

## ZUSATZMODUL K4

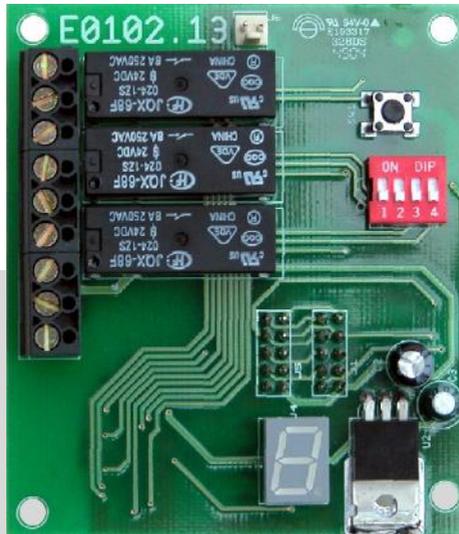
Modul für den Anschluss eines elektronischen  
Endschalters bei Sektionaltoren

## ADDITIONAL MODULE K4

Module to connect an electronic  
limit switch of sectional doors

## EXTRA MODULE K4

Module voor de aansluiting van een elektronische  
eindschakelaar bij sectionaaldeuren



# ADDITIONAL MODULE K4 (FOR SECTIONAL DOORS)

## ASSEMBLING



**During all wiring and assembling works, the control system has to be cut-off from power supply!**

ENGLISH

→ Programme of final position with EES  
(Electronic limit switch)

Wire strap:

X2-J6,

X3-J8-J9,

X4a-J24,

X4b-J26,

X5-J21-J20-J19

Jumper:

X11-Pin5-6

X3A-Pin1-2

X3B-Pin1-2

Slide four spacers 8 mm on the guide pins.

In case of using an OSE, put the Jumper on the module K2 on OSE, connect the cable of OSE to the screw terminal (+12V, Sig, GND) and insert the card (K2) with the guide pins on the motherboard, then slide four spacers 16 mm on the guide pins and insert the module K4 (EES) on the logic module (K2).

If the door is at the lower final position, it should be opened at about 50 cm with the crank handle to avoid crack off of carrying rope if the turning direction is set wrongly. Now, supply with power (plug in CEE plug).



Set dipp switch 1 to 4 on the module K4 on "ON".



A small "u" appears in the seven segments display. That "u" should be in the upper part of the display.



If the display shows a turned up "u" in the lower part of the display, the key sw1 (over the dipp switch) should be pushed once short.



Now, the "u" in the display should be in the upper part of the display.

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Now, insert the dipp switches 2, 3, 4 in the “OFF” position (the upper transversal bar in the display flushes).

Now, move the gate slightly upwards with the key “OPEN”. If the door is moving in OPEN direction, continue with “SET UPPER FINAL POSITION”.



If the door is moving in DOWN direction, error “6” (error of direction) is flushing in the display and the door stops. (error “6” can only be set back by cutting off from power supply).

In this case, cut off power supply and turn the phase inverter in CEE plug respectively exchange the lead L1 and L3 of plug X1. Then, cut off from power supply and continue with “SET UPPER FINAL POSITION”.

But even if the door is moving in upwards direction and error “6” is still flushing, the power supply must be cut off (pull out CEE plug) and be switched on again after some minutes.



Now, set the dipp switch 1 to 4 at “ON” and turn up the counting direction of EES by short press of key SW1.



Now, the small turned up “u” is shown in the lower part of the display.



Now, set the dipp switches 2, 3 and 4 at “OFF” and continue with “SET UPPER FINAL POSITION”.

# ADDITIONAL MODULE K4 (FOR SECTIONAL DOORS)

## DESCRIPTION OF FUNCTION

ENGLISH



### → Adjustment of final position:

For this purpose, set dip switch 1 at «ON», the upper transversal bar flushes.



### → Adjustment of upper final position:

Move the door with the switches UP and DOWN in dead man operation mode till about 8 cm away from the upper final position and register this position by a short push on the key SW1.



Now, the lower transversal bar is flushing.

### → Adjustment of lower final position:

Move the door with the switches UP and DOWN in dead man operation mode till about 8 cm away from the lower final position and register this position by a short push on the key SW1.



Now, the mid transversal bar is flushing.

If a final position, door opening at half-height is necessary, continue at adjustment of opening at half-height.



If opening at half-height is not necessary, push the dip switch now to the "OFF" position. The display shows the lower final position and the prelimit switch at the bottom (the transversal bar at the bottom and in the middle are on). Now, continue at exact adjustment of upper and/or lower final position.



### → Adjustment of door opening at half-height:

Move the door with the switches UP and DOWN in dead man operation mode till about half-height and register this position by a short push on the key SW1.



The display is off.



Now, push the dip switch 1 to the position «OFF».



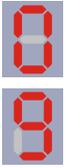
Switch on and/or off of the function half-height occurs on the additional board plate K3-Eco and/or K3

### → Exact adjustment of upper and/or lower final position:

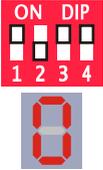
After setting lower final position, the door is moved to the upper final position by short push on key UP, the control switches through the EES at the set final position. If the upper switch off point should be set at a higher position, dip switches 1, 2 and 4 must be push to «ON» now (if the final position should be set at a lower point, set dip switches 1, 3 and 4 at «ON»).



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“0” appears in the display. Now, a correction value between 1 and 9 steps can be set by short and/or repeated push on key SW1. Then, insert all dipp switches in the “OFF” position. Now, the final position is corrected and will be activated at the next move upwards. Now, move the door to the lower final position by short push on key DOWN, the control is switched off in the set final position. If the lower cut off position should be set at a lower position, now, the dipp switches 1, 3 and 4 should be inserted on “ON” (if the cut off position of the door should be set at a higher position, dipp switches 1, 2 and 4 should be set on “ON”). “0” appears in the display.



Now, a correction value between 1 and 9 steps is able to be set by a short and/or repeated push of key SW1. Then, insert all dipp switches on “OFF” position again. Now, the final position is corrected and will be activated at the next move downwards. This procedure is able to be repeated so long till the exact final positions are set.



**CAUTION! The prelimit switch is always automatically set by the control during programming of lower final position at about 6 cm over the lower final position!!!**

→ Automatic closing:

Cut off power supply to set the automatic time of closing, pull out the module K4 and set the automatic time of closing through the rotary switch on the module K2. Then, insert the module K4 and switch on power supply again. Now, the equipment is ready for operation.



→ Functions of dipp switch:

Dip-1 “ON” and 2, 3, 4 “OFF” programming of final position

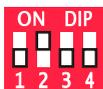


Dip-1,2,4 “ON” and 3 “OFF” exact set of final position (-)



Dip-1,3,4 “ON” and 2 “OFF” exact set of final position (+)

# ADDITIONAL MODULE K4 (FOR SECTIONAL DOORS)



DIP-2 "ON" and 1 "OFF" correction of lower final position at rope length



**In this function, no winding stopper should be used!!!**



DIP-3 "ON" and 1 "OFF" 3 sec. light warning at automatic closing



DIP-4 "ON" and 1 "OFF" free move at safe rails stop



DIP-4 "OFF" and 1 "OFF" reverse move at safe rails stop

## → Functions of operation



Now, the corresponding functions of operation are able to be chosen by pushing the dip switches 2, 3 and 4 in the "ON" position.

In normal operating stand, the door stand respectively the error number of existing error is shown in the display of the module K4.



UP move,



DOWN move,



upper final position,



Pre limit switch,



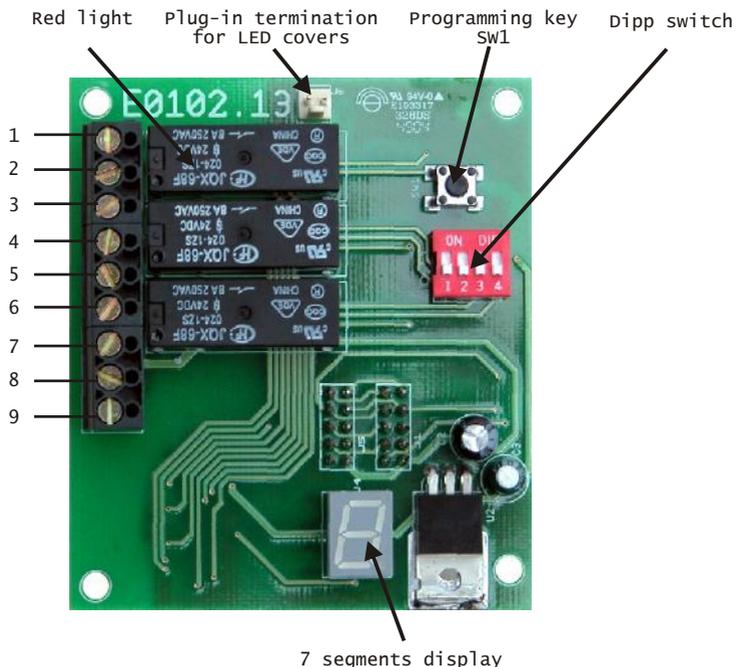
lower final position.

## Error indication (is flashing represented):

- 1 Safety circuit
- 2 Error in UK strip
- 3 react UK strip
- 4 The lower final position is not reached (time limit)
- 5 The upper final position is not reached (time limit)
- 6 Wrong turning direction at drive
- 7 Cut off of power supply in upwards direction
- 8 Door in the area of safety limit switch
- 9 The door is not in one of the final positions, no possibility to correct the final position
- 0 Error of electronic limit switch

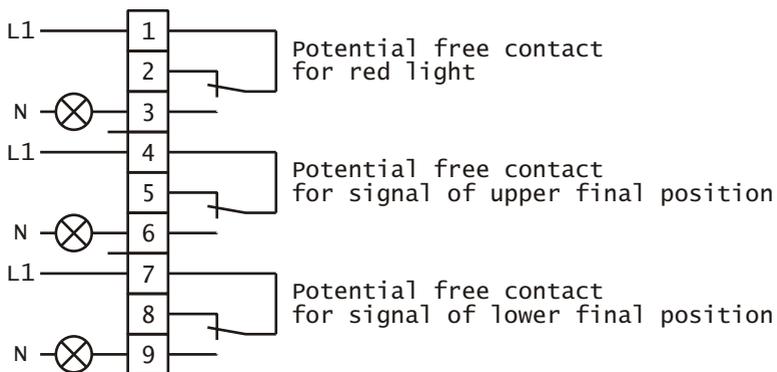
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## DESCRIPTION



ENGLISH

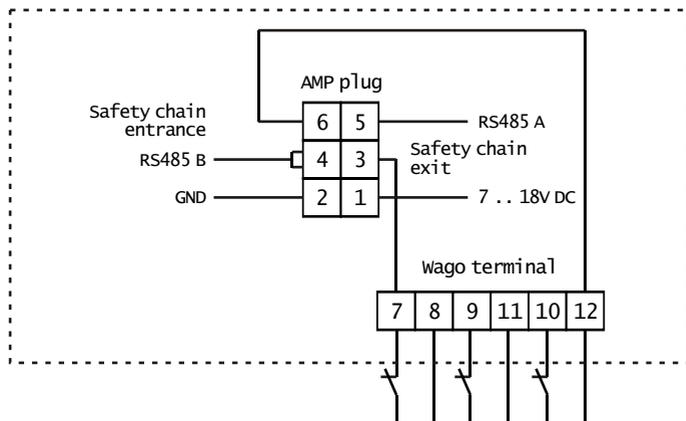
### Connexion of red light and signal of final position



# ADDITIONAL MODULE K4 (FOR SECTIONAL DOORS)

## PLUGS AND CONFIGURATION OF TERMINALS EES

ENGLISH



Possibility of connexion for external safety elements  
e.g. hoist chain, crank handle, thermopill, clutch release.

## CONFIGURATION OF MOTOR CABLE

Lead	Motor	Control
1	U	X2-J1/U
2	V	X2-J1/V
3	W	X2-J1/W
4	-	-
5	AMP plug 3	X5-J22
6	AMP plug 4	X5-J33/B
7	AMP plug 2	X5-J32/-
8	AMP plug 5	X5-J33/A
9	AMP plug 6	X5-J22
10	AMP plug 1	X5-J32/+
11	-	-
yellow/green	PE	PE

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16 Subject to changes which are in the interest of technical improvements.