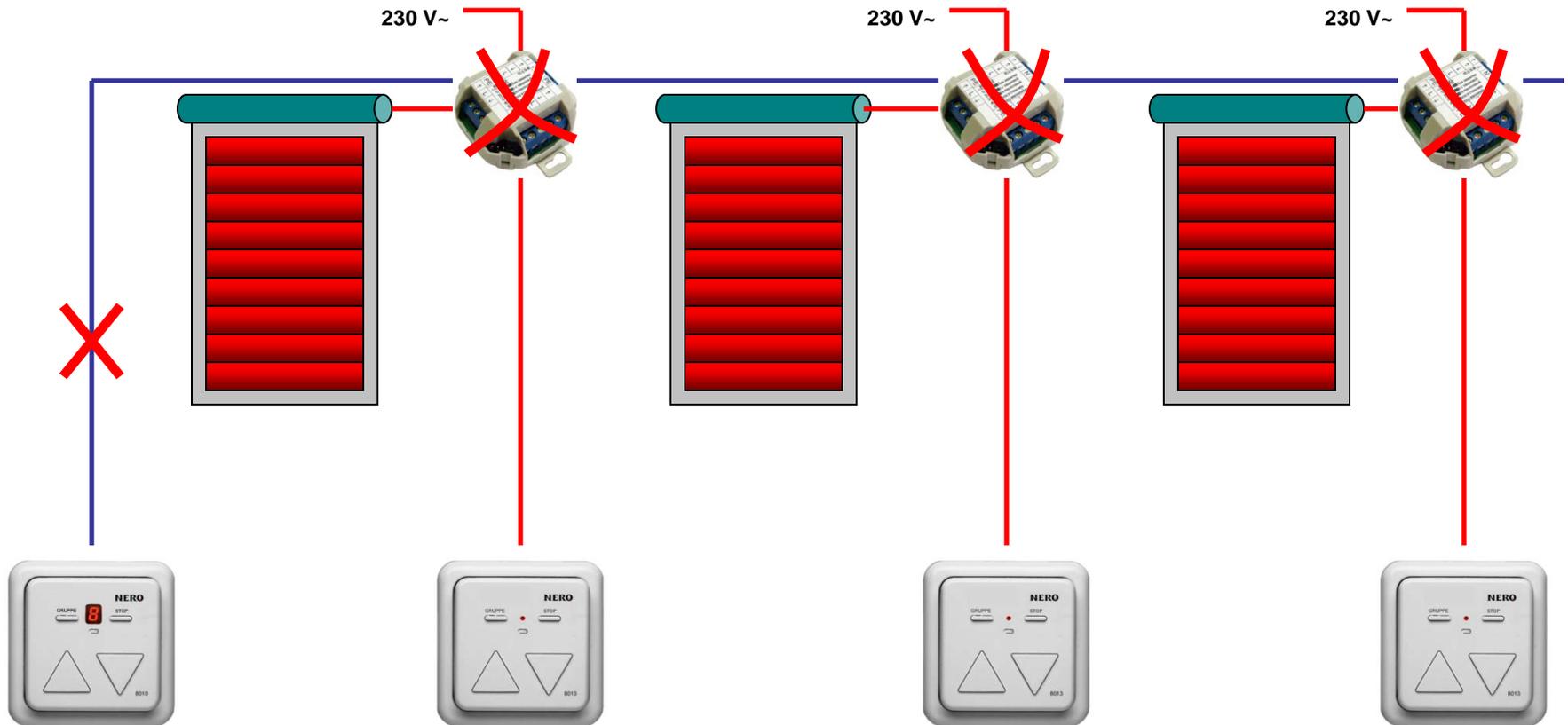


The NERO solution for the same installation task looks as follows:

You need motors, switches, a central control unit, power line and ...

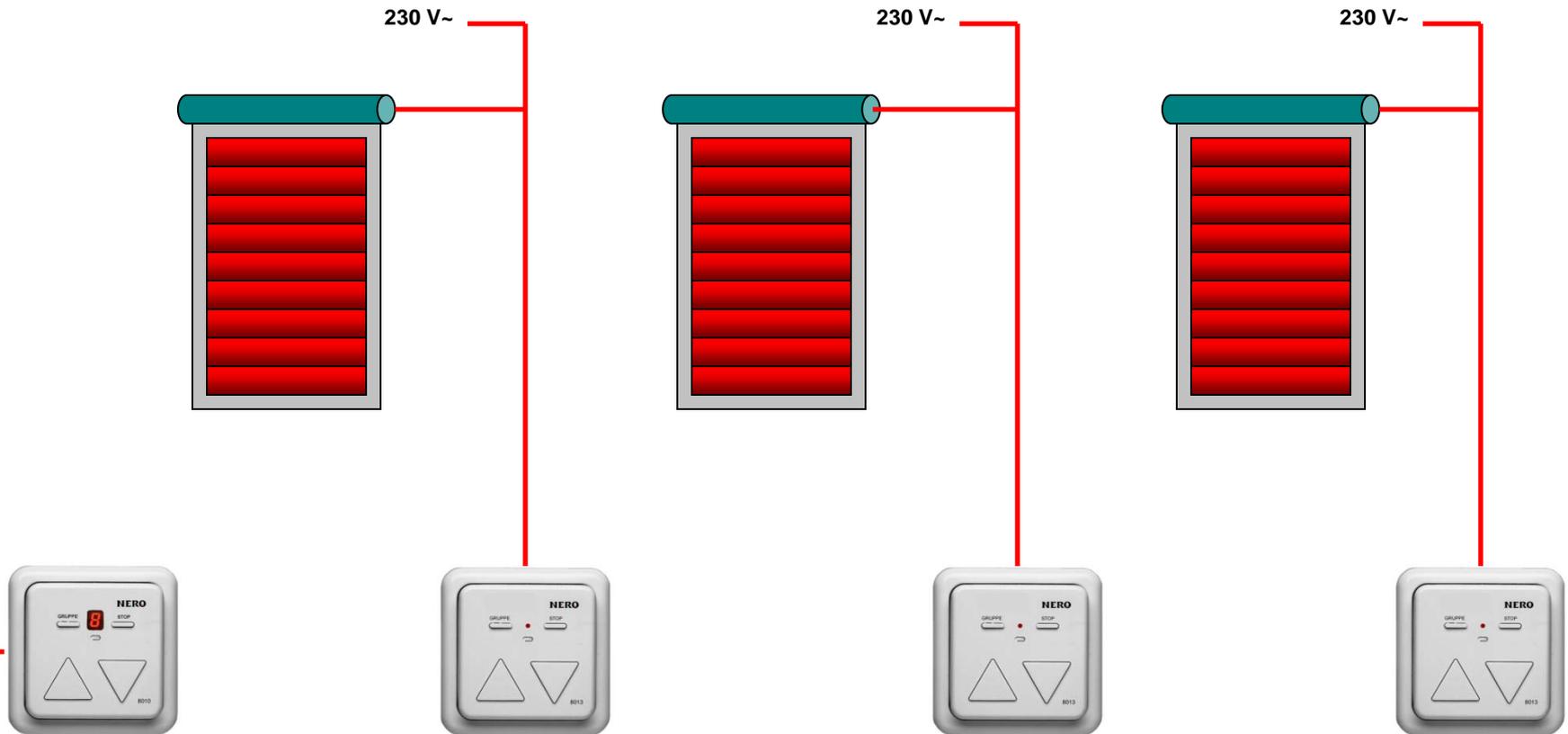
**That's it!**

**No cutoff relays! No signal cables!**

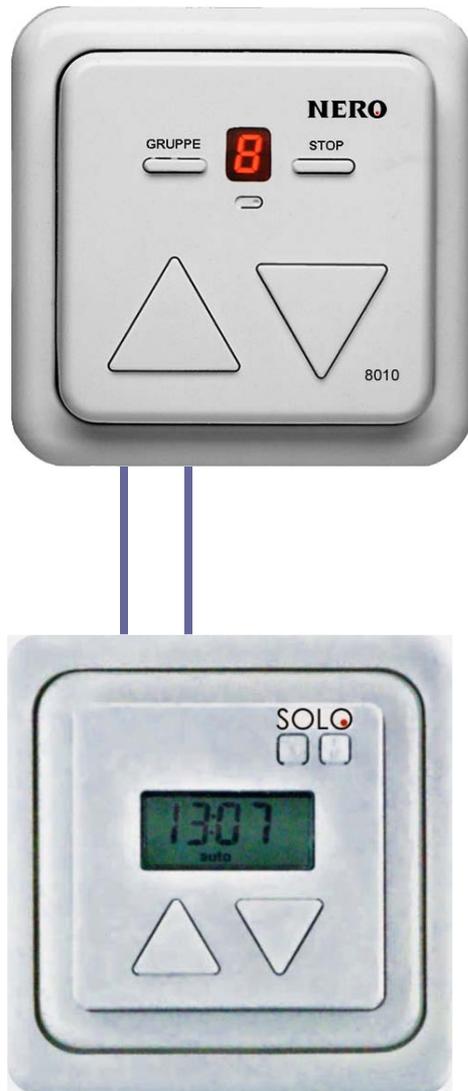


## That's how simple are things with NERO:

Moreover, the Nero-system has more functions than a simple signal cable solution: each NERO unit is equipped with a series of unique features:



## NERO modules:



### NERO 8010L – central transmitter

The NERO 8010L central transmitter is not connected to a motor. It is used for management and remote control of NERO executive units within the system.

The NERO 8010L central transmitter can control 1 common group and up to 9 groups of tubular motor operators such as NERO 8013L, NERO 8013 UPM or light controls NERO 8022 UP.

The control groups organized with the help of the NERO 8010L central transmitter can be extended, modified or deleted any time.

The central transmitter can be installed at any place in the building.

A NERO system can contain several NERO 8010L transmitters without mutual interference. Other central transmitters within the system may have an identical or different group structure.

The NERO central transmitter allows to connect an external mechanical or electronic switch, for example, a timer SOLO 8252-50. The controlling signal of the timer is sent through the central transmitter NERO 8010L to all modules of a desired NERO group.

## NERO modules:



### NERO 8013L – executive device (receiver)

The NERO 8013L module is designed for local control of one tubular motor. It is possible to operate the motor with buttons on the front panel or to have a remote control with the help of the central transmitter NERO 8010L.

The NERO 8013L executive devices can be organized into groups for simultaneous control of the roller shutters on the same floor, facade, etc. with the help of the central transmitter NERO 8010L.

Each NERO 8013L module can simultaneously belong to several control groups, for example, the “Ground floor” group, the “South facade” group.

Any NERO 8013L module can operate one group of other executive devices, i.e. to have its own operation group.

The device can be controlled by a central transmitter NERO 8010L, another NERO 8013L module as well as by radio remote controls of the RADIO system if a NERO 8361 UPM transcoder is installed in the building.

# NERO modules:

NERO 8013 UPM



Central transmitter  
NERO 8010L



Transcoder  
NERO 8361  
UPM



Key-ring remote  
control RADIO  
8101-2M



**NERO 8013 UPM – executive device for installation under plastering in a mounting cup**

The NERO 8013 UPM module is capable of controlling the tubular motor of a roller shutter, roller shade, gate, garage door and other electrical loads: filament bulbs, heaters, ventilators, pumps, sockets.

NERO 8013 UPM devices, as well as NERO 8013L modules, can be organized into groups for simultaneous control of roller shutters on the same floor, facade, etc. with the help of the central transmitter NERO 8010L.

Each NERO 8013 UPM module can simultaneously belong to several control groups, for example, the “Ground floor” group, the “South facade” group.

The device can be controlled by a central transmitter NERO 8010L, a NERO 8013L receiver as well as by radio remote controls of the RADIO system if a NERO 8361 UPM transcoder is installed in the building.

## NERO modules:



### **NERO 8013 IP55 – an executive device for installation inside a roller shutter box**

The NERO 8013 IP55 receiver for installation inside a roller shutter box due to the increased IP-protection class can be used in wet premises or outdoors. A special shape and compact dimensions of the device allow to install the unit inside a roller shutter box to control a tubular motor of a roller shutter or a roller shade.

NERO 8013 IP55 devices, as well as NERO 8013 UPM modules, can be organized into groups for simultaneous control of the roller shutters on the same floor, facade, etc. with the help of the central transmitter NERO 8010L.

Each NERO 8013 IP55 module can simultaneously belong to several control groups, for example, the “Ground floor” group, the “South facade” group.

The device can be controlled by a central transmitter NERO 8010L, a receiver NERO 8013L as well as by radio remote controls of the RADIO system if a NERO 8361 UPM transcoder is installed in the building.

## Модули системы NERO:



**NERO 8022 UP – module for control over light, sockets and other electrical loads**

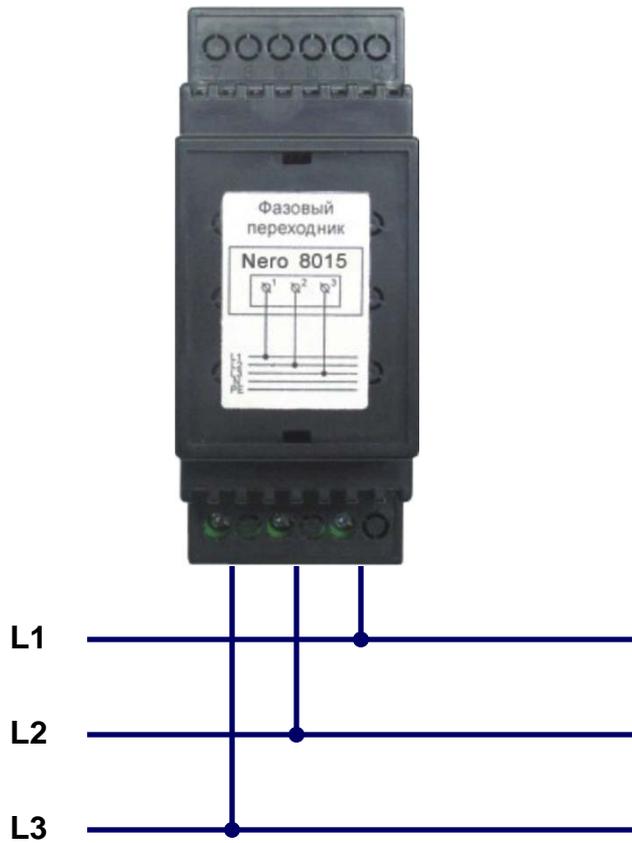
The NERO 8022 UP is an electronic module designed to switch on/off various electrical appliances (light, heaters, ventilators, pumps, etc.) as well as for controlling loads plugged in sockets.

NERO 8022 UP modules, as well as NERO 8013 UPM modules, can be organized into groups for simultaneous control of the roller shutters on the same floor, facade, etc. with the help of the central transmitter NERO 8010L.

Each NERO 8022 UP module can simultaneously belong to several control groups, for example, the “Ground floor” group, the “South facade” group.

The device can be controlled by a central transmitter NERO 8010L, a receiver NERO 8013L as well as by radio remote controls of the RADIO system if a NERO 8361 UPM transcoder is installed in the building.

## NERO modules:



### NERO 8015 – phase coupler

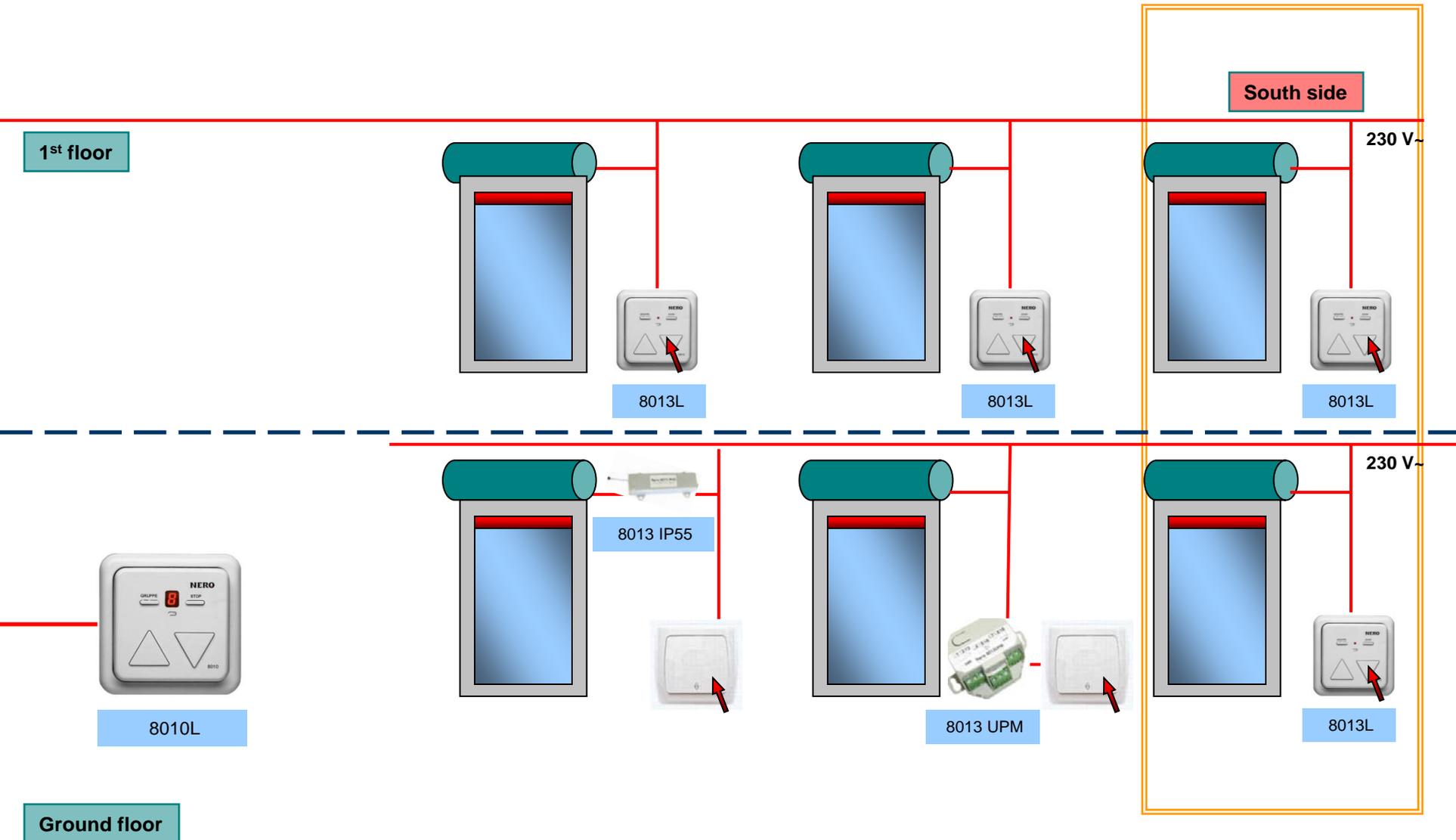
The NERO 8015 coupler is designed for DIN-bus installation into a switchboard.

The phase coupler is used in case when the NERO 8010L transmitter and/or executive units are connected to different lines of the supply mains.



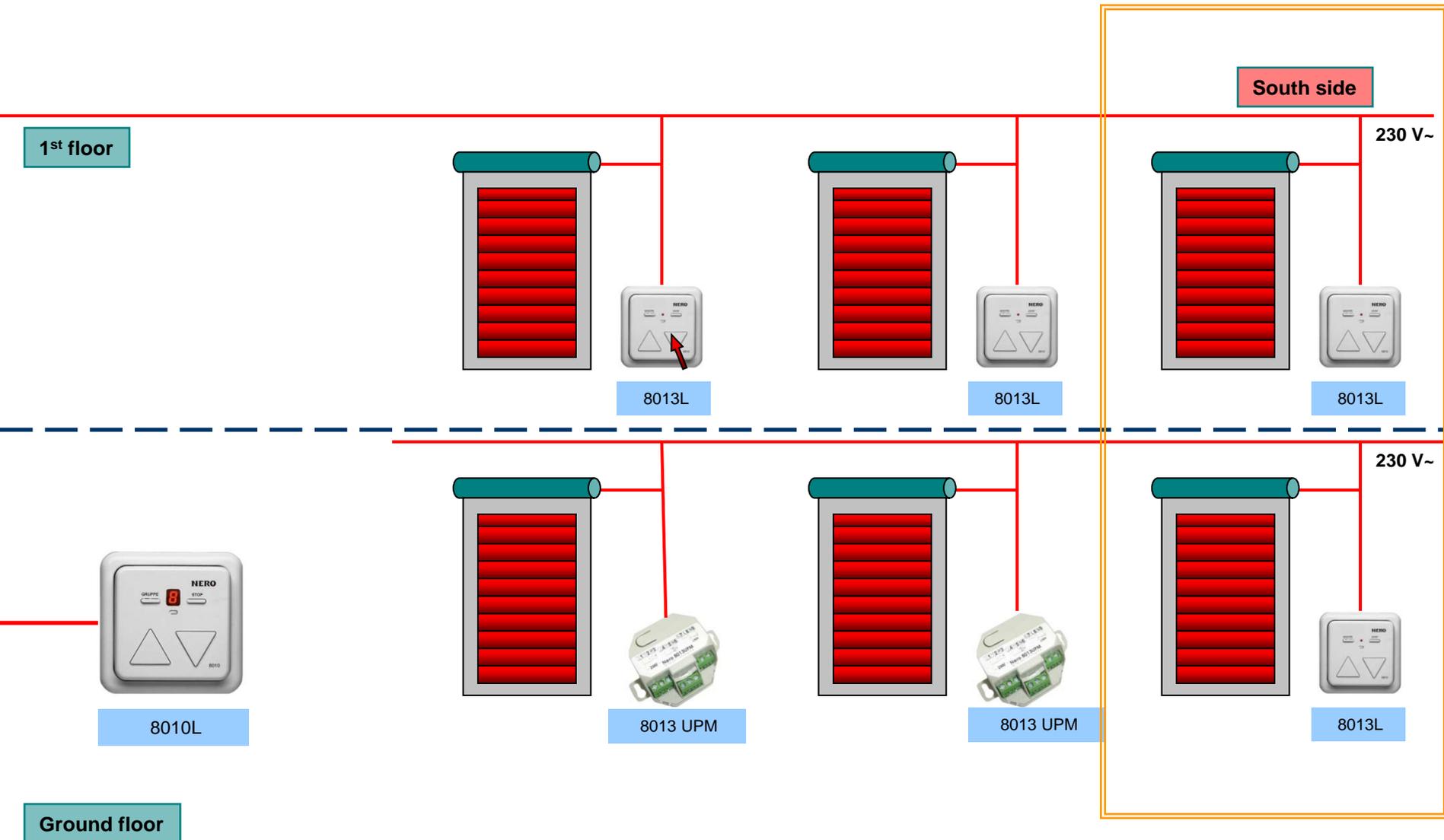
## An example of universality and versatility of the NERO system:

Each individual motor can be operated manually with control buttons on the front panel or with additionally connected switches.



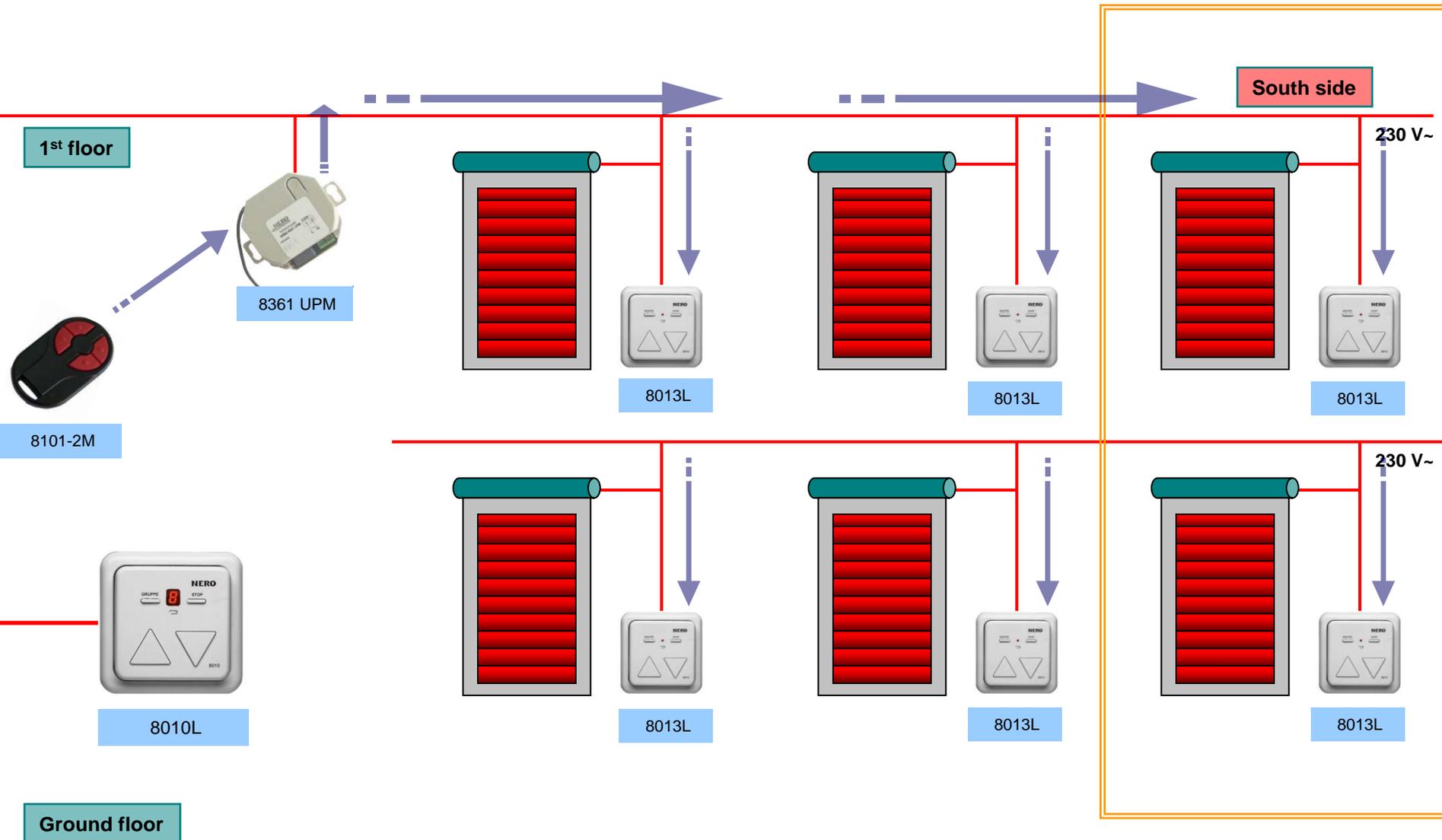
# An example of universality and versatility of the NERO system:

A Nero 8013L can operate one group of roller shutters independent from the Nero 8010L central transmitter.



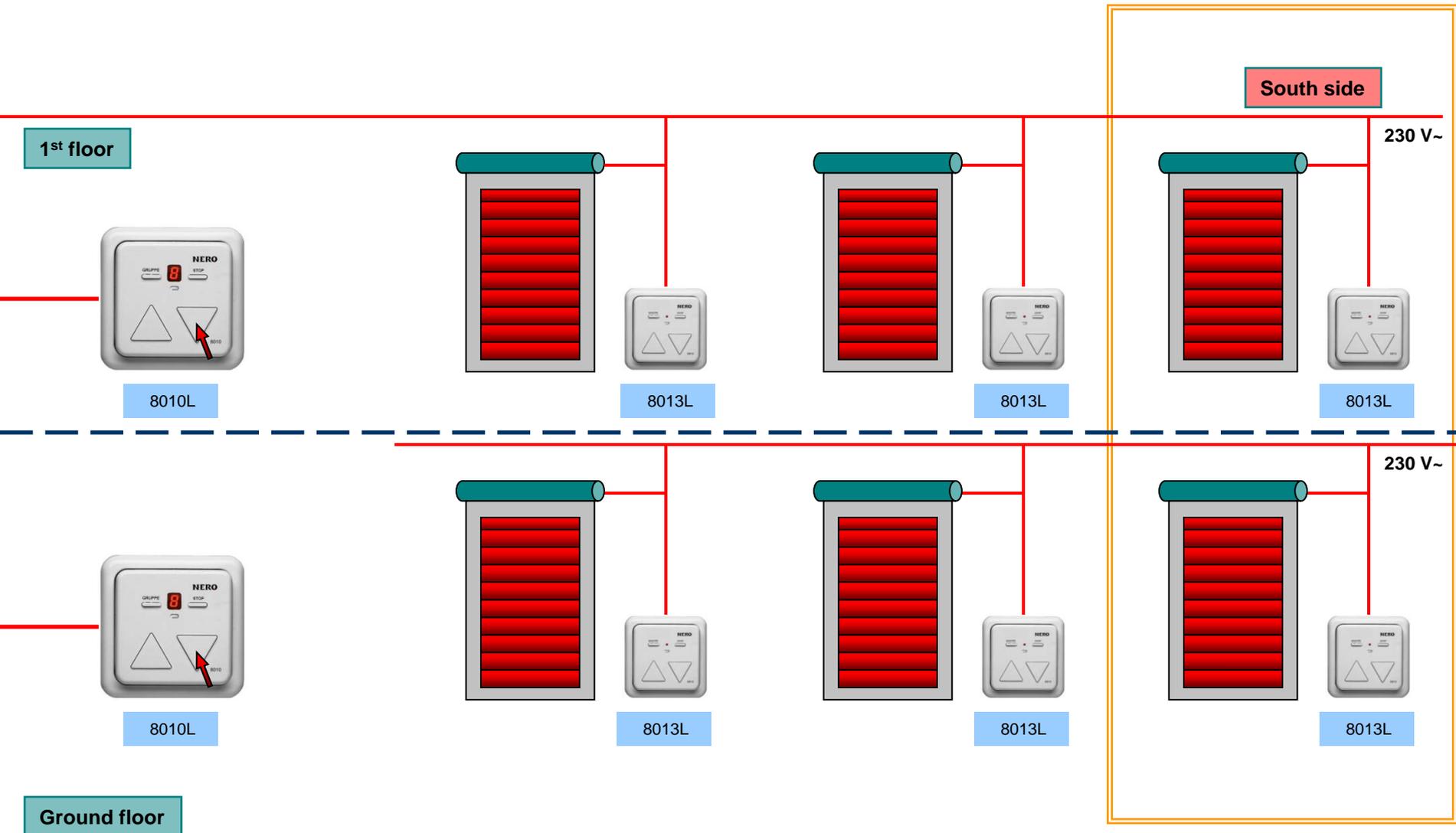
# An example of universality and versatility of the NERO system:

Each group can also be controlled by means of RADIO transmitters in case a Nero 8361 UPM transcoder is used.



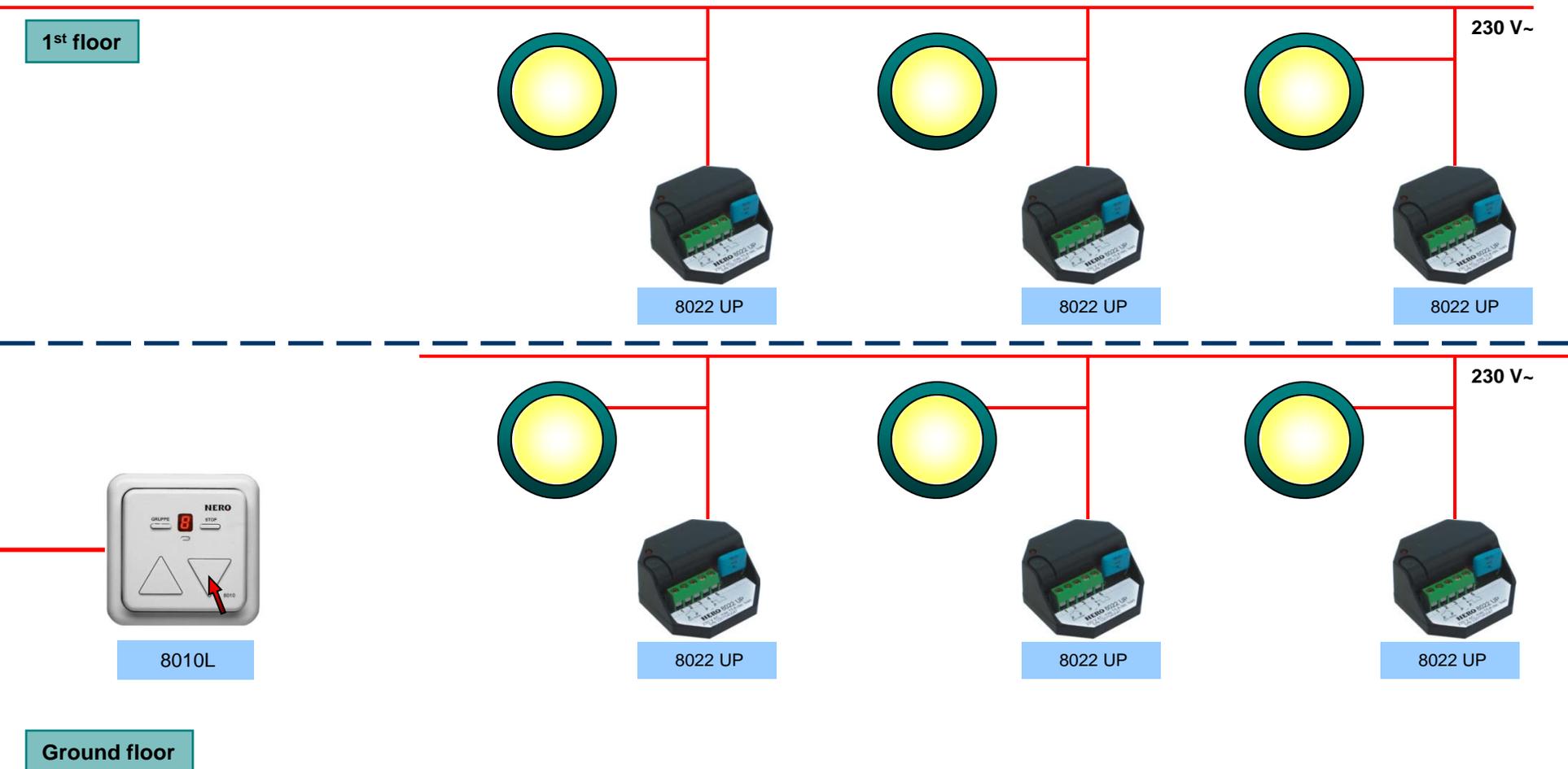
# An example of universality and versatility of the NERO system:

...and obviously each group can be controlled by one or more NERO 8010L central transmitters.



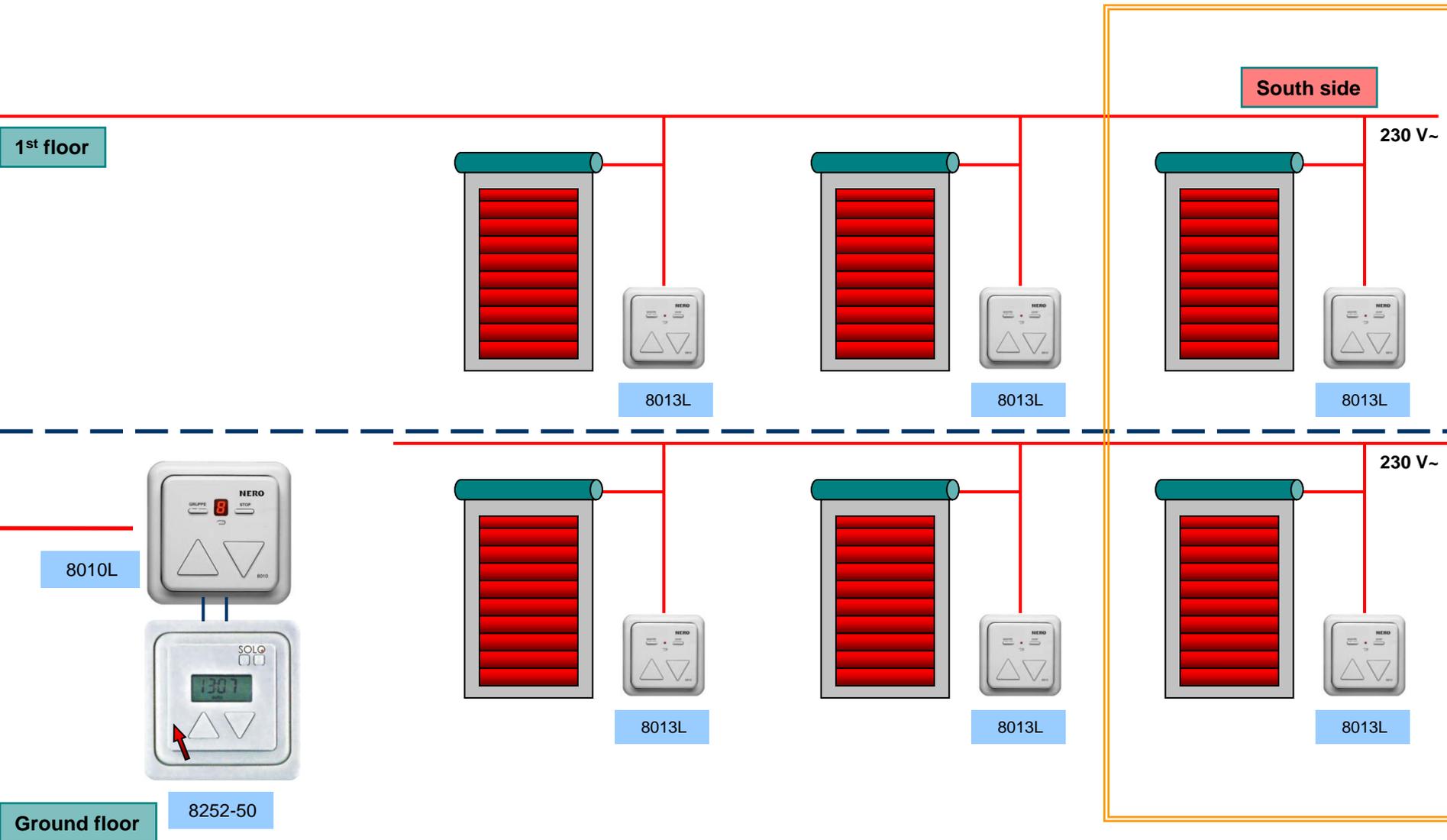
# An example of universality and versatility of the NERO system:

The NERO 8022 UP controls can also be easily organised into specific logical groups.



# An example of universality and versatility of the NERO system:

An additionally connected external electronic device such as a SOLO 8252-50 timer can control one of the groups or one common group.



# Main NERO characteristics:

1

All functions of the NERO system are carried out without additional wiring and without cutoff relays.

2

A NERO 8010L central transmitter can control up to 9 groups + 1 common group.

3

The organization of the groups can be easily customized according to the user's requirements.

4

Each executive device of the NERO system can belong to several groups.

5

Each NERO group can include an unlimited number of various electrical loads.

6

Any electrical load operated by a NERO module can be also controlled with a radio transmitter.

7

Several NERO central transmitters can be used without mutual interference in the same building.

8

NERO central transmitters can be installed in any convenient location in the building.

# New installation or reconstruction? Both are a piece of cake!

