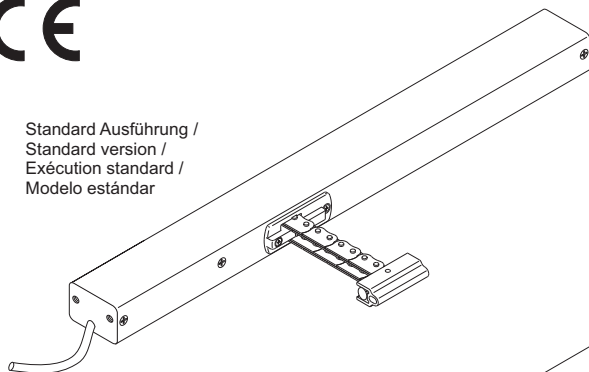


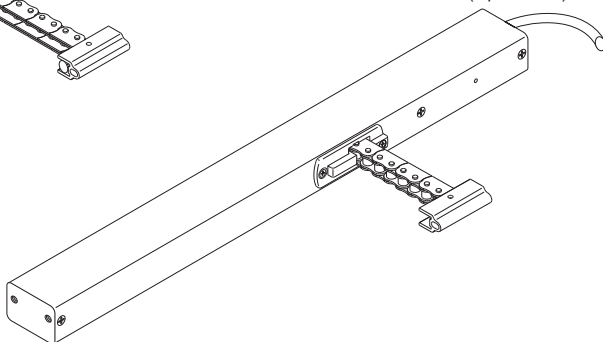


# CE

Standard Ausführung /  
Standard version /  
Exécution standard /  
Modelo estándar



Gespiegelte Ausführung (Option "-L") /  
Mirrored version (Option "-L") /  
Exécution inversée (Option "-L") /  
Versión invertida (Opción "-L")



Konsolensätze bitte separat bestellen /  
Please order bracket sets separately /  
Prière de commander séparément les kits de consoles /  
Rogamos que pidan los juegos de fijación por separado



G 503007



|           |                           |        |    |
|-----------|---------------------------|--------|----|
| <b>de</b> | Originalbetriebsanleitung | Seite  | 2  |
|           | Anschluss                 | Seite  | 18 |
| <b>en</b> | Original instructions     | Page   | 6  |
|           | Connection                | Page   | 18 |
| <b>fr</b> | Notice originale          | Page   | 10 |
|           | Connexion                 | Page   | 18 |
| <b>es</b> | Manual original           | Página | 14 |
|           | Conexión                  | Página | 18 |

## WARNING

Read all safety warnings, instructions, illustrations and specifications provided with this product. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. Save all warnings and instructions for future reference.

## Safety notes

### Safety extra low voltage 24 V DC!

Do not connect directly to the mains supply!

- Connection has to be carried out only by an authorized electrical specialist
- Danger of violent pressure in handaccessible area
- Keep away People from the operating area of the drive
- Keep away children from the control
- Observe pressure load diagram of the chain!
- Use only in dry rooms
- Only for inside mounting.  
Use rain detector with danger of rain (e.g. at domelights or roof windows)
- This product may not be operated without the covering stoppers, which are delivered with bracket sets
- Just use unchanged original D+H parts
- Observe mounting instructions of bracket set!

Observe enclosed red safety slip!

## Functional description

A synchron-group (KA-BSY+) can be count up to 8 drives, which communicate by a bus. Each drive has it's own adress. This adress is configurable with SCS software.

The last drive of a synchron-group is the master, which controls the other drives, the slaves. Different forces between the drives of a group will be balanced with intelligent force- and position control. In case of malfunction respective cutoff of a drive, all drives will shut down from the master-drive.

## Intended use

- Chain drive for electric opening and closing of windows and flaps in the facade and roof area
- By VdS is the maximum load for the chain at pressure = 600 mm and at tension = 1000 mm
- Operating voltage 24 V DC
- Useable for smoke ventilation, D+H Euro-SHEV according to DIN EN 12101-2 as well as daily natural ventilation
- Only for inside mounting

## Performance features

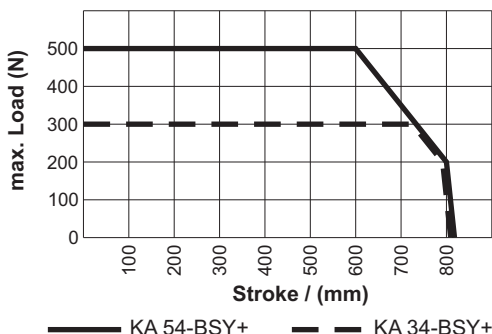
- Microprocessor controlled synchro electronics BSY+ for a precise synchronous run of up to 8 drives
- Individually programmable (via software SCS)
- SHEV-high speed function (fast-running feature in OPEN-direction)
- Protection system for the main closing edge
- Power supply and BSY+ signal can be looped through: with KA 34-BSY+ for max. 3 drives, with KA 54-BSY+ for max. 2 drives
- Power supply is possible from both sides
- Locking relief after closing

## Extent of supply

Drive unit with 2,5 m silicone cable. Dependent on the type of window, different bracket sets are available separately.

## Pressure load diagram

Observe maximum pressure load of the chain! Maximum pressure load of the chain is not automatically identical with maximum pressure force of the drive!





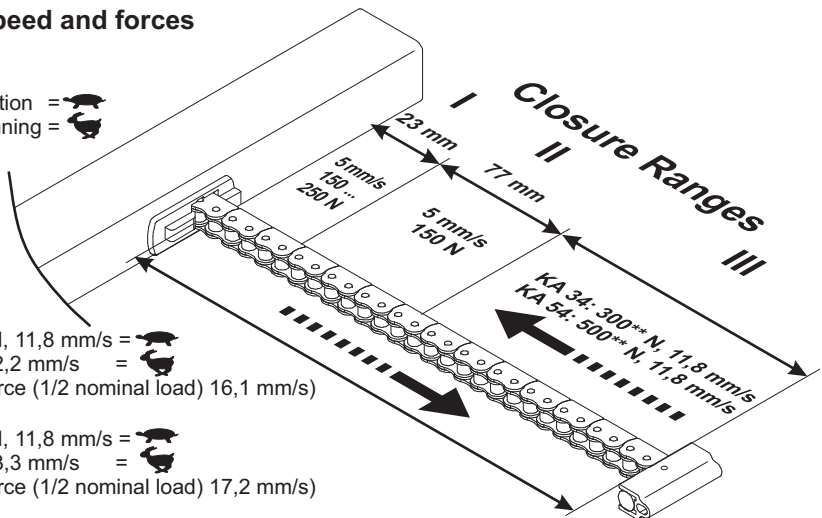
## Technical data

|                               |   |                                       |
|-------------------------------|---|---------------------------------------|
| Type                          | KA 34/xxx-BSY+  | KA 54/xxx-BSY+                        |
| Power supply<br>Nominal force | 24 V DC / $\pm 15\%$ / 1,0 A<br>300 N   | 24 V DC / $\pm 15\%$ / 1,4 A<br>500 N |
| Nominal locking force         | 2000 N  |                                       |
| Lifetime                      | >20 000 double strokes  |                                       |
| Duty cycle                    | 30 % (With cycle time 10 minutes)   |                                       |
| Housing                       | Aluminium powder-coated (~RAL 9006)   |                                       |
| Ingress protection            | IP 32 (With covering stoppers delivered with bracket sets)                            |                                       |
| Temperature range             | -5 ... +75°C  |                                       |
| Fire stability                | 30 min / 300°C  |                                       |
| Emission sound pressure level | LpA $\leq$ 70 dB(A)   |                                       |
| Nominal stroke length *       | See type plate  |                                       |
| Additional functions *        | Closing edge protection activated (3 stroke repetitions);<br>Locking relief activated |                                       |

\* Programmable with software SCS

## Running speed and forces

Normal operation =   
SHEV- fast running = 

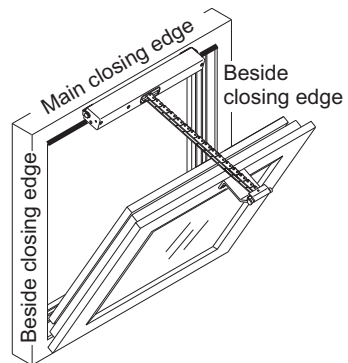


\*\* + approx. 20 % switch-off reserve (temporary)

## Closing edge protection

In the "CLOSE" direction the drive has an active protection for the main closing edge. If there is an overload in the closing range 3 and 2, the drive runs "OPEN" for 10 seconds, then "CLOSE" again. If after three attempts closing is not possible, the drive remains in this position.

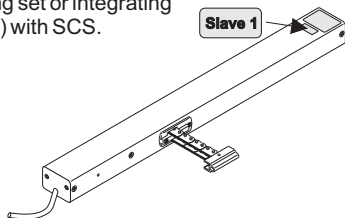
In addition, the drive is equipped with passive protection. The closing speed in closing range 2 and 1 is reduced to 5 mm/s.



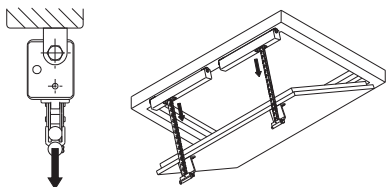
Significantly greater forces can be exerted at the secondary closing edges. Danger of crushing hands and fingers!

## Mounting informations

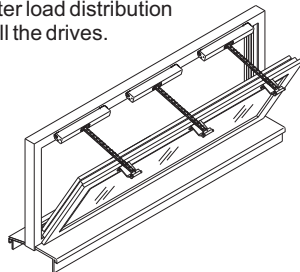
The drive will be full configured by factory.  
The drives must be reconfigured in case of alterations (e.g. removing of drives from existing set or integrating a new drive) with SCS.



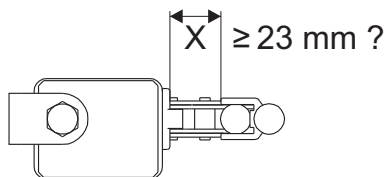
At vertical active pulling application (e.g. for a skylight) the forces must be rearranged by software SCS



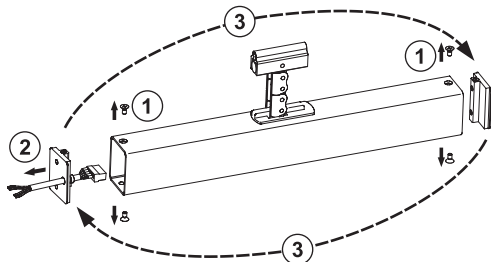
Mount the drives mechanical stress-free.  
With that, a better load distribution is ensured on all the drives.



If after mounting the measure x is as bigger as 23 mm, null balance with software SCS is necessary. Closure Ranges will shift in relation to new zero point.



## Shift of drive cable

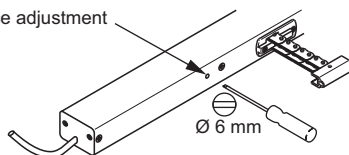


## Locking force adjustment

If factory-set locking pressure of ca. 150 N is not sufficient to close the window, it can be infinitely increased up to ca. 250 N.

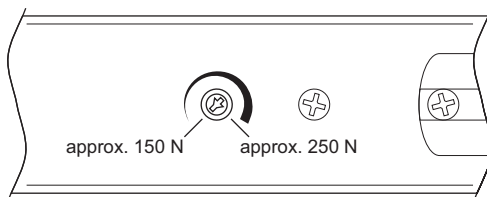
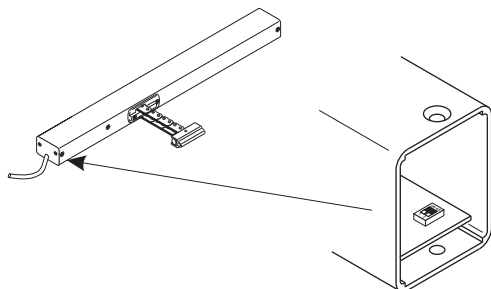
**Put in covering stopper after adjustment.**

Locking force adjustment



## DIP-Switch

**Only for ex-works programming**  
Debe ser encendido OFF



## Trouble shooting

### Visual inspection:

Only one master-drive allowed.

The master has, according to common drives, the last adress.

The adress is sticked on the drive. Slaves are nubered downwards.

Example: In a group, composed of 3 drives, there is a master 3, a slave 2 and a slave 1drive. Attention: only applies by factory set. as soon as the drives were reprogramized with SCS he factory set adressng does not apply any longer.

### Wiring:

Is the group wired correctly?

Therefore look connection diagrams.

### Null balance:

It should be null balanced.

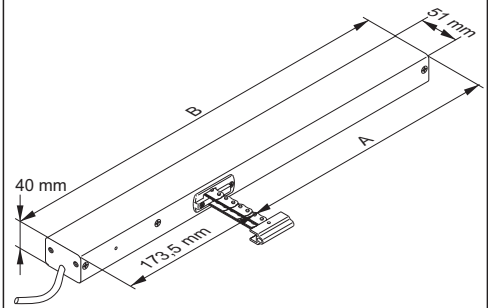
Software SCS or the special magnet MAG 502 is required.

### Call D+H Service:

Drives must be configured.

Software SCS is required.

## Dimensions



| Stroke | A     | B   |
|--------|-------|-----|
| 350    | 247,5 | 421 |
| 500    | 322,5 | 496 |
| 600    | 372,5 | 546 |
| 700    | 422,5 | 596 |
| 800    | 472,5 | 646 |
| 1000   | 576,5 | 750 |
| 1100   | 628,5 | 802 |
| 1200   | 678,5 | 852 |
| 1300   | 728,5 | 902 |

## Maintenance and cleaning

Maintenance work is only allowed when the device is in a de-energized condition! Inspection and maintenance has to be carried out according to D+H maintenance notes. Only original D+H spare parts may be used. Repair is to be carried out exclusively by D+H.

Wipe away debris or contamination with a dry, soft cloth.

Do not use cleaning agents or solvents.

## Guarantee

You will get 2 years guarantee for all D+H products from date of verified handing over of the system up to maximal 3 years after date of delivery, when mounting and starting has been carried out by an authorized D+H-distributor.

D+H guarantee is expired, with connection of D+H components with external systems or with mixing of D+H products with parts of other manufacturers.

## Declaration of Conformity

We declare under our sole responsibility that the product described under "Technical Data" is in conformity with the following directives:

2014/30/EU, 2014/35/EU

Technical file at:

D+H MechatronicAG, D-22949 Ammersbek

Dirk Dingfelder  
Member of the Board  
31.03.2016

Maik Schmees  
Authorized signatory, Technical Director

## Disposal

Electrical devices, accessories, batteries and packing should be sorted for environmental-friendly recycling. Do not dispose electrical devices and batteries into household waste!

Only for EC countries:

According the European Guideline 2012/19/EU for waste electrical and electronic equipment and its implementation into national right, electrical devices that are no longer usable must be collected separately and disposed of in an environmentally correct manner.



# Anschluss / Connection / Connexion / Conexión

## Aderbelegung Stecker / Pin Assignment / Brochage des fiches / Asignación de cables

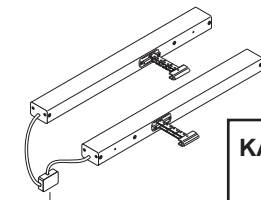
| Standard / Estándar | Option / Opción -BRV | Option / Opción -SGI / -SKS | Option / Opción -SA / -SZ |
|---------------------|----------------------|-----------------------------|---------------------------|
| WH (Mot. a)         | WH (Mot. a)          | WH (Mot. a)                 | WH (Mot. a)               |
| BN (Mot. b)         | BN (Mot. b)          | BN (Mot. b)                 | BN (Mot. b)               |
| OG (-HS)            | OG (-HS)             | OG (-HS)                    | OG (-HS)                  |
| YE (Data A)         | YE (Data A)          | YE (Data A)                 | YE (Data A)               |
| GN (Data B)         | GN (Data B)          | GN (Data B)                 | GN (Data B)               |
|                     | GY (-BRV)            | GY (-SGI / SKS)             | GY (-SA / -SZ)            |
|                     | PK (n.c.)            | PK (+SGI / SKS)             | PK (-SA / -SZ)            |

Das Anschlusskabel ist direkt mit dem Antrieb verbunden und nicht wechselbar /

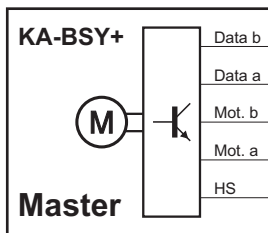
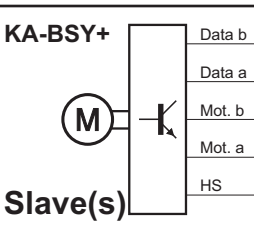
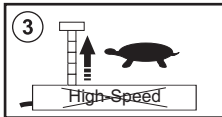
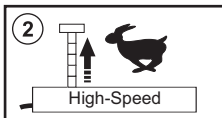
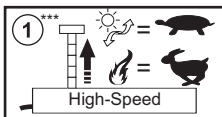
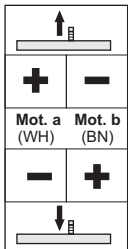
The connecting cable is directly connected to the drive and not changeable /

Le câble de raccordement est branché directement à la motorisation ; il n'est dès lors pas interchangeable /

El cable de conexión está directamente conectado con al motor y no puede cambiarse



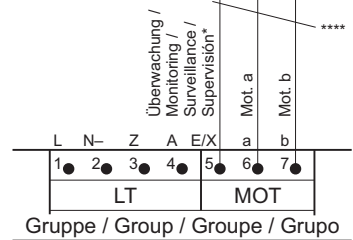
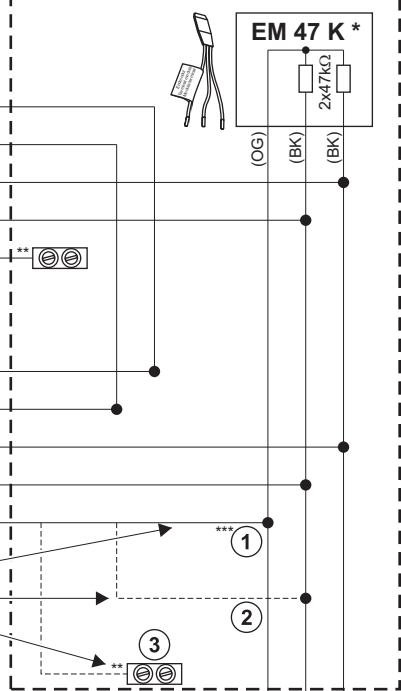
zur Zentrale /  
to control panel /  
vers la centrale /  
para central



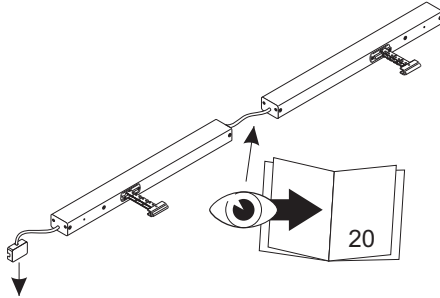
Normalbetrieb  
Normal mode  
Activité normale  
Servicio normal

RWA- Schnelllauf  
SHEV- fast running  
EFC fonctionnement rapide  
Marcha rápida SVHC

### Abzweigdose / Junction box / Boîte de dérivation / Caja de conexión



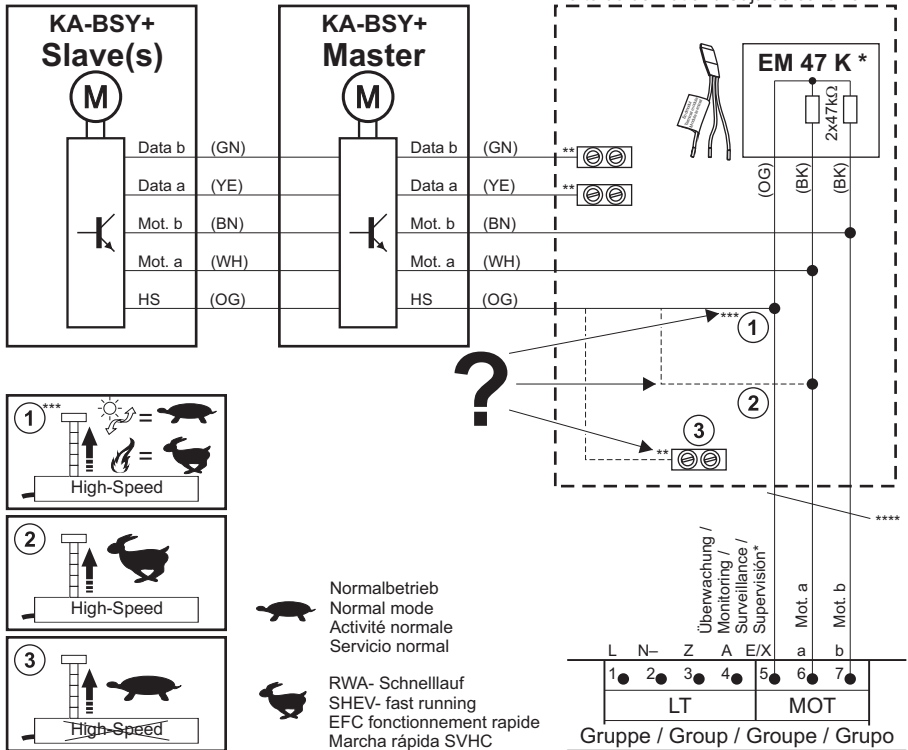
# Anschluss / Connection / Connexion / Conexión



- (WH) weiss / white / blanc / blanco
- (BN) braun / brown / brun / marrón
- (OG) orange / orange / orange / naranja
- (YE) gelb / yellow / jaune / amarillo
- (GN) grün / green / vert / verde
- (PK) rosa / pink / rose / rosa
- (GY) grau / grey / gris / gris

zur Zentrale / to control panel / vers la centrale / para central

Abzweigdose / Junction box /  
Boîte de dérivation / Caja de conexión



\* Nicht bei / Not in case of / Pas pour / No en el caso : GVL -E/ -K/ -M

\*\* Gegen Kurzschluss sichern / protect against short circuit /

Protéger contre les courts-circuits / Proteger contra cortocircuitos

\*\*\* Bei Anschluss an D+H RWA Zentralen mit E/HS Leitungsüberwachung /

In case of connection to D+H SHEV control panels with E/HS line monitoring /

En cas de raccordement à des centrales D+H RWA, avec une surveillance des lignes E/HS /

En caso de conexión a paneles de control SVHC D+H con control de línea E/HS

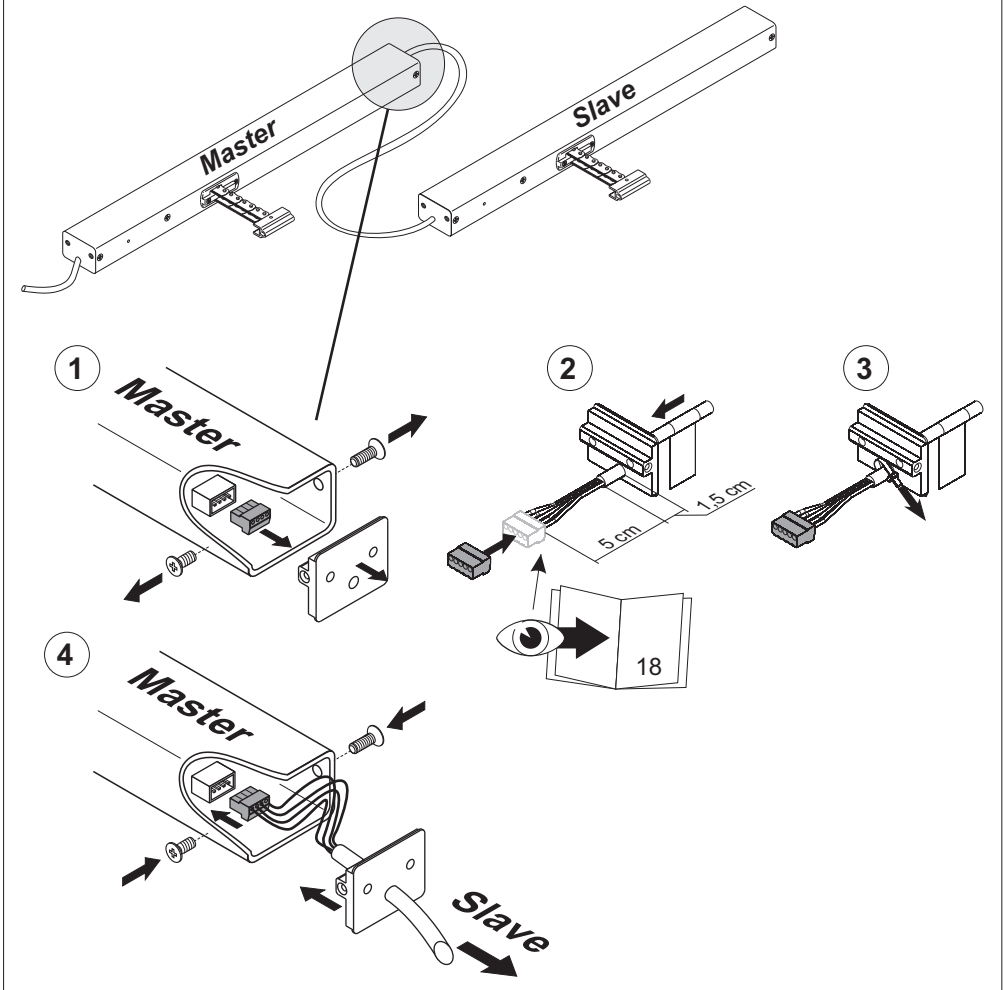
\*\*\*\* Kabel gemäß D+H Kabelverlegetabelle (Siehe Gebrauchsanleitung der Zentrale) /

Cable acc. to D+H table for layout of cables (see instructions for use of control panel) /

Câble selon le tableau de pose de câbles D+H (cf. le mode d'emploi de la centrale) /

Cable de acuerdo con tabla D+H sobre cables (ver instrucciones de uso de los paneles de control)

# Anschluss / Connection / Connexion / Conexión



# D+H

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E-Mail: [info@dh-partner.com](mailto:info@dh-partner.com)

[www.dh-partner.com](http://www.dh-partner.com)

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