

# + INTEGRATION PERFECTION



## CDC SERIES

### Silent star

- » Perfect integration into aluminium, wooden or modern plastic window profiles
- » Quick and easy installation with matching bracket sets
- » Noise emissions reduced: especially quiet operating noise

# + WINDOWS ACOUSTICS



Fig.: CDC Series  
Colour finish: RAL 9006

## Incredibly quiet and nearly invisible

You'll want to take a closer look at and listen to this: The universally applicable CDC chain drive for installation integrated into the profile or surface-mounted is so compact that it is virtually invisible once installed. A sophisticated mechanical decoupling means the chain drive runs extremely quietly. This makes the CDC ideal for aesthetically and functionally sophisticated façade solutions in the smoke extraction and natural ventilation sector. But would the CDC's heat transfer coefficient perhaps increase when started up and shut down while integrated in the profile? The answer: only minimally. Testing by ift Rosenheim revealed that this value is virtually unchanged. The CDC provides pure convenience and optimum flexibility.

It is suitable for numerous window and façade solutions, for wood, aluminium and even modern plastic profiles. Thanks to its intelligent and powerful motor electronics, the CDC can be programmed individually via PC and Windows tablets using the D+H software SCS. Separately configure the drive functions, performance features, stroke lengths, opening widths and speeds for opening and closing entirely according to your requirements and applications. This makes the drive a secure and customised solution that satisfies the highest standards of architects, specialist planners and processors, all while being incredibly quiet and virtually invisible.

### Super quiet drive technology

- » Planning security - complete solution developed and certified as D+H Euro SHEV in accordance with the EN 12101-2 standard
- » Unique bracket solutions for safe and time-saving installation in or on window profiles
- » Drive technology concealed in the window profile meets the demands of state-of-the-art design and function
- » High-speed function (HS) for very quick opening of the window in the case of a fire (SHEV)
- » Maintenance-free, corrosion-protected, hardened and rigid backing steel chain with lifetime wax
- » Elegant housing made of high-quality aluminum - individual powder-coating possible in all RAL colours
- » Special decoupling - quiet operating noise of a maximum of 35 dB(A) and thus as quiet as a whisper
- » VNR mode (Ventilation Noise Reduction) for even quieter ventilation operation
- » Extreme flexibility and simple remote parameterisation of the functions on a PC using D+H software SCS

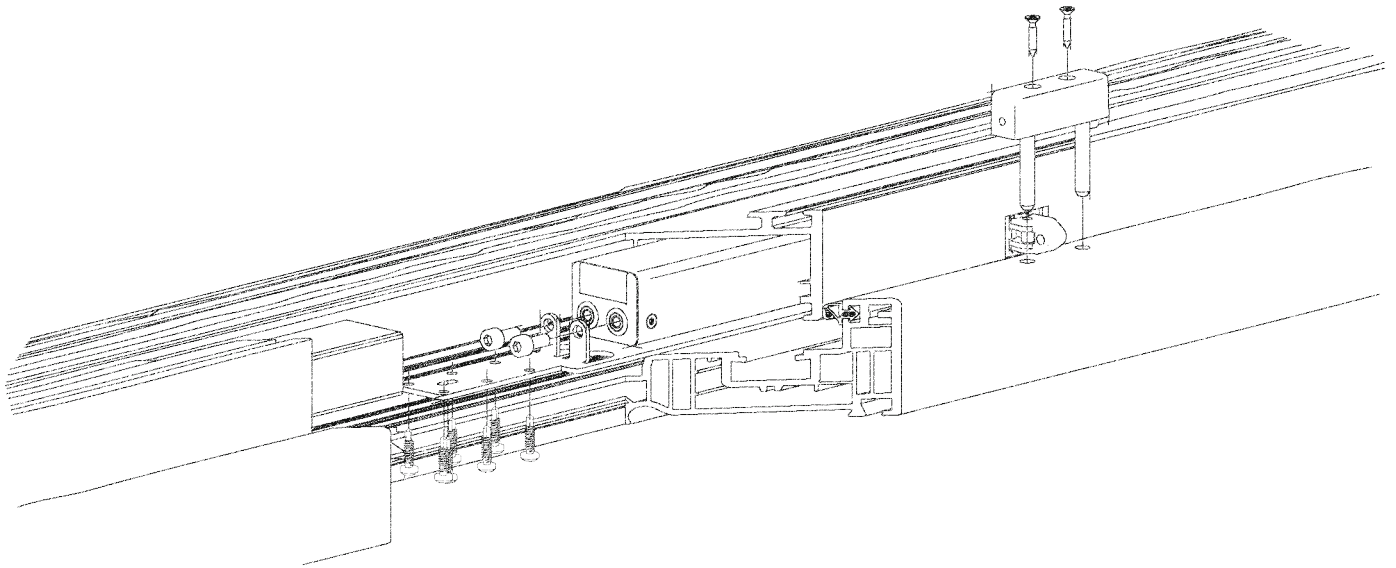
## ACB

### Live communication with the drive

- » Less cable to be routed thanks to bi-directional bus communication between D+H controllers and D+H drives using just one BUS cable
- » Synchronous operation of multiple drives on one opening element easy to implement
- » Extension and retraction of the chain using precise control down to the millimetre
- » Quick and easy read-out of all status messages such as the opening stroke in mm or %, end position OPEN or CLOSED; optional messages for connecting closing edge protection, etc.
- » Direct integration into the building management system over an open Modbus RTU protocol
- » Virtual grouping allows up to 32 drives to be controlled on just one cable, either as a group or separately, meaning reduced cabling efforts and a more streamlined control panel system

For the ACB  
planning manual





# + DRIVE BRACKET

## Versatile installation solutions for even more window profiles

The CDC is the most flexible solution for all façade windows in cases where ventilation and smoke extraction drives are to be out of sight. Our sophisticated CDC bracket set for integrated installation makes the all-rounder small enough to be truly convenient for any architect.

Thanks to the profile-related bracket sets consisting of a frame bracket and sash bracket, the CDC is fast and easy to install in nearly every window - without additional work to adjust the fitting. The CDC is inconspicuously hidden in the window profile, where it functions entirely unseen, moving bottom-hung, side-hung and parallel projecting windows. For natural ventilation with the highest standards for design and function. And if need be, the sleek CDC can also easily be mounted.



## Simply more profile

Whether for wooden, aluminium or state-of-the-art plastic window frame profiles, the CDC Series can be used virtually anywhere thanks to its narrow design and a wide variety of brack-

et solutions. The CDC satisfies the demand for state-of-the-art window motor systems. See for yourself by trying the perfectly integrated, surface-mounted installation solutions.

## System vendors

Alcoa Kawneer®	Reynaers®
Aluprof®	Sapa®
Colt®	Schüco®
Gutmann®	Skandinaviska®
Heroal®	Sykon®
Hueck®	Velux®
Raico®	Wicona®

If a suitable manufacturer is not listed for you, please contact our service regarding a solution.





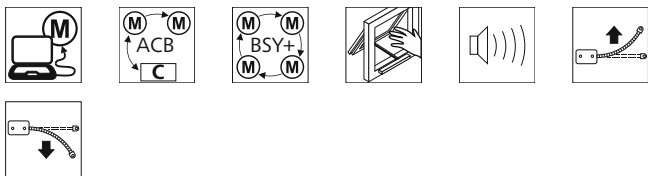
# CDC-0252-1-ACB



## Performance features

- » Can be used for openings for smoke exhaust; D+H Euro SHEV in accordance with EN 12101-2; and for daily ventilation
- » With BSY+ motor and synchronised electronics controlled via microprocessor
- » Perfectly suited for profile integrated and surface mounted installation
- » Low running noises thanks to the innovative acoustic decoupling of the drive components
- » Universal bracket sets for installation of all commonly available profile systems
- » Flexible overall lengths for customised strokes
- » Available in all RAL colours
- » Can be used for virtually all window opening types thanks to the left and right drive
- » Integrated ACB (Advanced Communication Bus) bus interface with Modbus RTU protocol
- » The drive is integrated directly via open bus communication through the ACB (Advanced Communication Bus), e.g. in a building management system

## Potential drive options



You can find the explanations for the icons in the legend.

## Approvals / Certificates

Find out about permission details from your D+H Partner.



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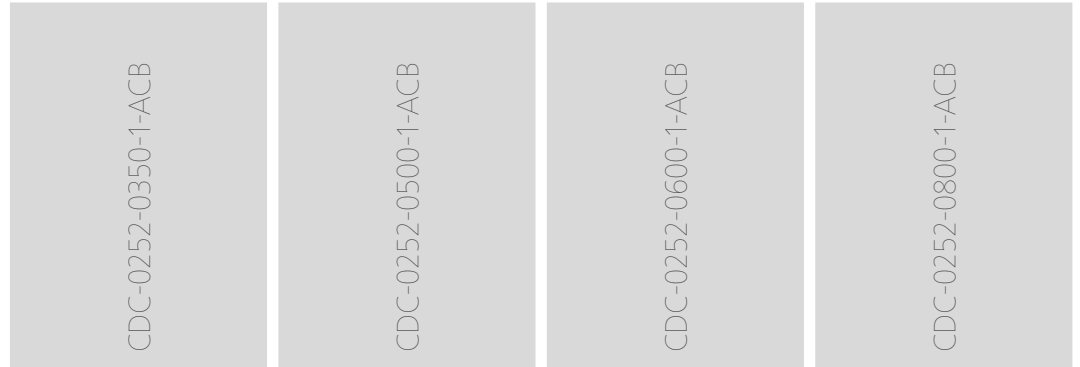


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## Technical data

For further information please contact your D+H partner.



Supply	24 V DC / $\pm 15\%$			
Rated input current	0.6 A	0.8 A	0.8 A	1 A
Force of pressure	250 N			
Tensile force	250 N			
Nominal locking force **	1500 N			
Service life	20000 double strokes *			
Stroke	350 mm	500 mm	600 mm	800 mm
Type of protection	IP 32			
Emission sound pressure level	LpA $\leq 35$ dB(A)			
Temperature range	-15 °C (-5 °C ***) ... +75 °C			
Housing	Aluminium			
Colour	White aluminium (~RAL 9006)			
W x H x D	405 x 30 x 39 mm	485 x 30 x 39 mm	530 x 30 x 39 mm	635 x 30 x 39 mm

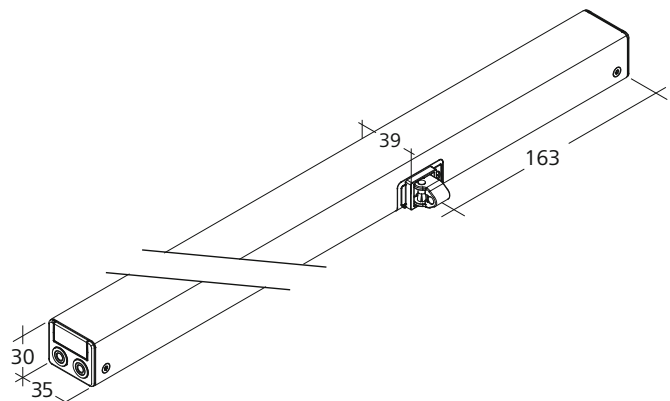
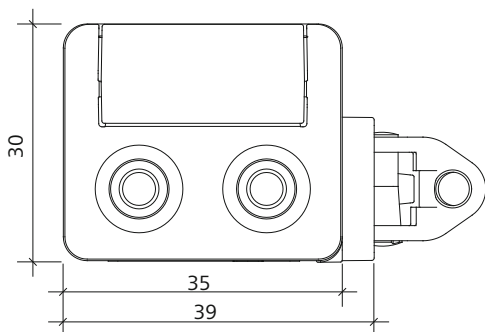


\* For vertical use, please consult with D+H Sales!

\*\* Depending on the mounting, \*\*\* in accordance with VdS 2580

## Dimensions

All specifications in mm



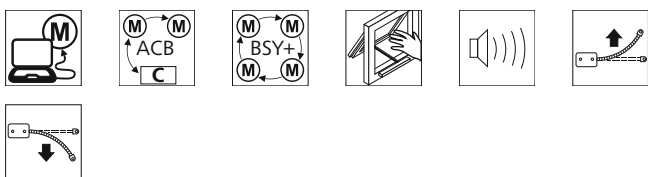
# CDC-0252-5-ACB



## Performance features

- » Can be used for openings for smoke exhaust; D+H Euro SHEV in accordance with EN 12101-2; and for daily ventilation
- » With BSY+ motor and synchronised electronics controlled via microprocessor
- » Perfectly suited for profile integrated and surface mounted installation
- » Low running noises thanks to the innovative acoustic decoupling of the drive components
- » Direct control via 230 V AC
- » Universal bracket sets for installation of all commonly available profile systems
- » Flexible overall lengths for customised strokes
- » Available in all RAL colours
- » Integrated ACB (Advanced Communication Bus) bus interface with Modbus RTU protocol
- » The drive is integrated directly via open bus communication through the ACB (Advanced Communication Bus), e.g. in a building management system

## Potential drive options



You can find the explanations for the icons in the legend.

## Approvals / Certificates

Find out about permission details from your D+H Partner.



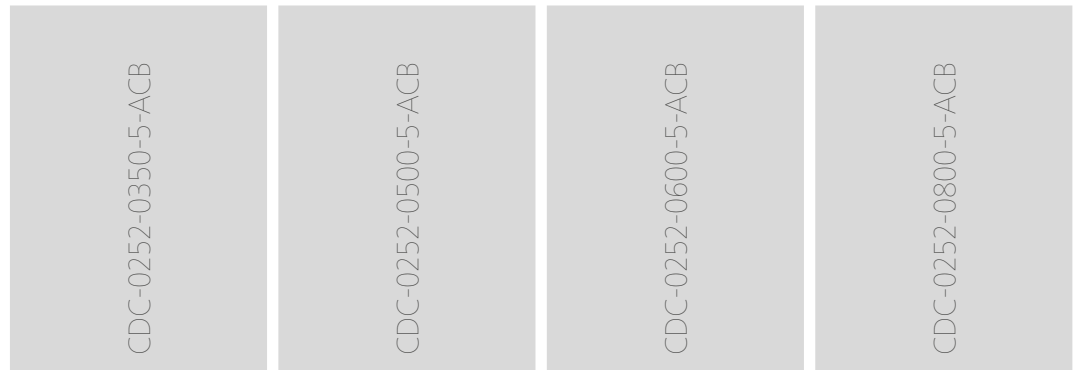
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## Technical data

For further information please contact your D+H partner.



CDC-0252-0350-5-ACB

CDC-0252-0500-5-ACB

CDC-0252-0600-5-ACB

CDC-0252-0800-5-ACB

Supply	230 V AC / +10 % ... -15 %			
Input frequency	50 Hz			
Performance	33 W / 45 VA			
Force of pressure	250 N			
Tensile force	250 N			
Nominal locking force **	1500 N			
Service life	20000 double strokes *			
Stroke	350 mm	500 mm	600 mm	800 mm
Type of protection	IP 32			
Emission sound pressure level	LpA ≤ 35 dB(A)			
Temperature range	-15 °C (-5 °C ***) ... +75 °C			
Housing	Aluminium			
Colour	White aluminium (~ RAL 9006)			
W x H x D	545 x 30 x 39 mm	625 x 30 x 39 mm	670 x 30 x 39 mm	775 x 30 x 39 mm

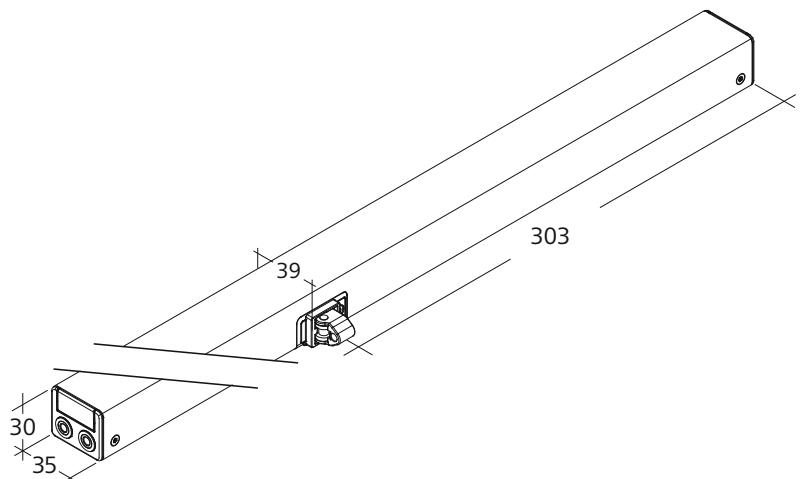
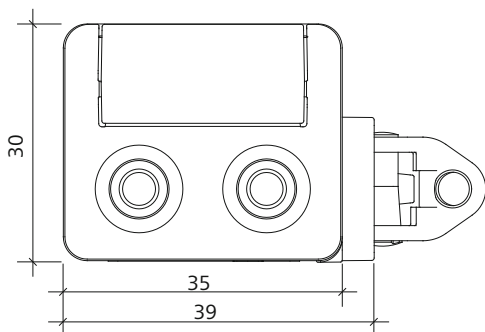


\* For vertical use, please consult with D+H Sales!

\*\* Depending on the mounting, \*\*\* in accordance with VdS 2580

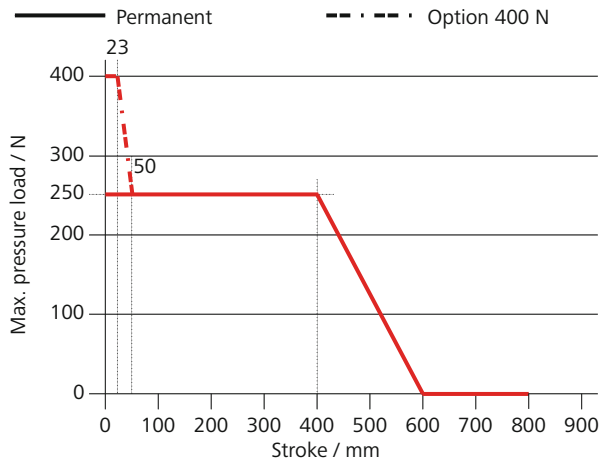
## Dimensions

All specifications in mm

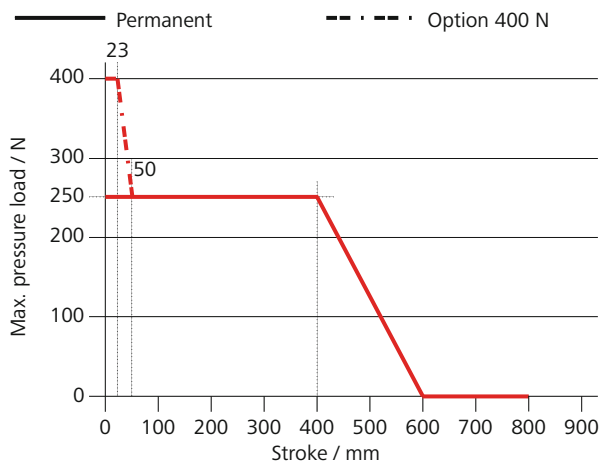


## Pressure load diagram

CDC-0252-1-ACB

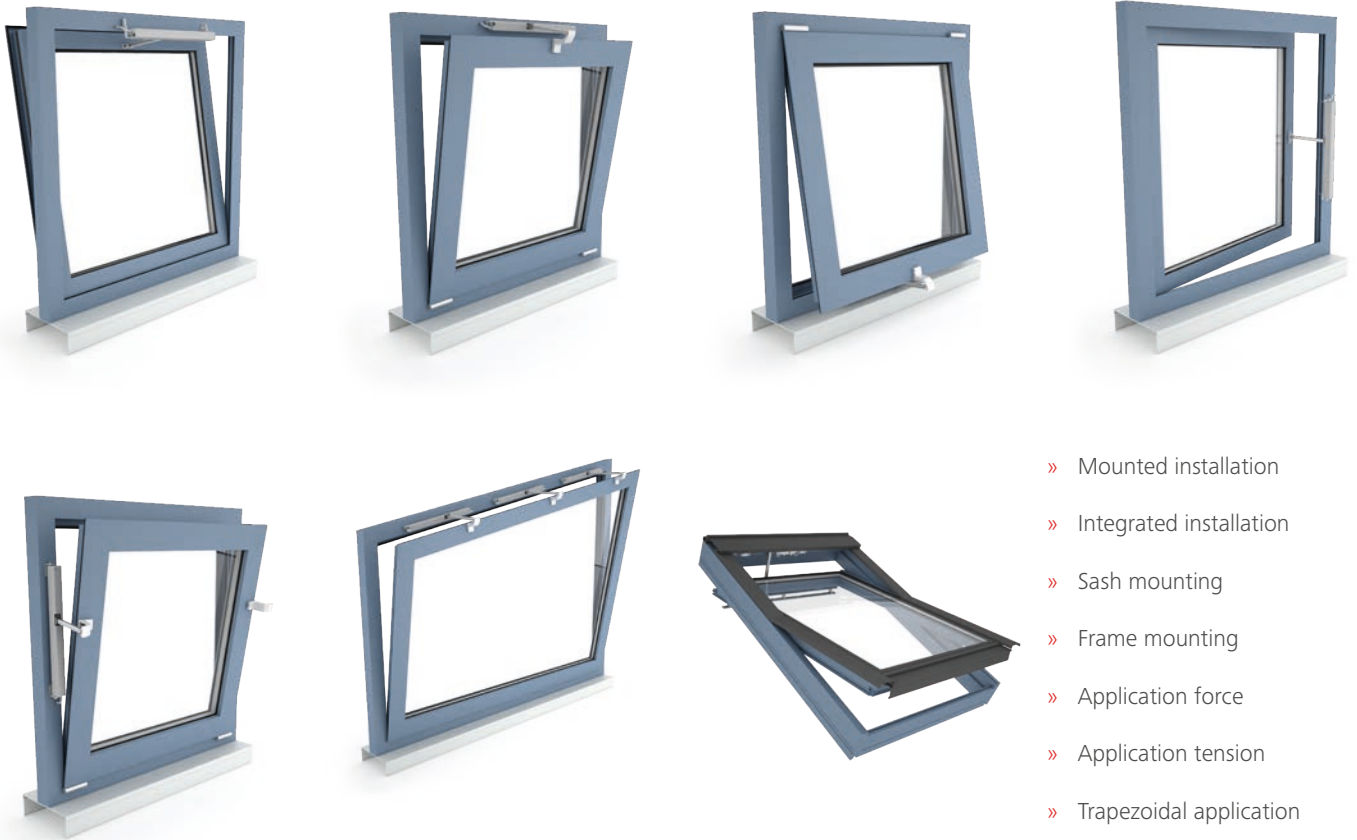


CDC-0252-5-ACB



## Possible applications

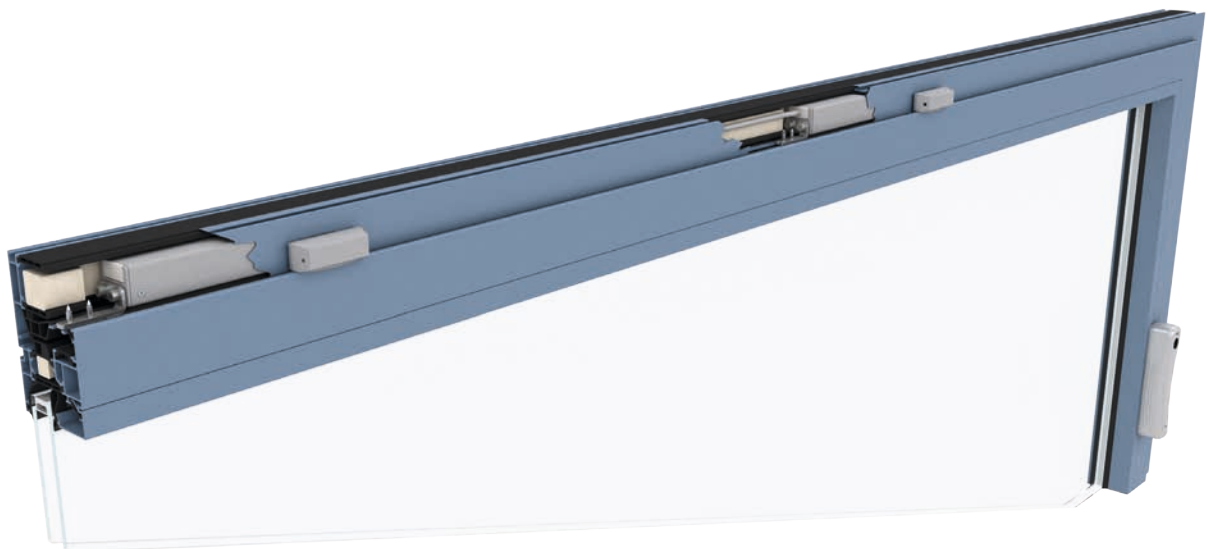
Illustration provided as an example



- » Mounted installation
- » Integrated installation
- » Sash mounting
- » Frame mounting
- » Application force
- » Application tension
- » Trapezoidal application
- » Drawbridge application

## Installation example

CDC-0252-0350-1-ACB left + right / window locking drive FRA 11



Brackets are not included and have to be ordered separately.

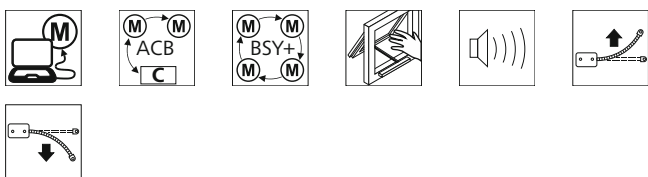
# CDC-TW-0502-1-ACB



## Performance features

- » Can be used for openings for smoke exhaust; D+H Euro SHEV in accordance with EN 12101-2; and for daily ventilation
- » With BSY+ motor and synchronised electronics controlled via microprocessor
- » Low running noises thanks to the innovative acoustic decoupling of the drive components
- » 2 drive chains for optimal power application to the sash
- » Connection from either the left or the right side is possible (supply includes BUS signals)
- » Time-controlled reversing when an obstacle is detected in the CLOSED direction (active closing edge protection)
- » Available in all RAL colours
- » Integrated ACB (Advanced Communication Bus) bus interface with Modbus RTU protocol
- » The drive is integrated directly via open bus communication through the ACB (Advanced Communication Bus), e.g. in a building management system

## Potential drive options



You can find the explanations for the icons in the legend.

## Approvals / Certificates

Find out about permission details from your D+H Partner.



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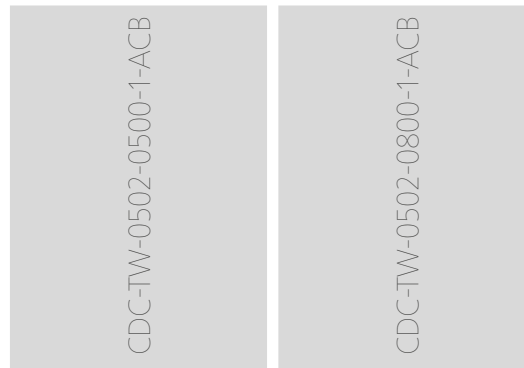


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## Technical data

For further information please contact your D+H partner.



Supply	24 V DC / $\pm 15\%$	
Rated input current	1.6 A	2 A
Force of pressure	500 N	
Tensile force	500 N	
Nominal locking force **	3000 N	
Service life	20000 double strokes *	
Stroke	500 mm	800 mm
Type of protection	IP 32	
Emission sound pressure level	LpA $\leq 35$ dB(A)	
Temperature range	-15 °C (-5 °C ***) ... +75 °C	
Housing	Aluminium	
Colour	White aluminium (~ RAL 9006)	
W x H x D	1265 x 30 x 39 mm	

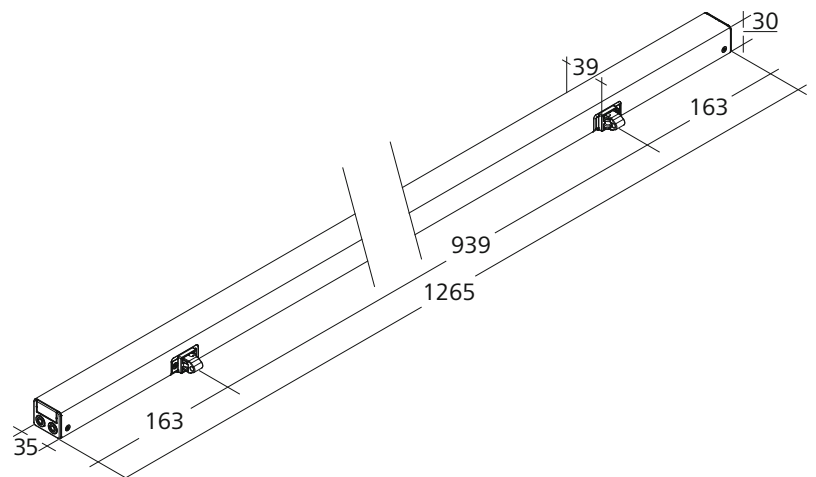
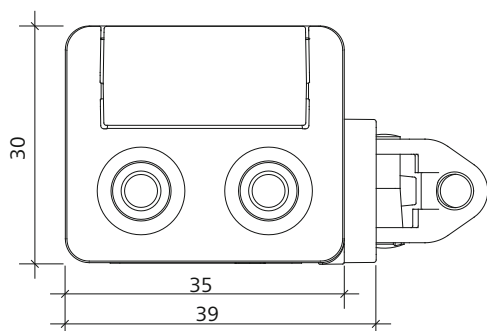


\* For vertical use, please consult with D+H Sales!

\*\* Depending on the mounting, \*\*\* in accordance with VdS 2580

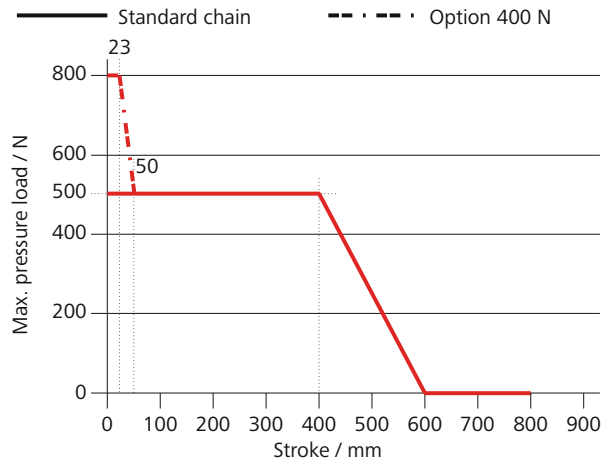
## Dimensions

All specifications in mm



## Pressure load diagram

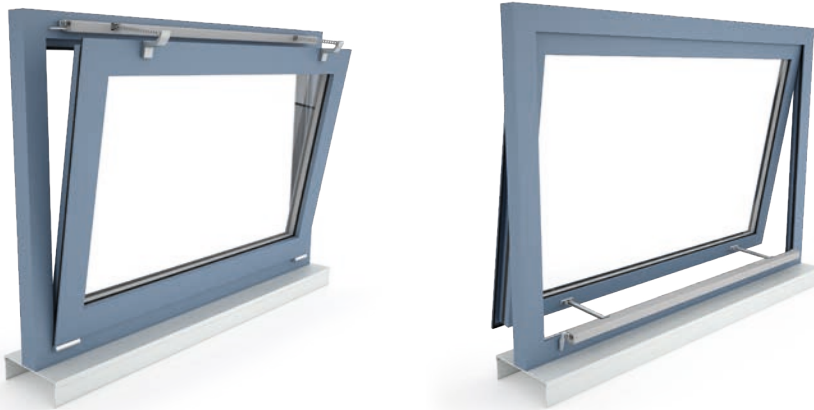
CDC-TW-0502-1-ACB





## Possible applications

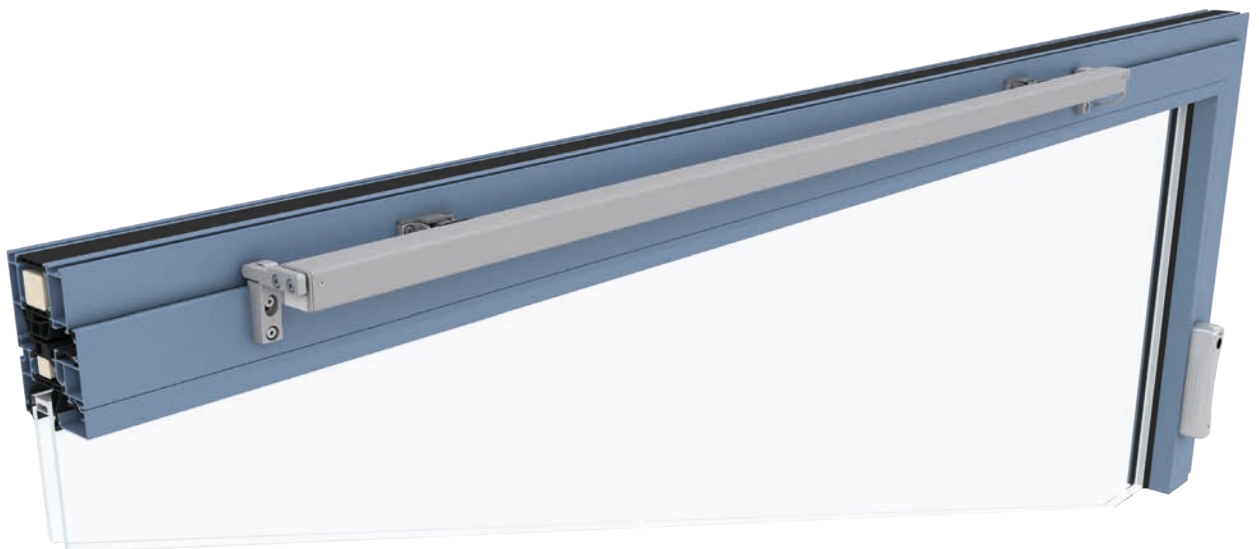
Illustration provided as an example



- » Mounted installation
- » Sash mounting
- » Frame mounting
- » Application force
- » Application tension

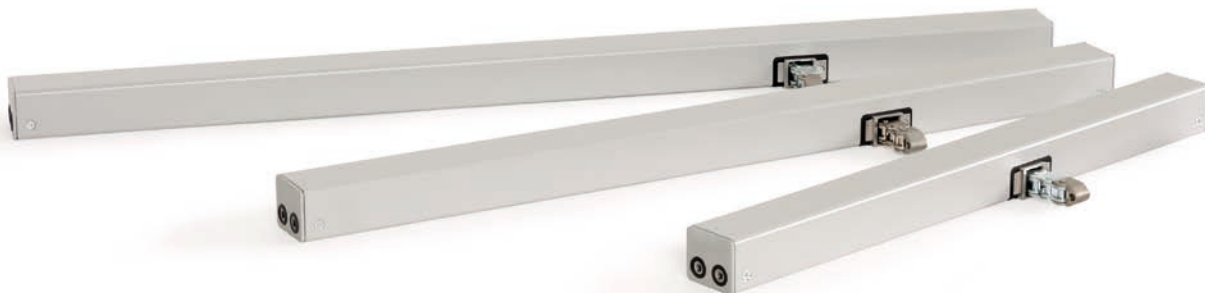
## Installation example

CDC-TW-0502-0800-1-ACB / window locking drive FRA 11



Brackets are not included and have to be ordered separately.

# CDC-0252-1-TMS+



## Performance features

- » Can be used for openings for smoke exhaust; D+H Euro SHEV in accordance with EN 12101-2; and for daily ventilation
- » Perfectly suited for profile integrated and surface mounted installation
- » Low running noises thanks to the innovative acoustic decoupling of the drive components
- » Universal bracket sets for installation of all commonly available profile systems
- » With motor electronics controlled via microprocessor
- » "TMS+" tandem safety function for operating 2 drives on one sash
- » Option of chain stroke programming via magnet
- » Reprogrammed opening stroke is transmitted to the tandem drive
- » Programmable drive functions and different drive parameters
- » Running speed in CLOSED direction decreases to 5 mm/s (passive closing edge protection)
- » Time-controlled reversing when an obstacle is detected in the CLOSED direction (active closing edge protection)

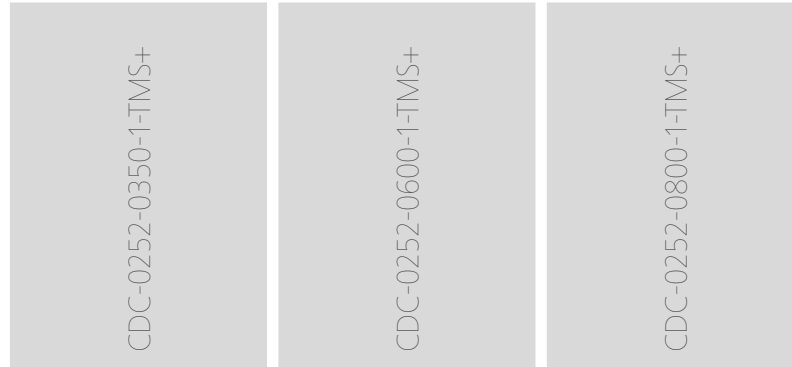
## Approvals / Certificates

Find out about permission details from your D+H Partner.



## Technical data

For further information please contact your D+H partner.



Supply	24 V DC / ±15 %		
Rated input current	0.6 A	0.8 A	1 A
Force of pressure	250 N		
Tensile force	250 N		
Nominal locking force **	1500 N		
Service life	20000 double strokes *		
Stroke	350 mm	600 mm	800 mm
Type of protection	IP 32		
Emission sound pressure level	LpA ≤ 35 dB(A)		
Temperature range	-15 °C (-5 °C ***) ... +75 °C		
Housing	Aluminium		
Colour	White aluminium (~ RAL 9006)		
W x H x D	405 x 30 x 39 mm	530 x 30 x 39 mm	635 x 30 x 39 mm

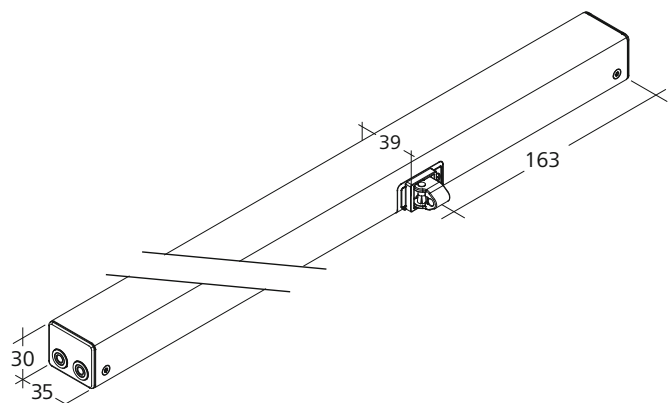
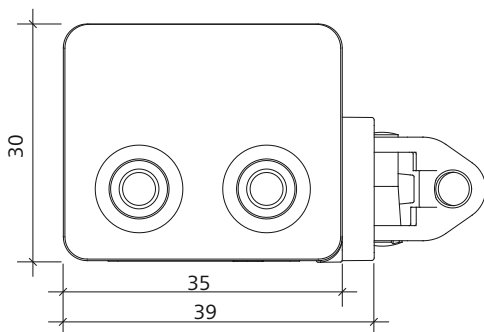


\* For vertical use, please consult with D+H Sales!

\*\* Depending on the mounting, \*\*\* in accordance with VdS 2580

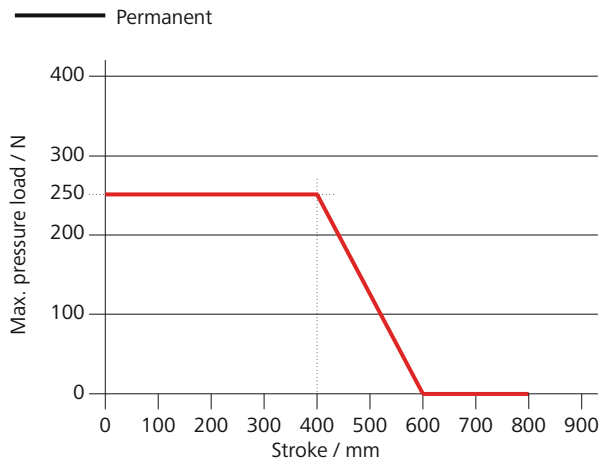
## Dimensions

All specifications in mm



## Pressure load diagram

CDC-0252-1-TMS+



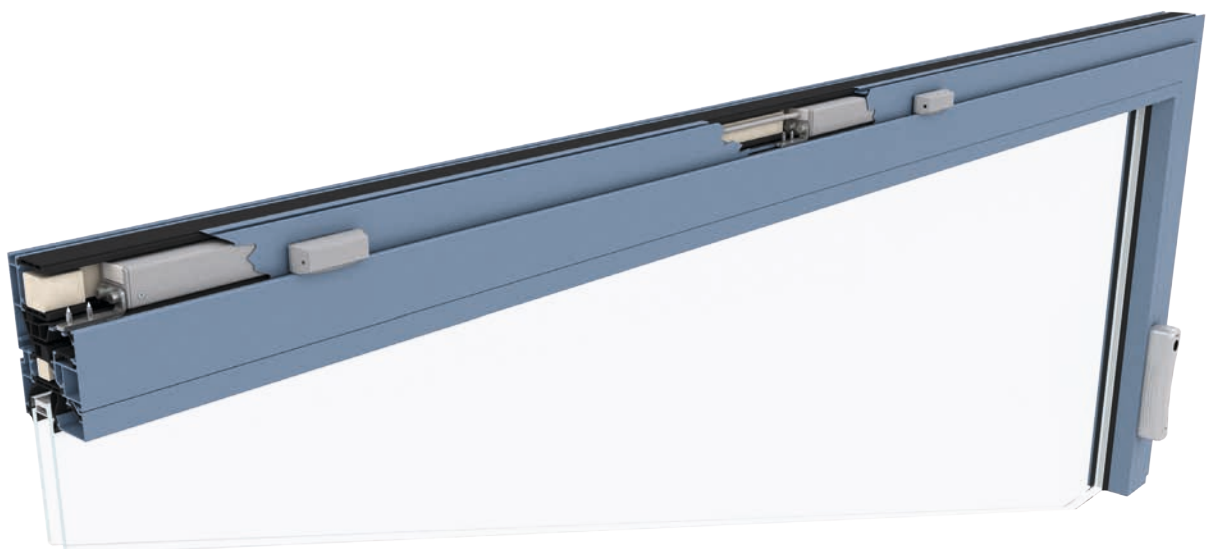
## Possible applications

Illustration provided as an example

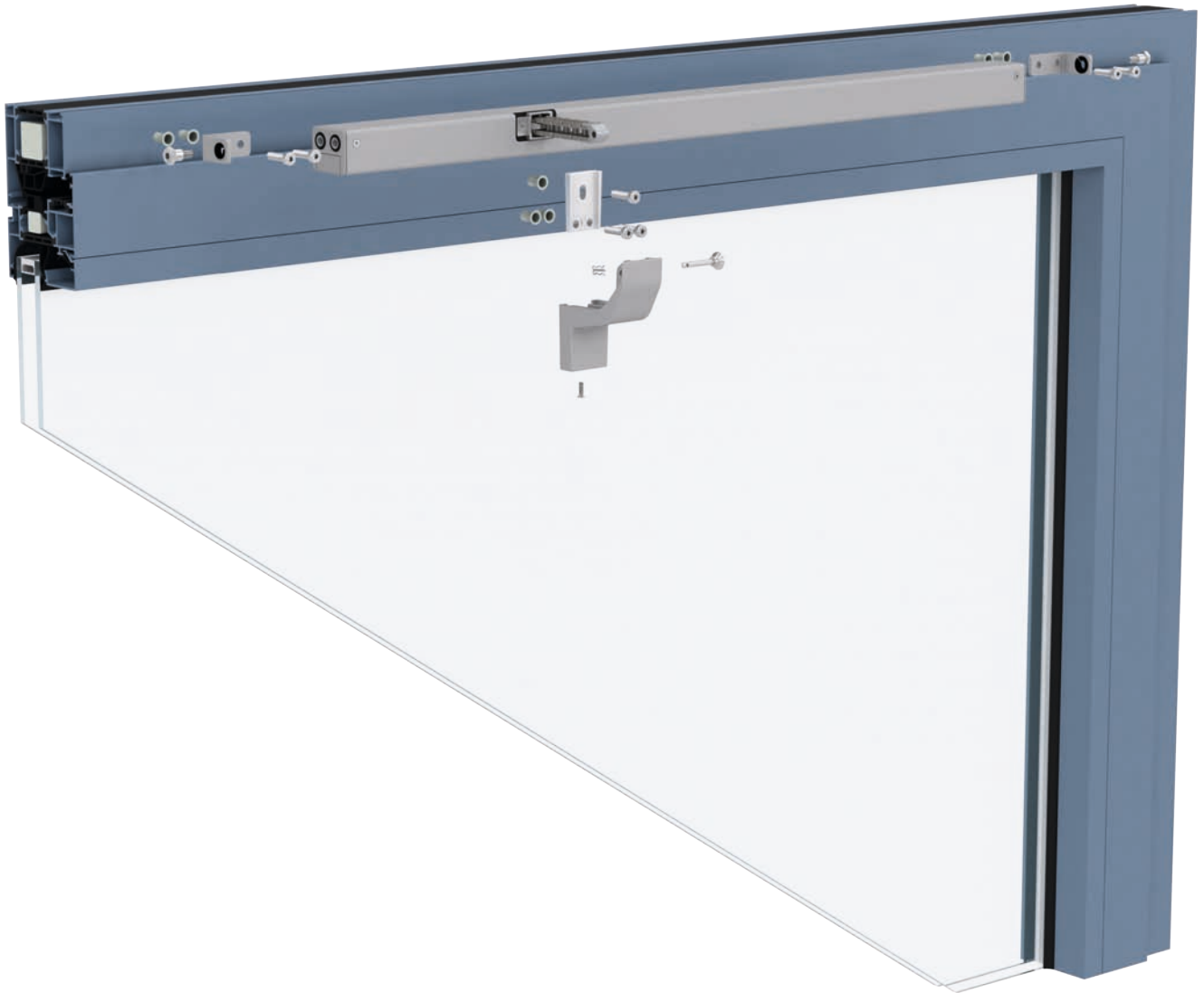


## Installation example

2x CDC-0252-0350-1-TMS+ -R / window locking drive FRA 11



Brackets are not included and have to be ordered separately.

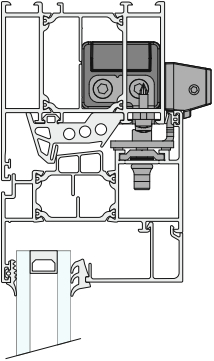




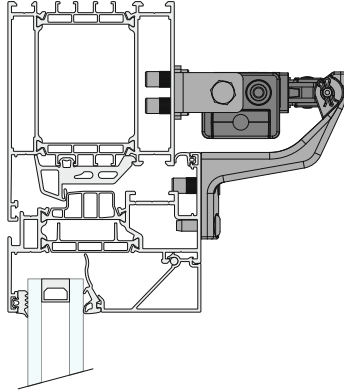
# Bracket applications

Illustration provided as an example

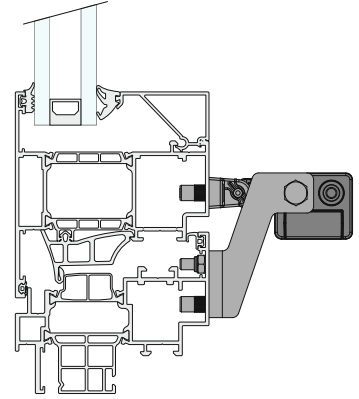
Bottom-hung and side-hung windows, inward opening, integrated



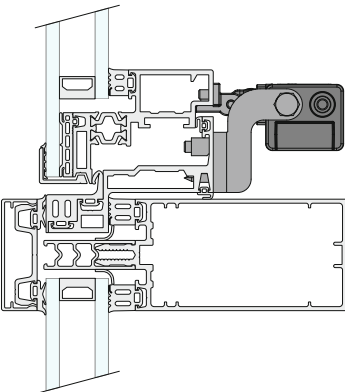
Bottom-hung and side-hung window, inward opening



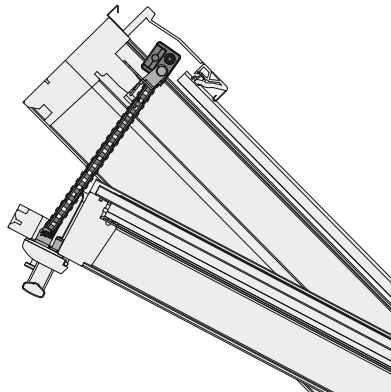
Bottom-hung and side-hung window, outward opening



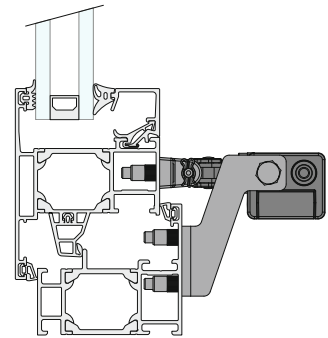
Projected top-hung, parallel opening window, outward opening



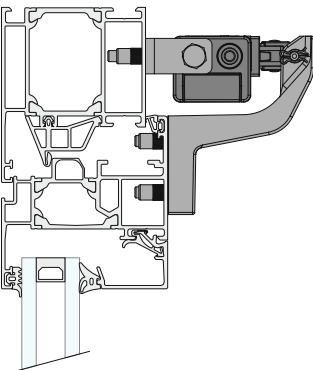
Roof windows



Universal bracket sets, outward opening

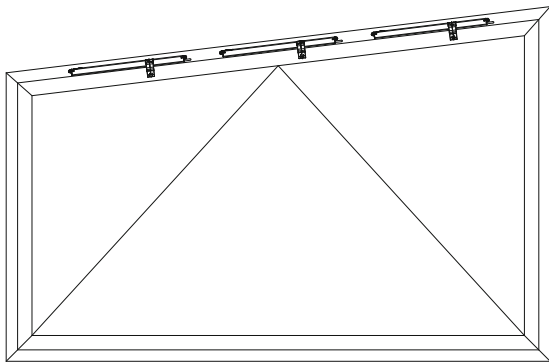


Universal bracket sets, inward opening



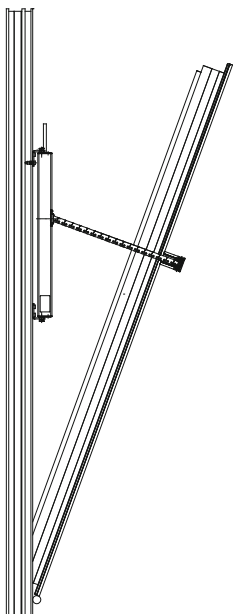
## Trapezoidal application

- » The trapezoidal application is available for the CDC-0252-1-ACB and CDC-0252-5-ACB with side bow chain and a maximum stroke length of 800 mm.
- » The drives can either be mounted on or integrated into the window profile.
- » Information about the size of the drive groups for each trapezoidal window:
  - CDC-0252-1-ACB (24 V DC): 3 drive group
  - CDC-0252-5-ACB (230 V AC): 2 drive group
- » For installation use the bracket sets: BS-CDC-PI01-M-VFI, BS-CDC-PA01-M-VFO and BS-CDC-PI01-O-VSI.

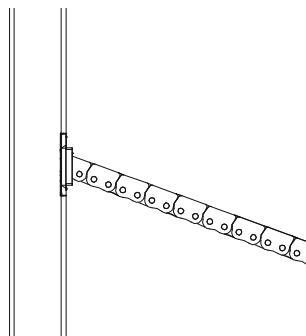


## Drawbridge application

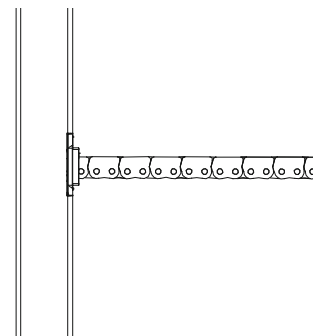
- » The drawbridge application is available via "option ZB" for the CDC-0252-1-ACB (24 V DC) and CDC-0252-5-ACB (230 V AC).
- » The drive will be delivered with a special chain guide and a special configuration.
- » Do not use drives with side bow chains.
- » Do not use standard drives.
- » For installation use the bracket sets: BS-CDC-PI01-M-VFI and BS-CDC-PA01-M-VFO.



with "Option ZB"



without "Option ZB"

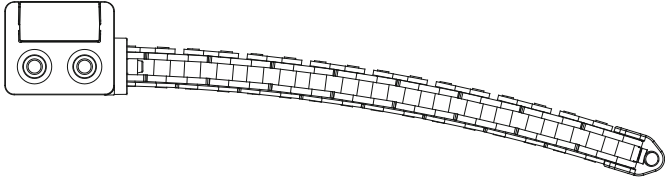


## Side bow chain

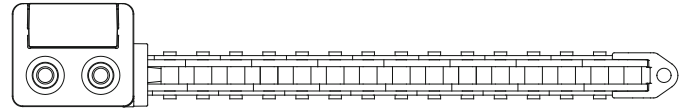
The side bow chain is a special drive chain that permits a defined arc or radius.

A drive with a side bow chain may be necessary, for example, if it is not possible to rotate the drive to achieve the maximum possible opening width.

Drive with side bow chain



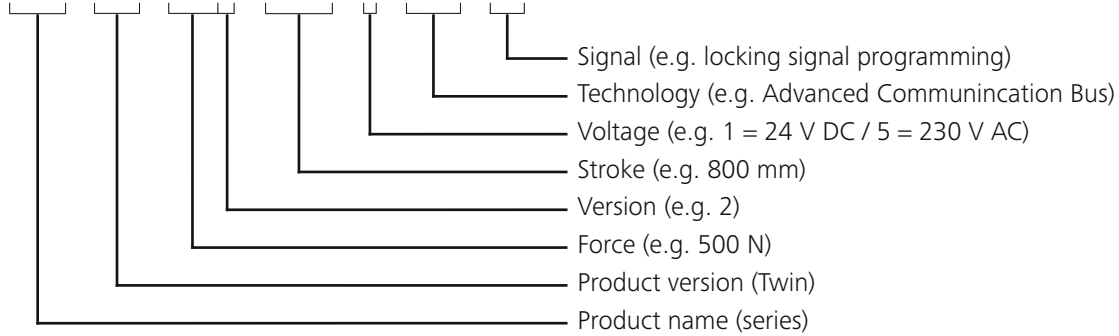
Drive without side bow chain



# Legend

## Product name

CDC - TW - 0502 - 0800 - 1 - ACB - VP



## Notice / design



SHEV (Smoke and heat exhaust ventilation)



CNV (Controlled natural ventilation)










230 V AC



24 V DC

## Options icons

-  Function programming  
Option for customised configuring of drive parameters (e.g. stroke) via software and associated service tools for drives equipped with PLP, BSY or BSY+ electronics.
-  ACB (Advanced Communication Bus)  
Enables direct bus communication between the controller and the drive for, for example, control with perfect positioning or drive feedback. Communication is via the open source Modbus protocol, and it enables the drive to be combined with an ACB-capable control panel or enables it to be directly connected to higher-level controllers such as a building management system.
-  BSY+ (synchronisation of drives)  
BSY+ enables communication and synchronisation between different components in the window. For example between the chain drives, during synchronous operation, or between window and locking drives (e.g. FRA 11 BSY+ or VLD-BSY+).
-  SKS (closing edge protection)  
Drive option, which enables an anti-trap strip or presence detector to be connected directly to the drive (terminal resistor 5.6 kΩ).
-  Audible signal (corresponding to protection class)  
AS2 corresponding to "Protection class 2" in accordance with ZVEI risk assessment through an audible warning signal in the "CLOSED" running direction. AS3 corresponding to "Protection class 3" in accordance with ZVEI risk assessment, in addition to AS2, stops the drive for 11 s with a remaining stroke of 28 mm.
-  SBD side bow chain  
Drive chain with rigid backing, bends in the direction of the hinge. Drive is fixed in place (not rotatable).
-  SBU side bow chain  
Drive chain with rigid backing, bends in the direction of the hinge. Drive is fixed in place (not rotatable).

## Overview of standards

### **DIN EN**

#### **DIN EN 60335-2-103**

Requirements and test methods for drives for windows

#### **DIN EN 12101-2**

Requirements and test methods for natural smoke and heat exhaust ventilators (NSHEV)

### **UL**

#### **UL 325**

This test standard defines, among other aspects, the requirements and test methods for electro-mechanical drives, which shall be used for ventilation purposes. The result of this test is a UR certificate.



## Test centres / test symbols

### **Dekra**

Approvals for the electric safety/security of products (drives and control panels) - particularly regarding Low Voltage Directive approvals for drives in accordance with the EN 60335-2-103 standard.

### **EN 12101-2**

Drive tested in conjunction with NSHEV in accordance with EN 12101-2.

### **Underwriters Laboratory UL**

Underwriters Laboratories (abbreviated UL) is an independent organisation which inspects and certifies products in terms of their safety. UL inspects products, components, materials and systems to see whether they conform to US and Canadian market requirements.

### **CNBOP**

The CNBOP is a Polish test institution which conducts specific function checks for individual components or systems for SHEV systems in accordance with Polish standards and laws and which issues certificates based on these tests.





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