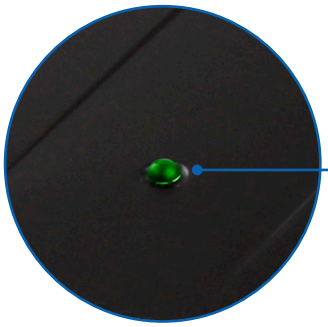
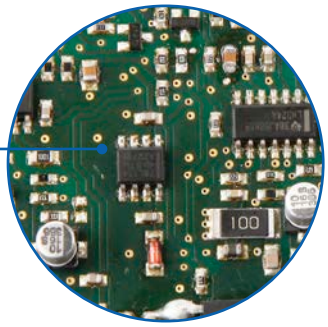
MultiControl II duo



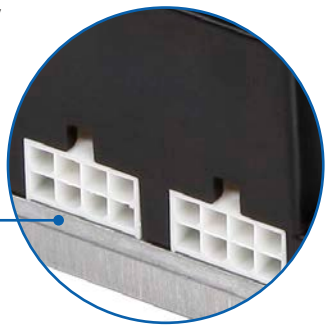
- LED for visual status indication

- Wide-range input for worldwide use



- High-performance and energy-efficient switched-mode power supply

- Intuitive operation via graphics-capable handswitch
- Simple connection to master control system
- Simple connection of external sensor equipment



- Synchronous control of up to two drives
- Up to 8 controllers, and thus 16 drives possible, using BUS cable networking

Highlights / Features:

- Dynamic duty cycle calculation
- Duty cycle, overcurrent and temperature monitoring for overload protection as standard
- Intuitive operation thanks to hand switch with graphics-capable display
- The hand switch with 6 function keys can be used to perform multiple functions, such as the storage of intermediate positions or user changeovers
- Simple connection to the master control system level using serial interface (RS-485) and standardised bus protocol (Modbus RTU)
- Energy-efficient overall system (control incl. hand switch) thanks to switched-mode power supply with wide-range input (standby consumption <0.5 watts)
- Controller available in Basic and Premium versions
- Certified control according to NRTL (UL 61010-1; CAN/CSA C22.2 No. 61010-1) and FCC Part 15

Option:

- Special functions available on request
- CB report as per 61010-1
- Versions as per DNV GL (e.g. CG 0339)
- High-performance version on request

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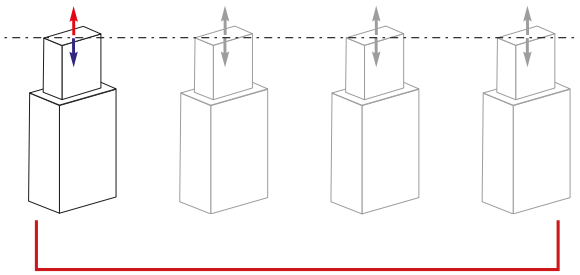
MultiControl II duo – Technical data

General information / operating conditions

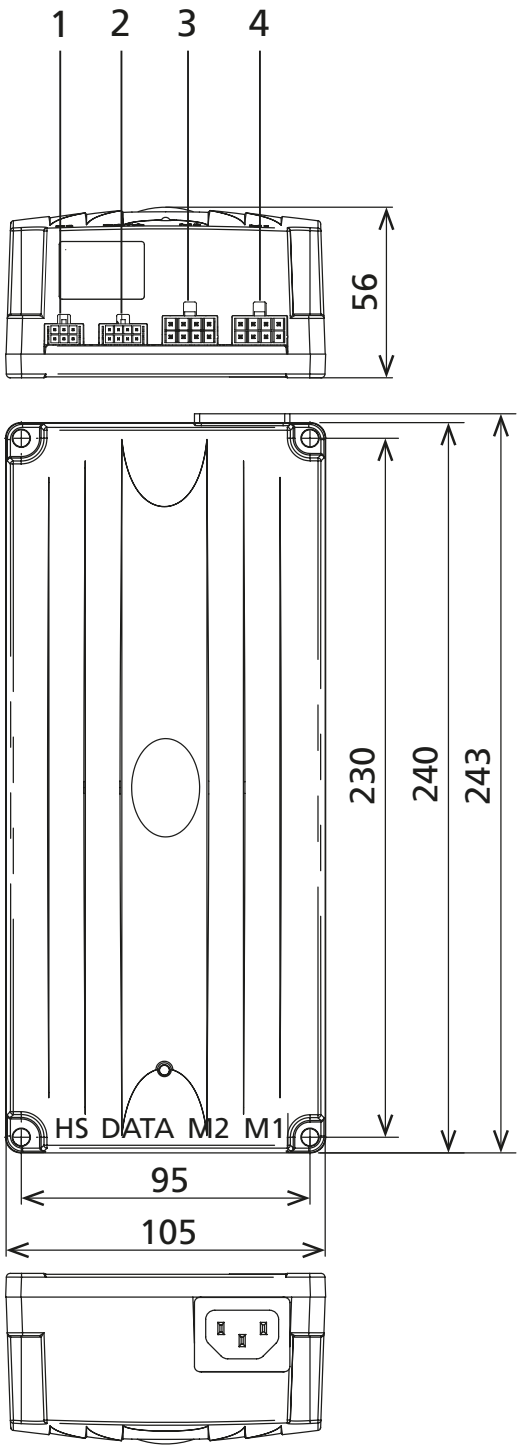
Type	MultiControl II duo
Compatible	Multilift, Slimlift, Multilift II, Multilift II telescope, Powerlift M, LZ 60
Input voltage	100 – 240 V ~ 50 / 60 Hz
Output voltage	28 V DC
Current output	max. 10 A
Power	285 VA
Standby-power	≤ 0,5 W
Ambient temperature	+5 °C to +40 °C
Relative humidity (for operation)	30 % to 75 %
Protection class (with earth terminal)	I
Protection class	IP 20
Dimensions (L, B, H) [mm]	240 x 105 x 56
Weight	880 g
Duty cycle (Operation mode S 3)	At nominal load, 20% (4 min operating time, 16 mins rest time)



Supports configuration of systems with up to 16 drives

MultiControl II duo

1 HS = Hand switch connector
2 DATA = Interface for sensors (e.g. safety edge and synchronisation bus)
3 M2 = Motor connector 2
4 M1 = Motor connector 1 (must always be assigned)
P = Power socket



MultiControl II duo – Versions

MultiControl II duo basic/premium

The MultiControl II duo controller is available in a Basic and a Premium version.

The Premium version includes four additional software functions compared to the Basic version. These are described on the following pages.

Feature/software function	Basic	Premium
Low standby consumption	●	●
Dynamic duty cycle calculation	●	●
Temperature monitoring	●	●
Visual status indication	●	●
Networking of multiple controllers*	●	●
Stroke limitation*	●	●
Memory positions*	●	●
Change/set stroke display/base height*	●	●
View error history	●	●
View current consumption of drives	●	●
Transfer parameter settings to other systems*	●	●
Serial interface (RS-485)	●	●
Standardised bus protocol (Modbus RTU)	●	●
I/O interface compatibility	●	●
Connection of external sensor equipment (e.g. safety edge)	●	●
Integrated collision detection (SPP)		●
Absolute positioning*		●
Relative positioning*		●
Key Lock*		●

***Note:** Hand switch with 6 function keys required for functionality

Controls

Code No.	Softwareversion	for drive
QST11H12AA000	Basic	Multilift II, Multilift II ESD, Multilift II safety, Multilift II clean
QST11H12AA022	Premium	
QST12H12AA000	Basic	Multilift II telescope, Multilift II telescope ESD
QST12H12AA022	Premium	
QST13H12AA000	Basic	Multilift II impact
QST13H12AA022	Premium	
QST44H12AA000	Basic	Powerlift M
QST44H12AA022	Premium	
QST10H12AA000	Basic	Multilift
QST20H12AA000	Basic	RK Slimlift
QST20H12AA022	Premium	
QST21H12AA000	Basic	RK Slimlift EM
QST21H12AA022	Premium	
QST30H12AA000	Basic	Elektrozylinder LZ 60
QST30H12AA022	Premium	
QST61H12AA000	Basic	Alpha Colonne
QST61H12AA022	Premium	
QST81H12AA000	Basic	LAMBDA Colonne
QST81H12AA022	Premium	
QST81H12AA000	Basic	LAMBDA Elektrozylinder
QST81H12AA022	Premium	

MultiControl II duo

SPP – Smart Product Protection (integrated collision detection)

Function description

The Premium version of the MultiControl II control unit includes RK Rose+Krieger GmbH's own in-house developed SPP technology. This technology makes for a considerable reduction of the risk of product damage in the customer's application. In the process, protection is not just provided for the connected drives, but also for the connecting construction as a whole.

When adjusting the height of tables or machine frames, for instance, there is a latent risk of collisions as a result of the raising and lowering of a load. If they occur, these collisions can cause hitches and damage to drives (reduction of the service life, possible complete failure) and even to the connecting construction.

SPP is a software-based solution for collision detection. A major benefit is the fact that the technology is fully integrated into the control system. This way, it is not necessary to equip the customer application with additional external sensor equipment.

A further special feature is the option of the user to adjust the sensitivity of the system (triggering force when a collision is detected) specifically to the application.

The following is a further summary of the significant benefits of integrated collision detection.

Highlights / Features:

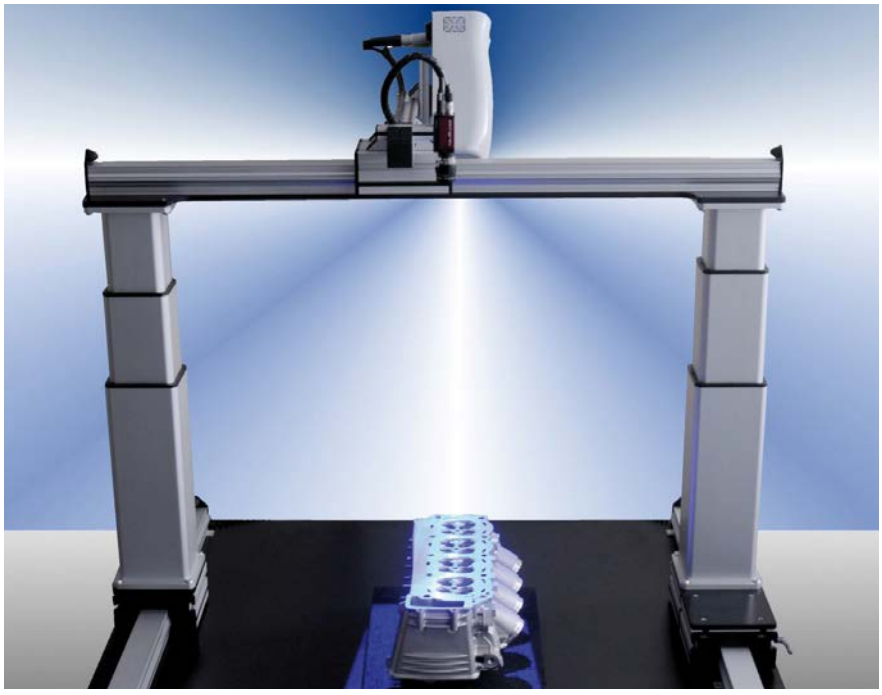
- Higher product safety – SPP detects obstacles, both during upward and downward movement
- No external obstructing contour – the technology is fully integrated into the control system and works with all compatible drives
- High process reliability – SPP functions regardless of the load or other ambient parameters, e.g. ambient temperature
- Plug & Play – no further installation steps are required for the collision protection thanks to integration into the control system
- Flexibility – sensitivity can be adjusted using the hand switch with 6 function keys

Relative and absolute positioning

Alongside the integrated collision detection (SPP), the Premium version has two further functions which relate to the type of drive positioning.

In addition to moving to previously stored memory positions, it is also possible to carry out relative or absolute positioning. The first variant refers to positioning relative to the current position of the lifting column. This way, the operating control can be used to set a defined value (e.g. 30% or 30 mm) by which the drive further retracts or extends.

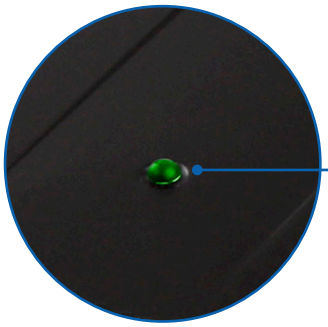
Absolute positioning, on the other hand, refers to the complete scale of the adjustment range. Thus it is also possible to use the operating control to move the drive precisely to a predefined position. This function can be very significant, for instance, for applications in which components are measured.



Highlights / Features:

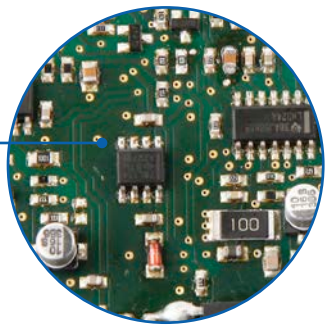
- Absolute positioning – precise positioning to a defined position in relation to the complete adjustment range of the drive
- Relative positioning – gradual positioning in relation to the current position of the drive
- Positioning accuracy – both software functions allow positioning to predefined positions which is accurate to the millimetre

MultiControl II quadro



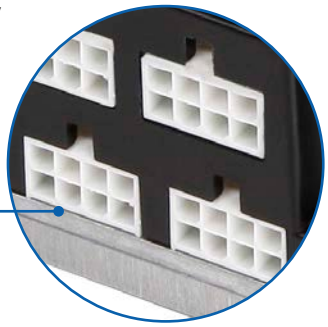
- LED for visual status indication

- Wide-range input for worldwide use



- High-performance and energy-efficient switched-mode power supply

- Intuitive operation via graphics-capable handswitch
- Simple connection to master control system
- Simple connection of external sensor equipment



- Synchronous control of up to four drives
- Up to 8 controllers, 32 drives possible, using BUS cable networking

Highlights / Features:

- Dynamic duty cycle calculation
- Duty cycle, overcurrent and temperature monitoring for overload protection as standard
- Intuitive operation thanks to hand switch with graphics-capable display
- The hand switch with 6 function keys can be used to perform multiple functions, such as the storage of intermediate positions or user changeovers
- Simple connection to the master control system level using serial interface (RS-485) and standardised bus protocol (Modbus RTU)
- Energy-efficient overall system (control incl. hand switch) thanks to switched-mode power supply with wide-range input (standby consumption < 1 watts)
- Controller available in Basic and Premium versions
- Certified control according to NRTL (UL 61010-1; CAN/CSA C22.2 No. 61010-1) and FCC Part 15

Option:

- Special functions available on request
- CB report as per 61010-1
- Versions as per DNV GL (e.g. CG 0339)
- High-performance version on request

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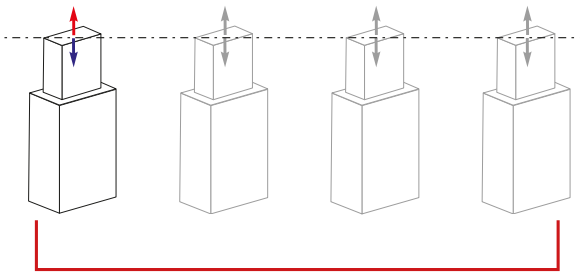
MultiControl II quadro – Technical data

General information / operating conditions

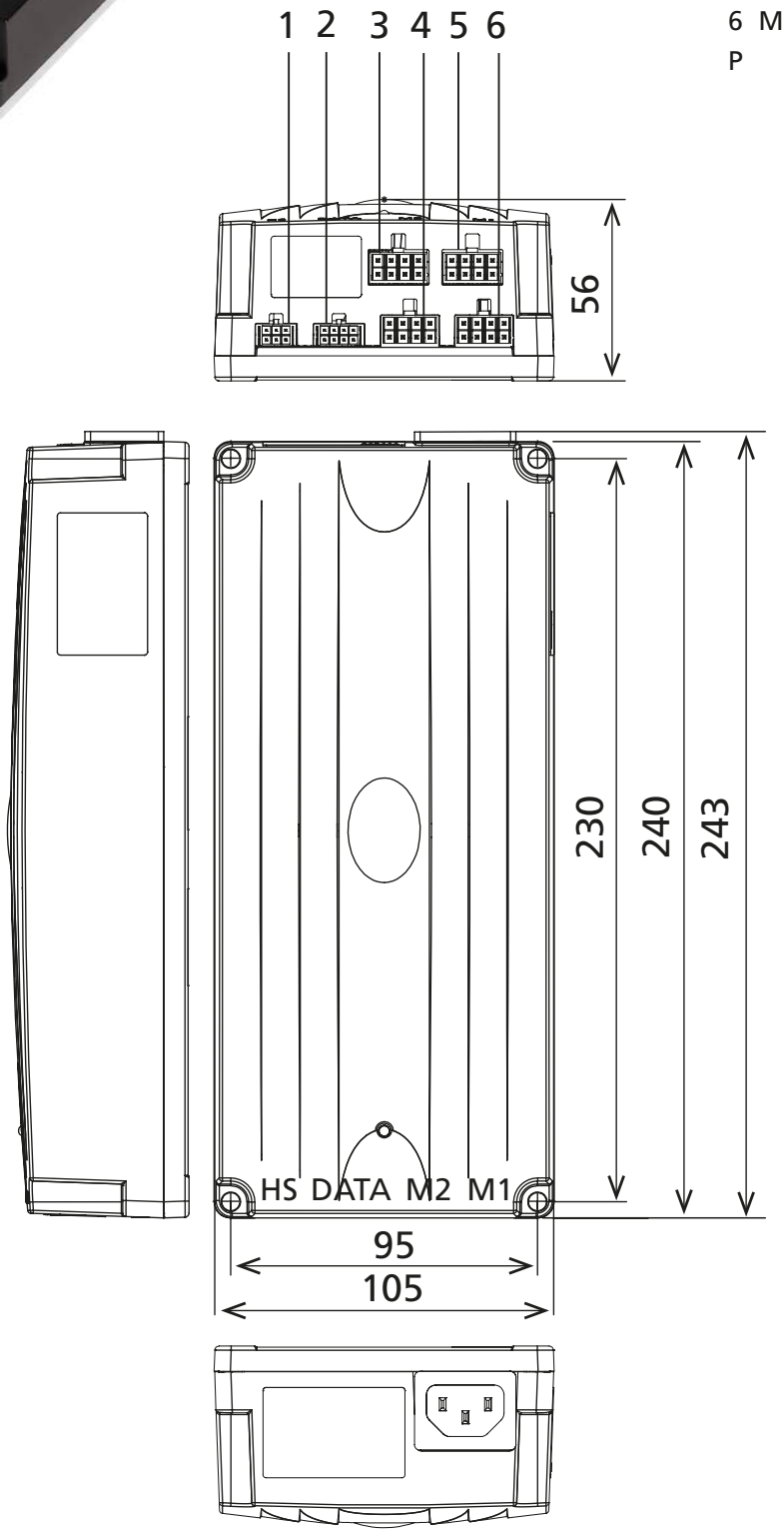
Type	MultiControl II quadro
Compatible	Multilift, Slimlift, Multilift II, Multilift II telescope, Powerlift M, LZ 60
Input voltage	100 – 240 V ~ 50 / 60 Hz
Output voltage	28 V DC
Current output	max. 10 A
Power	285 VA
Standby-power	≤ 1 W
Ambient temperature	+5 °C to +40 °C
Relative humidity (for operation)	30 % to 75 %
Protection class (with earth terminal)	I
Protection class	IP 20
Dimensions (L, B, H) [mm]	240 x 105 x 56
Weight	ca. 1000g
Duty cycle (Operation mode S 3)	At nominal load, 20% (4 min operating time, 16 mins rest time)



Supports configuration of systems with up to 32 drives

MultiControl II quadro

1 HS = Hand switch connector
2 DATA = Interface for sensors (e.g. safety edge and synchronisation bus)
3 M4 = Motor connector 4
4 M2 = Motor connector 2
5 M3 = Motor connector 3
6 M1 = Motor connector 1
P = Power socket



MultiControl II quadro

MultiControl II quadro basic/premium

The MultiControl II duo controller is available in a Basic and a Premium version.

The Premium version includes five additional software functions compared to the Basic version. These are described on the following pages.

Feature/software function	Basic	Premium
Low standby consumption	●	●
Wide-range input	●	●
Dynamic duty cycle calculation	●	●
Temperature monitoring	●	●
Visual status indication	●	●
Networking of multiple controllers*	●	●
Stroke limitation*	●	●
Memory positions*	●	●
Change/set stroke display/base height*	●	●
View error history*	●	●
View current consumption of drives*	●	●
Transfer parameter settings to other systems*	●	●
Serial interface (RS-485)	●	●
Standardised bus protocol (Modbus RTU)	●	●
I/O interface compatibility	●	●
Connection of external sensor equipment (e.g. safety edge)	●	●
Integrated collision detection (SPP)		●
Absolute positioning*		●
Relative positioning*		●
Key Lock*		●
Drive group management*		●

*__Note:__ Hand switch with 6 function keys required for functionality

Controls

Code No.	Softwareversion	for drive
QST11H14AA000	Basic	Multilift II, Multilift II ESD, Multilift II safety, Multilift II clean
QST11H14AA022	Premium	
QST12H14AA000	Basic	Multilift II telescope, Multilift II telescope ESD
QST12H14AA022	Premium	
QST13H14AA000	Basic	Multilift II impact
QST13H14AA022	Premium	
QST44H14AA000	Basic	Powerlift M
QST44H14AA022	Premium	
QST10H14AA000	Basic	Multilift
QST20H14AA000	Basic	RK Slimlift
QST20H14AA022	Premium	
QST21H14AA000	Basic	RK Slimlift EM
QST21H14AA022	Premium	
QST30H14AA000	Basic	Elektrozylinder LZ 60
QST30H14AA022	Premium	
QST61H14AA000	Basic	Alpha Colonne
QST61H14AA022	Premium	

MultiControl II quadro

Drive group management (DGM)

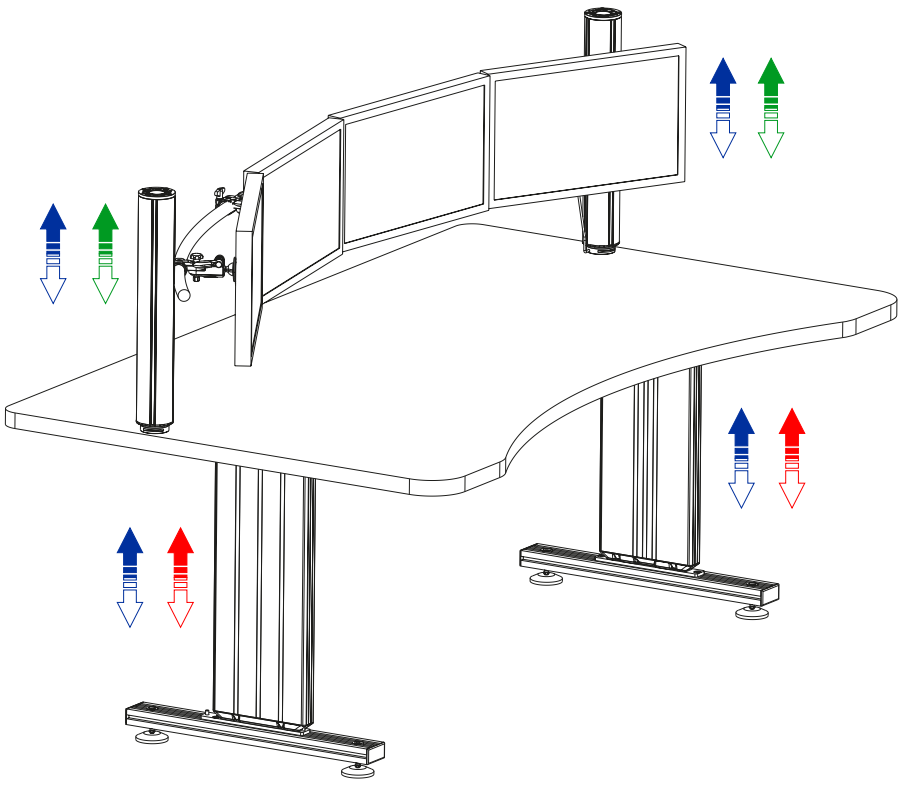
Function description

The basic version of the MultiControl II quadro allows you to position four drives synchronously. Those for whom this functionality is not sufficient can opt for the premium version of the control unit.

Alongside the renowned collision detection (SPP), it also has drive group management. The function, which was developed by RK Rose+Krieger in-house, allows different drive groups to be freely configured (2+2, 2+1, 1+2 and 1+1). In the process, up to two different drive types (e.g. RK Slimlift and Multilift II) can be combined with each other or positioned individually, in parallel or synchronously.

Furthermore, when drive group management is activated, the numerous further premium functions can be used. The second drive group, for example, can be positioned independently of the first either absolutely or relatively, and memory positions can also be assumed independently.

The integrated collision detection can also be freely configured for each group in the upwards and downwards movement. These benefits, combined with the intuitive menu navigation of the MultiControl II family, facilitate a number of new applications. The following is a summary of the essential benefits of drive group management.



Highlights/features:

- Freely configurable motor groups (2+2, 2+1, 1+2, 1+1)
- Plug & play – thanks to integration in the control. No need for a bus connection with four drives
- The full range of premium functions are also available for activation
- Flexibility – Free selection of combinable drives underneath the motor groups


100%
M
F