



EWELLIX

EWELLIX Lifting Columns

CPMA

Product Data Sheet

We pioneer motion

SCHAEFFLER

1 CPMA

For ophthalmic equipment

1



Benefits

- wide-range power supply
- “plug and play” concept
- control with soft start and soft stop
- accessories for multiple outlet sockets
- cable routing through the column

Standards

- IEC 60601-1

 1 Technical data CPMA

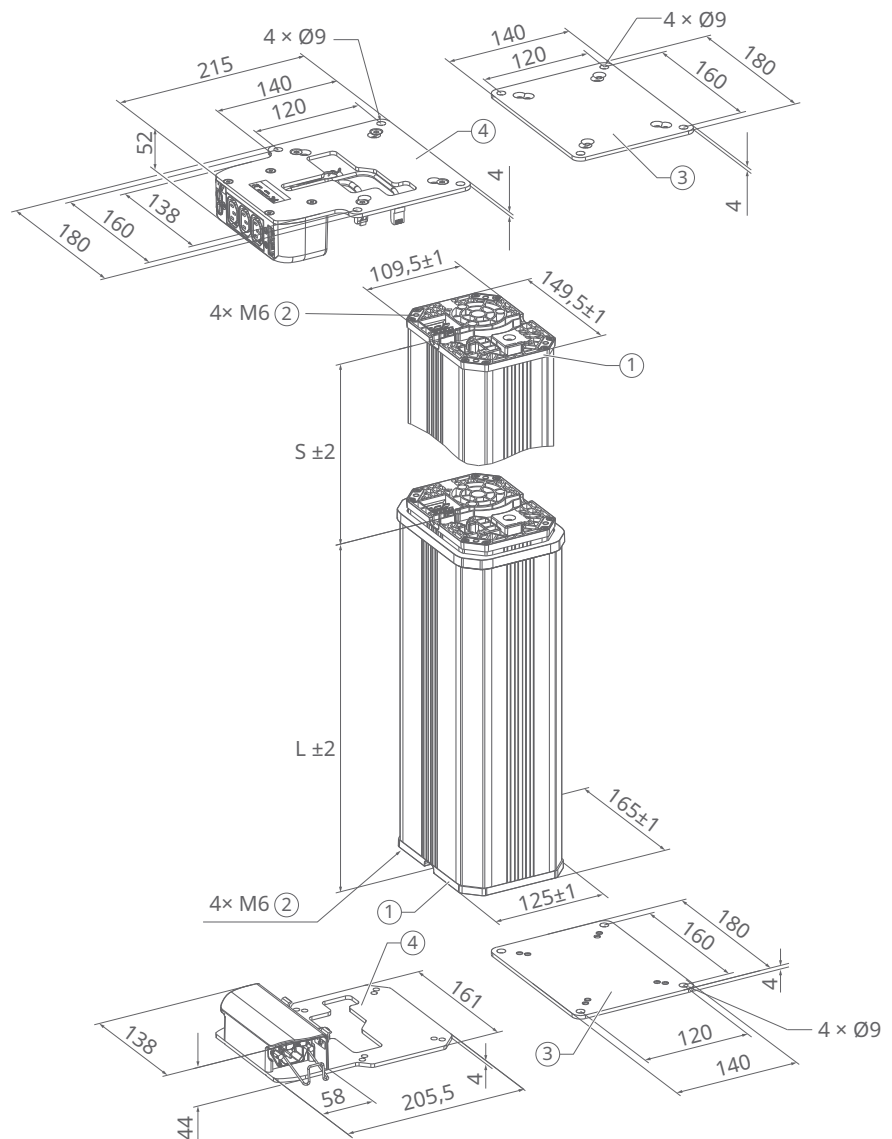
Feature	Unit	CPMA1-1	CPMA1-2	CPMA2-2
Rated push force	N	1000	2000	2000
Rated pull force	N	0	0	0
Static load in push way	N	8000	8000	8000
Dynamic offset load	Nm	≤ 115 ¹⁾	≤ 250 ¹⁾	≤ 250 ¹⁾
Static offset load	Nm	≤ 500	≤ 500	≤ 500
Speed (full load to no load)	mm/s	14 to 15	11 to 15	11 to 15
Lifting column version (number of guide tubes)	-	2-part	2-part	2-part
Stroke S	mm	230 to 400	230 to 400	200 to 400
Retracted length L	mm	S + 160	S + 160	S + 160
Voltage	V	AC 100 V ... 240 V	AC 100 V ... 240 V	DC 24 V
Mains frequency	Hz	50 to 60	50 to 60	-
Power consumption (standby)	W	1 ²⁾ ... 2.1	1 ²⁾ ... 2.1	-
Current consumption	A	1.5	1.6	5
Duty cycle, intermittent operation	min	ON: 1 min / OFF: 9 min	ON: 1 min / OFF: 9 min	ON: 1 min / OFF: 9 min
Ambient temperature during operation	°C	+10 to +40	+10 to +40	+10 to +40
	°F	+50 to +104	+50 to +104	+50 to +104
Protection code (IP)	-	IP20	IP20	IP20
Protection class IEC 61140	-	I	I	-
Type of control	-	Electrical	Electrical	Electrical
Noise level	dB(A)	45	45	45
Mass	kg	8 to 11	9 to 12	8 to 11

¹⁾ for details, see bending load diagram

²⁾ The lowest value applies when operating at the lowest voltage.

Dimensional drawings

2 Dimensions CPMA, CPMB



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S	Stroke	L	Retracted length
1	Base plate	2	Thread for fastening screws
3	Mounting plate, not included in scope of delivery	4	Socket box inlet or socket box outlet, not included in scope of delivery

Mounting plates are not included in the scope of delivery and are available separately as accessories.

As an alternative to the mounting plates, use socket boxes. Socket boxes are not included in the scope of delivery and must be ordered separately as accessories.

Fastening screws are not included in the scope of delivery.

More flexibility with CPMA series design options

- more hygienic design, easy to clean with outer tube at the top
- more aesthetically pleasing design with outer tube at the bottom

3 Installation with outer tube at the top: positions A or B for motor (M)



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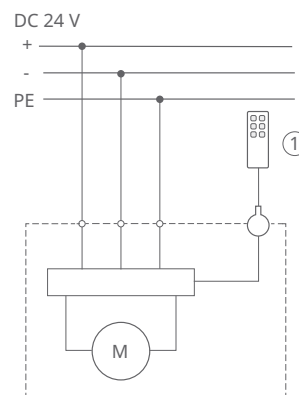
4 Installation with outer tube at the bottom: positions A or B for motor (M)



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Wiring diagrams

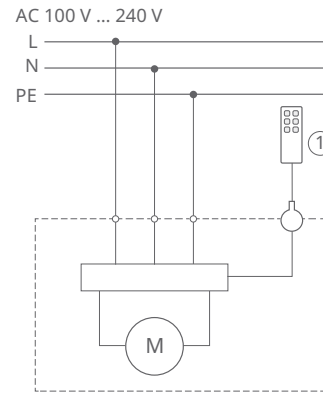
5 Connecting diagram DC 24 V



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1 Operating element

6 Connecting diagram AC 100 V to AC 240 V



001CE362

1 Operating element

Suitable control units and accessories

2 Suitable operating elements and accessories, CPMA

Accessories			Lifting columns		
			CPMA1-1	CPMA1-2	CPMA2-2
Operating element	M	EHA4	✓	✓	✓
	F	STL	✓	✓	✓
	T	STK	✓	✓	✓
Socket box inlet		ZDV-348220-002	✓	✓	-
Socket box outlet		ZDV-348221-002	✓	✓	-
External power supply DC 24 V			-	-	✓
Mains cable	ZKA-140449-2500		✓	✓	-
	ZKA-140450-2500		✓	✓	-
	ZKA-140451-2500		✓	✓	-
	ZKA-140452-2500		✓	✓	-
	ZKA-140458-2500		✓	✓	-
	ZKA-140460-2500		✓	✓	-
Detachable mains cable	ZKA-140453-2500		-	-	-
	ZKA-140454-2500		-	-	-
	ZKA-140455-2500		-	-	-
	ZKA-140456-2500		-	-	-
	ZKA-140459-2500		-	-	-
	ZKA-140461-2500		-	-	-

M Hand switch

F Foot switch

T Desk switch

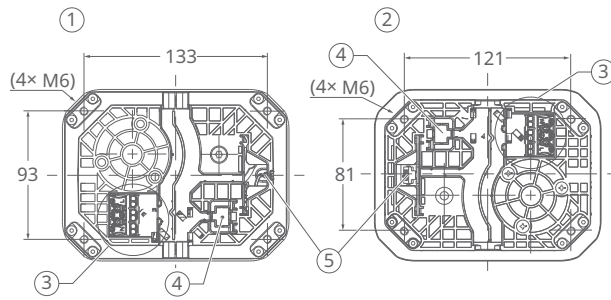
✓ suitable

- not suitable

Connections and mounting

1

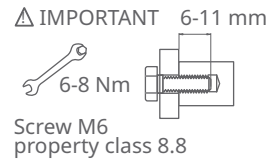
7 Outer tube base plate and inner tube base plate



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1	Outer tube base plate	2	Inner tube base plate
3	Mains connection, terminal strip	4	RJ45 LAN connection
5	RJ45 operation		

8 Mounting

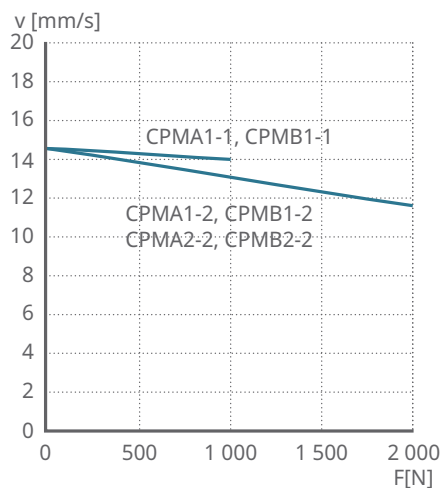


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The lifting column must be mounted on a flat and rigid surface using 4 M6 screws, which must be screwed 6 mm to 11 mm into the lifting column. The overall screw length must be matched to the height of the mounting arrangement.

Performance diagrams

9 Speed-load diagram

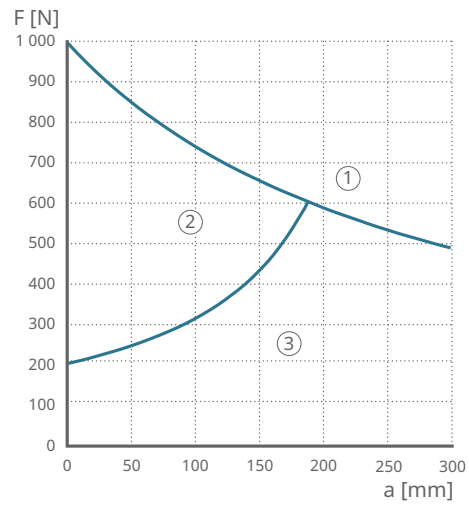


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v	Speed	F	Load
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Offset load diagrams

10 Offset load diagram at 300 mm stroke: CPMA1-1, CPMB1-1

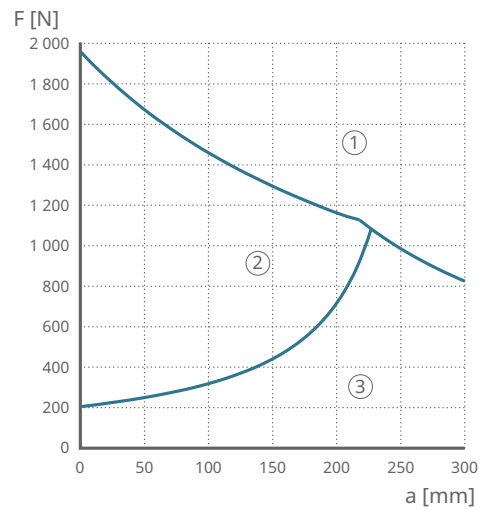


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F	Load	a	Load distance from center of column
1	Overload range	2	Ideal load range
3	Underload range		

Load distance with fully extended column in the ideal axis

11 Offset load diagram at 300 mm stroke: CPMA1-2, CPMB1-2, CPMA2-2, CPMB2-2



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F	Load	a	Load distance from center of column
1	Overload range	2	Ideal load range
3	Underload range		

Load distance with fully extended column in the ideal axis

1.1 Socket box inlet – ZDV



Benefits

- multi-functional “plug-and-play” accessory
- detachable mains cable
- replaceable fuses
- LAN connection
- easy handling
- cable strain relief

Standards

- IEC 60601-1

Technical data

- 3 IEC mains inlet socket with holder
- 1 RJ45 for operating element
- 1 RJ45 for LAN
- 2 replaceable fuses, 8 A
- plate with holes compatible with CPMA lifting column plates
- can be attached to inner and outer tube

3 Suitable combinations with socket box inlet, ZDV-348220-002

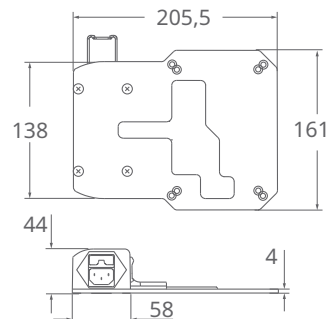
Combinations			Socket box inlet ZDV-348220-002
Lifting column		CPMA1-1, CPMB1-1	✓
		CPMA1-2, CPMB1-2	✓
		CPMA2-2, CPMB2-2	-
Operating element	M	EHA41-13N10N-000	✓
	F	STL01-GW1000-X190	✓
	T	STK01-SW3000-X100	✓
	T	STK01-UW3000-X100	✓
Mains cable		ZKA-140449-2500	-
		ZKA-140450-2500	-
		ZKA-140451-2500	-
		ZKA-140452-2500	-
		ZKA-140458-2500	-
		ZKA-140460-2500	-

Combinations		Socket box inlet ZDV-348220-002
Detachable mains cable	ZKA-140453-2500	✓
	ZKA-140454-2500	✓
	ZKA-140455-2500	✓
	ZKA-140456-2500	✓
	ZKA-140459-2500	✓
	ZKA-140461-2500	✓

M	Hand switch
F	Foot switch
T	Desk switch
✓	suitable
-	not suitable

Dimensional drawings

13 Dimensions of socket box inlet – ZDV



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1.2 Socket box outlet – ZDV

14 Socket box outlet – ZDV



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Benefits

- multi-functional “plug-and-play” accessory
- 3 IEC outlet sockets
- replaceable fuses
- integrated mounting plate
- LAN connection
- easy handling

Standards

- IEC 60601-1

Technical data

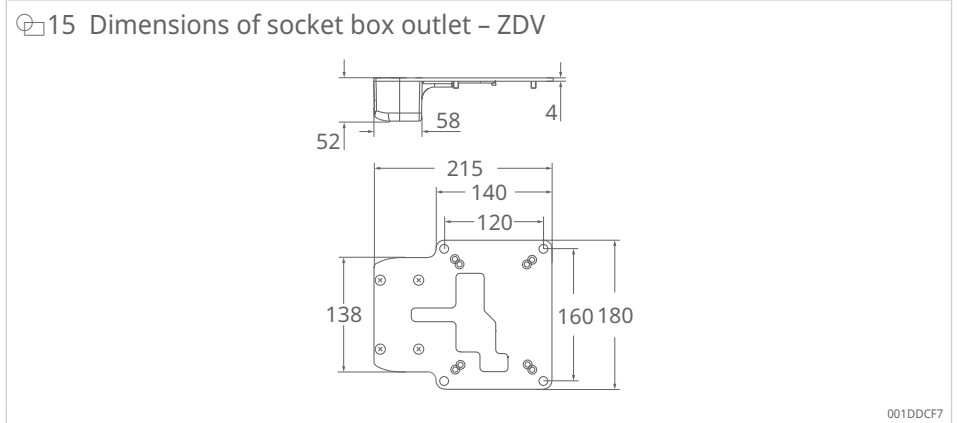
- 3 IEC mains inlet sockets
- 1 RJ45 for operating element
- 1 RJ45 for LAN
- 2 replaceable fuses, 8 A
- integrated mounting plate with 4 holes, 9 mm diameter
- 4 screws for attaching to the CPMA column
- can be attached to inner and outer tube

4 Suitable combinations with socket box outlet, ZDV-348221-002

Combinations		Socket box outlet ZDV-348221-002
Lifting column	CPMA1-1, CPMB1-1	✓
	CPMA1-2, CPMB1-2	✓
	CPMA2-2, CPMB2-2	-
Operating element	M EHA41-13N10N-000	✓
	F STL01-GW1000-X190	✓
	T STK01-SW3000-X100	✓
	T STK01-UW3000-X100	✓
Mains cable	ZKA-140449-2500	-
	ZKA-140450-2500	-
	ZKA-140451-2500	-
	ZKA-140452-2500	-
	ZKA-140458-2500	-
	ZKA-140460-2500	-
Detachable mains cable	ZKA-140453-2500	-
	ZKA-140454-2500	-
	ZKA-140455-2500	-
	ZKA-140456-2500	-
	ZKA-140459-2500	-
	ZKA-140461-2500	-

- M Hand switch
 F Foot switch
 T Desk switch
 ✓ suitable
 - not suitable

Dimensional drawings



1.3 Mounting plate – ZPL



Benefits

- easy handling

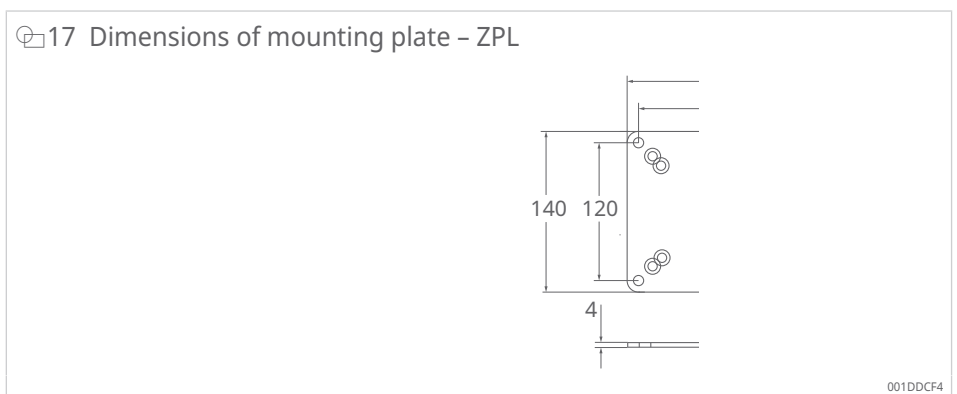
Technical data

- can be attached to inner and outer tube
- mounting plate with 4 holes, 9 mm diameter

5 Compatibility of mounting plate ZPL

Mounting plate	Lifting columns		
	CPMA1-1, CPMB1-1	CPMA1-2, CPMB1-2	CPMA2-2, CPMB2-2
ZPL-348382	✓	✓	✓

Dimensional drawings



1.4 Mains cable and detachable mains cable – ZKA

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④18 Mains cable straight, 2.5 m – ZKA



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④19 Detachable mains cable straight, 2.5 m – ZKA



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Benefits

- easy handling
- marked with product label

Standards

- IEC 60601-1

6 Compatibility of mains cable ZKA

Mains cable	Lifting columns			Socket boxes	
	CPMA1-1, CPMB1-1	CPMA1-2, CPMB1-2	CPMA2-2, CPMB2-2	ZDV-348220-002	ZDV-348221-002
ZKA-140449-2500	✓	✓	-	-	-
ZKA-140450-2500	✓	✓	-	-	-
ZKA-140451-2500	✓	✓	-	-	-
ZKA-140452-2500	✓	✓	-	-	-
ZKA-140458-2500	✓	✓	-	-	-
ZKA-140460-2500	✓	✓	-	-	-

7 Compatibility of detachable mains cable ZKA

Detachables mains cable	Lifting columns			Socket boxes	
	CPMA1-1, CPMB1-1	CPMA1-2, CPMB1-2	CPMA2-2, CPMB2-2	ZDV-348220-002	ZDV-348221-002
ZKA-140453-2500	✓	✓	-	-	-
ZKA-140454-2500	✓	✓	-	-	-
ZKA-140455-2500	✓	✓	-	-	-
ZKA-140456-2500	✓	✓	-	-	-
ZKA-140459-2500	✓	✓	-	-	-
ZKA-140461-2500	✓	✓	-	-	-

1.5 Desk switch – STK

20 Desk switch STK



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Benefits

- simple and precise
- attractive design
- tactile buttons with finger guide
- 2-color LED status indicator for power supply and feedback

Standards

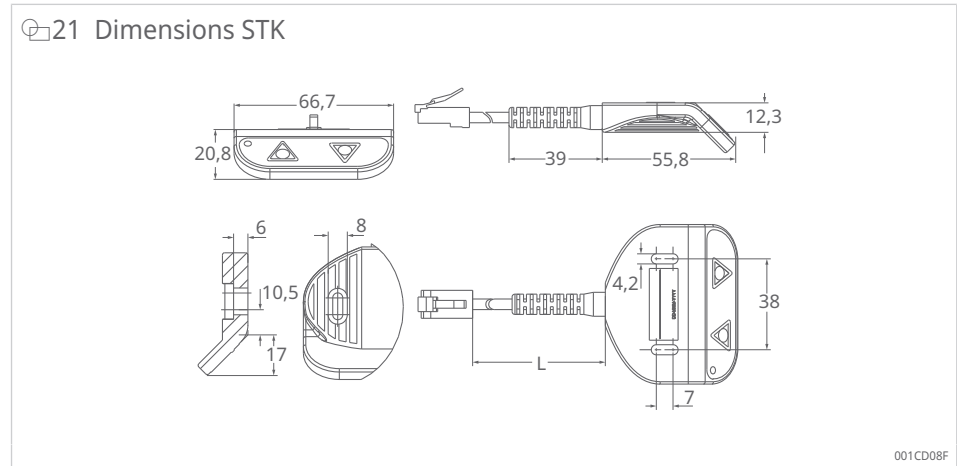
- IEC 60601-1

8 Compatibility of desk switch STK

Desk switch	Lifting columns			Socket boxes	
	CPMA1-1, CPMB1-1	CPMA1-2, CPMB1-2	CPMA2-2, CPMB2-2	ZDV-348220-002	ZDV-348221-002
STK01-SW3000-X100	✓	✓	✓	✓	✓
STK01-UW3000-X100	✓	✓	✓	✓	✓

Technical data and ordering designation

Dimensional drawings



9 Dimensions of desk switch – STK

Designation	Unit	L
STK01-SW3000-X100	mm	500
STK01-UW3000-X100	mm	1000

1.6 Hand switch – EHA



Benefits

- robust, ergonomic design
- tactile buttons
- easy-to-mount holder
- 2-color LED status indicator for power supply and feedback

Standards

- IEC 60601-1

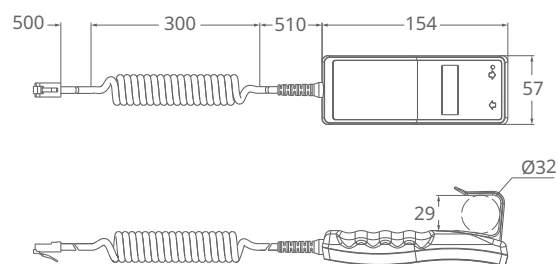
10 Compatibility of hand switch EHA

Hand switch	Lifting columns			Socket boxes	
	CPMA1-1, CPMB1-1	CPMA1-2, CPMB1-2	CPMA2-2, CPMB2-2	ZDV-348220-002	ZDV-348221-002
EHA	✓	✓	✓	✓	✓

Technical data and ordering designation

Dimensional drawings

23 Dimensions EHA4



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1.7 Foot switch – STL

24 Foot switch STL



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Benefits

- easy handling
- ergonomic design

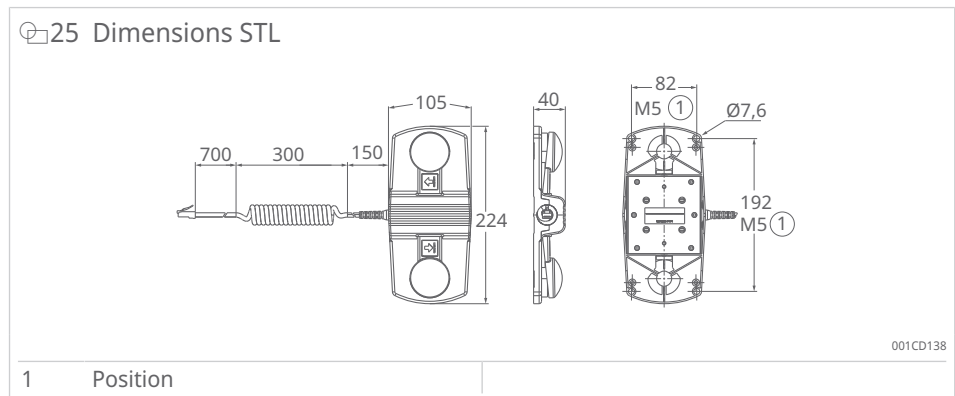
Standards

- IEC 60601-1

11 Compatibility of foot switch STL

Foot switch	Lifting columns			Socket boxes	
	CPMA1-1, CPMB1-1	CPMA1-2, CPMB1-2	CPMA2-2, CPMB2-2	ZDV-348220-002	ZDV-348221-002
STL01	✓	✓	✓	✓	✓

Dimensional drawings



1.8 Accessories

Technical data for operating elements

12 Technical data for operating elements

Feature	Unit	EHA4	STL	STK
max. number of operating channels	-	1	1	1
Operating power supply	DCV/mA	5/20	5/20	5/20
Protection code (IP)	-	IP67	IPX2	-
Color	-	Gray	Gray and anthracite	Gray
Indicator	-	2-color LED status indicator for power supply and feedback	-	2-color LED status indicator for power supply and feedback
Plug	-	RJ45	RJ45	RJ45
Holder	-	with holder	-	-
Symbols	-	With [Up]/[Down] arrows	With [Up]/[Down] arrows	With [Up]/[Down] arrows

13 Approved accessories

Designation	Cable length	Plug	Country	Ordering designation	Order number
Mains cable					
Mains cable straight	2.5 m	Schuko	DE, FR, ...	ZKA-140449-2500	0130015
		British Standard	UK	ZKA-140451-2500	0130017
		NEMA	USA, JP, ...	ZKA-140452-2500	0130018
		SEV	CH	ZKA-140458-2500	0130256
		AS 3112	PRC, AUS, ...	ZKA-140460-2500	0130391

Designation	Cable length	Plug	Country	Ordering designation	Order number
Detachable mains cable straight	2.5 m (for insertion into the socket box inlet)	Schuko	DE, FR. ...	ZKA-140453-2500	0130019
		NEMA	USA, JP, ...	ZKA-140456-2500	0130022
		SEV	CH	ZKA-140459-2500	0130257
		AS 3112	PRC, AUS, ...	ZKA-140461-2500	0130392
Operating elements					
Desk switch with LED	0.5 m	-	-	STK01-SW3000-X100	0130025
Desk switch with LED	1 m	-	-	STK01-UW3000-X100	0130026
Hand switch with LED	Coiled cable 1.3 m	-	-	EHA41-13N00N-000	0131033
Foot switch	Coiled cable 1.3 m	-	-	STL01-GW1000-X100	0131873
Miscellaneous					
Socket box inlet: IEC, RJ45 LAN, RJ45 operating element	-	-	-	ZDV-348220-002	0130030
Socket box outlet: 3× IEC, RJ45 LAN, RJ45 operating element	-	-	-	ZDV-348221-002	0130032
Mounting plate	-	-	-	ZPL-348382	0130024

1.9 Ordering designation

26 Ordering designation CPMA

CPMA 1-1 2 200 A A 0-000

Type

Voltage

1 AC 100 ... 240 V 50/60 Hz
2 DC 24 V

Load

Push
1 1000 N Only for AC version
2 2000 N

Guide tube unit

2 2-piece

Stroke S

200 200 mm Only for DC version
230 230 mm
250 250 mm
300 300 mm
400 400 mm
... Other lengths in increments of 10 mm, starting at 200 mm or 230 mm for the AC version up to 400 mm, are available on request

Motor alignment¹⁾

A Motor in inner tube
B Motor in outer tube

Operating device alignment

A Socket for operating device as for motor
B Socket for operating device on both sides

LAN cable through

0 No
1 LAN cable through Not compatible with socket for operating device on both sides

¹⁾ Lifting column can be installed with outer tube at the top or bottom

001E0577

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