

Individual Motor Control Unit

WKS-IR



Motor control unit

The individual control unit WKS-IR is a motor control with integrated buttons for manual override operation. Connecting a central timer or a master switch (momentary type series switch) allows for carrying out central commands.

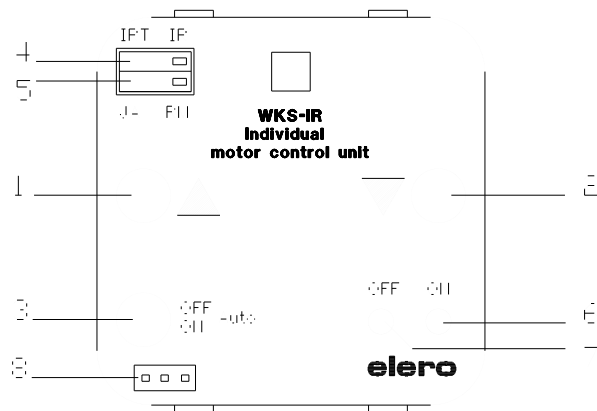
A second switching point for individual operation can be connected. This second switching point provides the same UP and DOWN functions as the WKS-IR operating unit allowing them to be activated even if the automatic operation mode has been switched off.

There are no restrictions to how many individual WKS-IR can be controlled centrally or in groups. This allows solving complex applications the simple way (for connection examples refer to the elero Master Control System catalogue).

Technical Data

Voltage: 120 V
Frequency: 60 Hz
Switching current: 4A cos $\varphi = 0,6$
Switching capacity: 480 VA
Impulse duration: approx. 3 min

Control panel description



No. function

- 1 [UP] command button
- 2 [DOWN] command button
- 3 [AUTO] button
automatic operation ON (Ein) / OFF (AUS)
- 4 Operation mode selector WKS-IR / WKS-IRT
- 5 Operation mode selector JA/RM
venetian blind drive/awning or tubular motor
- 6 Indicator (green) Automatic operation ON (Ein)
- 7 Indicator (red) Automatic operation OFF (Aus)
- 8 Connection for external receiver

Explanation of the operation mode selector

The operation mode selector serves to match the motor control unit to the type of installation used:

- * Position RM - for tubular motor
- * Position JA - for venetian blind drives and awnings
- * Position IR - approx. 3 min. impulse duration
- * Position IRT - push-to-run mode

The selectors are factory-set to RM and IR.

Position RM

In the RM position the individual motor control unit WKS-IR is used as a roller shutter control. All manual commands are carried out without delay and are self-maintained. After activating the command the motor will run to the required limit position. The LED light indicator will flash as long as the command is activated i.e. for approx. 3 minutes (green LED light - when automatic operation is switched ON, red LED light - when automatic operation is switched OFF). Pressing the button for the opposite direction [UP] or [DOWN] allows to stop the command. Pressing the button for the opposite direction for more than 1 sec. will automatically reverse the direction of travel. After approx. 3 minutes (impulse duration) or after a "Stop" command the light indicator switches to steady light.

Setting a roller shutter intermediate position

The "intermediate position" function (only possible in the downward direction) is used to position the roller shutter in an intermediate position to allow for ventilation gaps for example.

To set an intermediate position, first delete any intermediate position which may have been programmed previously (see deleting the intermediate position setting). Then run the shutter to the completely open position and wait until the LED light indicator displays a steady green or red light after approx. 3 minutes. After that press the "DOWN" button and keep it pressed until the required position is reached. When reaching the desired position press the "UP" button, too. On releasing the buttons the intermediate position setting is stored. This is indicated by a momentary light-up of both LED indicators.

With a further "DOWN" command from the intermediate position the roller shutter can be closed completely (green or red LED indicator flashes).

Deleting the intermediate position setting

To delete an intermediate position, first run the shutter to the completely open position and wait until the LED light indicator displays a steady green or red light after approx. 3 minutes. After that press the "UP" and "DOWN" button simultaneously (for approx. 3 sec). By pressing the two buttons the intermediate position is deleted automatically which is indicated by the green and red LED indicators going out.



Position JA

In the JA position the individual motor control unit WKS-IR is used as a venetian blind or awning control. All manual commands become self-maintained after a delay of approx. 1 sec. and the motor will run to required limit position. The delay time of 1 sec allows a tilting angle to be set manually.

Pressing the button for the opposite direction [UP] or [DOWN] allows to stop the command. Pressing the button for the opposite direction for more than 1 sec. will automatically reverse the direction of travel. After approx. 3 minutes (impulse duration) or after a stop command the light indicator switches to steady light.

Setting a venetian blind tilting angle

The "tilting angle" function allows to set the venetian blind slats to tilt automatically. To set a tilting angle, first delete any tilting angle which may have been programmed previously (see deleting a tilting angle). Then run the blind to the completely open position and wait until the LED light indicator displays a steady green or red light after approx. 3 minutes.

After that press the "DOWN" button and keep it pressed during the whole programming procedure. When the blind reaches the position in which the slats are required to tilt press the "UP" button, too, and type in the desired tilting angle. After that release both buttons simultaneously. Successful memorizing of the angle of tilt is indicated by a momentary light-up of both LED indicators.

Deleting a tilting angle

To delete a tilting angle, first run the blind to the completely open position and wait until the LED light indicator displays a steady green or red light after approx. 3 minutes. After that press both the "UP" and "DOWN" button simultaneously (approx. 3 sec). By pressing the two buttons the tilting angle is deleted automatically which is indicated by the green or red LED indicator going out.

Automatic operation ON/OFF

The [Auto] button is used to switch the automatic operation **ON** or **OFF**.

Automatic operation **ON** = **green** LED indicator is on
Automatic operation **OFF** = **red** LED indicator is on

When the automatic operation is ON, the motor control unit responds to central UP and DOWN commands.

When the automatic operation is OFF, the motor control unit responds to central commands as follows:

* **in RM operation mode:** no response to central UP/DOWN commands.

* **in JA operation mode:** no response to central DOWN commands, central UP commands, however, are carried out after approx. 5 sec (e.g. wind alarm).

Note:

When the motor runs to an intermediate or a tilting angle position, the green **and** red LED indicators flash. When an [UP] or [DOWN] command is being carried out the green **or** red LED indicator flashes.

By pressing the [UP], [DOWN] and [AUTO] button for approx. 10 sec. the LED indicators can be switched off or on again.

When switched off the LED indicators only light up while an UP or DOWN command is being carried, the automatic mode ON/OFF is being changed, an intermediate or tilting angle position is being deleted or a coding is being canceled.

Position IR

In the IR position the impulse duration is approx. 3 minutes.

Position IRT

In the IRT position the individual motor control WKS-IR can be used as push-to-run unit. A command is carried out only as long as the UP or DOWN button is being operated. In the IRT mode no intermediate position or tilting angle can be set.

Note:

A "Stop"-command via the central inlet can be carried out by activating both the ▲ and ▼ signal simultaneously or by reversing the direction of travel. Pressing the button for the opposite direction for more than 1 sec., automatically reverses the direction of travel.

An intermediate position or a tilting angle cannot be set or deleted by just using the transmitter.

Transmitter

The motor control WKS-IR can be operated using an infrared transmitter.

On each WKS-IR control ten different codings can be entered as required. In addition, the WKS-IR can be changed into a push-to-run WKS-IR unit at the simple push of a dip switch.

This allows to combine the WKS-IR with a variety of different controls.

An external receiver can be connected to the terminal board or the plug-in connecting socket on each WKS-IR control.

Programming the codings

By pressing the automatic mode ON/OFF button and the UP button on the WKS-IR control simultaneously and keeping them pressed during the whole programming procedure, the control unit is ready to accept and memorize the codings transmitted.

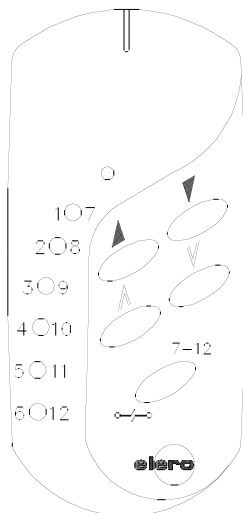
By pressing different combinations of keys on the transmitter at the same time the required functions can be programmed (see key description chart).

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Key description chart:



7-12 and same key

Symbol	Description	Function
	UP	Upward travel in self-maintained mode
	DOWN	Downward travel in self-maintained mode
	UP / Stop	Upward travel in push-to-run mode
	DOWN / Stop	Downward travel in push-to-run mode
	Interruption	Interruption of the previously selected function
1	Selection 1	Only Individual unit 1 / Group 1 will carry out the command to follow
2	Selection 2	Only Individual unit 2 / Group 2 will carry out the command to follow
3	Selection 3	etc.
4	Selection 4	
5	Selection 5	
6	Selection 6	
7-12	Selection 7-12	Same function as when selecting 1- 6. However, the mode key 7-12 has to be pressed first

Application examples: In a room equipped with 4 roller shutters the four drives need to be operated centrally, in 2 groups of 2 drives each (group South and West) as well as individually. Key 7 and 8 are supposed to trigger the group functions, the individual commands are to be assigned to keys 1-4.

1.) Central command :

The central command for UP, DOWN, UP/Stop, DOWN/Stop is factory-set, i.e. all drives will respond to these commands automatically.

2.) Group command South : Follow the instructions given under "Programming the codings" for both WKS-IR control units. Then press mode key 7-12 on the transmitter (LED on transmitter starts lighting up every three sec.) and after that key 7. Finally, press the UP key (LED on the transmitter starts flickering).

Successful programming is indicated by a momentary light-up of both LEDs on the WKS-IR unit. The group command for UP, DOWN, UP/Stop and DOWN/Stop has been programmed.

To leave this mode press key to interrupt. After that the LEDs on the transmitter stop flashing.

3) Group command West : Same procedure as before, however, press key 8 instead of key 7.

4.) Individual command :

Follow the instructions given under "Programming the codings" for the WKS-IR control unit required. Then press key 1 on the transmitter (LED on transmitter starts lighting up every three sec.) and after that press the UP key (LED on the transmitter starts flickering).

Successful programming is indicated by a momentary light-up of both LEDs on the WKS-IR unit. The individual command for UP, DOWN, UP/Stop and DOWN/Stop has been programmed.

To leave this mode again key to interrupt. After that the LEDs on the transmitter stop flashing.

Follow the same procedure for the other WKS-IR control units, however, instead of pressing key 1 press key 2 on the 2nd control unit, key 3 on the 3rd control unit, etc..

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Note: When pressing the keys 1-6 or 7-12 the selected function will remain active for approx. 3 min.. After that the standard setting will be reactivated (central command).

During these 3 minutes the standard setting can be reactivated by pressing the key to interrupt. When the standard setting has been reactivated, the LEDs stop flashing.

In total, the transmitter allows 12 individual or group commands to be triggered using keys 1-6 and increasing the number of possible codings by another 6 by using key 7-12.

Operating the transmitter after programming

1.) Central command: By operating the UP, DOWN, UP/Stop or DOWN/Stop key all drives start to run in the required direction.

2.) Individual or group commands: By operating the keys 1-6 (selection) and after that pressing the UP, DOWN, UP/Stop or DOWN/Stop key, or by operating the mode key 7-12 first and one of the keys 7 to 12 (selection) after that, followed by the UP, DOWN, UP/Stop or DOWN/Stop key all drives assigned to this command start to run in the required direction.

Deleting the codings programmed

Pressing the "Automatic ON/OFF" and the DOWN key on the WKS-IR unit simultaneously (for approx. 3 seconds) will cause all codings (group and individual commands) to be deleted from the memory. Successful deletion is indicated by a momentary light-up of the red or green LED indicator.

The central command will be retained.

Wiring Diagram

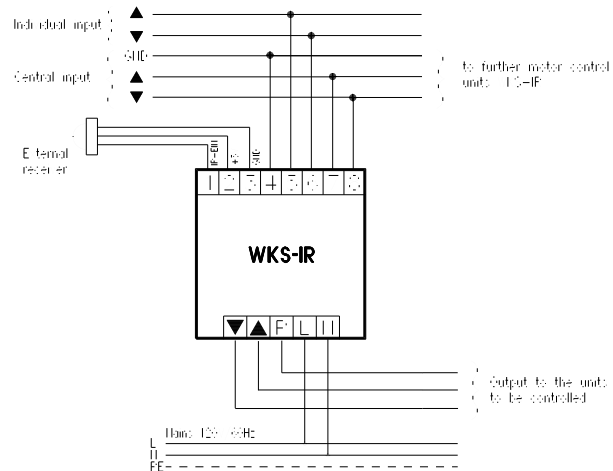
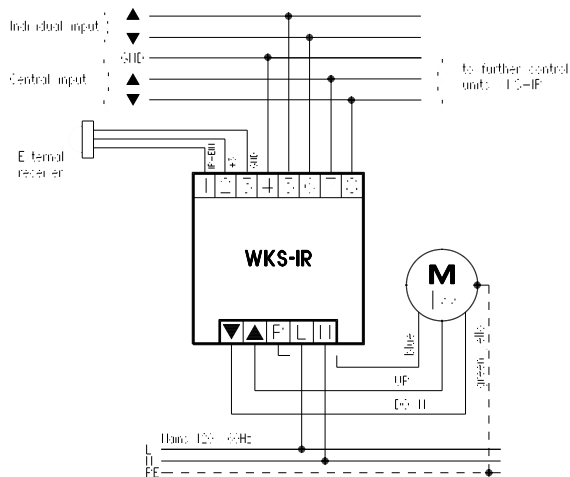
Work on the 120 volt mains may only be carried out by authorised specialists.

Attention !

Use a shielded control line ...*0,8 mm Ø or a telephone line JY-ST ...*0,6 mm Ø only.

Operation mode selector in position IR for the operation of one motor with an impulse duration of approx. 3 min.

Operation mode selector in position IRT with push-to-run function to trigger additional control units.



Connect only 1 motor maximum

Make sure mains supply is switched off prior to installation!

To set up a control system please refer to the MASTER Control System catalogue.