



RK ROSE+KRIEGER

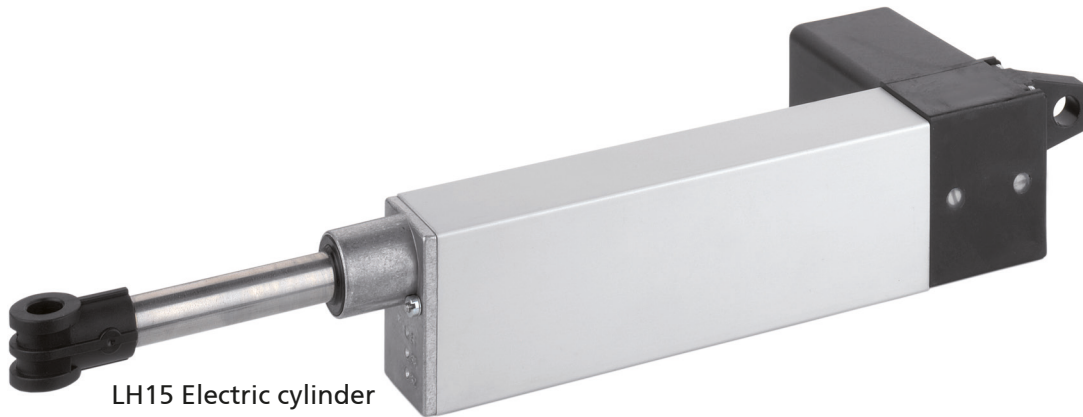
A Phoenix Mecano Company



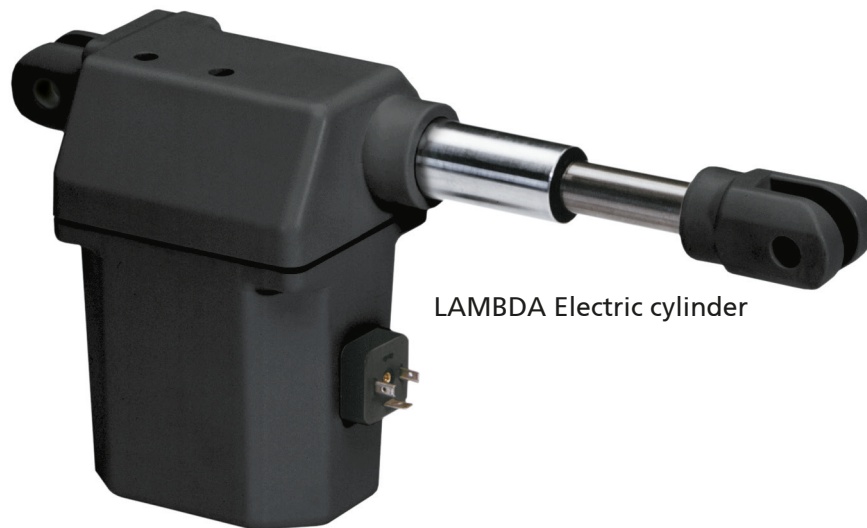
Electric cylinders

Performance class 2

Cylinders - performance class 2



LH15 Electric cylinder



LAMBDA Electric cylinder



LZ60 Electric cylinder
(here with motor
fitted in parallel)

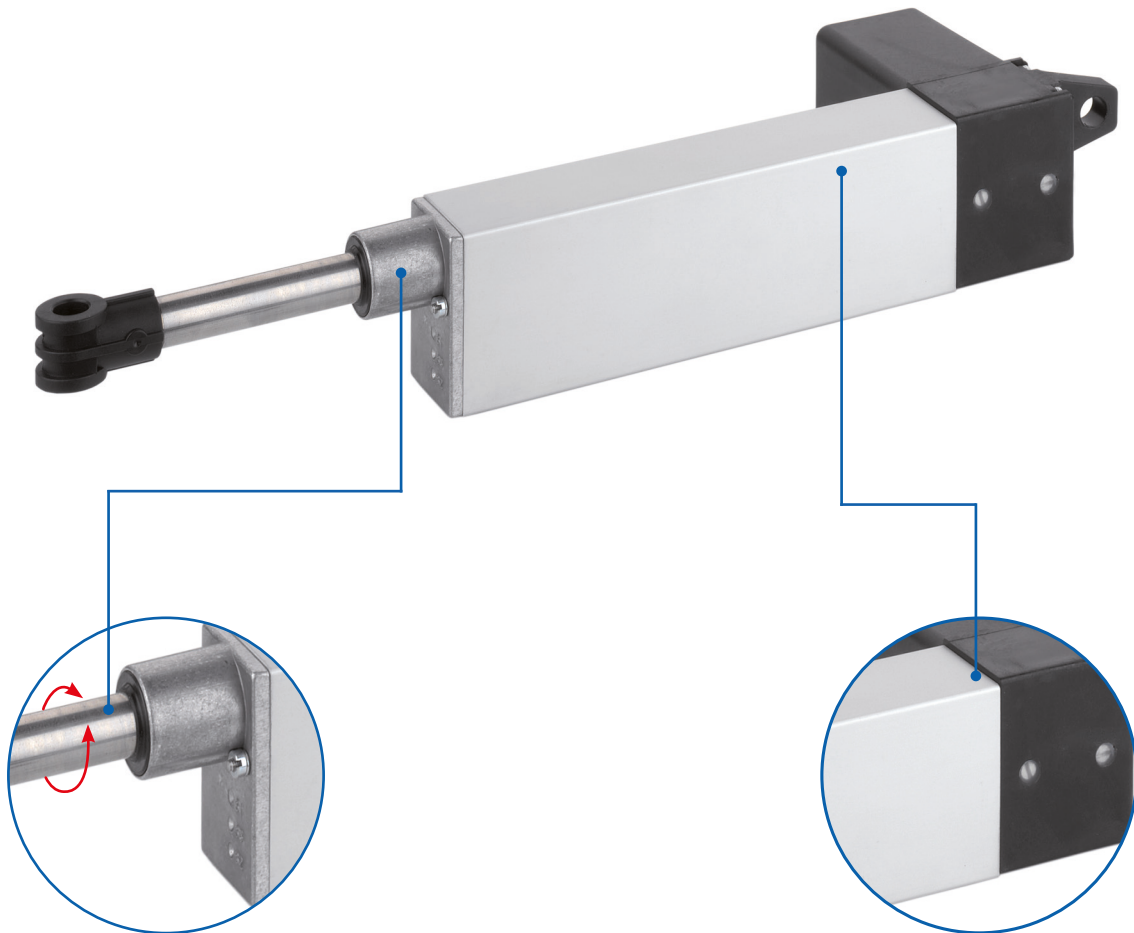
Features:

- Wide range of application and fixing options
- Limit switch integrated on all models
- Maintenance-free – due to permanent lubrication
- Rugged design
- Corrosion-protected by means of durable materials, such as aluminium, stainless steel and plastic

Cylinders - performance class 2 - Table of contents

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LH15 Electric cylinder



Adjustable stroke lengths

- ✓ Precise adjustment

Corrosion-protected

- ✓ Stainless-steel spindle
- ✓ Housing made of aluminium and plastic

Features:

- Outstanding for industrial applications
- High max. lifting speed
- Integrated overcurrent protection
- Maintenance-free (permanent lubrication)
- Corrosion-protected, thanks to stainless-steel spindle and push rod; housing made of aluminium and plastic
- Rugged design
- Integrated limit switches
- Adjustable travel

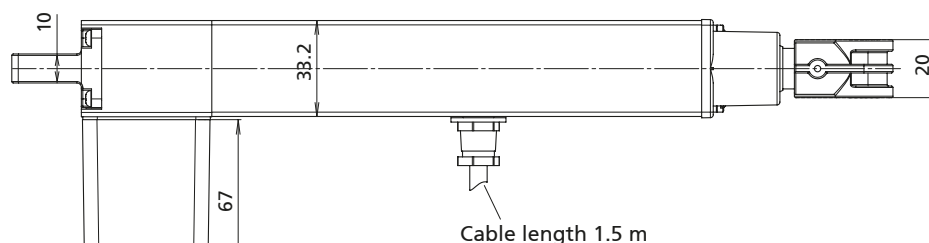
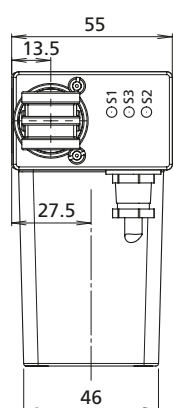
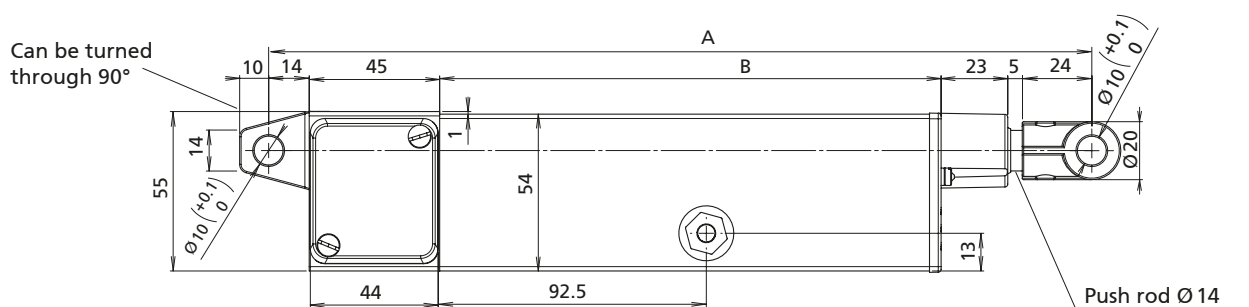
Options:

- Special stroke lengths
- Potentiometer
- Signal contacts
- Higher protection class with bellows

General information/operating conditions

	Drive
Design	Linear cylinder with integrated DC motor
Guide	Slide bush
Installation position	Any position, without shear forces
Push force/Pull force	Up to 1,000 N
Self-locking	Up to 2,000 N
Ambient temperature	-20°C to +60°C
Repeatability	0.5 mm
Duty cycle (at max. load)	10% at nominal load (max. 2 mins operating time, 18 mins rest time)
Voltage	24 (12) V DC
Current output	Max. 2.2 (4.5) A
Power input	Max. 50 W
Protection class	IP 54

LH15 Electric cylinder - Versions



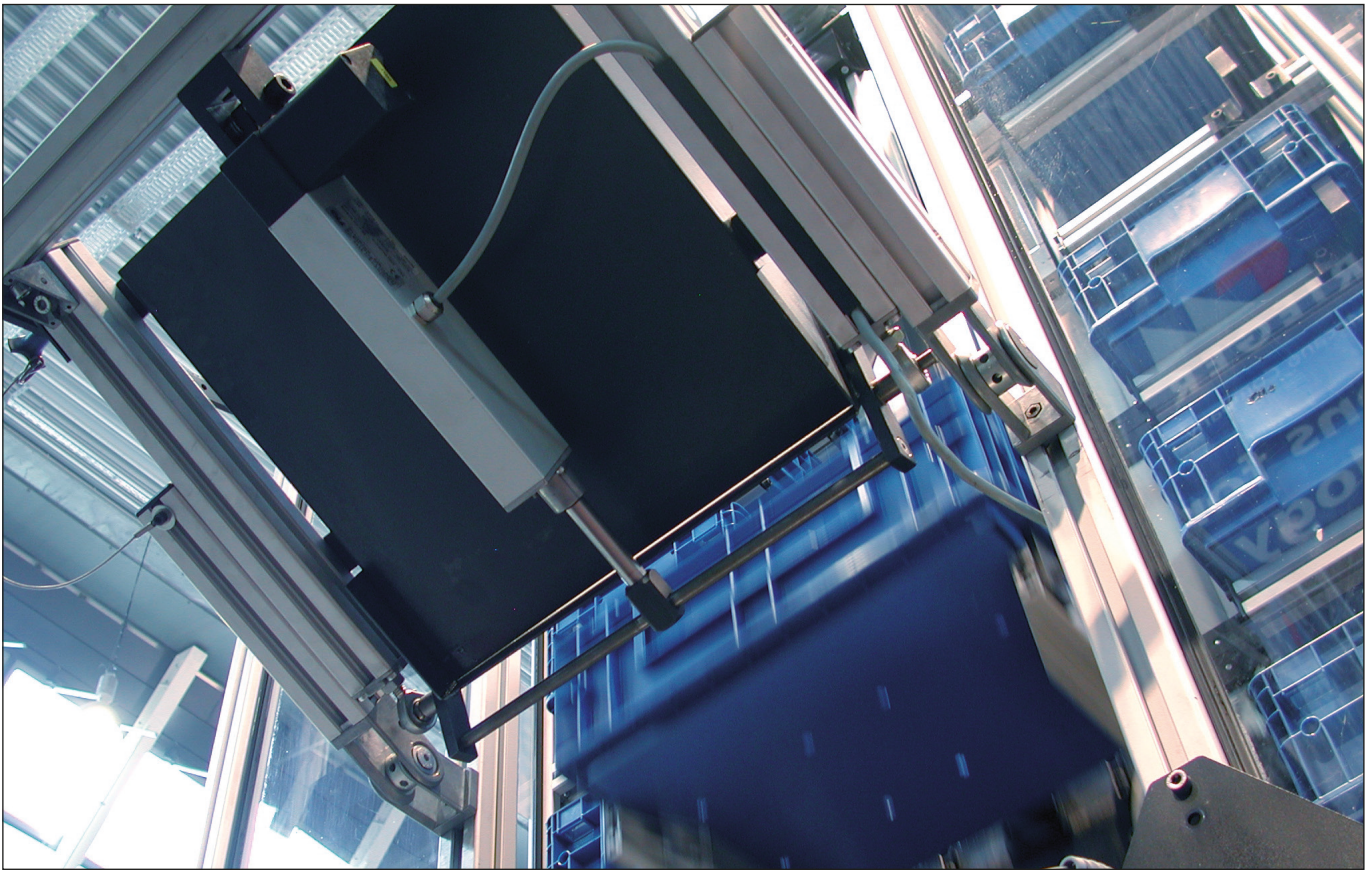
Code No.	Type	Max. force F [N]	Max. speed [mm/s]
QKD05_F010_ _ _	LH15	1,000	5
QKD10_E010_ _ _		600	10
QKD22_C010_ _ _		300	22
QKD25_D010_ _ _		450	25
QKD60_B010_ _ _		200	60
QKD01_A010_ _ _		60	100

Standard stroke lengths

Stroke [mm]	Stroke can be externally adjusted	Dimension A [mm]	Dimension B [mm]	Weight [kg]
100	Yes	284	173	1.2
140	No	284	173	

Special stroke lengths available on request

Stroke [mm]	Stroke can be externally adjusted	Dimension A [mm]	Dimension B [mm]	Weight [kg]
140	Yes	324	213	1.2
260		444	333	
180	No	324	213	
300		444	333	



Feeding device for an automated small parts warehouse

LAMBDA Electric cylinder

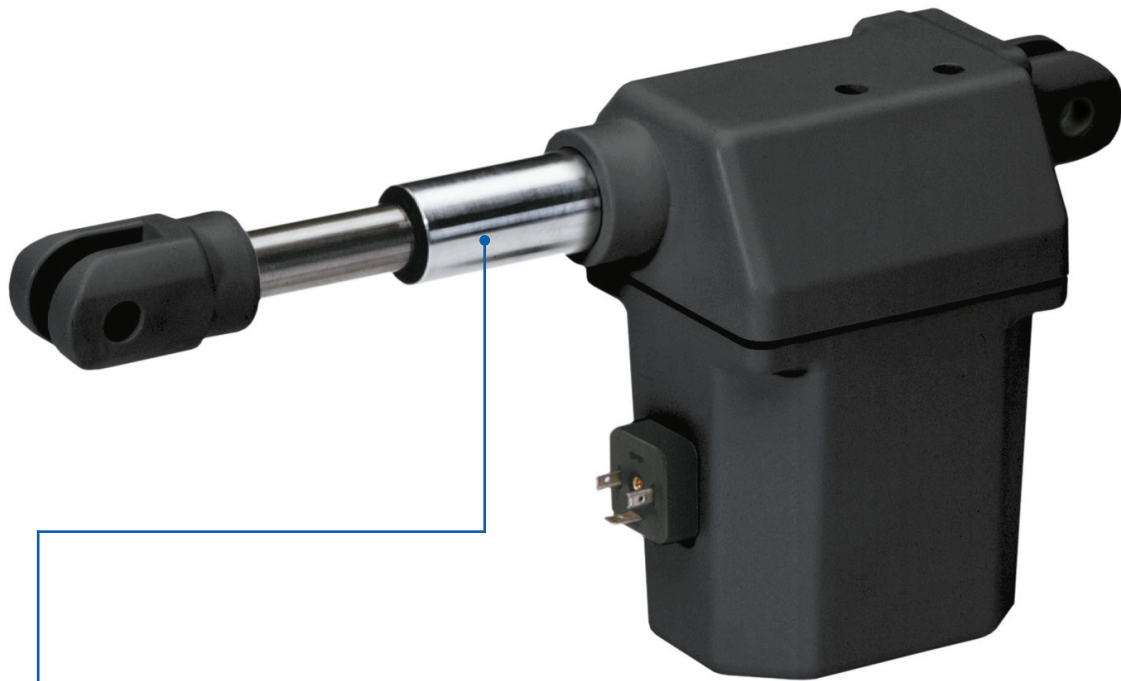


Illustration shows a special application with rotated clevis by 90°.

- ✓ Precise adjustment
- ✓ Stainless steel push rod

Features:

- Integrated limit switches
- Corrosion protected: push rod made of stainless steel; housing made of plastic
- Self-locking, even under max. lifting force
- With thermal motor protection
- Fixing through clevises

Options:

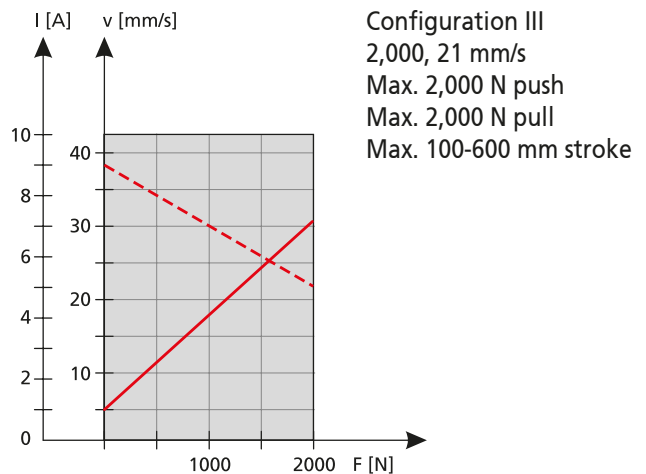
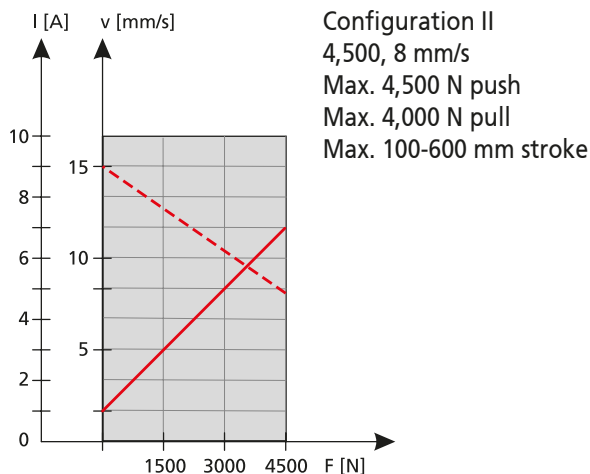
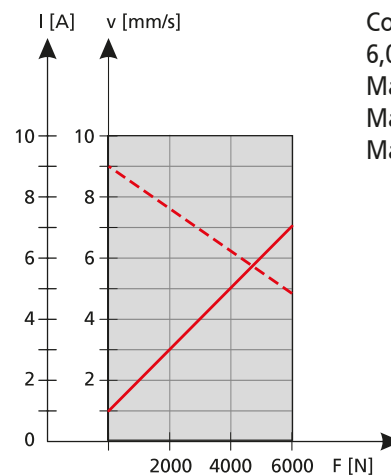
- Special stroke lengths
- Faster travel speeds
- Adjustable even in the event of power failure (can be mechanically disengaged)
- Signal contacts
- Jam protection in push direction
- Fixing via clevises Potentiometer
- Jam protection in pull direction

General information/operating conditions

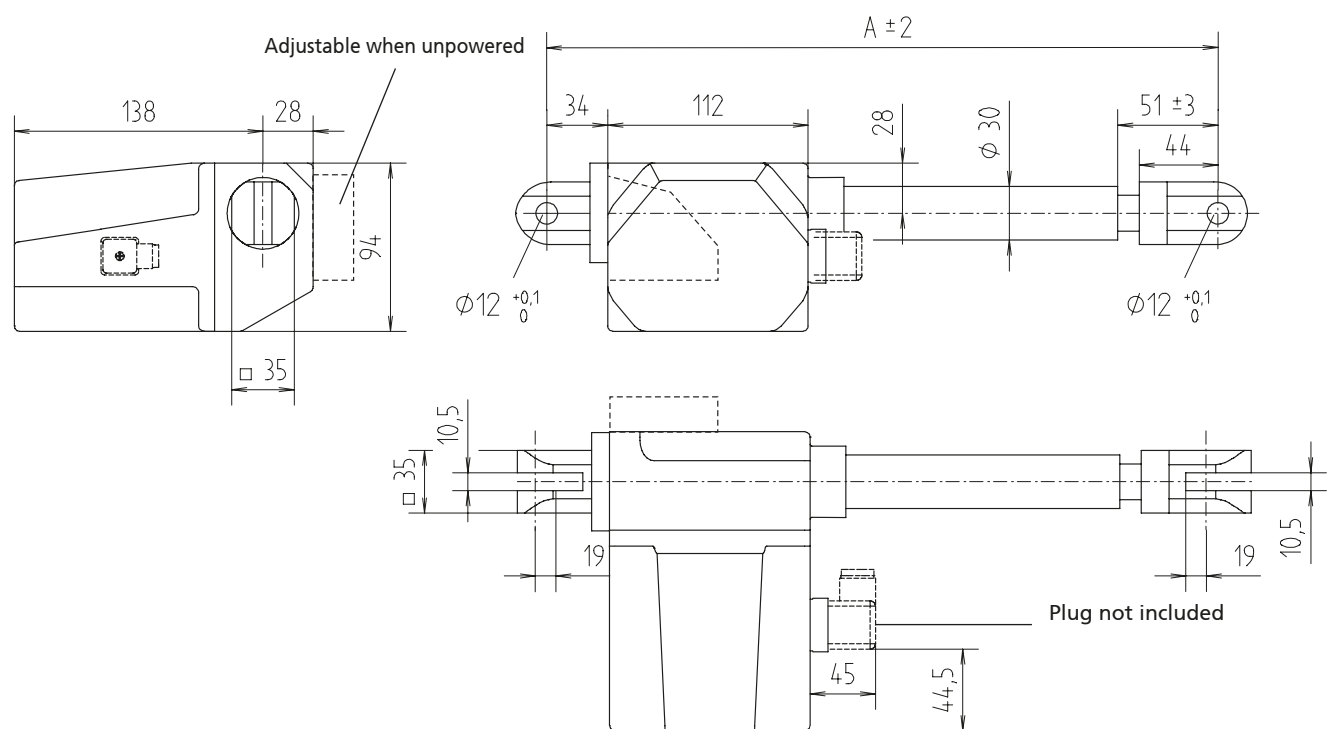
	Cylinder	External control
Design	Linear cylinder with integrated DC motor	
Guide	Slide bush	
Installation position	Any position, without shear forces	
Push force/Pull force	Up to 6,000 N push /4,000 N pull	
Self-locking	Up to 6,000 N	
Ambient temperature	-20°C to +60°C	
Repeatability	0.5 mm	
Duty cycle (at max. load)	10% at nominal load (max. 2 mins operating time, 18 mins rest time)	
Voltage	24 V DC	230 V AC
Current output	Max. 7 A	As for drive
Power input	Max. 180 W	As for drive
Protection class	IP 66	IP 54

Power diagram

- - - v [mm/s]
 — I [A]



LAMBDA - Versions



For connectors, see Optional accessories, page 177

[mm]								
Stroke	100	150	200	250	300	400	500	600
Installation dimension A	Stroke + 175					Stroke + 225		

LAMBDA mono

Code No.	Type	Max. force F [N]		Max. speed [mm/s]
		Push	Pull	
LAMBDA mono without potentiometer without clamping protection				
QKK05BC010_ _ _	LBM	6,000	4,000	5
QKK08BB010_ _ _	LBM	4,500	4,000	8
QKK21BA010_ _ _	LBM	2,000	2,000	21

e.g. stroke [mm] = 150		Stroke [mm]	Weight [kg]
		100	2,3
		150	2,5
		200	2,7
		250	2,9
		300	3,1
		400	3,5
		500	3,9
		600	4,3

Further versions can be found in the catalogue lifting columns and electric cylinders II

Not for 6000 N

Controls

- Input voltage 230 V AC
- Output voltage 24 V DC

Transformer control



Code No.	Version		Fig.
Transformer control			
QZA01C04AD011	LBG 1 transformer control	Controls up to 1 drive	1
QZA01C04AE011	LBG 2 transformer control	Controls up to 2 drives	2
QZA01C04AF011	LBG 3 transformer control	Controls up to 3 drives	3

Note: For dimensions and other technical data, please refer to page 148

Further versions can be found in the catalogue lifting columns and electric cylinders II

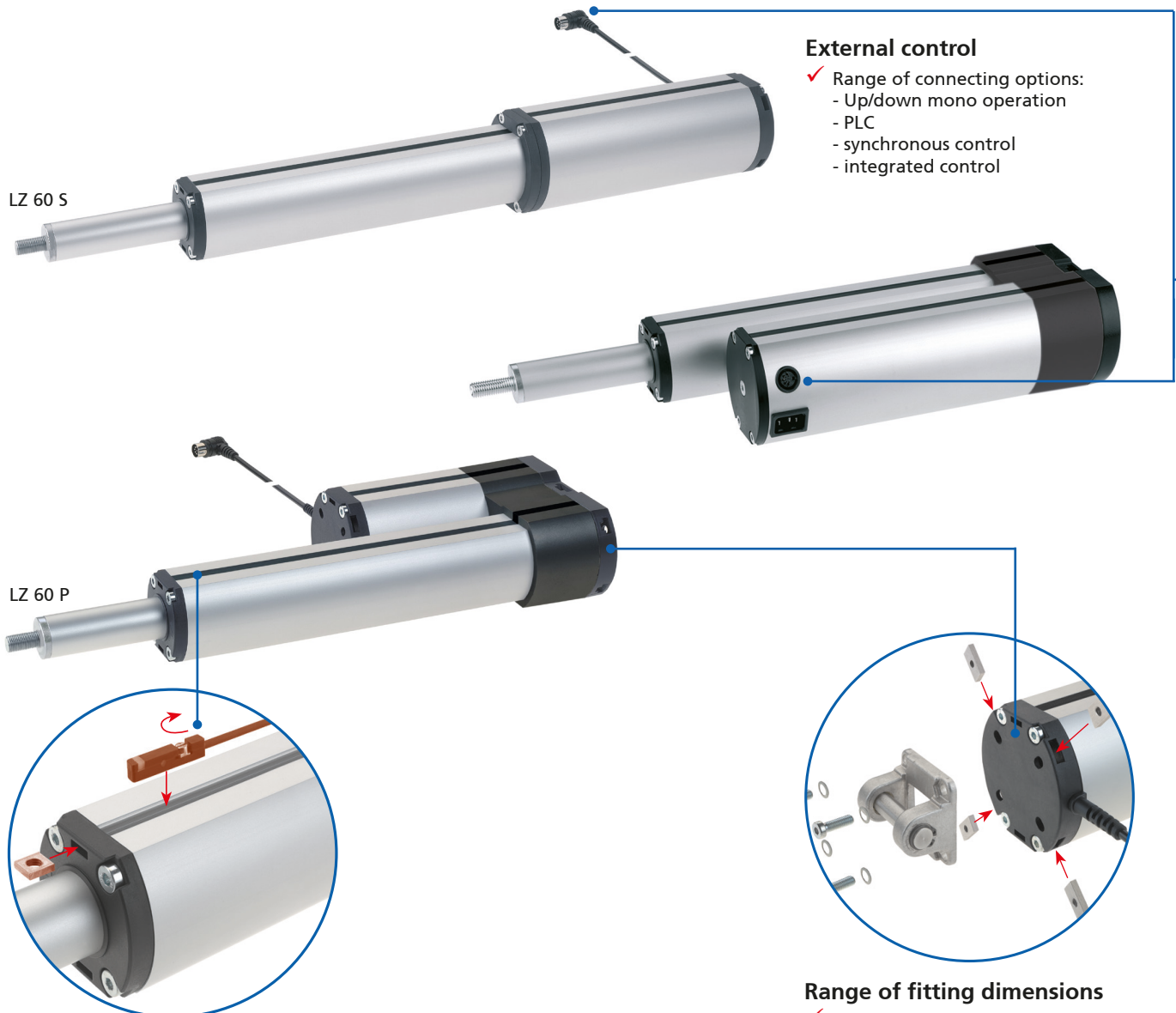
Hand switches/accessories



Code No.	Version		Fig.
QZB03C02AD031	LAMBDA hand switch with fixing clip – 6 function keys	Controls up to 3 drives	2
QZD000072	Bracket for hand switch		3

LZ 60 Electric cylinder

The industrial design complete system with push/pull forces up to 4000 N.



External control

- ✓ Range of connecting options:
 - Up/down mono operation
 - PLC
 - synchronous control
 - integrated control

Adjustable external magnetic switch

- ✓ Covered in slot geometry
- ✓ Stroke can be adjusted
- ✓ Accessories can be retrofitted
- ✓ Pre-fitted with internal magnets for external magnetic switch

Range of fitting dimensions

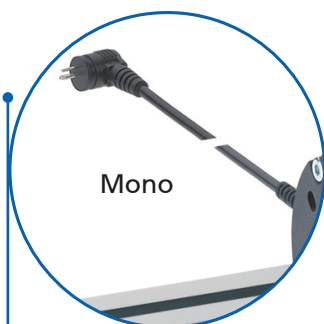
- ✓ Slide-in clasp nuts enable fitting dimensions of 37.5 to 40.5 mm.
- ✓ Compatible with a wide range of fixing elements from the pneumatic industry.

Features:

- Integrated DC drive
- Flexible use of space due to different motor installation options: parallel (LZ 60 P) or rod shaped (LZ 60 S)
- Coverable slot geometry on both sides supports a range of fixing options
- Push rod with rotation locking
- Maintenance-free for up to 10,000 double strokes
- IP 54
- Self-locking
- Optionally available with integrated control/230 V (IP 30) LZ 60 S on request

Options:

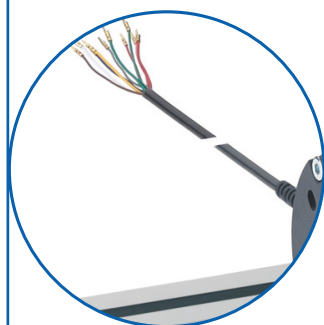
- Special stroke lengths available on request



External control

Elec. connection "a"

- ✓ Connection (2.5 m) to RK transformer control or to external fixed voltage source. Only connecting cable is fed out of unit. Limit switch is hard-wired internally.
- ✓ Mono operating modes Up/down optional parallel operation
- ✓ Internal limit switches for stroke limitation wired internally
- ✓ Connection to RK transformer control or equivalent control 24 V/36 V



Elec. connection "b"

- ✓ All connecting cables (approx. 1 m) is fed out of the unit (limit switches, motor, 2-channel Hall sensor) e.g for connection to a PLC
- ✓ Synchronous operating modes can be freely ositioned/industrial version
- ✓ Internal limit switch and incremental displacement pick-up lead directly out of the unit



Elec. connection "c"

- ✓ Connection (2.5 m) to RK synchronous control
- ✓ Synchronous operating modes/DIN plug, 8-pin
- ✓ Internal limit switches and incremental displacement pick-up fed out of the unit
- ✓ Connection to RK Multicontrol



Integrated control

Elec. connection "d"

- ✓ The mains cable and the 2-key hand switch are directly connected to the motor housing.
- ✓ Mono operating modes Up/down
- ✓ Internal limit switch for stroke limitation wired internally
- ✓ Connection to power supply unit, 230 V

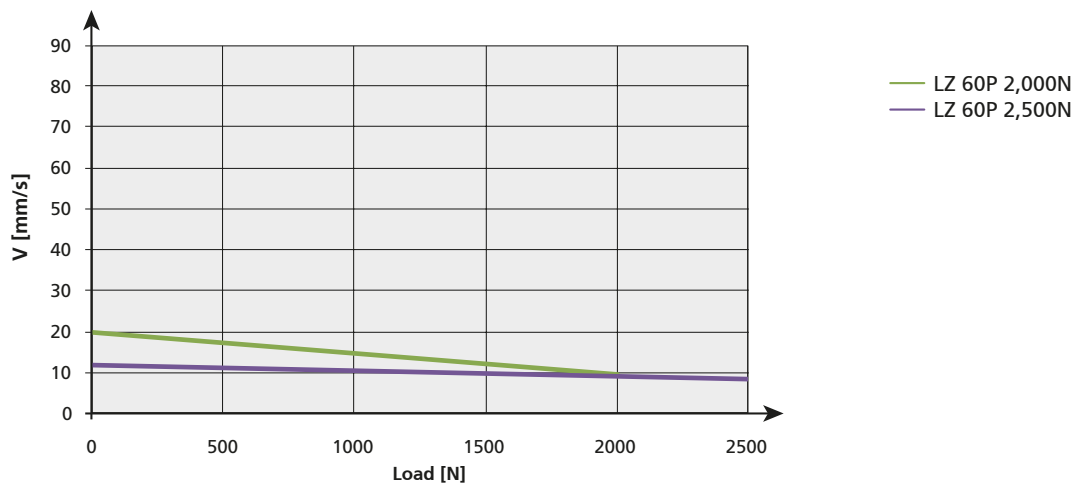
LZ 60 – Technical data

General information/operating conditions

Type	LZ 60 external control	LZ 60 internal control
Design	Linear cylinder with integrated DC motor	
Guide	Double bearing via POM bushes	
Installation position	Any position, without shear forces	
Push force/Pull force	Up to 4,000 N	
Self-locking	Up to 5,000 N	
Ambient temperature	+5°C to +40°C	
stroke tolerances	+0.5 mm / -2.5 mm	
Repeatability	0.5 mm	
Duty cycle (at max. load)	15% (max. 1.5 mins operating time, 8.5 mins rest time)	
Voltage	24/36 V DC	230 V AC
Current output	Max. 5.5 A	Max. 1.25 A
Power input	Max. 180 W	115 W
Protection class	IP 54	IP 30
Speed	Max. 50 mm/s	Max. 45 mm/s

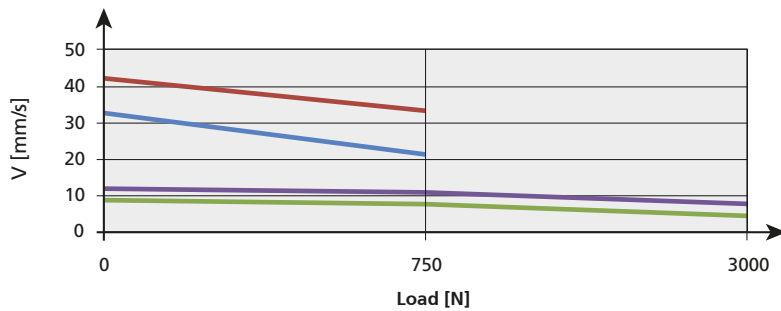
Speed/Force diagram

LZ 60P, with internal control



Speed/Force diagram

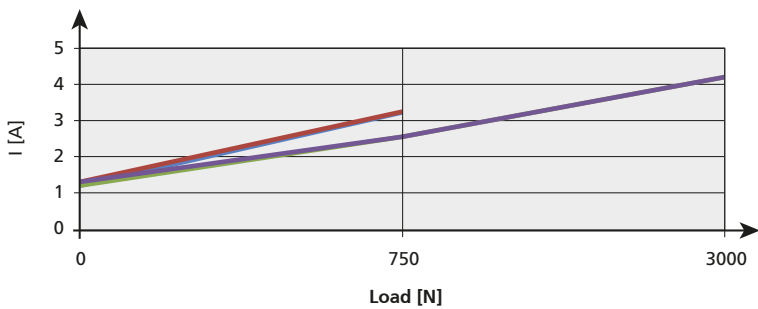
LZ 60S, for external control



- LZ 60S 1,500N at 24V*1
- LZ 60S 3,000N at 24V*1
- LZ 60S 1,500N at 36V*2
- LZ 60S 3,000N at 36V*2

Current output/Force diagram

LZ 60S, for external control



- LZ 60S 750N at 24V*1
- LZ 60S 3,000N at 24V*1
- LZ 60S 750N at 36V*2
- LZ 60S 3,000N at 36V*2

24 V*1 determined with a transformer control 120 VA

36 V*2 determined with a MultiControl duo

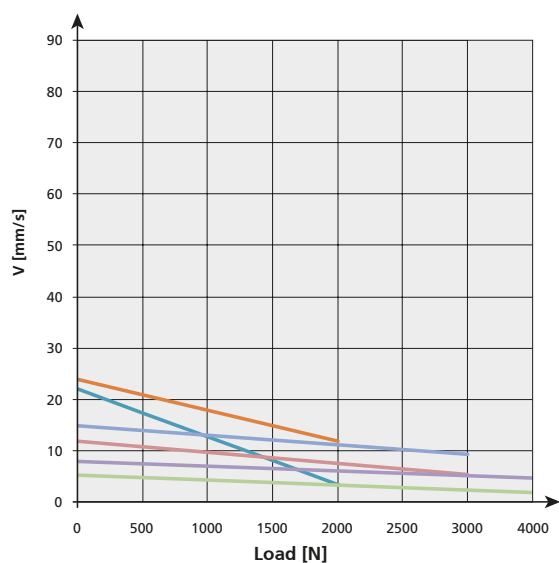


Scissor lift with combination of several LZ 60 P electric cylinders

LZ 60 – Technical data

Current output/Force diagram

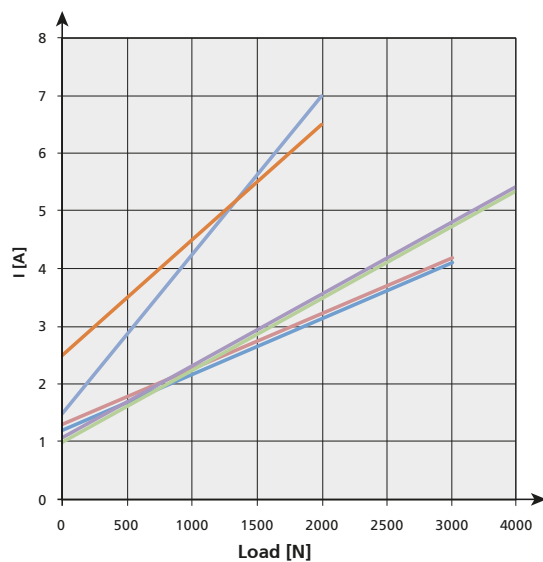
LZ 60P, for external control



- LZ 60P 2,000N at 24V*1
- LZ 60P 2,000N at 36V*2
- LZ 60P 3,000N at 24V*1
- LZ 60P 3,000N at 36V*2
- LZ 60P 4,000N at 24V*1
- LZ 60P 4,000N at 36V*2

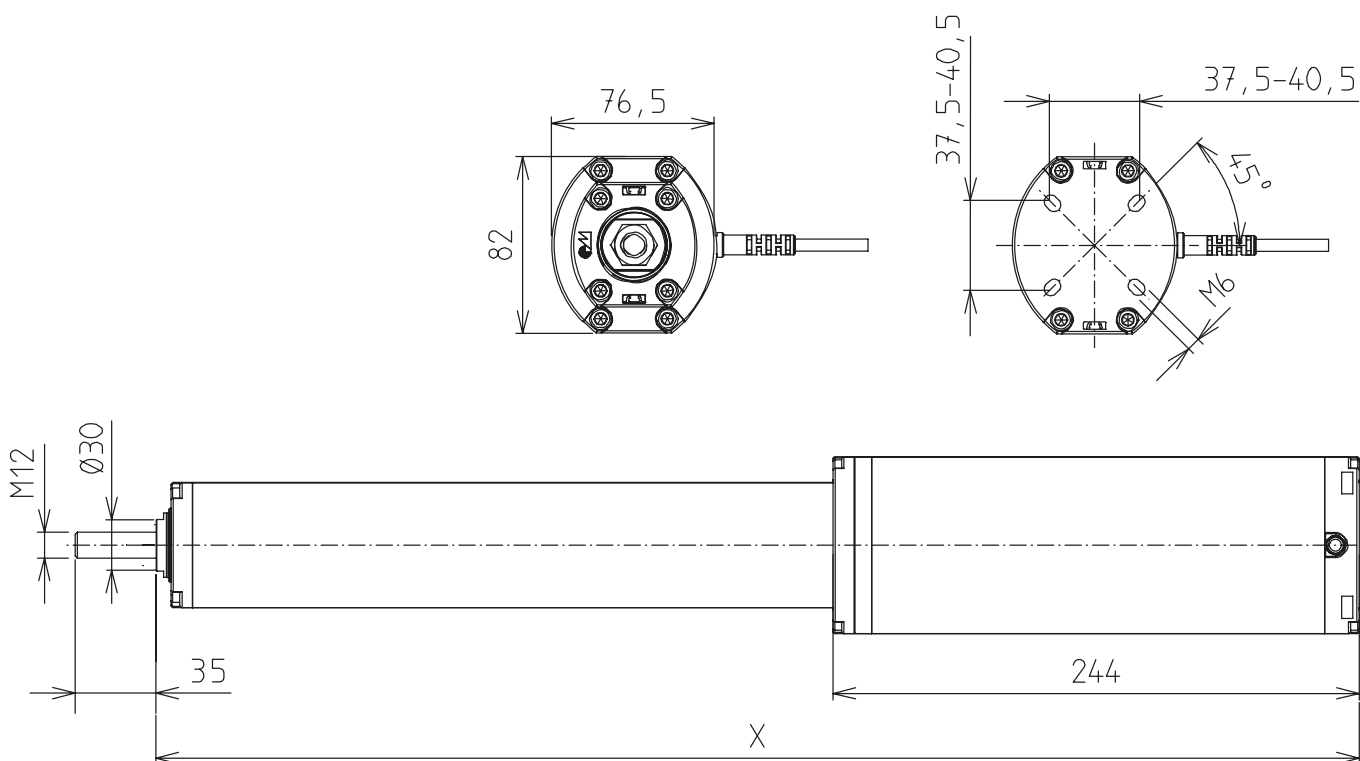
Current output/Force diagram

LZ 60P, for external control



- LZ 60P 2,000N at 24V*1
- LZ 60P 2,000N at 36V*2
- LZ 60P 3,000N at 24V*1
- LZ 60P 3,000N at 36V*2
- LZ 60P 4,000N at 24V*1
- LZ 60P 4,000N at 36V*2

24 V*1 determined with a transformer control 120 VA
36 V*2 determined with a MultiControl duo



Version for external control 24 V/36 V

Code No.	Type	Max. force F [N]	Max. speed [mm/s]	
			24 V DC	36 V DC
QKI00AG0_0_ _ _	LZ 60 S	750	36	45
QKI00AB0_0_ _ _	LZ 60 S	3,000	9	12

e.g. stroke [mm] = **2 0 2**

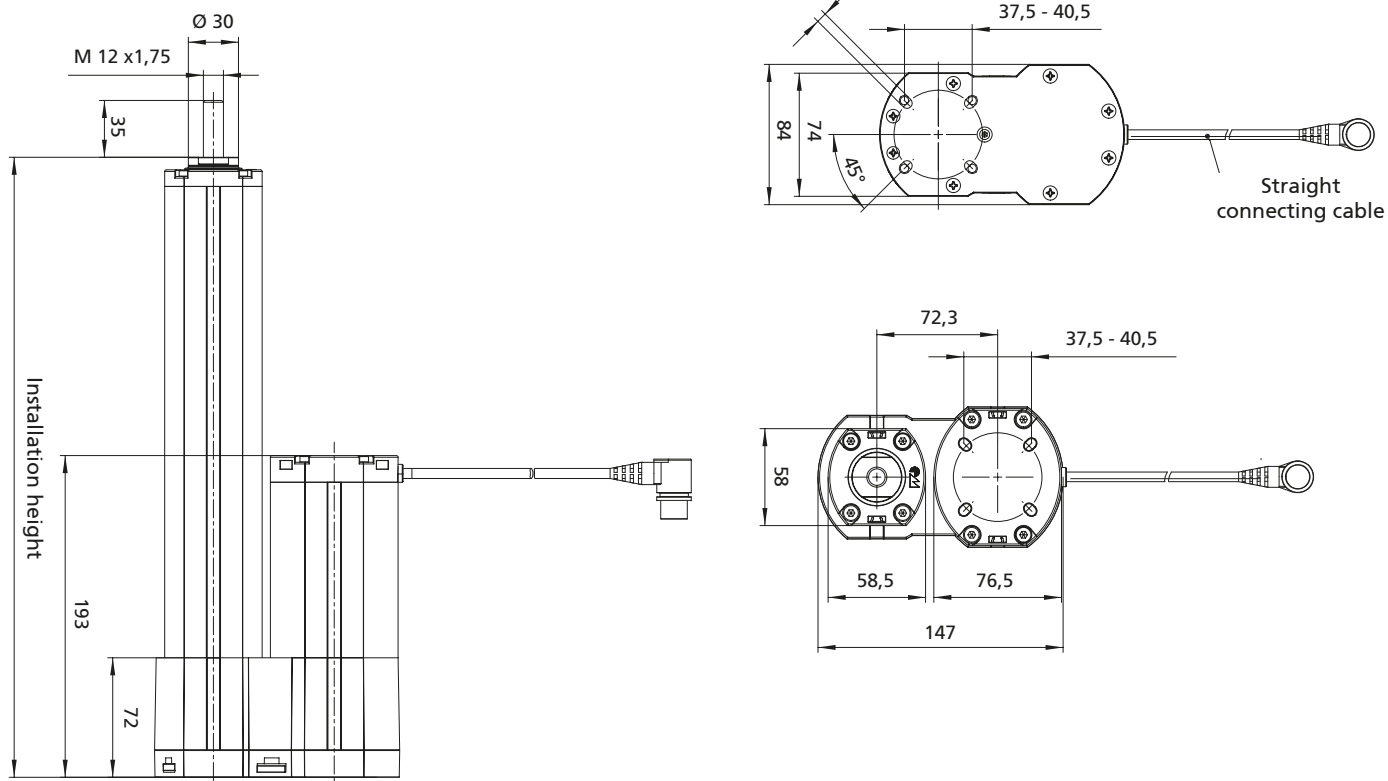
Stroke* [mm]	Installation dimension X [mm]	Weight [kg]
105	446.0	2.9
150	491.0	3.0
202	543.5	3.2
255	596.0	3.4
300	641.0	3.6
352	708.5	3.7
405	761.0	3.9
450	806.0	4.1
502	858.5	4.3
555	911.0	4.4
600	956.0	4.6

*Tolerance: +0.5mm / -2.5mm

- A = connection to RK transformer control
 B = connecting cable with open lead-through for motor cable/incremental displacement pick-up/limit switches
 C = connection to RK synchronous control

LZ 60 P - Versions

LZ 60 P



Version for external control 24 V/36 V

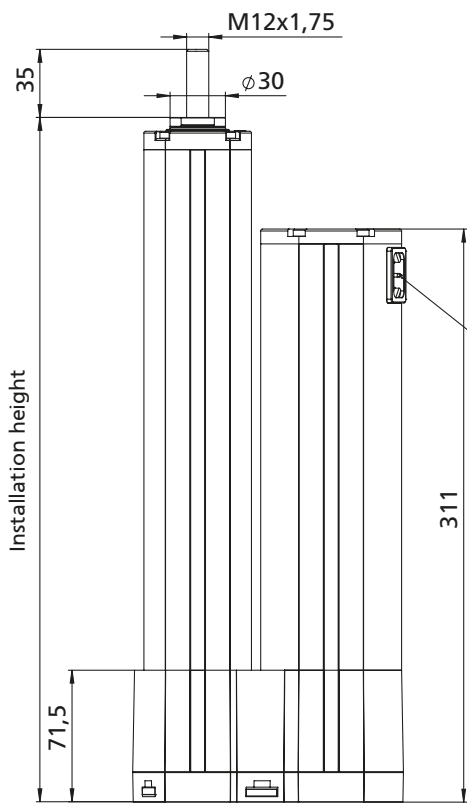
Code No.	Type	Max. force F [N]	Max. speed [mm/s]	
			24 V DC	36 V DC
QKX00AB0_0_ _ _	LZ 60 P	2,000	22	28
QKX00AE0_0_ _ _	LZ 60 P	3,000	12	15
QKX00AF0_0_ _ _	LZ 60 P	4,000	6	9

e.g. stroke [mm] = **2 0 2**

Stroke* [mm]	Installation dimension X [mm]	Weight [kg]
105	273.5	3.7
150	318.5	3.8
202	371.0	4.0
255	423.5	4.2
300	468.5	4.4
352	536.0	4.5
405	588.5	4.7
450	633.5	4.9
502	686.0	5.1
555	738.5	5.2
600	783.5	5.4

*Tolerance: +0.5mm / -2.5mm

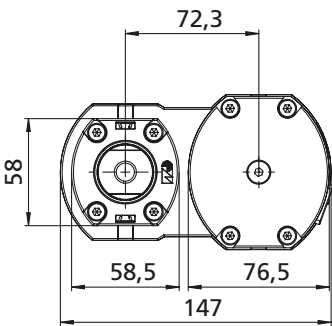
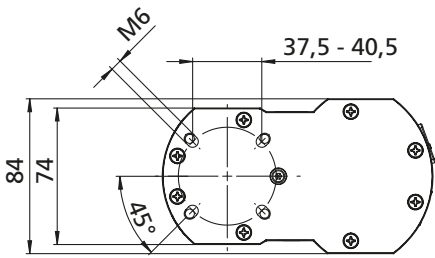
A = connection to RK transformer control
 B = connecting cable with open lead-through for motor cable/incremental displacement pick-up/limit switches
 C = connection to RK synchronous control



Socket for connecting cable

Note: The IEC cable is not included in the scope of delivery.

Hand switches/Accessories:
See page 147



Version with internal control 230 V

Code No.	Type	Max. force F [N]	Max. speed [mm/s]	Electrical connection
QKX00AB0D0_ _ _ _	LZ 60 P	2,000	20	230 V AC
QKX00AE0D0	LZ 60 P	2,500	13	230 V AC

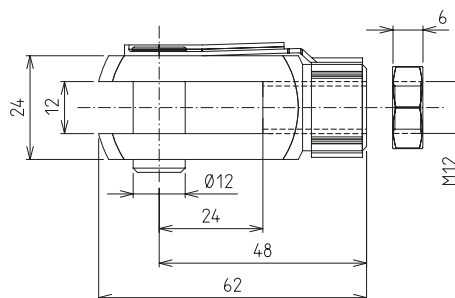
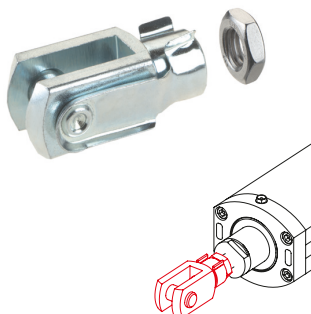
e.g. stroke [mm] = **2 0 2**

Stroke* [mm]	Installation dimension X [mm]	Weight [kg]
105	273.5	4.7
150	318.5	4.8
202	371.0	5.0
255	423.5	5.2
300	468.5	5.4
352	536.0	5.5
405	588.5	5.7
450	633.5	5.9
502	686.0	6.1
555	738.5	6.2
600	783.5	6.4

*Tolerance: +0.5mm / -2.5mm

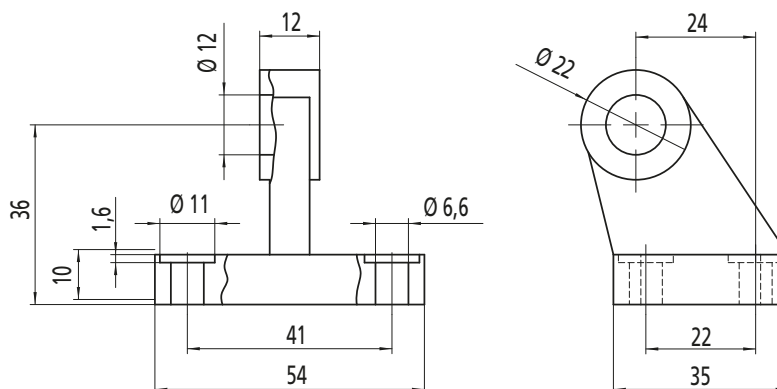
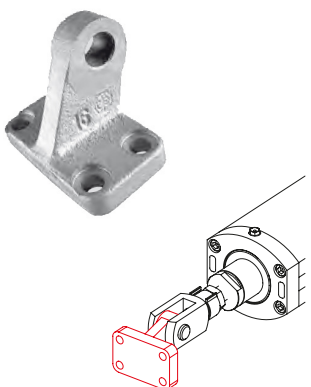
LZ 60 – Fixing

Clevis



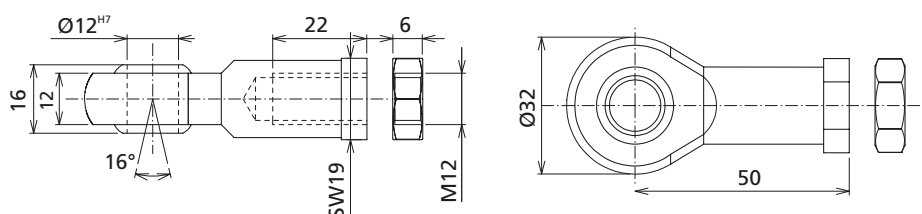
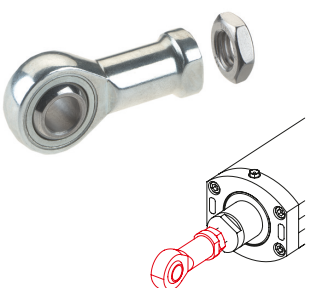
Code No.	Type
QZD050570	Clevis M12

Bearing block for clevis



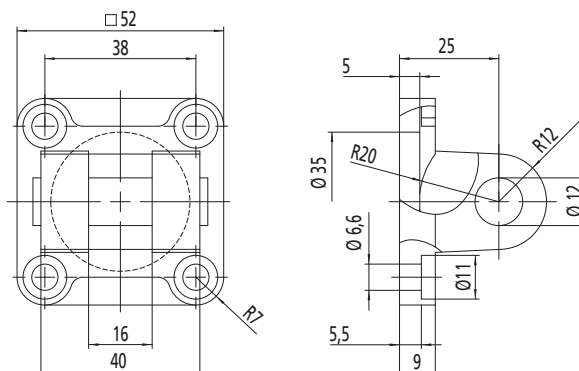
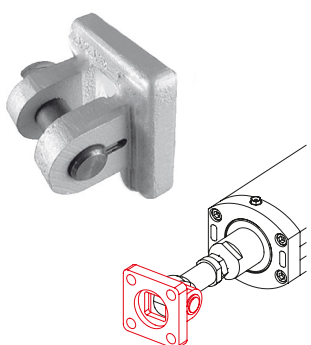
Code No.	Type
QZD050572	LZ 60 Bearing block Ø12

Swivel head



Code No.	Type
QZD050574	Swivel head M12

Clevis mounting for swivel head

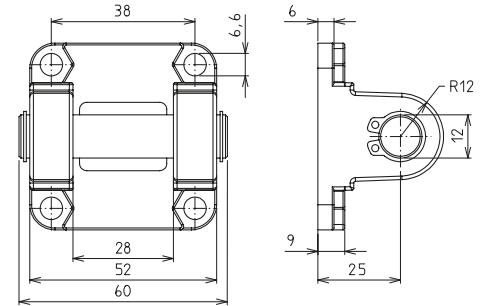
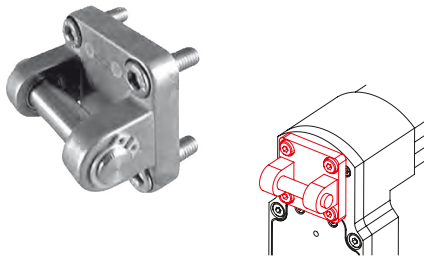


Code No.	Type
QZD050576	LZ 60 Clevis mounting Ø 12



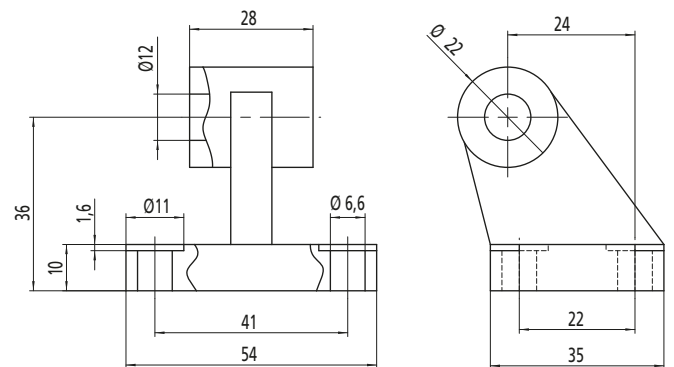
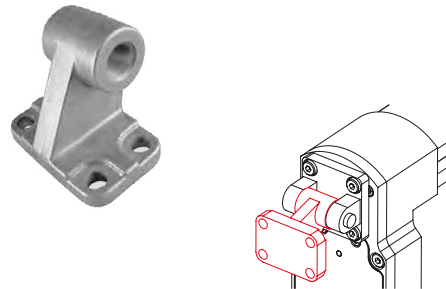
LZ 60 Fixing

Swivel flange



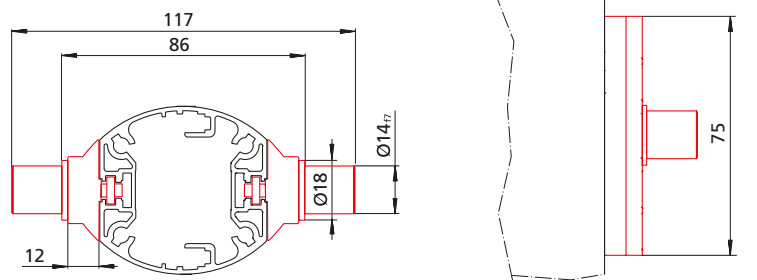
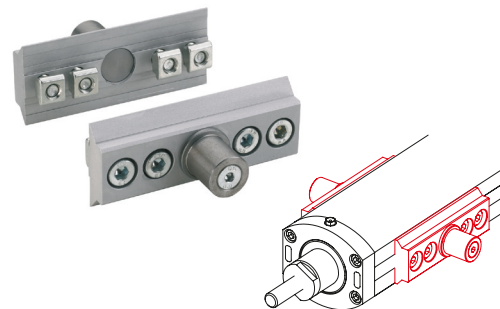
Code No.	Type
QZD050578	Swivel flange Ø 12

Bearing block for swivel flange



Code No.	Type
QZD050583	LZ 60 Bearing block Ø 12

Trunnion support blocks

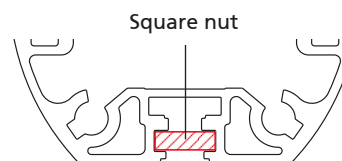


Code No.	Type
QZD050586	Trunnion support blocks LZ 60

Order instruction square nut:

- Purchase only in lot sizes and a multiple of that, see product table below

Square nut



- The square nut enables the the attachment of fittings to the cylinder. Nuts can be slid into the lateral slots for this purpose.

Code No.	lot sizes	Type
qzd0505971	10, 20, 30... pcs	Square nut M6, DIN562

LZ 60 – Accessories

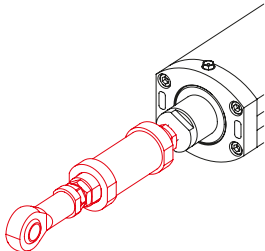
Axial adjustment



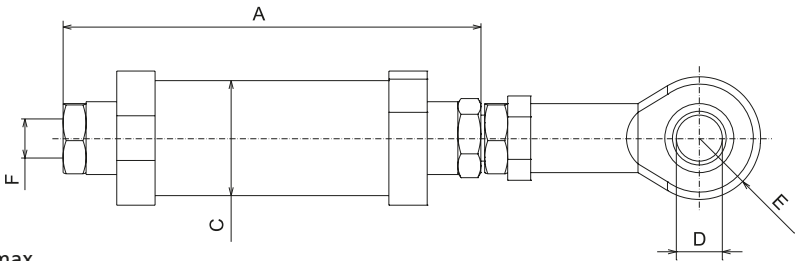
Axial adjustment

- ✓ Compensates manufacturing tolerances
- ✓ Compensates installation tolerances
- ✓ Length compensation -2 mm
- ✓ Reduces commissioning times

Scope of delivery:
Axial adjustment, incl.
swivel head as depicted



Note:
Screw depth 15 mm max.



[mm]						
Code No.	Load	A	C	D	E	F
QZD050590	600 N	102	Ø30	Ø12	R16	M12
QZD050591	1,000 N	102				
QZD050592	2,000 N	103.5				
QZD050593	2,500 N	109				
QZD050594	3,000 N	107.5				
QZD050595	4,000 N	139.5				

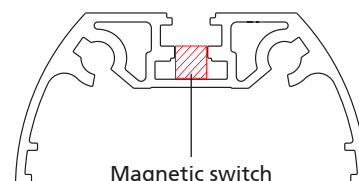
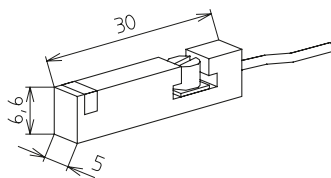
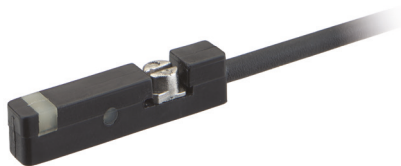


LZ 60 – Position determination / Drive

Magnetic switch

- Signals from the magnetic switch can be collected and evaluated by a customer-provided control unit (such as a PLC).

- The switch can be retrofitted in the lateral slot (protected by a cover profile as standard)
- Magnets are already integrated in the cylinder as standard.



Code No.	Type
QZD050598	Magnetic switch, NO contact, cable length 6 m
QZD050599	Magnetic switch, NC contact, cable length 5.3 m

Magnetic switch – Technical data

	NC contact	NO contact
Voltage	10-30 V DC	5-30 V DC
Current output	< 10 mA	< 10 mA
Output current	Max. 100 mA	Max. 50 mA
Output type	PNP	PNP
Function indication	LED	LED
Ambient temperature	-25°C to +85°C	-20°C to +70°C
Protection class	IP 67	IP 68

Controls

- Input voltage 230 V AC
- Output voltage 24 V DC, 36 V DC

Order information:
Observe the current output of the drives when selecting the control.



MultiControl mono
ca. 36 V DC



MultiControl duo
ca. 36 V DC

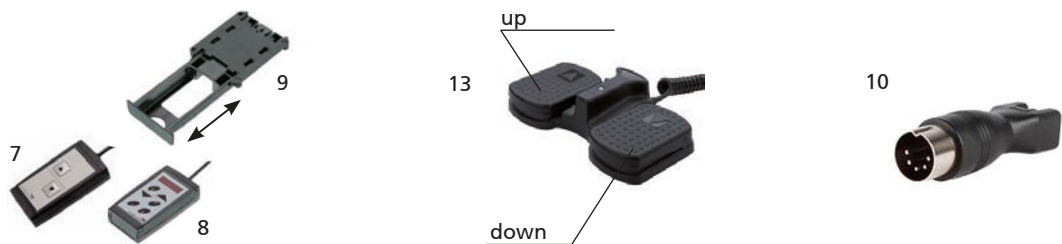


MultiControl quadro
ca. 36 V DC

Code No.	Version	
Controls for LZ 60 connection A		
QSTAACA1AA000	MultiControl mono connection A, up to max. I= 10 A current output, 24 V DC	Controls up to 2 drives
Controls for LZ 60 connection C		
QSTACCA1AA000	MultiControl mono connection C, up to max. I= 12 A current output, 36 V DC	Controls up to 2 drives
QST30C02AA000	MultiControl duo connection C, up to max. I= 12 A current output, 36 V DC	Up to 2 drives synchronised
QST30C04AA000	MultiControl quadro connection C, up to max. I= 12 A current output, 36 V DC	Up to 4 drives synchronised
Accessories		
QZD100093	6 m bus cable for the networking of up to 8 synchronous controls	
QZD0702844000*	Straight connecting cable (4 m) with 5-pin connector and open cable end	
QZD070525	Extension cable 2,5 m drive for connector A/2-pin DIN socket	
QZD070526	Extension cable 2,5 m drive for connector C/8-pin DIN socket	

* for the connection of a parallel hand switch or an external potentiometer (in the case of the MultiControl mono)

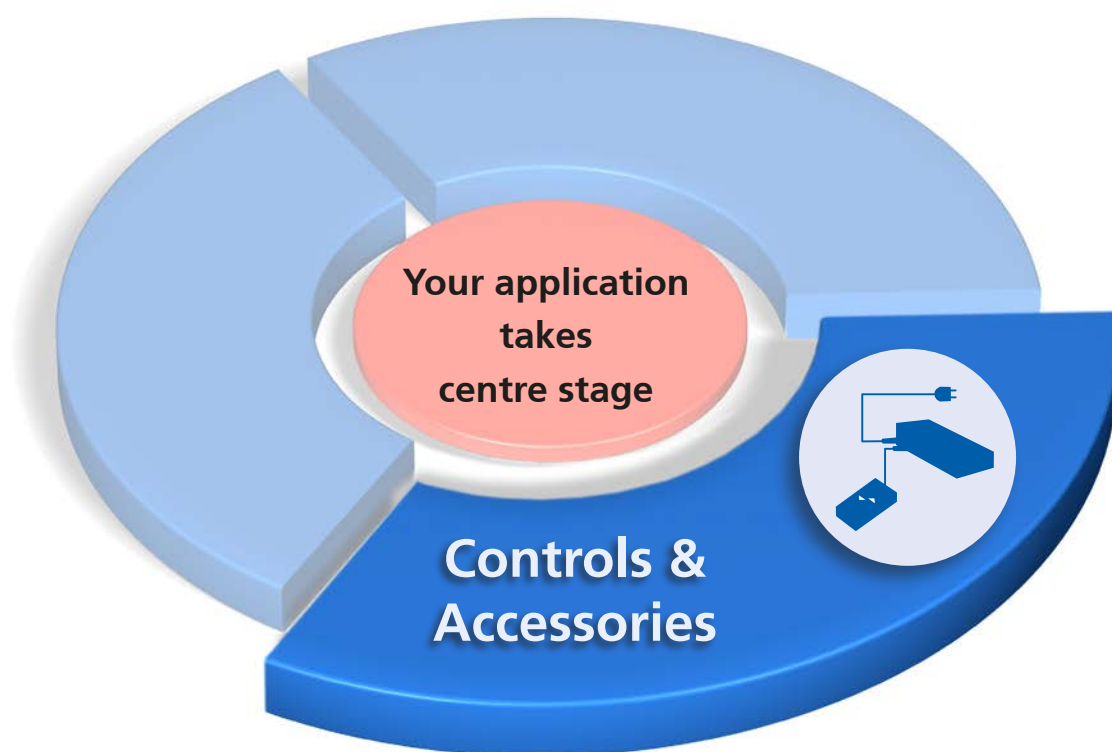
Hand switches/Feet



Note: For further hand switch versions, please refer to the chapter “Controls” on page 148

Code No.	Version	Fig.
Hand switches for transformer or synchronous control		
QZB11G07AB041	Hand switch with 2 function keys – 1 m spiral cable*	7
QZB02C01AE114	Foot switch – 2 function keys	13
Hand switch for synchronous control		
QZB00D04AD041	Hand switch with 1 m spiral cable – 6 function keys	8
Accessories for hand switches		
QZD000074	Hand switch drawer: Fig. 7 + 8	9
QZD070750	Adapter DIN 5pol to Molex 6pol	10

*When using the manual switch with 2 function keys **QZB11G07AB041** on the MultiControl I the adapter DIN 5pin to Molex 6pin **QZD070750** is required.



Controls & Accessories

The mono and multiple synchronous controls are the powerhouses for lifting columns and electric cylinders. The MultiControl control family makes it easier to choose while increasing the level of diversity.



Contents

Mono.....	Page 152
Synchro	Page 166
Accu.....	Page 170
Optional accessories	Page 177

Controls & Accessories

Finding the right control



Depending on technical and optical requirements, it takes just 2 steps to find the controls that matches your needs.
Step 1 - Determine the type of control.
Step 2 - Choose the appropriate version.

Step 1











Select the control on the right that meets your requirements.

Step 1

For step 2, please refer to the relevant catalogue page.



Mono			
Features	MultiControl mono page 152	MultiControl Care Mono page 154	LAMBDA-actuators page 158
No. of drives	1 – 2	1 – 4	1 – 3
Individual operation	•	•	•
Parallel operation	•	•	•
Mains-independent battery mode			
Variable speed control	•		
Wide-range input		•	

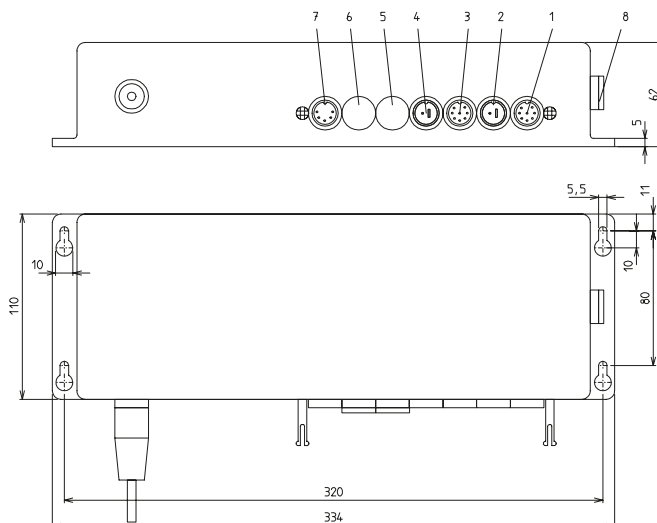
Synchro					
Features	MultiControl duo page 160	MultiControl duo silent page 162	MultiControl quadro page 164	MultiControl Care Synchro page 166	MultiControl duo accu page 170
No. of drives	1 – 2	1 – 2	1 – 4	2 – 4	1 – 2
Individual operation	•	•	•	•	•
Parallel operation				•	
Synchronised operation	•	•	•	•	•
Duty cycle monitoring	•	•	•		•
Memory function*	•	•	•		•
Networking of multiple controls	•	•	•		
Safety shutdown function*			•		
Wide-range input				•	

* only in conjunction with hand switch (6 function keys & display)

MultiControl mono

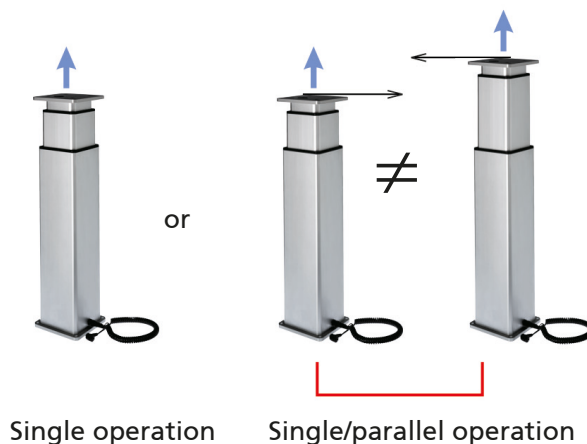
Control - MultiControl mono, connection A

- Socket 1 not assigned
- Socket 2 2-pin DIN socket for drive 1
- Socket 3 not assigned
- Socket 4 2-pin DIN socket for drive 2
- Socket 5 not assigned
- Socket 6 2- to -10- volt- input or potentiometer input
- Socket 7 5-pin DIN socket for parallel hand switch with 2 or 6 function keys
- Socket 8 not assigned



Control - MultiControl mono connection C

- Socket 1 8-pin DIN socket for drive 1
- Socket 2 not assigned
- Socket 3 8-pin DIN socket for drive 2
- Socket 4 not assigned
- Socket 5 not assigned
- Socket 6 2- to -10- volt- input or potentiometer input
- Socket 7 5-pin DIN socket for parallel hand switch with 2 or 6 function keys
- Socket 8 not assigned



Features:

- Single or parallel operation of up to two lifting columns or electric cylinders (not synchronised)
- External potentiometer (customer-supplied) for setting an infinitely variable motor speed
- Temperature and duty cycle monitoring as overload protection (standard)
- Used together with a hand switch (6 function keys) this unit supports joint/individual movement of two drives

General information/operating conditions

	Connection A	Connection C
The following can be connected:	Multilift, LZ 60, Drive units LZ, Alpha Colonne	Alpha Colonne, RKPowerlift (external control), RK Slimlift, Linear cylinder LZ 60, Drive units LZ
Max. duty cycle	10% 10 A, 15% 7 A	20%
Input voltage	230 V AC (115 V AC available on request)	
Output voltage	24 V DC	36 V DC
Power	250 VA	300 VA
Current output	Max. 10 A	Max. 12 A
Protection class	IP 30	
Length of mains cable	1,8 m	

Controls

Order information:

Observe the current output of the drives when selecting the control.

Code No.	for drive
QSTAACA1AA000	mono, 2- pin DIN- Connector
QSTACCA1AA000	parallel, 8- pin DIN- Connector

Hand switches/accessories



Note: For further hand switch versions, please refer to the chapter "Controls" on page 148

Code No.	Version	Mono operation	Parallel operation	2 drives with individual control	Fig.
QZB11G07AB041	Hand switch with 1 m spiral cable – 2 function keys	X	(X)		7
QZB02A03AB041	Undercover hand switch with "angled" plug	X			14
QZB00A00AB051	Table hand switch with 1 m spiral cable – 2 function keys	X			11
QZB00A00BC011	Membrane keyboard with 1 m spiral cable – 2 function keys	X	(X)		12
QZB02C01AE114	Foot switch – 2 function keys	X	(X)		13
Accessories					
QZD000074	Drawer for hand switch				9
QZD0702844000*	Straight connecting cable (4 m) with 5-pin connector and open cable end				
QZD070525	Extension cable 2,5 m drive for connector A/2-pin DIN socket				
QZD070526	Extension cable 2,5 m drive for connector C/8-pin DIN socket				
QZD070750	Adapter DIN 5pol to Molex 6pol				10

When using the manual switch with 2 function keys **QZB11G07AB041 on the MultiControl I the adapter DIN 5pin to Molex 6pin **QZD070750** is required.

*for the connection of a parallel hand switch or an external potentiometer (in the case of the MultiControl mono) **QZD0702844000**

(X) = limited use

MultiControl Care mono



International
connecting options



MultiControl Care
Tested to EN 60601-1 (3E)





Multilift mono
Tested to EN 60601-1 (3E)



Features:

- 4 drives
- Single-fault protection
- Switching power supply with wide-range input
- Conforms to the Ecodesign Directive (standby electricity output <0.5 W)
- International connecting options

MultiControl Care - Table of contents

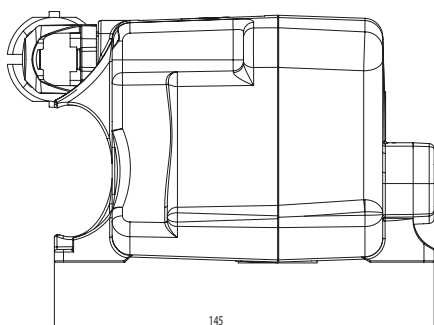
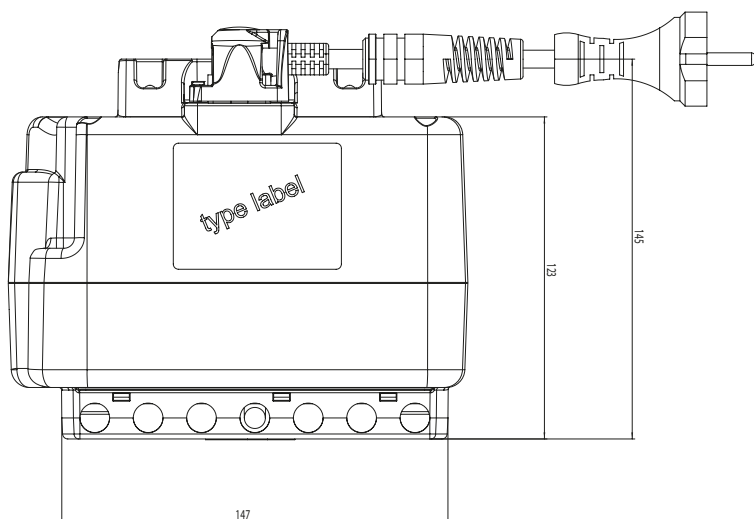
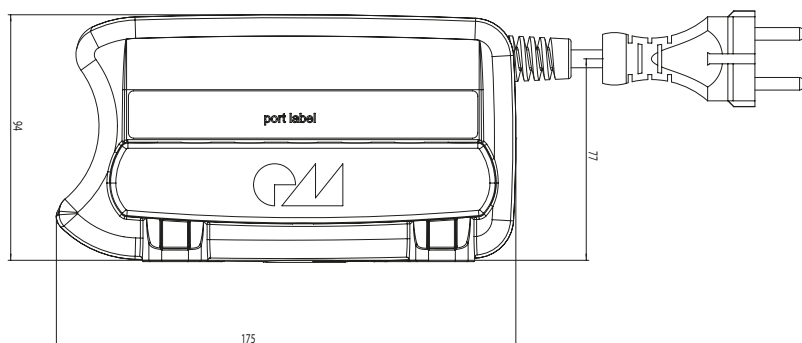
Properties/Technical data		■ General information/operating conditions.....Page 156
Versions (Dimensions, order numbers)	 	■ MultiControl Care MonoPage 156
Accessories	Control	■ ControlsPage 157 ■ Hand switchesPage 157 ■ Power cablePage 157

MultiControl Care – Technical data

General information / operating conditions

The following can be connected:	Multilift mono
Max. duty cycle	At nominal load, 10% (max. 2 mins operating time, 18 mins rest time)
Input voltage	100–240 V AC, 50/60 Hz, switching power supply with wide-range input $\pm 10\%$
Number of drives ¹⁾	Max. 4 drives
Power	Conforms to the Ecodesign Directive (standby electricity output <0.5 W)
Current output	Current output at nominal load max. 3.0 A (depending on input voltage)
Degree of protection	IP20, IPX6
Length of mains cable	3,000 mm–4,000 mm (depending on version, PVC)

1) No more than two drives may be operated at nominal load at the same time!

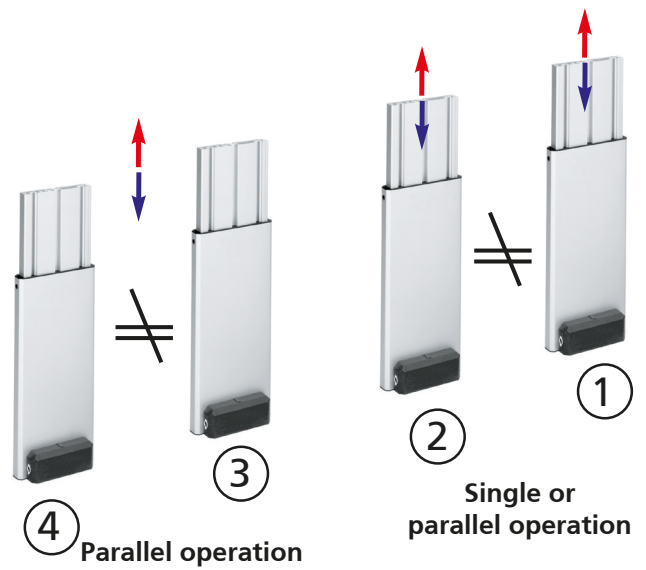


Controls - MultiControl Care

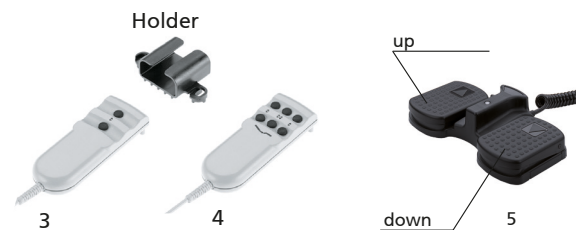


Code No	for drive
QST10H20AC300	MultiControl Care Mono*

*Please order power cable separately; see below.



Hand switches / accessories



Code No.	Version	Mono mode	Parallel operation	2 drives with individual control	Fig.
QZB20A06BF137	2 keys (13-pin)	●	●		3
QZB20A06BG137	6 keys (13-pin)	●	●	●	4
QZB20A06BH136	Foot switch, 2 keys (13-pin)	●	●		5
QZD000072	Holder for hand switch (3 + 4)				

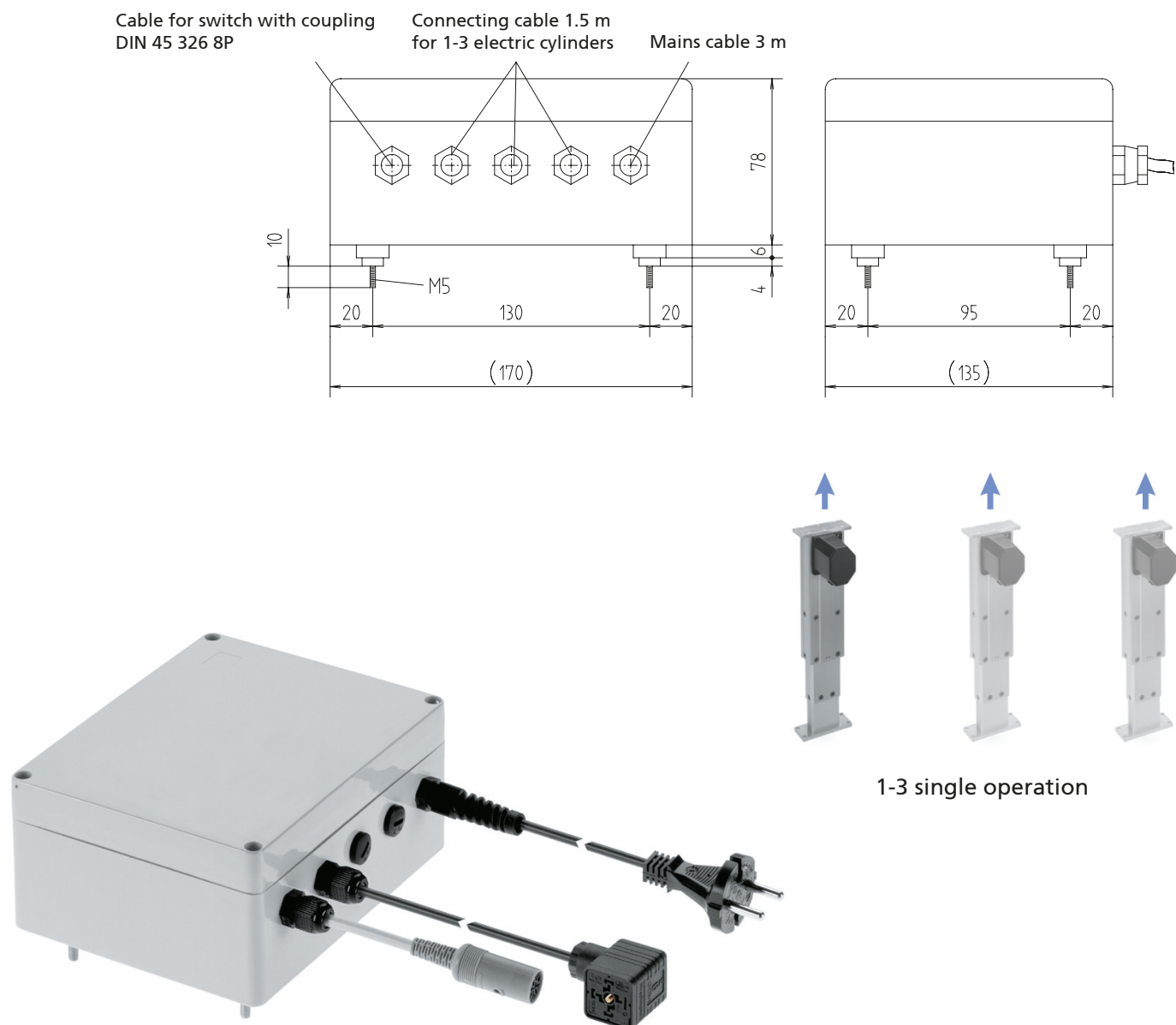
Power cable with protective ground wire (PE)



Code No	Version	Length	Fig.
QZD170501	Power cable* (USA version), plug-in, straight	4 m	1
QZD170500	Power cable* (Europe version), plug-in, straight	3 m	2
QZD170503	Power cable* (UK version), plug-in, helix	2 m	3

Transformer control for LAMBDA actuators

LAMBDA Colonne LBC/LAMBDA LBG electric cylinder



Features:

- Integrated thermal monitoring
- Low magnetic leakage toroidal transformer with extremely low power output
- Movement of loads up to a total of 8,000 N

Options:

- Depending on the version, this unit can operate up to three individual LAMBDA actuators
- Operation with a hand switch (accessories)

General information/operating conditions

Transformer control	LBM/LBC 1 (for 1 drive) LBM/LBC 2 (for 2 drives) LBM/LBC 3 (for 3 drives)
Duty cycle	Max. 30%
Input voltage	230 V AC/50Hz (standard) or 110 V AC/50-60Hz (on request)
Supply voltage (retraction/extension)	24 V DC
Power	192 VA
Protection class	IP 54
Length of mains cable	3 m

Controls



Code No.	Version	
QZA01C04AD011	LBM/LBC 1 transformer control	Controls up to 1 electric cylinder
QZA01C04AE011	LBM/LBC 2 transformer control	up to 2 electric cylinders
QZA01C04AF011	LBM/LBC 3 transformer control	up to 3 electric cylinders

Hand switches/accessories

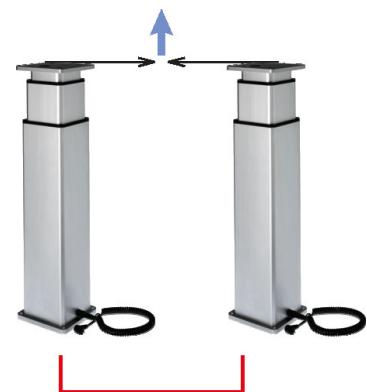
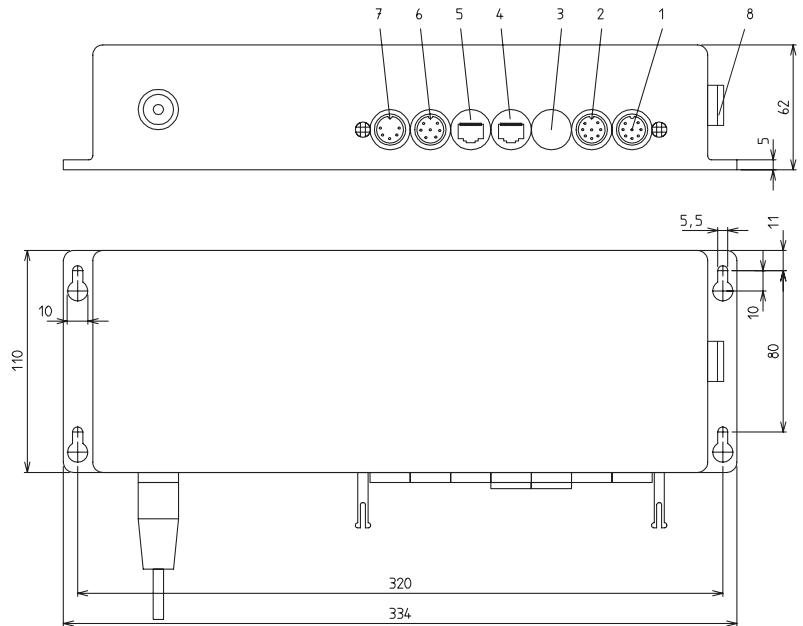


Code No.	Version		Fig.
QZB03C02AD031	LAMBDA hand switch with fixing clip – 6 function keys	Controls up to 3 drives	2
QZD000072	Bracket for hand switch		3

MultiControl duo

Control - MultiControl duo

- Socket 1 8-pin DIN socket for drive 1
- Socket 2 8-pin DIN socket for drive 2
- Socket 3 not assigned
- Socket 4 Bus
- Socket 5 Bus
- Socket 6 6-pin DIN socket for serial hand switch
- Socket 7 5-pin DIN socket for parallel hand switch with 2 function keys
- Socket 8 not assigned



2 drives synchronised

Features:

- Synchronous control of up to two drives
- Duty cycle monitoring as overload protection (can be activated as standard)
- Current height display with 6-key hand switch
- The hand switch with six function keys supports storage of nine different intermediate positions (memory) which can be called up at the touch of a button
- For simple synchronous operation, we recommend the 2-key hand switch
- Bus cable enables the networking of up to 8 controls

General information/operating conditions

The following can be connected:	Multilift, Alpha Colonne, RKPowerlift (external control), <i>RK Slimlift</i> , Linear cylinder LZ 60, drive unit LZ
Max. duty cycle	20% (at 10 mins cycle time)
Input voltage	230 V AC (115 V AC available on request)
Output voltage	36 V DC
Power	300 VA
Current output	Max. 12 A
Protection class	IP 30
Length of mains cable	1.8 m

Controls

Order information:

Observe the current output of the drives when selecting the control.

Code No.	for drive
QST35C02AA000	Drive unit LZ S/P, 230 V AC
QST61C02AA000	Alpha Colonne, 230 V AC
QST10C02AA000	Multilift , 230 V AC
QST43C02AA000	RKPowerlift telescope, 230 V AC
QST44C02AA000	RKPowerlift M, 230 V AC

Code No.	for drive
QST20C02AA000	RK Slimlift, 230 V AC
QST21C02AA000	RK Slimlift EM, 230 V AC
QST30C02AA000	Electric cylinder LZ 60, 230 V AC

Hand switches/accessories



Note: For further hand switch versions, please refer to the chapter "Controls" on page 148.

Code No.	Version	Synchronous operation	Commissioning bus system	Memory function	Fig.
QZB11G07AB041	Hand switch with 1 m spiral cable – 2 function keys	X			7
QZB00D04AD041	Hand switch with 1 m spiral cable – 6 function keys/display	X	X	X	8
QZB02A03AB041	Undercover hand switch with "angled" plug	X			14
QZB00A00AB051	Table hand switch with 1 m spiral cable – 2 function keys	X			11
QZB00A00BC011	Membrane keyboard with 1 m spiral cable – 2 function keys	X			12
QZB02C01AE114	Foot switch – 2 function keys	X			13
Accessories					
QZD000074	Drawer for hand switch				9
QZD100093	Bus cable 6m for networking synchronous control				
QZD070526	Extension cable 2,5 m drive for connector C/8-pin DIN socket				
QZD070750	Adapter DIN 5pin to Molex 6pin				10

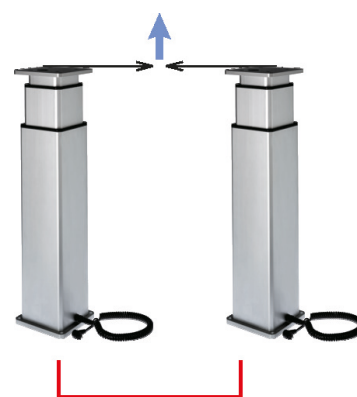
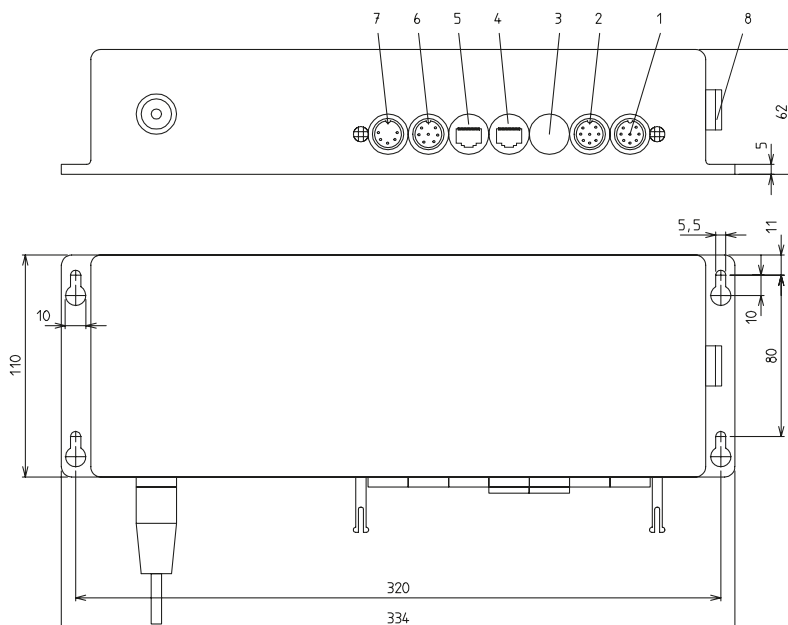
*When using the manual switch with 2 function keys **QZB11G07AB041** on the MultiControl I the adapter DIN 5pin to Molex 6pin **QZD070750** is required.

MultiControl duo silent

Low-noise control for sensitive areas

Control - MultiControl duo

- Socket 1 8-pin DIN socket for drive 1
- Socket 2 8-pin DIN socket for drive 2
- Socket 3 not assigned
- Socket 4 Bus
- Socket 5 Bus
- Socket 6 6-pin DIN socket for serial hand switch
- Socket 7 5-pin DIN socket for parallel hand switch with 2 function keys
- Socket 8 not assigned



2 drives synchronised

Features:

- Synchronous control of up to two drives
- Duty cycle monitoring as overload protection (can be activated as standard)
- Current height display with 6-key hand switch
- The hand switch with six function keys supports storage of nine different intermediate positions (memory) which can be called up at the touch of a button
- Significant noise reduction due to a 30% reduction in speed compared to the Multi-Control duo
- Bus cable enables the networking of up to 8 controls

General information/operating conditions

The following can be connected:	Multilift, Alpha Colonne, RKPowerlift (external control), RK Slimlift, Linear cylinder LZ 60, drive unit LZ
Max. duty cycle	10% (at 10 mins cycle time)
Input voltage	230 V AC (115 V AC available on request)
Output voltage	24 V DC
Power	250 VA
Current output	Max. 10 A
Protection class	IP 30
Length of mains cable	1.8 m

Controls

Order information:

Observe the current output of the drives when selecting the control.

Code No.	for drive	Code No.	for drive
QST61C02AD000	Alpha Colonne, 230 V AC	QST20C02AD000	RK Slimlift, 230 V AC
QST10C02AD000	Multilift , 230 V AC	QST21C02AD000	RK Slimlift EM, 230 V AC
		QST30C02AD000	Electric cylinder LZ 60, 230 V AC

Hand switches/accessories



Note: For further hand switch versions, please refer to the chapter “Controls” on page 148.

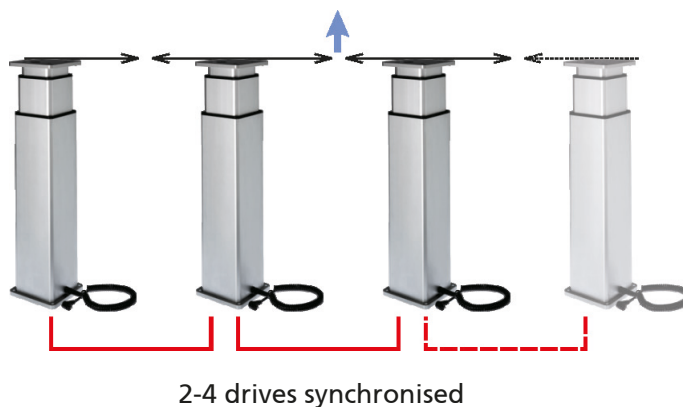
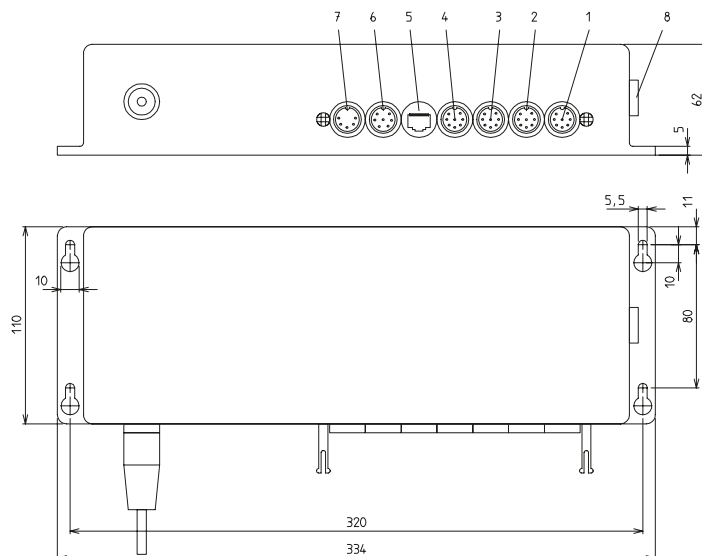
Code No.	Version	Synchronous operation	Commissioning bus system	Memory function	Fig.
QZB11G07AB041	Hand switch with 1 m spiral cable – 2 function keys	X			7
QZB00D04AD041	Hand switch with 1 m spiral cable – 6 function keys/display	X	X	X	8
QZB02A03AB041	Undercover hand switch with “angled” plug	X			14
QZB00A00AB051	Table hand switch with 1 m spiral cable – 2 function keys	X			11
QZB00A00BC011	Membrane keyboard with 1 m spiral cable – 2 function keys	X			12
QZB02C01AE114	Foot switch – 2 function keys	X			13
Accessories					
QZD000074	Drawer for hand switch				9
QZD100093	Bus cable 6 m for networking synchronous control				
QZD070526	Extension cable 2,5 m drive for connector C/8-pin DIN socket				
QZD070750	Adapter DIN 5pol to Molex 6pol				10

*When using the manual switch with 2 function keys **QZB11G07AB041** on the MultiControl I the adapter DIN 5pin to Molex 6pin **QZD070750** is required.

MultiControl quadro

Control - MultiControl quadro

- Socket 1 8-pin DIN socket for drive 1
- Socket 2 8-pin DIN socket for drive 2
- Socket 3 8-pin DIN socket for drive 3
- Socket 4 8-pin DIN socket for drive 4
- Socket 5 Bus
- Socket 6 6-pin DIN socket for serial hand switch
- Socket 7 5-pin DIN socket for parallel hand switch with 2 function keys
- Socket 8 6-pin DIN socket for connecting a protective shutdown e.g. a safety edge switch



Features:

- The synchronous control can operate up to four drives
- Duty cycle monitoring protects the system against overload (can be activated as standard)
- The hand switch with 6 function keys supports storage of nine different intermediate positions (memory) which can be called up at the touch of a button
- 2-key hand switch for simple synchronous operation
- Bus cable enables the networking of up to 8 controls

General information/operating conditions

The following can be connected:	Multilift, Alpha Colonne, RKPowerlift (external control), RK Slimlift, Linear cylinder LZ 60, drive unit LZ
Max. duty cycle	20% (at 10 mins cycle time)
Input voltage	230 V AC (115 V AC available on request)
Output voltage	36 V DC
Power	300 VA
Current output	Max. 12 A
Protection class	IP 30
Length of mains cable	1.8 m

Controls

Order information:

Observe the current output of the drives when selecting the control.

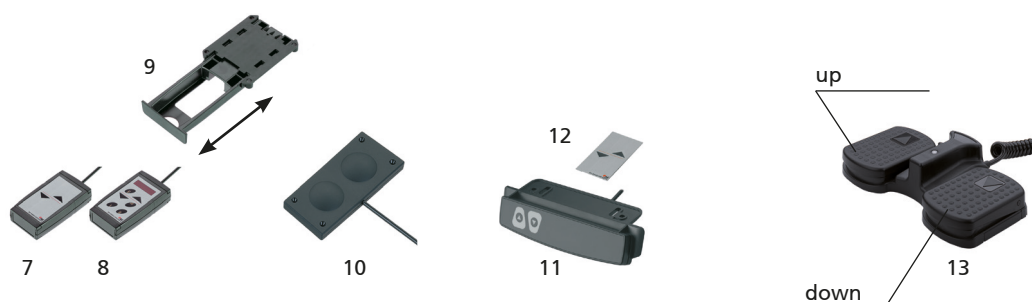
When connecting a switch-strip or other protective cut-out device, please consider control of the single impulses, regarding over travel.

For this function, please ensure that a 6-Button handset, with display is used. (as Example. 8).

Code No.	for drive
QST35C04AA000	Drive unit LZ S/P, 230 V AC
QST61C04AA000	Alpha Colonne, 230 V AC
QST10C04AA000	Multilift, 230 V AC
QST43C04AA000	RKPowerlift telescope, 230 V AC
QST44C04AA000	RKPowerlift M, 230 V AC

Code No.	for drive
QST20C04AA000	RK Slimlift, 230 V AC
QST21C04AA000	RK Slimlift EM, 230 V AC
QST30C04AA000	Electric cylinder LZ 60, 230 V AC

Hand switches/accessories



Code No.	Version	Synchro- nous operation	Commissioning bus system	Memory function	Fig.
QZB00D04AB041	Hand switch with 1 m spiral cable – 2 function keys	X			7
QZB00D04AD041	Hand switch with 1 m spiral cable – 6 function keys/display	X	X	X	8
QZB02A03AB041	Undercover hand switch with "angled" plug	X			10
QZB00A00AB051	Table hand switch with 1 m spiral cable – 2 function keys	X			11
QZB00A00BC011	Membrane keyboard with 1 m spiral cable – 2 function keys	X			12
QZB02C01AE114	Foot switch – 2 function keys	X			13
Accessories					
QZD000074	Drawer for hand switch				9
QZD070526	Extension cable 2,5 m drive for connector C/8-pin DIN socket				

MultiControl Care synchro



International
connecting options



MultiControl Care
Tested to EN 60601-1 (3E)





Multilift synchro
Tested to EN 60601-1 (3E)

Features:

- 4 drives
- Single-fault protection
- Switching power supply with wide-range input
- Conforms to the Ecodesign Directive (standby electricity output <0.5 W)
- International connecting options

MultiControl Care - Table of contents

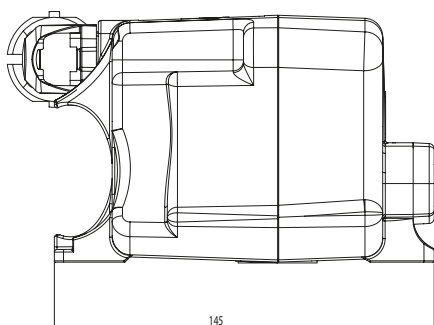
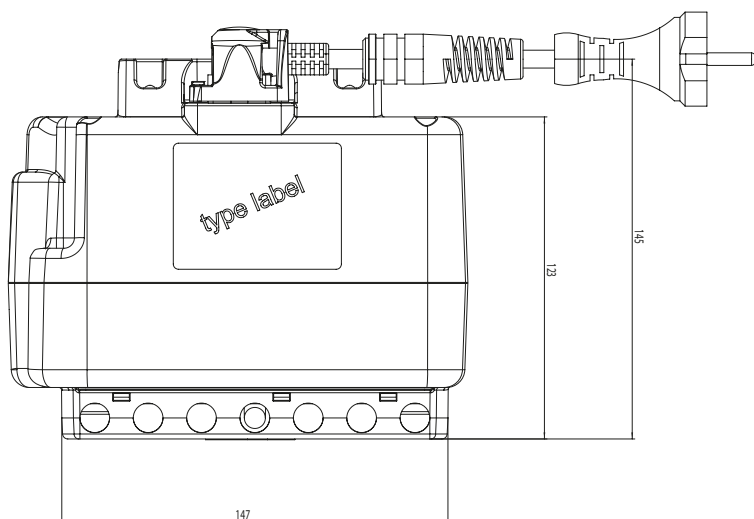
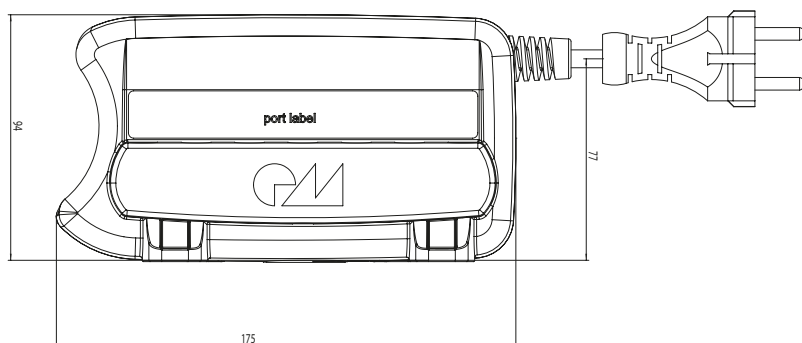
<div> Properties/Technical data </div>		<div> <ul style="list-style-type: none"> ■ General information/operating conditions.....Page 168 </div>
<div> <div> <div> Versions (Dimensions, order numbers) </div> <div>   </div> </div> </div>		<div> <ul style="list-style-type: none"> ■ MultiControl Care SynchroPage 169 </div>
<div> Accessories </div>	<div> Control </div>	<div> <ul style="list-style-type: none"> ■ ControlsPage 169 ■ Hand switchesPage 169 ■ Power cablePage 169 </div>

MultiControl Care – Technical data

General information / operating conditions

The following can be connected:	Multilift synchro
Max. duty cycle	At nominal load, 10% (max. 2 mins operating time, 18 mins rest time)
Input voltage	100–240 V AC, 50/60 Hz, switching power supply with wide-range input $\pm 10\%$
Number of drives ¹⁾	Max. 4 drives
Power	Conforms to the Ecodesign Directive (standby electricity output <0.5 W)
Current output	Current output at nominal load max. 3.0 A (depending on input voltage)
Degree of protection	IP20, IPX6
Length of mains cable	3,000 mm–4,000 mm (depending on version, PVC)

1) No more than two drives may be operated at nominal load at the same time!

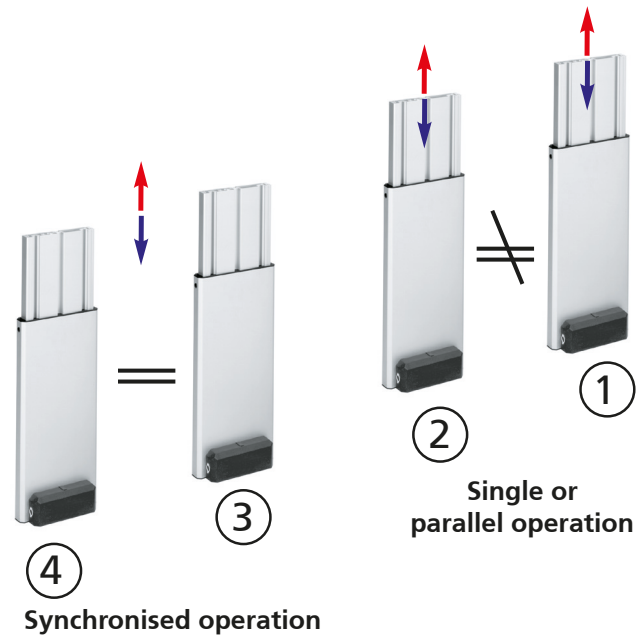


Controls - MultiControl Care

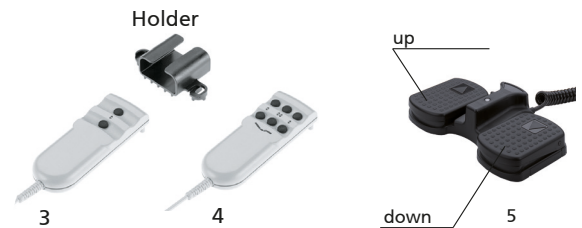


Code No	for drive
QST10H21AC300	MultiControl Care synchro*

*Please order power cable separately; see below.



Hand switches / accessories



Code No.	Version	Mono mode	Parallel operation	2 drives with individual control	Fig.
QZB20A06BF137	2 keys (13-pin)	●	●		3
QZB20A06BG137	6 keys (13-pin)	●	●	●	4
QZB20A06BH136	Foot switch, 2 keys (13-pin)	●	●		5
QZD000072	Holder for hand switch (3 + 4)				

Power cable with protective ground wire (PE)



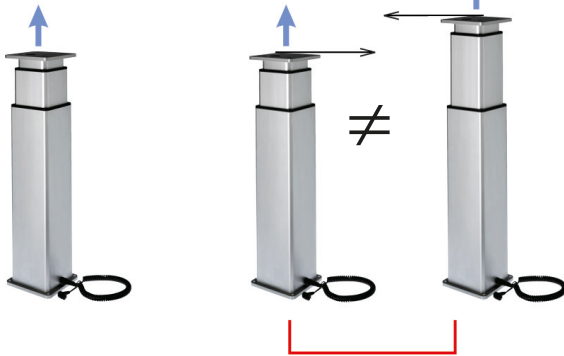
Code No	Version	Length	Fig.
QZD170501	Power cable* (USA version), plug-in, straight	4 m	1
QZD170500	Power cable* (Europe version), plug-in, straight	3 m	2
QZD170503	Power cable* (UK version), plug-in, helix	2 m	3

MultiControl accu



Battery 7.2 Ah

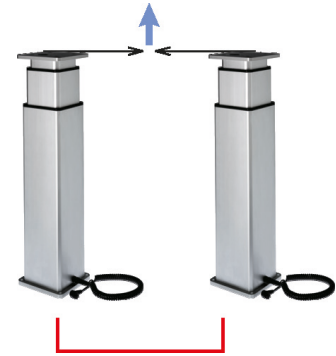
MultiControl mono



Single operation

Single/parallel operation

MultiControl duo



2 drives synchronised

Features:

- For mobile devices
- Depending on the drive and task, applications can be run independent of a mains power supply for more than 40 hours
- Memory function for storing preferred positions with MultiControl duo
- Mains-independent battery mode
- Processor-assisted charging: deep discharge protection, overload protection, trickle charging, audible undervoltage indicator

Options:

- Choice of mono or duo version for parallel or synchronous operation
- External potentiometer for setting an infinitely variable motor speed
- Storage of 9 different positions (duo)

General information/operating conditions

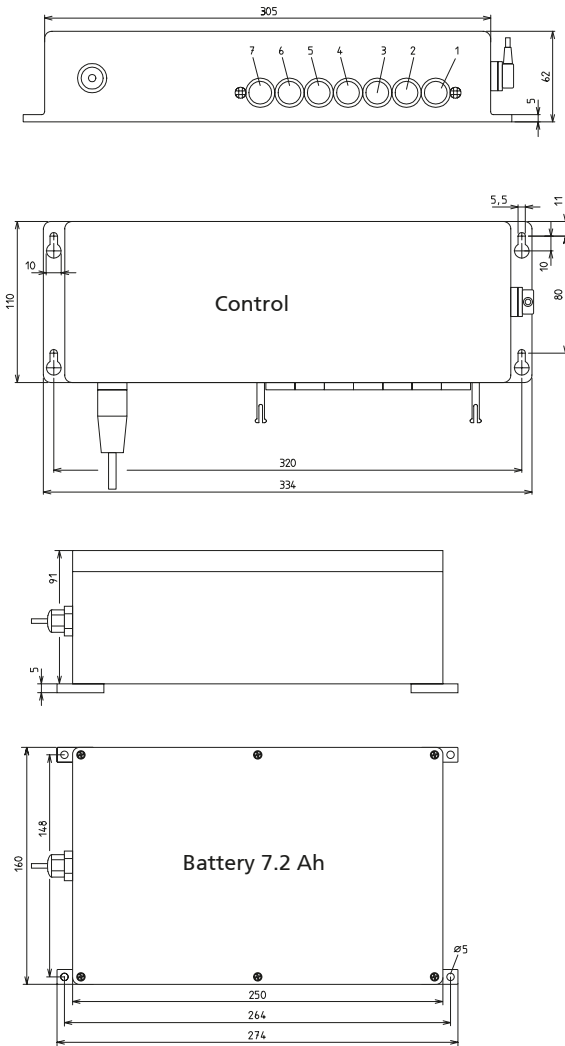
The following can be connected:	Multilift, Alpha Colonne, RKPowerlift (external control), RK Slimlift, Linear cylinder LZ 60
Max. duty cycle	20% (at 10 mins cycle time)
Input voltage	230 V AC (115 V AC available on request)
Input power	300 VA (at 7.2 Ah)
Nominal voltage (battery)	24 V DC
Max. discharge current	10 A (at 7.2 Ah)
Max. charging time	approx. 14 hours
Protection class	II
Protection class	IP 30
Operating temperature	10°C to 35°C
Storage temperature	10°C to 40°C
Charge cycles	at 30% discharge approx. 1,000
Weight	Control 3.5 kg/battery 5.6 kg (7.2 Ah)
Battery cable length	0.45 m (at 7.2 Ah)
Length of mains cable	1.8 m

Controls

Code No.	for drive
MultiControl mono accu 7,2 Ah	
QSTAACA1AF100	mono, 2- pin DIN- Connector
QSTACCA1AF100	parallel, 8- pin DIN- Connector
MultiControl duo accu 7.2 Ah connection C	
QST20C02AF100	RK Slimlift
QST21C02AF100	RK Slimlift EM
QST61C02AF100	Alpha Colonne II
QST10C02AF100	Multilift
QST44C02AF100	RKPowerlift M
QST43C02AF100	RKPowerlift telescope
QST30C02AF100	LZ 60

Accessories	
QZD070526	Extension cable 2.5 m drive for connector C/8-pin DIN socket

MultiControl mono/duo accu 1,2 Ah



Control - MultiControl mono accu, connection A

- Socket 1 not assigned
- Socket 2 2-pin DIN socket for drive 1
- Socket 3 not assigned
- Socket 4 2-pin DIN socket for drive 2
- Socket 5 not assigned
- Socket 6 2- to -10- volt- input or potentiometerinput
- Socket 7 7-pin DIN socket for parallel hand switch with 2 or 6 function keys
- Socket 8 connection accu

Control - MultiControl mono accu connection C

- Socket 1 8-pin DIN socket for drive 1
- Socket 2 not assigned
- Socket 3 8-pin DIN socket for drive 2
- Socket 4 not assigned
- Socket 5 not assigned
- Socket 6 2- to -10- volt- input or potentiometerinput
- Socket 7 7-pin DIN socket for parallel hand switch with 2 or 6 function keys
- Socket 8 connection accu



Height-adjustable lectern

Hand switches/accessories (MultiControl mono accu)



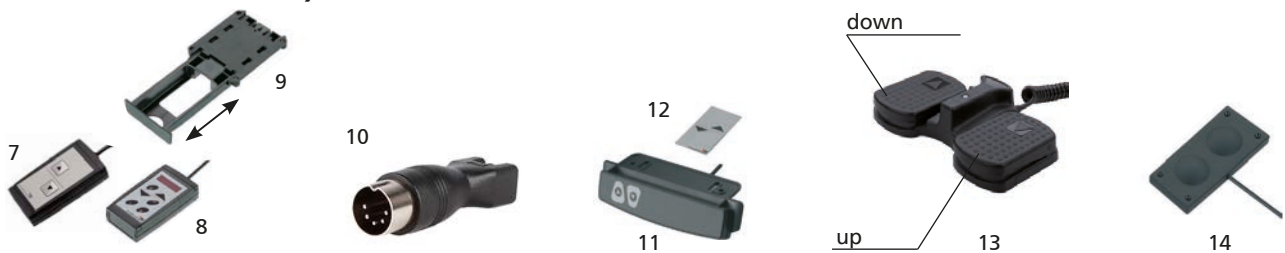
Note: For further hand switch versions, please refer to the chapter "Controls" on page 148.

Code No.	Version	Mono operation	Parallel operation	2 drives with individual control	Fig.
QZB11G07AB041	Hand switch with 1 m spiral cable – 2 function keys	X	(X)		7
QZB02A03AB041	Undercover hand switch with "angled" plug	X			14
QZB00A00AB051	Table hand switch with 1 m spiral cable – 2 function keys	X			11
QZB00A00BC011	Membrane keyboard with 1 m spiral cable – 2 function keys	X	(X)		12
QZB02C01AE114	Foot switch – 2 function keys	X	(X)		13
Accessories					
QZD000074	Drawer for hand switch				9
QZD070750	Adapter DIN 5pol to Molex 6pol				10

*When using the manual switch with 2 function keys **QZB11G07AB041** on the MultiControl I the adapter DIN 5pin to Molex 6pin **QZD070750** is required.

(X) = limited use

Hand switches/accessories (MultiControl duo accu)



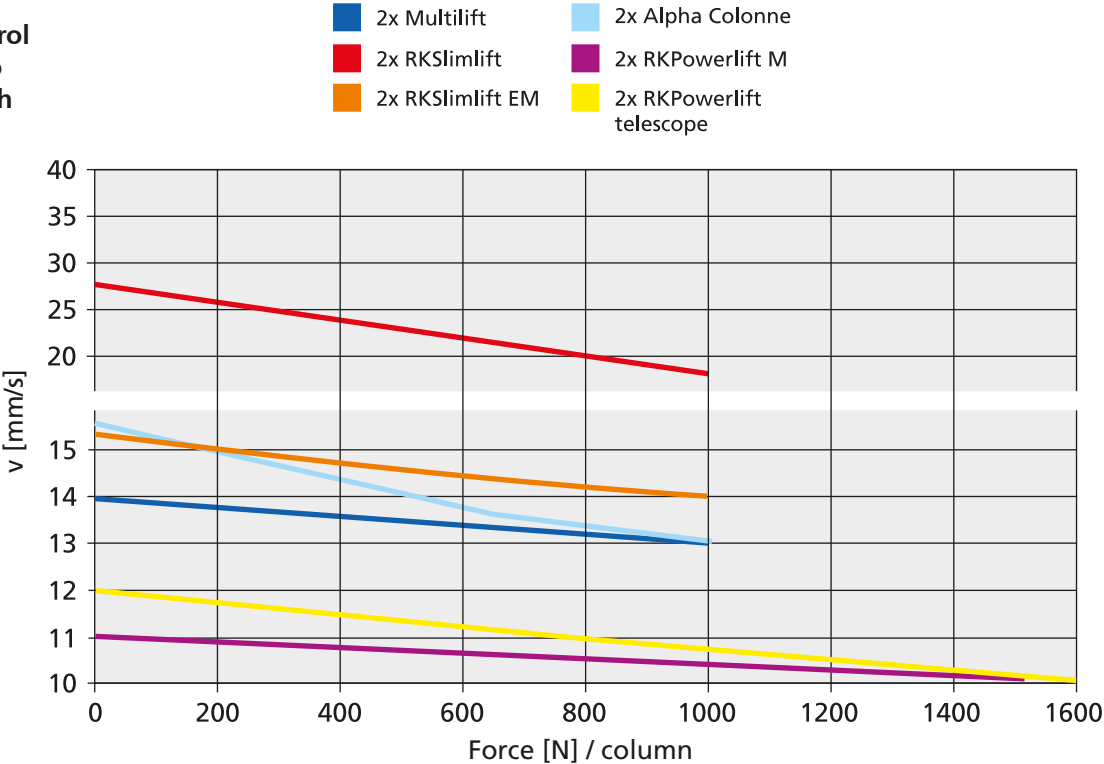
Note: For further hand switch versions, please refer to the chapter "Controls" on page 148.

Code No.	Version	Synchro- nous operation	Commissioning bus system	Memory function	Fig.
QZB11G07AB041	Hand switch with 1 m spiral cable – 2 function keys	X			7
QZB00D04AD041	Hand switch with 1 m spiral cable – 6 function keys/display	X	X	X	8
QZB02A03AB041	Undercover hand switch with "angled" plug	X			14
QZB00A00AB051	Table hand switch with 1 m spiral cable – 2 function keys	X			11
QZB00A00BC011	Membrane keyboard with 1 m spiral cable – 2 function keys	X			12
QZB02C01AE114	Foot switch – 2 function keys	X			13
Accessories					
QZD000074	Drawer for hand switch				9
QZD070750	Adapter DIN 5pol auf Molex 6pol				10

*When using the manual switch with 2 function keys **QZB11G07AB041** on the MultiControl I the adapter DIN 5pin to Molex 6pin **QZD070750** is required.

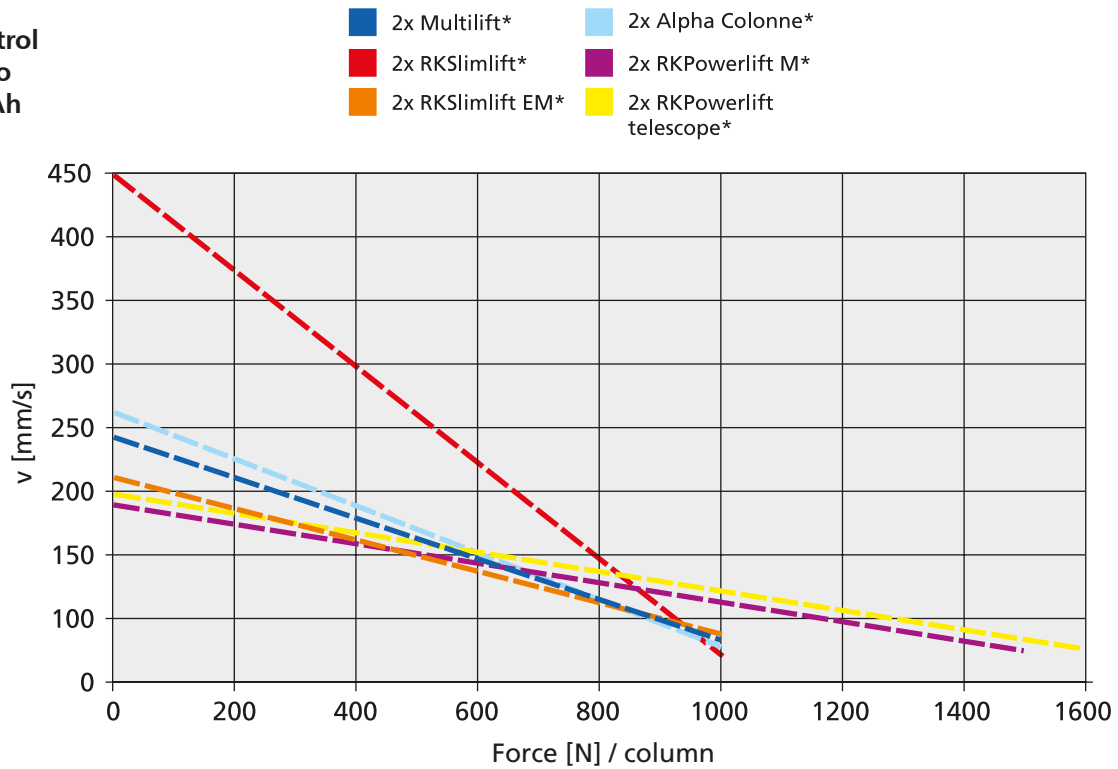
Speed achievable in battery mode

MultiControl
mono/duo
accu 7.2 Ah



Double strokes achievable in battery mode

**MultiControl
mono/duo
accu 7.2 Ah**



*Values with 2 drives in parallel/synchronous operation (with a stroke of 500 mm).
These values increase by a factor of 2.5 if a single drive is used.



Mobile Powerlift-Table

Highlights in brief

- ✓ Comprehensive accessories
- ✓ Range of different feet
- ✓ Table top frames & fixing plates
- ✓ Assembly plates, adaptor bars and levelling elements for a wide range of applications

Optional accessories



Code No.	Versions	Description / information	Fig.
QZD050013	Amphenol coupling "straight version" without cable	For Lambda electric cylinder or Lambda Colonne lifting column with potentiometer for customer-provided control	1
QZD050004	Amphenol coupling "straight version" with 5 m cable		1
QZD050010	Device coupling "right-angle version" without cable (EN 175301-803 -A)		2
QZD050009	Device coupling "right-angle version" with 5 m cable (EN 175301-803 -A)		2
QZD0702844000	4 m connecting cable with right-angle connector DIN 41524 5-pin / open cable end	For connecting a parallel hand switch or an external potentiometer (MultiControl mono)	3
QZD070525	2.5 m extension cable drive for connection A / 2-pin DIN connector	Max. 1 extension per drive	4
QZD070526	2.5 m extension cable drive for connection C / 8-pin DIN connector	Max. 1 extension per drive	
QZD0201335000	5 m connecting cable for Multilift synchro 8-pin DIN connector straight/right-angle	Connecting cable between Multicontrol synchro and Multilift (Note that a 2.5 m cable is included in the scope of delivery of the Multilift)	
QZD070750	Adapter DIN 5pol to Molex 6pol	Adaptation between the hand control with 2 function keys and the MultiControl I	10

We say what we do - and do what we say!
We also say what we can't do - and don't do it!



RK ROSE+KRIEGER

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Connecting and positioning systems

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