

Actuator Range 2004



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Actuation systems

About actuation systems

Linear drive applications often require superior performance from the actuator. They must exhibit this in terms of speed, temperature stability, accuracy and noise levels. SKF produces a complete range of actuator products designed to satisfy the most demanding requirements.

The assortment includes telescopic pillars, linear and rotary actuators as well as control units, providing a total system solution for various applications. SKF holds a leading position in the industrial field where actuators are used in many different applications. SKF supplies a wide range of actuators but also offers extensive knowledge and experience in application engineering. This background has developed through long standing partnerships with leading companies in many industrial sectors.



Selecting actuators, made easy

Finding the right electric actuator for an application usually requires knowing many application details and making several calculations.

However, there are ways to narrow the selection to one or two safe approximations first. Using the selection guide, on following pages 7-15 you may easily find those actuators that meets your first criterias of load and speed as well as basic information about available controls and operating devices. This is normally the most important first step to carry out. On pages 16-145 you will find detailed information and type keys of each individual product(s). In case you need more explanation on technical terminology (glossary) and important considerations in selecting the right actuator for your applications pages 158-160 may be useful.

Some of our product families are only available for project sales. On page 146-150, in the selection guide, you will find a short information of those products.

In addition to this Actuator Range catalogue we have all product brochures available as pdf document on the internet –

<http://skf.manager.nu/guest>

EasyRange, fast delivery service

All products, up to 10pcs, defined as EasyRange can be dispatched within 5 working days from order entry. Some products, such as motors and accessories, can be delivered even next day.


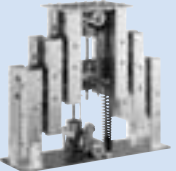
Products defined for this range are highlighted in respectively type key and all the possible options are written in BLUE TEXT.



Type keys









Options written in italic fonts are not available as standard. Please, contact SKF for verification.


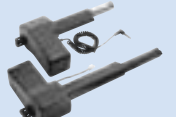

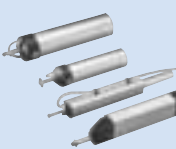
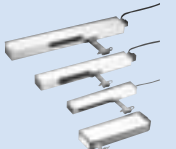

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
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Telescopic pillars	Type	Max. force		Max. speed		Stroke (S)	Features	Page
		push	pull	no load	full load			
		N	N	mm/s	mm/s	mm		No.
TELEMAG								
	TGC	1000	1000	11	9	200 - 700	Robust	17
	THC	1800	1800	15	12	200 - 700	Robust	18
	THG	2000	0	7	5	200 - 700	Robust	19
	TLC	4000	4000	16	11	200 - 700	Robust	20
	TLG	4000	0	34	10	200 - 700	Robust	21
	TLT	4000	0	42	11	300 - 700	Compact	22
TMS								
	EASY	4000	0	16	28	300 - 700	For excentric loads	25
	MECH	4000	0	-	-	300 - 700	For excentric loads	25
TELESMART								
	TMD	800	0	60	37	700	Slim & stylish	27
	TMA	1000	0	57	35	500	Slim & stylish	28
	TXG	1500	0	23	17	200 - 600	Plug & play	29
MAGGEAR								
	ETE	800	200	8	8	200	In-line	30

Linear actuators	Type	Max. force		Max. speed		Stroke (S)	Features	Page
		push	pull	no load	full load			
		N	N	mm/s	mm/s	mm		No.
CAT								
	CAT 21B	600	600	10	5	50 - 300	Compact	33
	CAT 33H	1200	1200	174	36	100 - 400	Flexible, Modular	34
	CAT 33	3000	3000	48	10	100 - 400	Flexible, Modular	36
	CAT 32B	4000	4000	67	13	50 - 700	Flexible, Modular	38
	CAT 11	500	500	32	32	50 - 300	Compact	40
CAP								
	CAP 32	3500	3500	60	10	50 - 700	High duty factor	43
	CAP 43A	3000	3000	48	10	100 - 400	Positioning	44
	CAP 43B	4000	4000	65	13	50 - 700	Positioning	45



Linear actuators	Type	Max. force		Max. speed		Stroke (S)	Features	Page
		push	pull	no load	full load			
		N	N	mm/s	mm/s	mm		No.
	CAR 22	1500	1500	30	10	50 - 300	High duty factor	49
	CAR 32	3500	3500	60	10	50 - 700	High duty factor	50
	CAR 40	6000	6000	60	10	100 - 700	High duty factor	51
	CARN 32	3500	3500	N/A	N/A	N/A	No motor	52
	CCBR 32	3500	3500	N/A	N/A	N/A	No motor	53
	GTD	200	200	30	25	50 - 300	Powerful	55
	WSP	2600	2600	68	57	100 - 700	Powerful	56
	ASM	4000	4000	58	48	100 - 700	Powerful	57
	DSP	4500	4500	62	52	100 - 700	Powerful	58
	SKG	15000	15000	66	55	100 - 700	Powerful	59
	SKD	15000	15000	30	25	100 - 700	Powerful	60
	STW	15000	15000	14	12	100 - 700	Powerful	61
	STG	15000	15000	17	14	100 - 700	Powerful	62
	STD	15000	15000	12	10	100 - 700	Powerful	63
	SKS	30000	30000	54	45	100 - 700	Powerful	64
	SLA	50000	50000	88	74	100 - 700	Powerful	65
	ECO 20/40	2000	0	13	19	50 - 300	Compact	66
	ECO 60/80	2000	0	7	4	50 - 300	Compact	66
	ECO 30/50	2000	2000	13	19	50 - 300	Compact	66
	ECO 70/90	6000	6000	7	4	50 - 300	Compact	66
	ILD 02	2000	2000	200	200	100 - 1500	Fast & controllable	68
	ILD 05	5000	5000	100	100	100 - 700	Fast & controllable	68
	ILD 10	10000	10000	50	50	100 - 700	Fast & controllable	68
	ILD 20	20000	20000	25	25	100 - 700	Fast & controllable	68
	CALA 36A	600	600	31	17	50 - 200	In-line	70
	MAX1	4000	4000	7	5	50 - 700	Silent operation	73
	MAX3	8000	6000	7	5	50 - 700	Silent operation	74
	MAX6	8000	6000	8	6	50 - 700	Plug & play	75
	CARE 33H	800	800	45	32	50 - 500	Silent operation	78
	CARE 33M	1400	1400	22	16	50 - 500	Silent operation	78
	CARE 33A	2000	2000	12	8	50 - 300	Silent operation	78
	R20	8000	8000	10.5	7.5	100 - 700	High push force	80
	R21	10000	8000	8.5	6	100 - 700	High push force	80
	R22	12000	8000	6.5	4.5	100 - 700	High push force	80

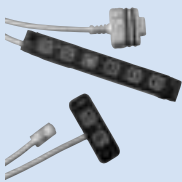

Linear actuators	Type	Max. force		Max. speed		Stroke (S)	Features	Page
		push	pull	no load	full load			
		N	N	mm/s	mm/s	mm		No.
	CAFAM-H-motor A	3000	3000	20	13	50 - 300	High speed	82
	CAFAM-H-motor B	3000	3000	14	9	50 - 300	High speed & silent	82
	CAFAM-L-motor A	7000	3000	10	5	50 - 300	Powerful	82
	CAFAM-L-motor B	7000	3000	7	4	50 - 300	Powerful & silent	82
	CAFS-H-motor A	3000	3000	20	13	50 - 300	High speed	84
	CAFS-H-motor B	3000	3000	14	9	50 - 300	High speed & silent	84
	CAFS-L-motor A	7000	3000	10	5	50 - 300	Powerful	84
	CAFS-L-motor B	7000	3000	7	4	50 - 300	Powerful & silent	84
	GC 84 UB	400	400	8	8	210	Silent operation	87
	GC 84 TL	500	300	6	6	200 - 300	Silent operation	88
	HC 85 UB	1500	1500	10	10	260	Silent operation	89
	CS10	200	200	37	30	105-300	Small & compact	91
	CS20	450	450	24	18	120-300	Small & compact	92
	CS30	500	500	24	19	200-400	Small & compact	93
	CS40	450	450	12 / 3	8 / 2.5	200-500	Small & compact	94
	CS50	1000	1000	24	21	300-500	Small & compact	95
	CS60	600	600	24	22	180-500	Small & compact	96
	CS70	2000	2000	19	14	180-500	Small & compact	97
	CC10	150	300	40	35	130-380	Small & compact	99
	CC20	200	200	20	10	200-250	Small & compact	100
	CC30	200	200	20	15	400	Small & compact	101
	CC40	350	350	18	15	280-380	Small & compact	102
	CC50	400	400	25	20	420-835	Small & compact	103
	CK10-50	200-600	200-600	8-20	5...15	180-1000	Small & compact	104


Rotary actuators	Type	Max. torque	Max. speed	Size	Features	Page
		Nm	rpm	mm		
						No.
	CRAB 17	70	8	125	Compact	108
	CRAB 17	105	20	125	Compact	108
	CRAB 05	100	3	86	Compact	110


Control units	Type	Control	Max. motor connections	Input	Output	Page
			n°	V	V / A	No.
KOM 	KOM 1 KOM 2 KOM 3 KOM 3T KOM 6	Standard Microprocessor Standard Standard Microprocessor	4 5 3 2 4	230 / 120 230 / 120 230 / 120 230 / 120 230 / 120	24 / 6 24 / 12 24 / 6 24 / 9 24 / 12	113 114 115 115 116
MCU 	MCU	Standard	2	230 / 120	24 / 6	117
LD 	LD-015 LD-014	Microprocessor Microprocessor	2 4	230 / 120 230 / 120	24 / 12 24 / 12	118 118
CAFC 04 	M1 M2 M3	Microprocessor Microprocessor Microprocessor	1 2 3	230 / 120 230 / 120 230 / 120	40 / 6 40 / 6 40 / 6	119 119 119
CAFM 	M1 M2 M3 M4	Microprocessor Microprocessor Microprocessor Microprocessor	0 1 2 3	230 / 120 230 / 120 230 / 120 230 / 120	40 / 6 40 / 6 40 / 6 40 / 6	120 120 120 120
CAEN 	15 10R	Standard (on/off) Standard (on/off)	1 1	230 230	24 / 15 24 / 1-10	120 121
CAEV 	110/220	Standard (on/off)	1	230 / 120	400 / 200	121
CAED ANR 	5-24R - P O 9-24R - P O	Microprocessor Microprocessor	1 1	22-28 22-28	24 / 5 24 / 9	121 121
CAED 	3-24R 5-24R 9-24R	Standard (on/off) Standard (on/off) Standard (on/off)	1 1 1	24 24 24	24 / 3 24 / 5 24 / 9	122 122 122


Control units	Type	Control	Max. motor connections	Input	Output	Page
			n°	V	V / A	No.
CAEP 	10P-SL 8V	Standard	1	230	24 / 2-10	122
		Standard*	1	230	24 / 10	122
* Dimension of housing: 260x260x107mm						
CAEL 	10-24R	Standard	1	24DC/19AC	24/2-10	122
BCU 	BCU 43	Microprocessor	3	120	24 / 7	123
	BCU 53	Microprocessor	3	120	24 / 7	123
	BCU 83	Microprocessor	3	230	24 / 7	123
	BCU 93	Microprocessor	3	230	24 / 7	123
Hand switches	Type	Operating power	Max. operating motors	Prot. class	Colour	Page
		VDC / mA	n°	IP		No.
EHA 	EHA 1	12 / 50	4	67	Grey	125
	EHA 2	12 / 50	5	67	Grey	126
EHE 	EHE 1	38 / 50	4	X7	Grey / black	127
	EHE 6	38 / 50	4	X7	Grey	128
PHC 	PHC	-	4	66	Grey	129
CAFH 	M1	40 / 50	1	X4	Black	129
	M2	40 / 50	2	X4	Black	129
	M3	40 / 50	3	X4	Black	129
CAES 	CAES 31B	30 / 33	1	54	Black	129
	CAES 31C	30 / 33	1	54	Black	129
	CAES 31D	30 / 33	2	54	Black	129
	CAES 32D	30 / 33	2	54	Black	129


Foot switches	Type	Operating power	Max. operating motors	Prot. class	Colour	Page
		VDC / mA	n°	IP		No.
ST 	ST	12 / 50	3	X5	Grey	131
	PFP1 PFP2	- -	1 2	21 21	Grey or anthracite Grey or anthracite	132 132
CAFHF 	F1-DIN5 F1-DIN7	40 / 50 40 / 50	1 1	X4 X4	Anthracite Anthracite	132 132


Desk switch	Type	Operating power	Max. operating motors	Prot. class	Colour	Page
		VDC / mA	n°	IP		No.
ST 	ST	12 / 50	3	X0	Black	135
	LD	5 / 50	2	32	Black	136
CAFHT 	T1 T2	40 / 50 40 / 50	1 2	X4 X4	Grey or black Grey or black	137 137


Junction box	Type	Operating power	Max. operating motors	Prot. class	Colour	Page
		VDC / mA	n°	IP		No.
CAFR 	DIN5	40 / 50	N/A	X4	grey	138
	DIN7	40 / 50	N/A	X4	grey	138

Easy3	Type	Max. force		Max. speed		Stroke (S)	Features	Page
		push	pull	no load	full load			
		N	N	mm/s	mm/s	mm		No.
Easy3 	01	500	500	16	10	50 - 200	Flexible	141
	02	600	600	31	17	50 - 200	In-line	141
	03	2000	2000	12	8	100 - 300	Silent operation	142
	04	2000	2000	14	9	100 - 300	Silent operation	142
	05	2000	2000	14	9	100 - 300	Silent operation	143
	10	7000	3000	7	4	100 - 200	Powerful & silent	143
	11	7000	3000	7	4	100 - 200	Powerful & silent	144
	12	7000	3000	7	4	100 - 200	Powerful & silent	144
	13	7000	3000	7	4	100 - 200	Powerful & silent	145


Linear drive profile	Type	Max. load		Max. speed		Stroke (S)	Features	Page
		dynamic	static	no load	full load			
		N	N	mm/s	mm/s	mm		No.
 CAWA	CAWA	1650	3500	22	14	500-1000	Powerful & compact	146

Rotary actuators	Type	Torque	Max. speed	Size	Features	Page
 CRAB	CRAB 10	75	30	120	Compact	147
	CRAB 11	200	20	120	Compact	147
	CRAB 12	200	20	120	Compact	147
	CRAB 13	150	20	120	Compact	147
	CRAB 17	200	30	125	Compact	147
	CRAB 20	400	15	155	Zero backlash	147
	CRAB 30	1000	10	228	Zero backlash	147
	CRAB 40	1700	8	286	Zero backlash	147

ServoMove	Type	Max. dyn. load	Max. speed	Stroke	Features	Page
 CASI	CASI 32	3500	250	50-700	Servo system	148
	CASI 40	5200	650	50-700	Servo system	148
	CASI 60	18000	1200	50-1000	Servo system	148

Compact Electro-mech. Cylinder	Type	Force	Speed	Type	Force	Speed	Type	Force	Speed
	CEMC	kN	mm/s	CEMC	kN	mm/s	CEMC	kN	mm/s
	2404-xxx-62L	8,7	300	2404-xxx-63I	13.1	300	2404-xxx-63N	13.1	266
	2406-xxx-62L	5.8	450	2406-xxx-63I	8.7	450	2406-xxx-63N	8.7	400
	2407-xxx-62L	5.0	525	2407-xxx-63I	7.5	525	2407-xxx-63N	7.5	466
	1804-xxx-42J	4.7	350						

Page 149

Electromechanical Cylinder	Type	Force	Speed	Type	Force	Speed	Type	Force	Speed
	SRSA	kN	mm/s	SRSA	kN	mm/s	SRSA	kN	mm/s
	2505	6.5	375	4805	38.7	230	7510	6.0	215
	2510	3.2	660	4810	34.2	465	7515	74.4	325
	3005	8.5	330	4815	23.7	700	7520	58.0	430
	3010	6.2	660	6010	47.7	360	4020	5.7	750
	3905	19.2	290	6015	33.5	535	4040	3.85	1500
	3910	14.2	580	6020	26.0	715			

Page 150

Are you looking for a complete system including actuators, control units and operating units? A selection of control units and hand sets is available for most actuators in this catalogue.

		Control units														Act.systems																								
		CAED 3-24R	CAED 5-24R	CAED 9-24R	CAEN 10R	CAEN 15	CAEV 110/220	CAEP10P-SL	CAED ANR	CAEL10-24R	CAFC04 M1/M2/M3	CAFM M1/M2/M3/M4	CAEP 8V	KOM1	KOM2	KOM3	KOM3T	KOM6	MCU1	SEM	BCU	ZDV-170250	LD-014	LD-015	Telemag, TGC (pneum.)	Telemag, THC (pneum.)	Telemag, TLC (pneum.)	Matrix, MAX60/61	Matrix, MAX62 to 65	MAGPUSH	ILD	Easy3 Kits	Telesmart, TXG	CAFM	Runner	TMA/TMD				
Operating units	PPF																									●	●	●	●											
	PAM																										●	●	●	●										
	PHC																										●	●	●	●										
	Op.Panel(1013.0016)																																							
	LD-011 (DIN)																																							
	LD-011 (FCC)																																							
	STH (DSUB)																																							
	STG (DSUB)																																							
	STF (FCC)																																							
	STF (DSUB)																																							
	STC (DSUB)																																							
	STA (FCC)																																							
	STA (DSUB)																																							
	EHE6 (DSUB)																																							
	EHE1 (FCC)																																							
	EHA2 (DSUB)																																							
	EHA1 (DIN)																																							
	EHA1 (DSUB)																																							
CAFH																																								
CAES 32D																																								
CAES 31D																																								
CAES 31B																																								
CAES 31C	●	●	●		●	●		●	●																															
Actuators	MAGRACK																																							
	VARIMAG																																							
	MAGTOP																																							
	MAGGEAR																																							
	ECOMAG																																							
	RUNNER																																							
	Telesmart, TMA/TMD																																							
	CRAB 17			●	●		●	●		●																														
	CRAB 05	●	●		●		●	●		●																														
	CAWA			●	●		●	●		●																														
	CAFS																																							
	CAP 32																																							
	CAP 43																																							
	CARE 33	●	●		○		○			○																														
	Matrix, MAX3																																							
	Matrix, MAX1																																							
	CALA 36	●			○		○			○																														
	CAR 40																																							
	CAR 32																																							
	CAR 22																																							
	CAT 32B		●	●			●	●		●																														
	CAT 33/33H		●	●			●	●		●																														
	CAT 21B				○		○			○																														
	CAT 11	●																																						
	MAGFORCE																																							
	Telemag, TMS																																							
Telesmart, TXG																																								
Telemag, TLT																																								
Telemag, TLG																																								
Telemag, THG																																								

Telescopic pillars

TELEMAG

The TELEMAG line of telescopic pillars features the best combination of minimum retracted length and large stroke length. They are used wherever robust and safe guiding systems are needed. The attractive design allows the TELEMAG to often become part of the overall design of the equipment. The line of TELEMAG actuators is complemented by the KOM control units, which allow a flexible and application focused system control.

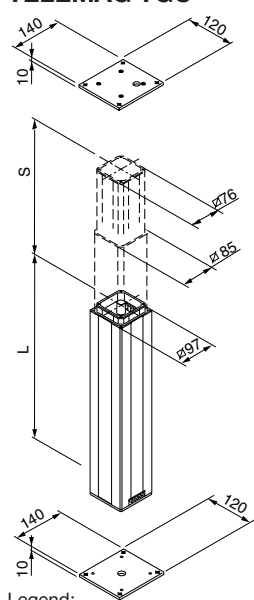
Benefits:

- High offset load
- Quiet
- Robust
- Long life time



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	Kg
TGC 8AWAS	1000	1000	11	9	200-700	S+145/150	120/230 AC	30	4.5-7.5
TGC 8AWDS	1000	1000	11	9	300-700	S+45/50	120/230 AC	30	5.9-9.5
THG 10/11-C.	1000	0	7	5	200-700	S+270/180	24 DC	30	8-14
TLT 10/11-C1	1000	0	36	25	300-700	0.5 x S + 170	24 DC	40	15-30
TLG 10/11-C	1500	0	33	25	200-700	S + 180	24 DC	30	15-30
THC 8AWAS	1800	1800	15	12	200-700	S+155/160	120/230 AC	30	7.9-13.5
THC 8AWDS	1800	1800	15	12	230-700	S+60/65	120/230 AC	30	8.6-17.5
THG 10/11-B	2000	0	7	5	200-700	S+270/180	24 DC	30	8-14
TLT 10/11-B1	2000	0	19	13	300-700	0.5 x S + 170	24 DC	40	15-30
TLT 10/11-C2	2000	0	42	25	300-700	0.5 x S + 240	24 DC	40	15-30
TLG 10/11-B	2500	0	17	13	200-700	S + 180	24 DC	30	15-30
TLT 10/11-A1	3000	0	16	11	300-700	0.5 x S + 170	24 DC	40	15-30
TLC 12ZWAS	4000	4000	16	11	200-700	S+175/185	120/230 AC	30	15.2-24.5
TLC 12ZWDS	4000	4000	16	11	255-700	S+60/70	120/230 AC	30	18.3-30.5
TLG 10/11-A	4000	0	14	10	200-700	S + 180	24 DC	30	15-30
TLT 10/11-A2	4000	0	19	13	300-700	0.5 x S + 240	24 DC	40	15-30

TELEMAG TGC



Legend:
S = stroke
L = retracted length

Type	Force		Speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V AC	IP	kg
TGC 8AWAS	1000	0	11	9	200 - 700	S+145	120/230	30	4.5 -7.5
TGC 8AWAS	0	1000	11	9	200 - 700	S+150	120/230	30	4.5 -7.5
TGC 8AWDS	1000	0	11	9	300 - 700	S+45	120/230	30	5.9-9.5
TGC 8AWDS	0	1000	11	9	300 - 700	S+50	120/230	30	5.9-9.5

Type code for accessories

Accessories	Order N°
Top mounting plate for 2 × tube set	964280
Bottom mounting plate for 2 × tube set	964281
Top mounting plate for 3 × tube set	964280
Bottom mounting plate for 3 × tube set	965121
Screw (4/plate) (not available for 3 × tube set, bottom plate)	510751
Screw (4/plate) only for 3 × tube set, bottom plate	510709
Lock washer (4/plate)	510024

Type key

Type

Load/Speed:
1000 N/11-9 mm/s

Tube set:
Tube set 2 x
Tube set 3 x

Control:
Electrical control
Pneumatic control
Low-voltage control

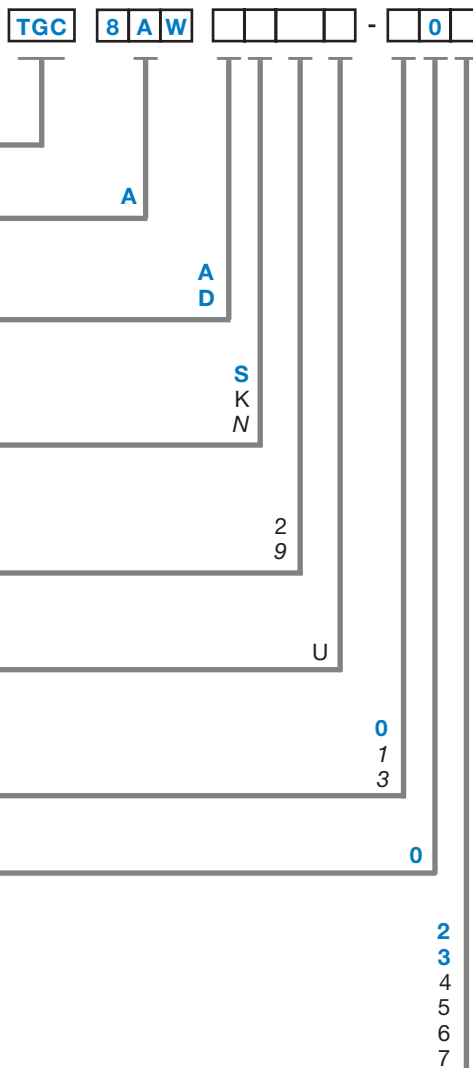
Motor voltage:
230 V AC/50Hz (no code)
120 V AC/60Hz
Special voltage

System of protection / test:
Standard IP 30 (no code)
UL test

Construction:
Push
Customer-specific
Pull

Colour:
Colourless anodised

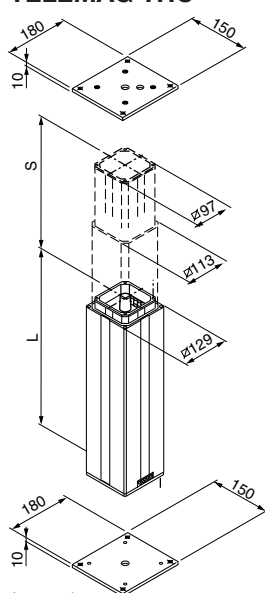
Stroke (S):
200 mm (only for tube set 2x)
300 mm
400 mm
500 mm
600 mm
700 mm



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Options written in italic fonts are not available as standard. Please, contact SKF for verification.

TELEMAG THC



Legend:
S = stroke
L = retracted length

Type	Force push pull		Max. speed no full load load		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	N	N	mm/s	mm/s	mm	mm	VAC	IP	kg
THC 8AWAS	1800	0	15	12	200 -700	S+155	120/230	30	7.9-13.5
THC 8AWAS	0	1800	15	12	200 -700	S+160	120/230	30	7.9-13.5
THC 8AWDS	1800	0	15	12	200 -700	S+60	120/230	30	8.6-17.5
THC 8AWDS	0	1800	15	12	200 -700	S+65	120/230	30	8.6-17.5

Type code for accessories

Accessories	Order N°
Top mounting plate for 2 × tube set	264265
Bottom mounting plate for 2 × tube set	264363
Top mounting plate for 3 × tube set	264265
Bottom mounting plate for 3 × tube set	264237
Screw (4/plate) for top mounting plate	510671
Screw (4/plate) for bottom mounting plate	510709
Plug AC Telemag 3p.	265518
Plug AC Telemag 5p.	265519

Type key

Type

Load/Speed:
1800 N/ 15-12 mm/s
1500 N/ 15-12 mm/s
1300 N/ 15-12 mm/s

Tube set:
Tube set 2 ×
Tube set 3 ×

Control:
Electrical control
Pneumatic control
Low-voltage control

Motor voltage:
230 V AC/50Hz (no code)
120 V AC/60Hz
Special voltage

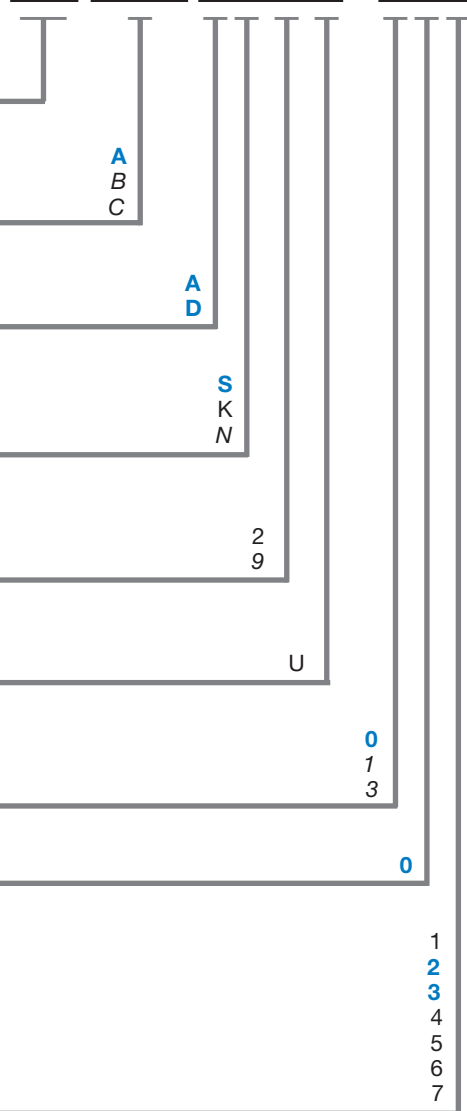
System of protection / test:
Standard IP 30 (no code)
UL test

Construction:
Push
Customer-specific
Pull

Colour:
Colourless anodised

Stroke (S):
230 mm (only for tub set 3x)
200 mm (only for tube set 2x)
300 mm
400 mm
500 mm
600 mm
700 mm

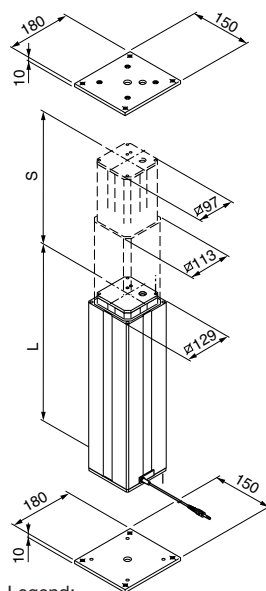
THC 8 W - 0



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TELEMAG THG



Legend:
S = stroke
L = retracted length

Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V DC	IP	kg
THG 10/11-BA	2000	0	7	5	200 - 700	S+270	24	30	8 - 14
THG 10/11-CA	1000	0	7	5	200 - 700	S+270	24	30	8 - 14
THG 10/11-BD	2000	0	7	5	200 - 700	S+180	24	30	8 - 14
THG 10/11-CD	1000	0	7	5	200 - 700	S+180	24	30	8 - 14

Type code for accessories

Accessories	Order N°
Top mounting plate for 2 × tube set	264265
Bottom mounting plate for 2 × tube set	264363
Top mounting plate for 3 × tube set	264265
Bottom mounting plate for 3 × tube set	264237
Screw (4/plate) for mounting plate	510709

Type key



Type

Motor voltage:

24 V DC
24 V DC with integrated current cut-off

0
1

Load/Speed:

2000 N / 7-5 mm/s
1000 N / 7-5 mm/s

B
C

Tube set:

Tube set 2x
Tube set 3x

A
D

Stroke (S):

200 mm
300 mm
400 mm
500 mm
600 mm
700 mm

2
3
4
5
6
7

Cable/connecting plug:

Straight, 1.0m, jack plug
Straight, 2.3m, jack plug (stereo)
Coiled, 0.6m, jack plug

1
2
A

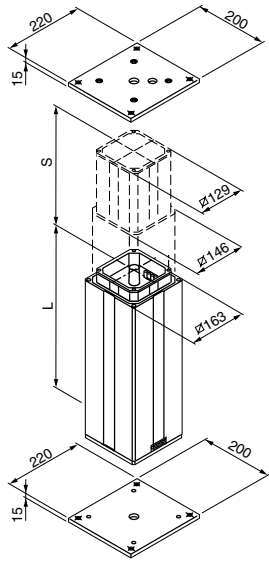
Option:

No option
Encoder, 8 pulses / revolution
Potentiometer, 1kohm, 2 Watt, 0.25% linearity, 10 turns (tube set 3x only)
Cable feedthrough, 5x0.75 mm², led out, top +160mm, bottom +800mm
Cable feedthrough + encoder
Cable feedthrough + potentiometer (tube set 3x only)

0
A
B
C
D
E

Options written in italic fonts are not available as standard. Please, contact SKF for verification.

TELEMAG TLC



Legend:
S = stroke
L = retracted length

Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V AC	IP	kg
TLC 12ZWAS	4000	0	16	11	200 -700	S+175	120/230	30	15.2- 24.5
TLC 12ZWAS	0	4000	16	11	200 -700	S+185	120/230	30	18.3- 30.5
TLC 12ZWDS	4000	0	16	11	200 -700	S+60	120/230	30	15.2- 24.5
TLC 12ZWDS	0	4000	16	11	200 -700	S+70	120/230	30	18.3- 30.5

Type code for accessories

Accessories	Order N°
Top mounting plate for 2 × tube set	290268
Bottom mounting plate for 2 × tube set	290351
Top mounting plate for 3 × tube set	290268
Bottom mounting plate for 3 × tube set	290265
Screw (4/plate) for mounting plate	510707
Plug AC Telemag 3p.	265518
Plug AC Telemag 5p.	265519

Type key

Type

Load/Speed:
4000 N/ 16-11 mm/s
3000 N/ 16-11 mm/s
2000 N/ 16-11 mm/s

Tube set:
Tube set 2x
Tube set 3x

Control:
Electrical control
Pneumatic control
Low-voltage control

Motor voltage:
230 V AC/50Hz (no code)
120 V AC/60Hz
Special voltage

System of protection / test:
Standard IP 30 (no code)
UL test

Construction:
Push
Customer-specific
Pull

Colour:
Colourless anodised

Stroke (S):
100 mm, only for tube set 2x, push
255 mm, only for tube set 3x, push
200 mm, only for tube set 2x
300 mm
400 mm
500 mm
600 mm
700 mm

TLC 12 W - 0

Z
X
S

A
D

S
K
N

2
9

U

0
1
3

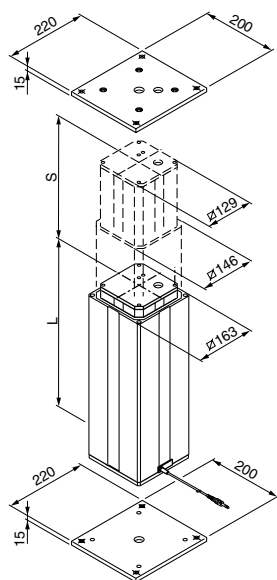
0

1
1
2
3
4
5
6
7

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TELEMAG TLG



Legend:
S = stroke
L = retracted length

Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V DC	IP	kg
TLG 10/11-A	4000	0	14	10	200 - 700	S+180	24	30	15 - 30
TLG 10/11-B	2500	0	17	13	200 - 700	S+180	24	30	15 - 30
TLG 10/11-C	1500	0	33	25	200 - 700	S+180	24	30	15 - 30

Type code for accessories

Accessories	Order N°
Top mounting plate for 2 × tube set	290268
Bottom mounting plate for 2 × tube set	290351
Top mounting plate for 3 × tube set	290268
Bottom mounting plate for 3 × tube set	290265
Screw (4/plate) for mounting plate	510707

Type key



Type

Motor voltage:

24V DC
24V DC, integrated current cut-off

0
1

Load/Speed:

4000 N / 14 - 10 mm/s
2500 N / 17 - 13 mm/s
1500 N / 34 - 25 mm/s

A
B
C

Tube set:

Tube set 2x
Tube set 3x

A
D

Stroke (S):

200 mm
300 mm
400 mm
500 mm
600 mm
700 mm

2
3
4
5
6
7

Cable/connecting plug:

Straight, 1.0m, jack plug
Straight, 2.3m, jack plug
Coiled, 0.6m, jack plug

1
2
A

Option:

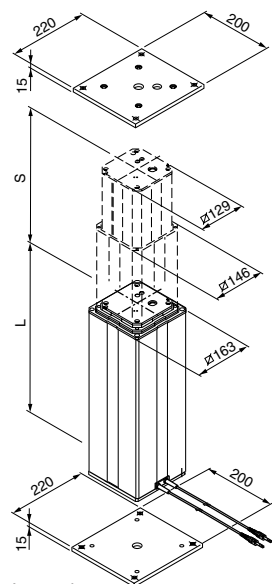
No option
Encoder, 8 pulses/revolution
Potentiometer, kΩ, 2 Watt, 0.25% linearity, 10 turns
Cable feedthrough, 5x0.75 mm², led out, top +160mm, bottom +800mm
Cable feedthrough + encoder
Cable feedthrough + potentiometer

0
A
B
C
D
E

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TELEMAG TLT



Legend:
S = stroke
L = retracted length

Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V DC	IP	kg
TLT10/11-A1	3000	0	16	11	300-700	0,5×S+170	24	40	15-30
TLT10/11-A2	4000	0	19	13	300-700	0,5×S+240	24	40	15-30
TLT10/11-B1	2000	0	19	13	300-700	0,5×S+170	24	40	15-30
TLT10/11-C1	1000	0	36	25	300-700	0,5×S+170	24	40	15-30
TLT10/11-C2	2000	0	42	25	300-700	0,5×S+240	24	40	15-30

Type code for accessories

Accessories	Order N°
Top mounting plate for 3 × tube set	290268
Bottom mounting plate for 3 × tube set	290265
Screw (4/plate) for mounting plate	510707

Type key

Type

Motor voltage:

24 V DC
24 V DC with integrated current cut-off

Load/Speed/Retracted length:

4000 N / 19 - 13 mm/s
3000 N / 16 - 11 mm/s
2000 N / 19 - 13 mm/s
2000 N / 45 - 25 mm/s
1000 N / 36 - 25 mm/s

Stroke (S):

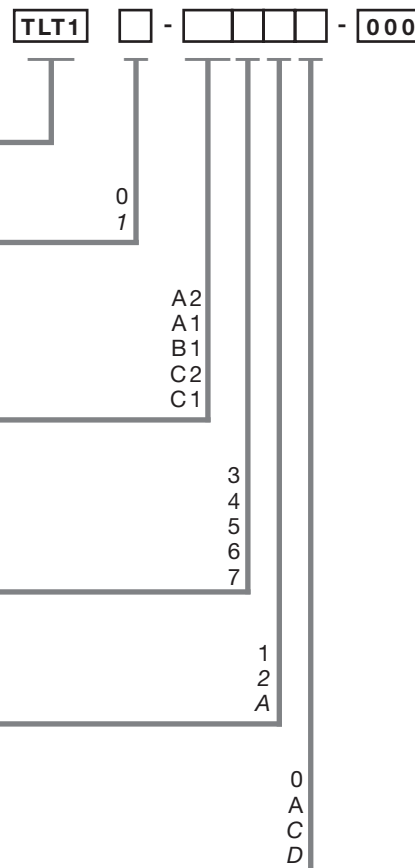
300 mm
400 mm
500 mm
600 mm
700 mm

Cable/connecting plug:

Straight, 1.0m, jack plug
Straight, 2.3m, jack plug
Coiled, 0.6m, jack plug

Option:

No option
Encoder, 8 pulses/revolution
Cable feedthrough, 3x1.5mm, top+160mm, bottom+800mm
Cable feedthrough + encoder



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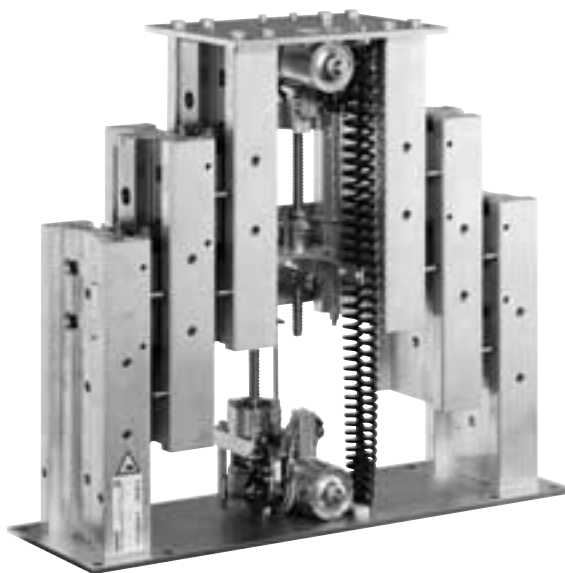


TMS

The TMS is a strong telescopic pillar with an optimal stroke / retracted length ratio for the lift of heavy excentric loads. The TMS is fast, quiet and able to lift 400 kg centric load or 150 kg excentric load in a 2m distance away from the pillar.

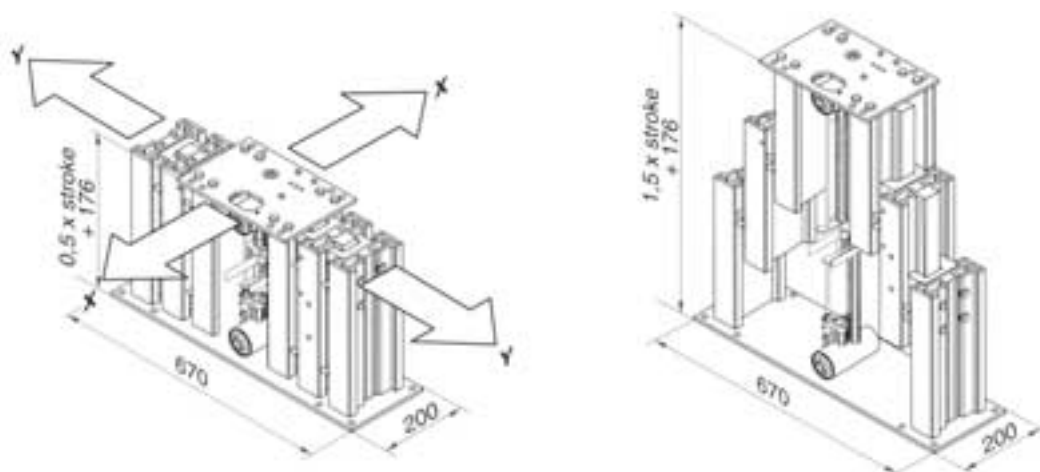
Benefits:

- High offset load
- Fast
- Strong

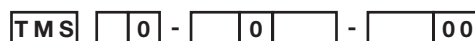


Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N		mm/s	mm/s	mm	mm	V	IP	Kg
EASY	4000	---	28	16	300 - 700	0.5 x S + 176	24 DC	SELV	64 - 85
MECHANICAL	4000	---	---	---	300 - 700	0.5 x S + 176	---	---	61 - 82

TMS EASY/MECHANICAL



Type key



Type

Voltage:

No (mechanical)
24V DC (easy)

0
1

Number of channels:

Not used

0

Connecting cable:

Not used (mechanical)
Coiled, 1.5m, jack plug (easy)

00
WR

Colour/Design:

Not used

0

Options:

- None
- Customer-specific*
- Potentiometer*
- Mains cable feedthrough*
- Cable feedthrough*
- Mains cable feedthrough, potentiometer*
- Cable feedthrough, potentiometer*
- Cable and mains cable feedthrough,*
- Cable and mains cable feedthrough, potentiometer*

- 000
- KKK
- EXY
- EYF
- EYL
- 2CH
- 2CJ
- 2CL
- 3CG

Stroke (S):

- 250mm
- 300mm
- 350mm
- 400mm
- 450mm
- 500mm
- 550mm
- 600mm
- 650mm
- 700mm

- 250
- 300
- 350
- 400
- 450
- 500
- 550
- 600
- 650
- 700

Options written in italic fonts are not available as standard. Please, contact SKF for verification.

TELESMART

This cost effective telescopic pillar offers an attractive design for height adjustable desks, tables, chairs and lightweight industrial workstations. The TXG series has an integrated control unit and combines the advantages of AC and DC power. The TMA & TMD series are very stylish and ideal for office environment. The pillars can be controlled by using desk, hand or foot switches.

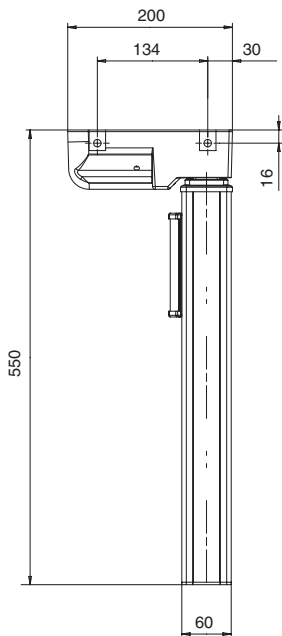
Benefits:

- Easy plug and play system
- Powerful and fast lifting
- Attractive design
- Cost effective



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
TMD	800	0	60	37	700	550	24 DC	20	8.5
TMA	1000	0	57	35	500	640	24 DC	20	8
TXG 1	1500	0	23	17	200-600	S+180	24 DC	30	9-14
TXG 4	1500	0	23	17	200-600	S+180	120 AC	30	9-14
TXG 8	1500	0	23	17	200-600	S+180	230 AC	30	9-14

TELESMART TMD



Type	Force push	Force pull	Max. speed no load	Max. speed full load	Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	N	N	mm/s	mm/s	mm	mm	V DC	IP	kg
TMD	800	0	60	37	700	550	24	20	8.5

Type code for accessories

Accessories	Order No
Cable 1.0m with DIN8-plug	306355-1000
Cable 1.5m with DIN8-plug	306355-1500
Cable 2.5m with DIN8-plug	306355-2500

Type key

TMD **1** **0** - **00** **5** **6** - **700** **00**

Type

Voltage:
24 V DC

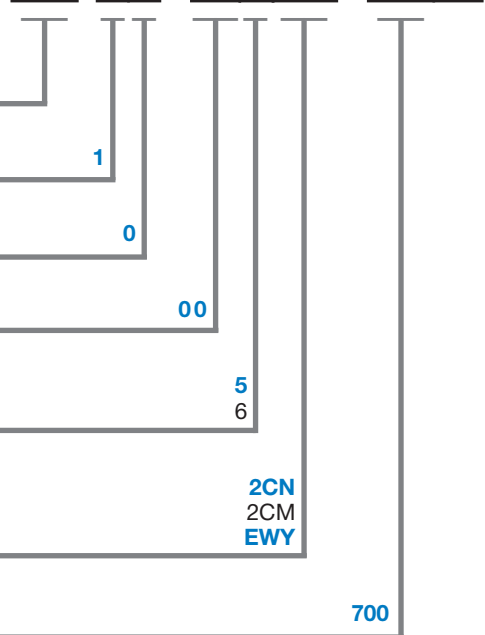
Number of channels:
Not used

Connecting cable:
None

Colour/Design:
Natural anodized coating
Black anodized coating

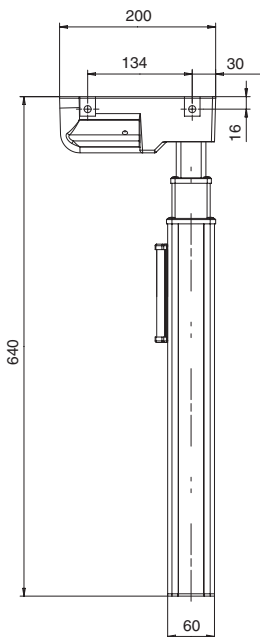
Options:
With flange for crossbar one side
With flange for crossbar two sides
No flange for crossbar

Stroke/assembly dimension:
Retracted length (L) = 550mm, Stroke (S) = 700 mm



Options written in BLUE text are included in the Easy Range concept, which is our special service range for quick delivery from stock. A type key made with ALL POSITIONS in BLUE qualifies a product for this service.

TELESMART TMA

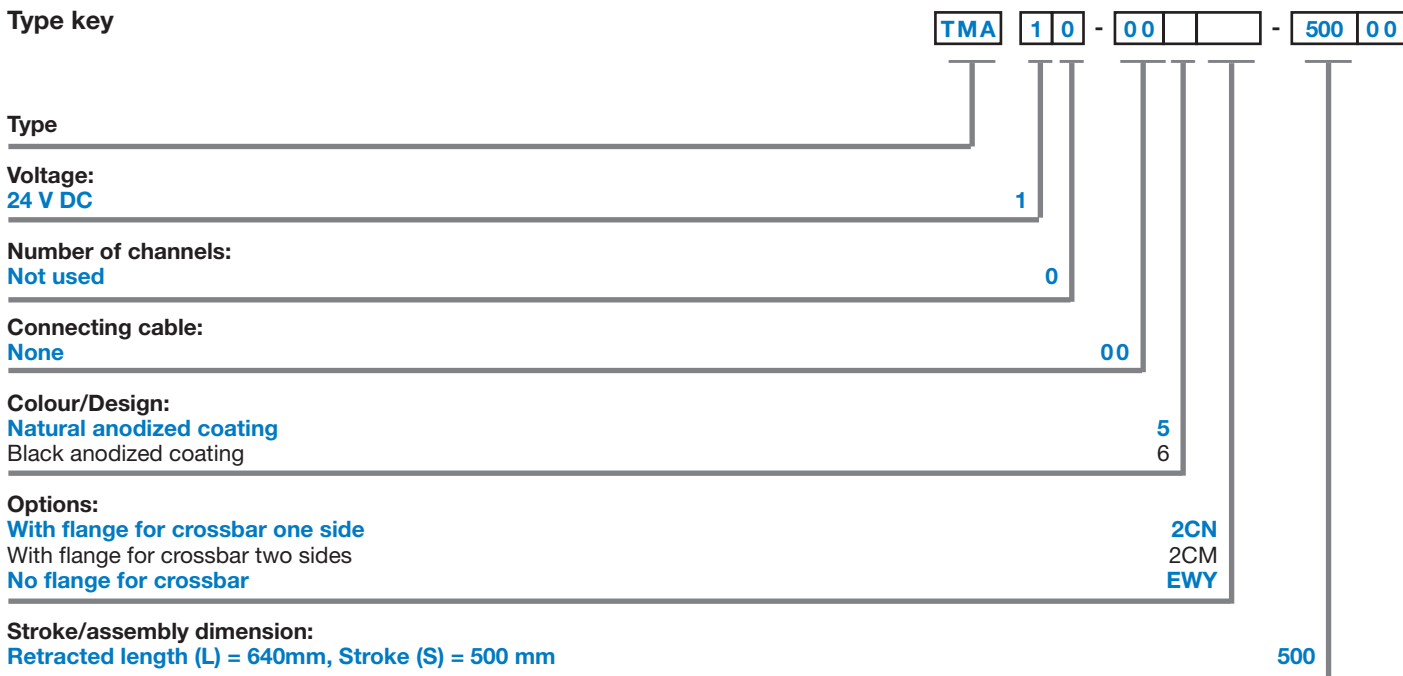


Type	Force push	Force pull	Max. speed no load	Max. speed full load	Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	N	N	mm/s	mm/s	mm	mm	V DC	IP	kg
TMA	1000	0	23	17	500	640	24	20	8

Type code for accessories

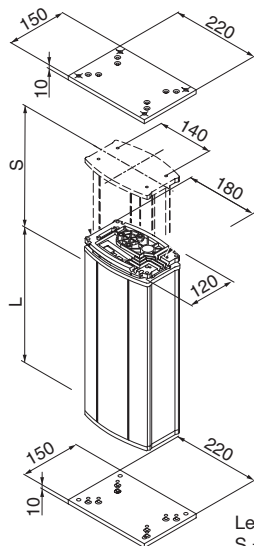
Accessories	Order No
Cable 1.0m with DIN8-plug	306355-1000
Cable 1.5m with DIN8-plug	306355-1500
Cable 2.5m with DIN8-plug	306355-2500

Type key



Options written in BLUE text are included in the Easy Range concept, which is our special service range for quick delivery from stock. A type key made with ALL POSITIONS in BLUE qualifies a product for this service.

TELESMA RT TXG



Legend:
S = stroke
L = retracted length

Type	Force push	Force pull	Max. speed no load	Max. speed full load	Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
TXG 1	1500	0	23	17	200-600	S+180/160	24 DC	30	9-14
TXG 4	1500	0	23	17	200-600	S+180/160	120 AC	30	9-14
TXG 8	1500	0	23	17	200-600	S+180/160	230 AC	30	9-14

Type code for accessories

Mains cable	Plug	Country	Order number	Comment
Straight cable 3.5	Euro	general	304330	2-poles
Straight cable 3.5	Schuko	DE	304331	2-poles
Straight cable 3.5	UL	USA	304332	2-poles
Straight cable 3.5	British standard	UK	304333	2-poles
Top or bottom mounting plate			304320	

Type key

Type

Motor voltage:

- 24V DC**
- 120 V AC, 50/60Hz, class II
- 120 V AC, 50/60Hz, class I (mandatory for cable feedthrough)
- 230 V AC, 50Hz, class II**
- 230 V AC, 50Hz, class I (mandatory for cable feedthrough)**

1
4
5
8
9

Output for an additional DC-Motor:

- Not used**
- 24 V DC (not available for TXG1)**

0
1

Cable / connecting plug:

- Not used**

00

Colour:

- Colourless anodised**
- Customer-specific*
- Powder-coated white RAL 9010*
- Powder-coated grey RAL 7035*

5
K
2
3

Options: (*24V only, **230/120VAC only)

- None**
- Customer-specific*
- Control connection feedthrough ****
- Mains cable feedthrough ****
- Encoder for TXG ***
- Encoder for other Controls*
- Retract, memory****
- Control connection feedthrough**, mains cable feedthrough****
- Retract, memory**, mains cable feedthrough**
- Control connection feedthrough **, retract, memory**
- Control connection feedthrough **, retract, memory**, mains cable feedthrough**
- Extend, retract, memory**, parallel operation of 2 actuators****
- Extend, retract, memory**, parallel operation of 2 actuators**, mains cable feedthrough ****
- Extend, retract, memory**, parallel operation of 2 actuators**, control connection feedthrough **
- Extend, retract, memory**, parallel operation of 2 actuators**, control/mains cable feedthrough ****

0 0 0
KKK
EYX
EYF
EYS
EXG
2CA
2AA
3AW
3AY
4AG
4AL
5AA
5AC
6AA

Stroke (S) / Retr. Length (L=S+180/160):

- 200 mm**
- 300 mm**
- 400 mm**
- 500 mm
- 600 mm

L=S+180 L=S+160
200 4CY
300 4DY
400 4EY
500 4FY
600 4GY

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Options written in italic fonts are not available as standard. Please, contact SKF for verification.

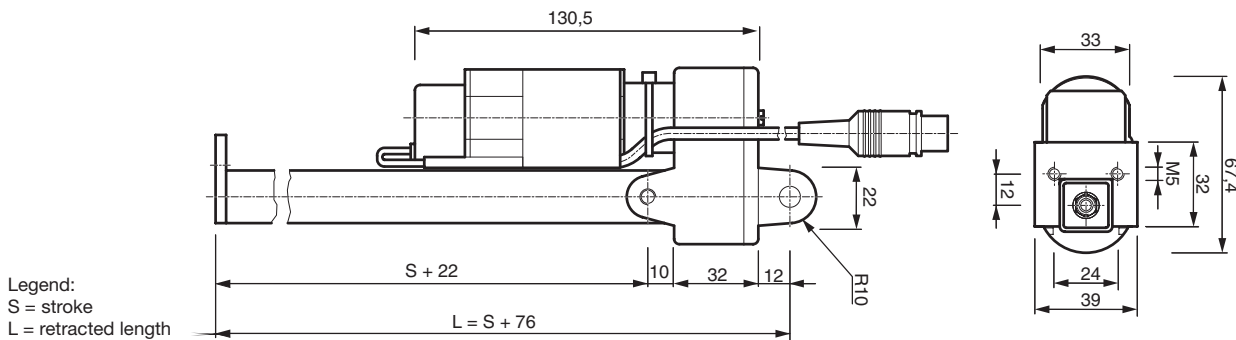


MAGGEAR

With a stroke of 200 mm the MAGGEAR is especially suitable to adjust sit-sit workstations. Consisting of a small, strong 24VDC motor, a gear with spindle and a push tube the MAGGEAR can directly be integrated into most table legs.

Benefits:

- Small and slim
- In-line layout
- Low cost



Type key

ETE - 815 201

Type

Load / Speed / Stroke (S):
800 N (push) / 8 mm/s / 200 mm

815 201

Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
ETE	800	200	8	8	200	S + 76	24 DC	X0	1.0



Linear actuators

CAT

The CAT modular design concept makes it easy to interchange critical components such as motors, gears, screws, attachments, etc. Custom built actuators are easily and cost efficiently built from standard parts. The CAT range flexibility makes it suitable for an infinite number of applications.

Benefits:

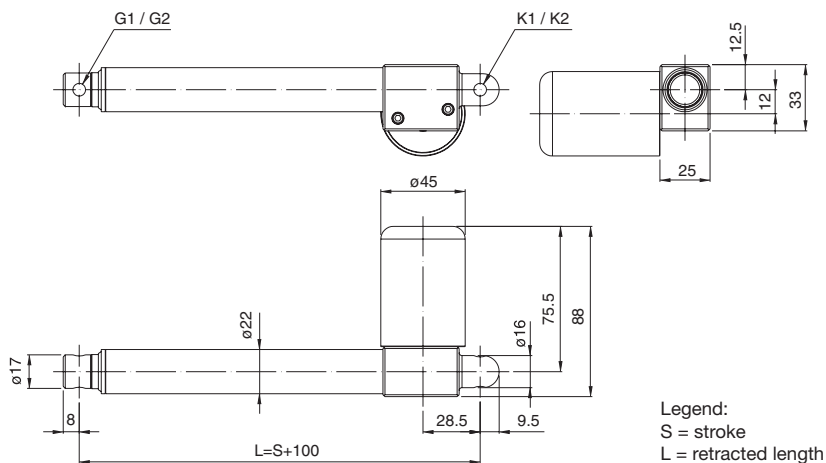
- Small
- Robust
- Highly efficient
- Maintenance-free



Type	Force		Max. speed		Stroke (S)	Retr. Length* (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CAT 21B	600	600	10	5	50-300	S + 100	12/24 DC	X4	0.7-1.5
CAT 33H	1200	1200	174	36	100-400	S+150/158/189	12/24 DC 120/230/400 AC	44/54/65	2-2.7
CAT 33	3000	3000	48	10	100-400	S+150/158/189	12/24 DC 120/230/400 AC	44/54/65	2-2.7
CAT 32B	4000	4000	63	13	50-700	S+167/175/206	12/24 DC 120/230/400 AC	44/54/65	2-3.5
CAT 11	500	500	32	10	50-300	S+90	12/24 DC	54	1.5-2

* Dimension depends on selected front attachment.

CAT 21B



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CAT 21B	600	600	10	5	50-300	S + 100	12/24 DC	X4	0.7-1.5

Type key



Type

Motor assembly:

Right
Left

R
L

Stroke (S):

50 mm
100 mm
200 mm
300 mm
50<S<300 mm (S>300 mm contact SKF)

050
100
200
300
XXX

Rear attachment:

Single ear, hole diameter 6.35 mm
Single ear, hole diameter 8 mm

K1
K2

Front attachment:

Hole diameter 6.35 mm
Hole diameter 8 mm

G1
G2

Options:

No friction clutch

Z

Motor options:

12 V DC
24 V DC

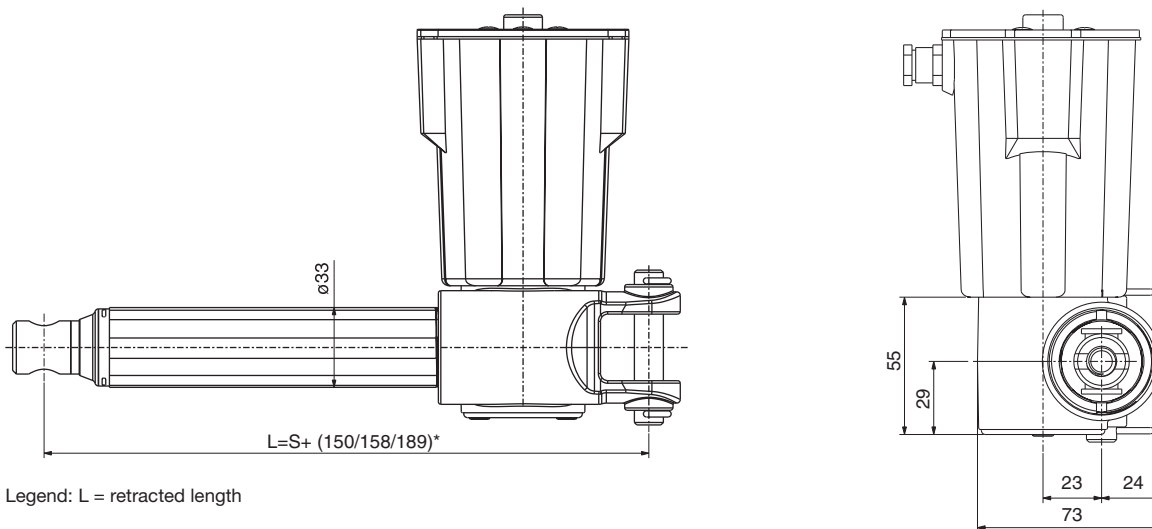
G12C
G24C

Options motors:

Cable, 1.6 m, with plug (jack plug, 1/4" 2-pole)
Cable, 1.6 m, no plug
Motor without cover

P
T
N

CAT33H



Legend: L = retracted length

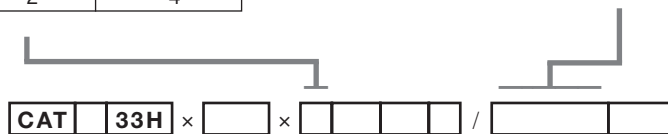
See drawings of front and rear attachments and motor options on page 41

Type	Force		Max. speed		Stroke (S)	Retr. Length* (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CAT 33H	1200	1200	174	36	100 - 400	S + 150/158/189	12/24 DC 230 AC	20/44/54/65	2 - 2.7

* Dimension depends on selected front attachment.

Type key

Dynamic load (N)/ Speed (mm/s)			Motor options	
1200/xx	900/xx	600/xx	No motor	0000
1000/50-38	600/100-80	400/174-150	12 V DC, IP44(65)	C12C
1000/50-38	600/100-80	400/174-150	12 V DC, flat motor, IP44	D12C
1200/56-36	900/113- 79	500/174-140	24 V DC IP44(65)	C24C
1200/27-17	800/60 -35	500/100 -69	24 V DC, low speed, IP44(65)	C24CW
1200/56-36	900/113- 79	500/174-140	24 V DC, flat motor, IP44	D24C
1200/56-36	900/113- 79	500/174-140	24 V DC, flat motor, brake, IP20	D24CB
1200/56-36	900/113- 79	500/174-140	24 V DC, flat motor, ext. shaft, IP44	D24CS
1200/27-17	800/60 -35	500/100 -69	24 V DC, flat motor, IP44	D24CW
1200/20	900/40	600/60	230 V DC/50Hz, IP54	E220C
1200/20	900/40	600/60	230 V AC/50Hz, brake, IP20	E220CB
1	2	4		



Type

Motor assembly:

Right
Left

R
L

Stroke (S):

100 mm
200 mm
300 mm
400 mm
100 < S < 400 mm (S > 400 mm contact SKF)

100
200
300
400
XXX

Rear attachment (see page 41):

Fork ear, ø 12.0 mm
Fork ear, ø 12.7 mm
Single ear, ø 12.0 mm
Single ear, ø 12.7 mm

A1
A2
K1
K2

Front attachment (see page 41):

Hole, ø 12.0 mm
Hole, ø 12.7 mm
Male thread, M12
Female thread, M12
Fork ear, ø 10.1 mm

G1
G2
G3
G4
G5

Options:

Friction clutch
No friction clutch

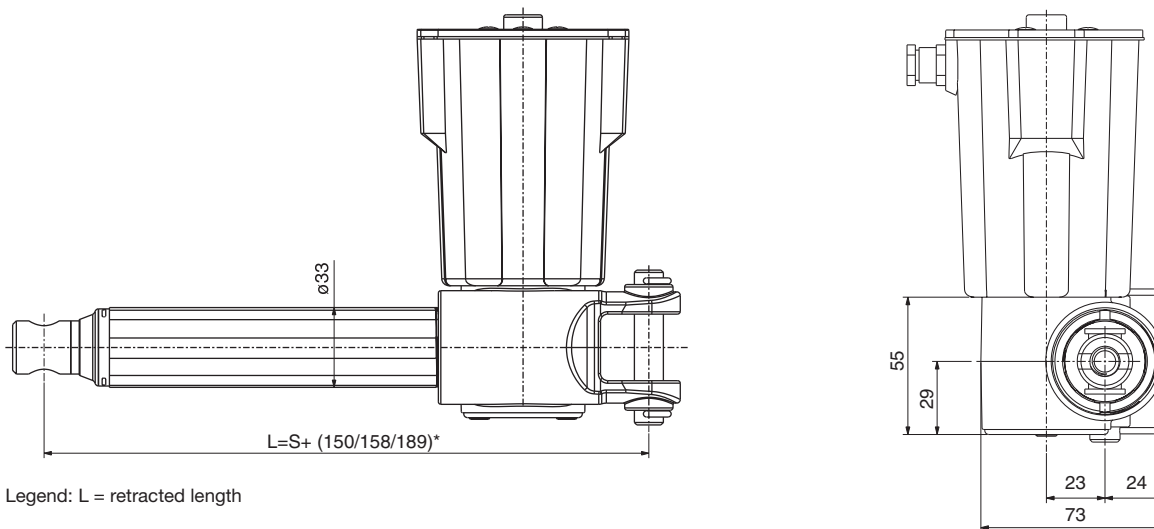
F
Z

Options for CxxC motors:

No cable
EMC filter
Encoder
Motor without cover
IP 65
Straight cable, 2.0m, no plug
Straight cable, 2.0m, jack plug

U
M
E
N
I
T2
T2P

CAT 33



Legend: L = retracted length

See drawings of front and rear attachments and motor options on page 41

Type	Force		Max. speed		Stroke (S)	Retr. Length* (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CAT 33	3000	3000	48	10	100 - 400	S + 150/158/189	12/24 DC 230 AC	20/44/54/65	2 - 2.7

* Dimension depends on selected front attachment.

Type key

Dynamic load (N)/ Speed (mm/s)			Motor options	
3000/xx	2000/xx	1000/xx	No motor	0000
3000/13-10	2000/24-20	1000/48 -38	12 V DC,IP44(65)	C12C
2400/11-7	1600/21-15	800/39-21	12 V DC,flat motor,IP44	D12C
3000/13-10	2000/26-20	1000/48 -35	24 V DC,IP44(65)	C24C
3000/7-5	2000/13-8	1000/26-19	24 V DC,low speed,IP44(65)	C24CW
3000/13-10	2000/26-20	1000/48 -35	24 V DC,flat motor,IP44	D24C
3000/13-10	2000/26-20	1000/48 -35	24 V DC,flat motor,IP44Ext. shaft	D24CS
3000/7-5	2000/13-8	1000/26-19	24 V DC,flat motor,low speed,IP44	D24CW
2400/6	1600/12	800/24	120 V AC/60Hz,IP54	E110C
2400/6	1600/12	800/24	120 V AC/60Hz,IP20	E110CB
3000/5	2000/10	1000/20	230 V AC/50Hz,IP54	E220C
3000/5	2000/10	1000/20	230 V AC/50Hz,IP20	E220CB
3000/5	2000/10	1000/20	380 V AC/50Hz,IP54	E380C
1	2	4		

Type

Motor assembly:
Right
Left

Stroke (S):
100 mm
200 mm
300 mm
400 mm
 100 < S < 400 mm (S > 400 mm contact SKF)

Rear attachment (see page 41):
Fork ear, ø 12.0 mm
 Fork ear, ø 12.7 mm
 Single ear, ø 12.0 mm
 Single ear, ø 12.7 mm

Front attachment (see page 41):
Hole, ø 12.0 mm
 Hole, ø 12.7 mm
Male thread, M12
 Female thread, M12
 Fork ear, ø 10.1 mm

Options:
Friction clutch
 No friction clutch

Options for CxxC motors:
No cable
 EMC filter
 Encoder
 Motor without cover
 IP 65
Straight cable, 2.0m, no plug
 Straight cable, 2.0m, jack plug

CAT 33 × × /

R
L

100
200
300
400
XXX

A1
A2
K1
K2

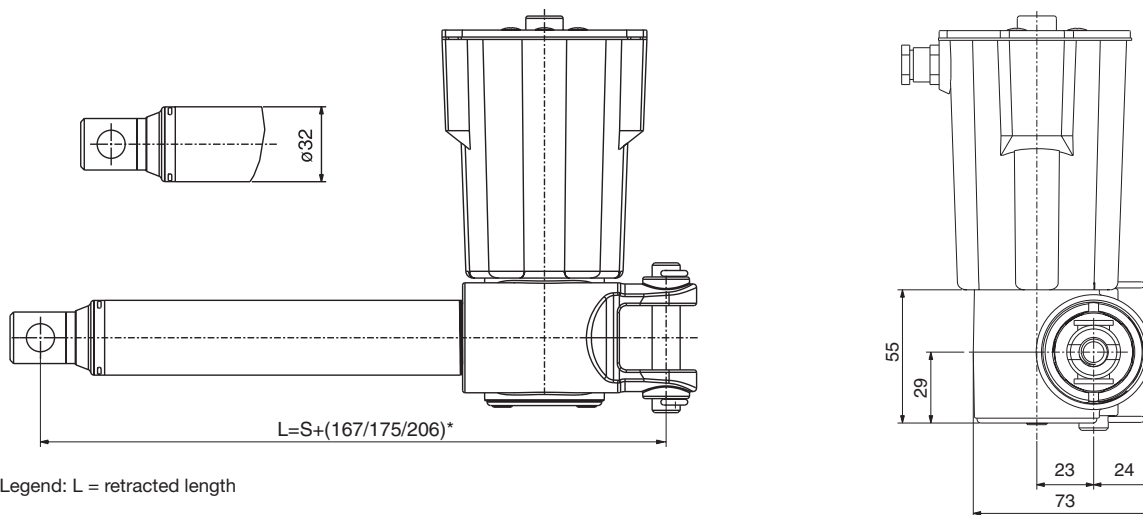
G1
G2
G3
G4
G5

F
Z

U
M
E
N
I
T2
T2P

Options written in BLUE text are included in the Easy Range concept, which is our special service range for quick delivery from stock. A type key made with ALL POSITIONS in BLUE qualifies a product for this service.

CAT32B



Legend: L = retracted length

See drawings of front and rear attachments and motor options on pages 41

Type	Force		Max. speed		Stroke (S)	Retr. Length* (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CAT 32B	4000	4000	67	13	50 - 700	S + 167/175/206	12/24 DC 230 AC	20/44/54/65	2 - 3.5

* Dimension depends on selected front attachment.

Type key

Dynamic load (N)/Speed (mm/s)			Motor options	
4000/xx	2500/xx	1500/xx	No motor	0000
4000/17-12	2500/32 -25	1500/63-48	12 V DC,IP44(65)	C12C
3000/17-11	2000/34-19	1000/67-43	12 V DC,flat motor,IP44	D12C
4000/17-13	2500/33 -24	1500/65-50	24 V DC,IP44(65)	C24C
4000/9-5	2500/18-10	1500/34-24	24 V DC,low speed motor,IP44	C24CW
4000/17-13	2500/33 -24	1500/65-50	24 V DC,flat motor,IP44	D24C
4000/17-13	2500/33 -24	1500/65-50	24 V DC,flat motor,brake,IP20	D24CB
4000/17-13	2500/33 -24	1500/65-50	24 V DC,flat motor,ext.shaft,IP44	D24CS
4000/9-5	2500/18-10	1500/34-24	24 V DC,flat motor,low speed,IP44	D24CW
3500/8	2100/16	1300/32	120 V AC/60Hz,IP54	E110C
3500/8	2100/16	1300/32	120 V AC/60Hz,brake,IP20	E110CB
3500/6,5	2100/13	1300/26	230 V AC/50Hz,IP54	E220C
3500/6,5	2100/13	1300/26	230 V AC/50Hz,brake,IP20	E220CB
3500/6,5	2100/13	1300/26	380 V AC/50Hz,IP54	E380C
1	2	4		

Type CAT 32B × × /

Motor assembly:
Right
Left
R
L

Stroke (S):
50 mm
100 mm
200 mm
300 mm
400 mm
500 mm
700 mm
 50 < S < 700 mm (S > 700 mm contact SKF)
 50
100
200
300
400
500
700
XXX

Rear attachment (see page 41):
Fork ear, ø 12.0 mm
 Fork ear, ø 12.7 mm
 Single ear, ø 12.0 mm
 Single ear, ø 12.7 mm
 A1
A2
K1
K2

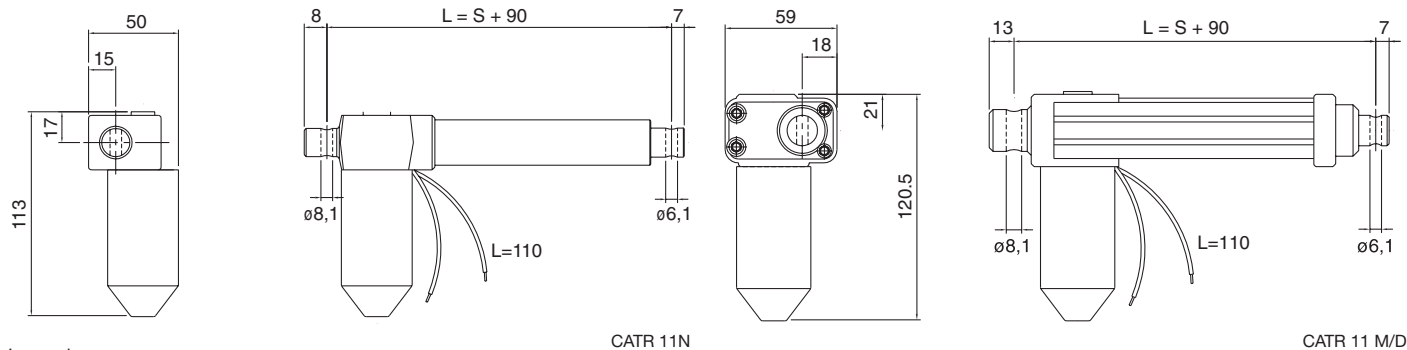
Front attachment (see page 41):
Hole, ø 12.0 mm
 Hole, ø 12.7 mm
Male thread, M12
 Female thread, M12
 Fork ear, ø 10.1 mm
 G1
G2
G3
G4
G5

Options:
Friction clutch
 No friction clutch
 Back-up ball nut
 F
Z
S

Options for CxxC motors:
No cable
 EMC filter
 Encoder
 Motor without cover
 IP 65
Straight cable, 2.0m, no plug
 Straight cable, 2.0m, jack plug
 U
M
E
N
I
T2
T2P

Options written in BLUE text are included in the Easy Range concept, which is our special service range for quick delivery from stock. A type key made with ALL POSITIONS in BLUE qualifies a product for this service.

CAT 11



Legend:
S = stroke
L = retracted length

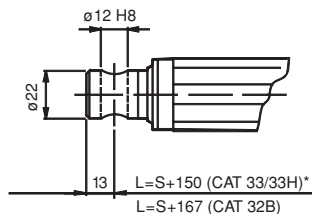
Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CAT(R/L) 11A	500	500	16	10	50 - 300	S + 90	12/24 DC	54	1.5 - 2
CAT(R/L) 11H	250	250	32	25	50 - 300	S + 90	12/24 DC	54	1.5 - 2

Type key

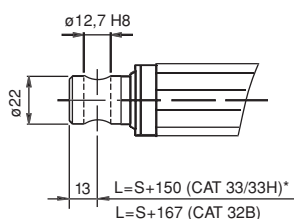
Type	CAT	11	x	/			
Motor assembly: Right (as drawing) Left					R	L	
Load(N)/Speed(mm/s): 500/16 - 10 250/32 - 25						A	H
Stroke(S): 50 mm 100 mm 200 mm 300 mm							50 100 200 300
Motor voltage: 12 V DC 24 V DC							12 24
Options: No limit switch Limit switch with cables Limit switch with diodes (internally connected)							N M D
Rear attachments: Hole, ø 8,1 mm (orientation as drawing) Hole, ø 8,1 mm (orientation 90°)							0 9

Page with all detailed drawings of CAT 32B, CAT 33 and CAT 33H

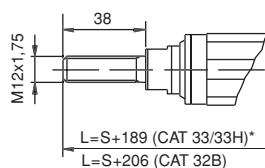
Front attachments and retracted length



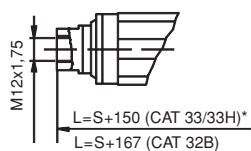
G1



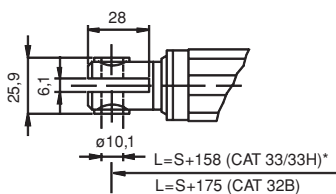
G2



G3



G4

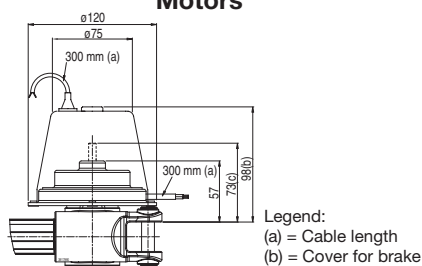


G5

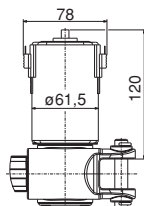
Legend:
S = stroke
L = retracted length

* If S = 400 add 50 mm to retracted length.

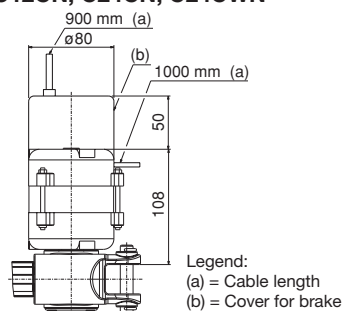
Motors



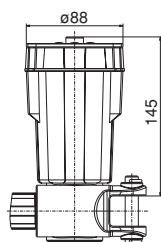
D12C, D24C, D24CB, D24CS, D24CW



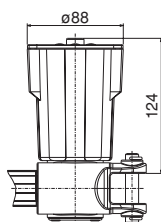
C12CN, C24CN, C24CWN



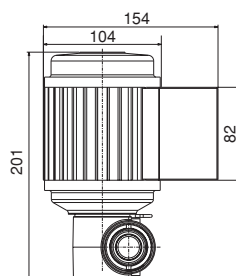
E110C, E110CB, E220C, E220CB



C12CM, C12CME, C24CM, C24CME, C24CWM, C24CWME

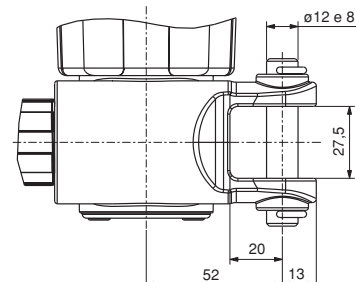


C12C, C24C, C24CW

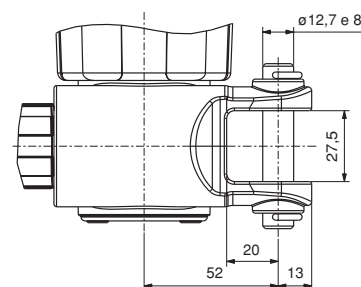


E380C

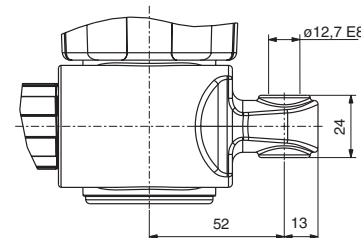
Rear attachments



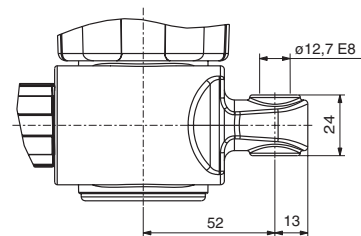
A1



A2



K1



K2

CAP

The base for CAP positioning actuator series is the existing CAR linear actuator series and CAT Modular Range with a vast number of possibilities such as motors, front & rear attachments etc. Positioning accuracy and service life is ensured by detecting the position directly on the moving nut and by keeping the moving parts to a minimum.

Benefits:

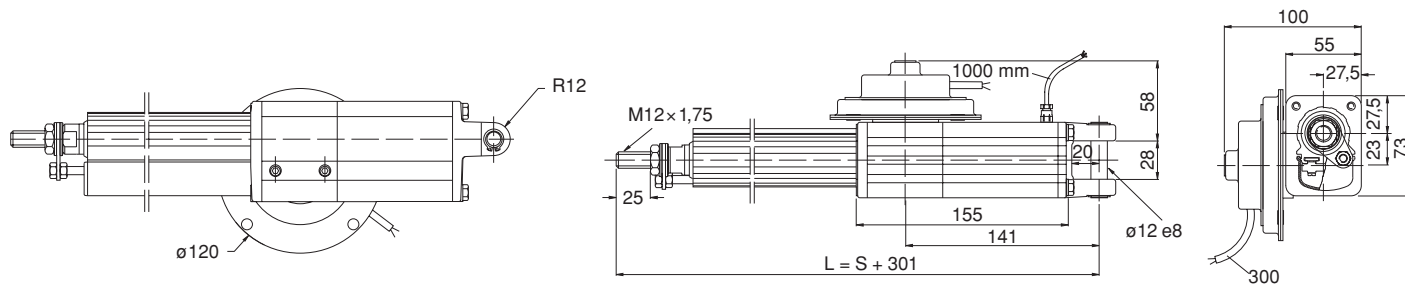
- Easy installation
- Robust and reliable
- Maintenance-free
- Left and right hand version



Type	Force		Max. speed		Stroke (S)	Retr. Length* (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CAP 32	3500	3500	60	10	50 - 700	S + 301	12/24 DC 120/230 AC	20/44/54	2.1-3.7
CAP 43A	3000	3000	48	10	100 - 400	S + 150/158/189	24 DC	44/65	2.0-2.7
CAP 43B	4000	4000	65	13	50 - 700	S + 167/175/206	24 DC	44/65	2.0-3.5

* Dimension depends on selected front attachment.

CAP 32



Legend:
S = stroke
L = retracted length

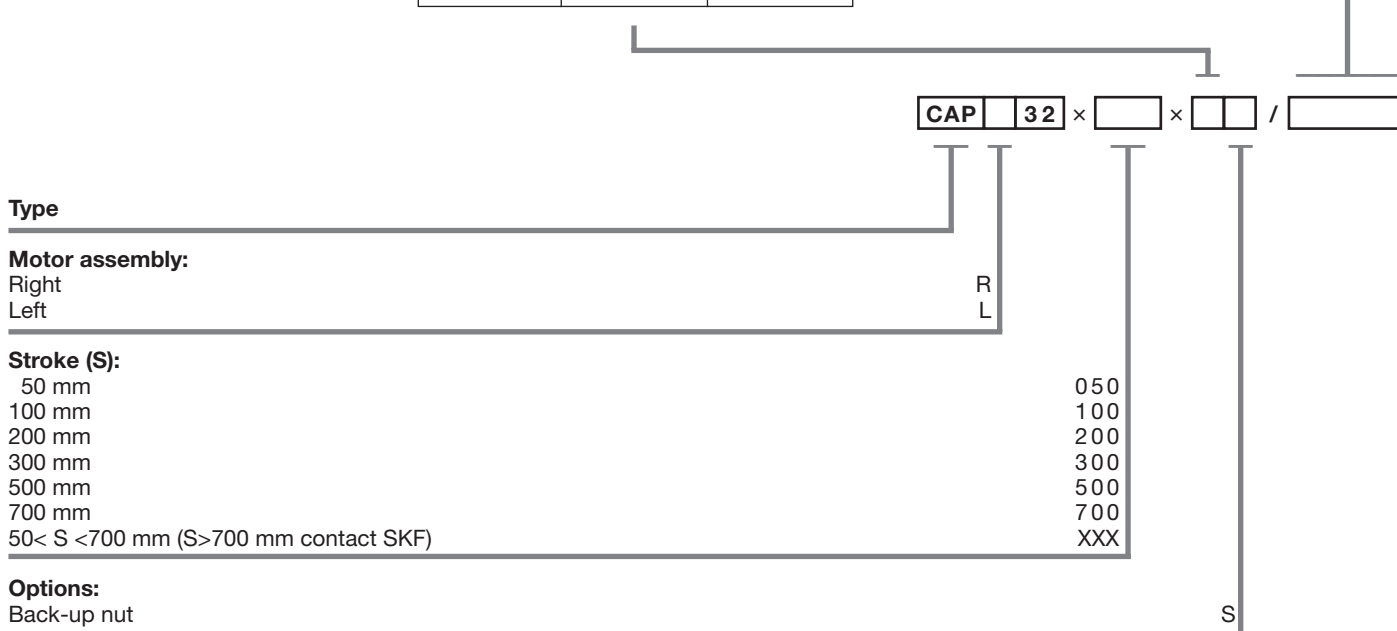
See drawings of front and rear attachments and motor options on pages 46.

Type	Force		Max. speed		Stroke (S)	Retr. Length* (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CAP 32	3500	3500	60	10	50 - 700	S + 301	12/24 DC 120/230 AC	44/54	2.1-3.7

* Dimension depends on selected front attachment.

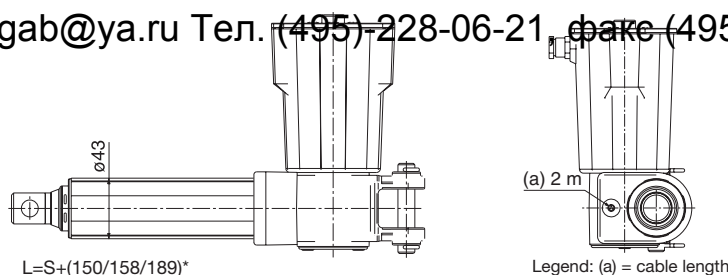
Type key

Dynamic load / Speed (N)/(mm/s)			Motor options	
3500/xx	2500/xx	1500/xx	No motor	0000
2500/15 - 10	2000/30 - 20	1000/60 - 40	12 V DC, flat motor, IP44	D12C
3500/15 - 10	2500/30 - 20	1500/60 - 40	24 V DC, flat motor, IP44	D24C
3500/9 - 5	2500/18 - 10	1500/34 - 24	24 V DC, flat motor, low speed, IP44	D24CW
3500/15 - 10	2500/30 - 20	1500/60 - 40	24 V DC, flat motor, extended shaft, IP44	D24CS
3500/15 - 10	2500/30 - 20	1500/60 - 40	24 V DC, flat motor, brake, IP20	D24CB
3500/8	2500/16	1500/32	120 V AC/60Hz, single phase, IP54	E110C
3500/8	2500/16	1500/32	120 V AC/60Hz, single phase, brake, IP20	E110CB
3500/6	2500/13	1500/26	230 V AC/50Hz, single phase, IP54	E220C
3500/6	2500/13	1500/26	230 V AC/50Hz, single phase, brake, IP20	E220CB
1	2	4		



CAP 43A

See drawings of front and rear attachments and motor options on page 46

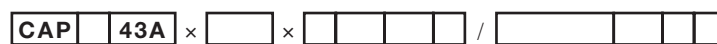


Type	Force		Max. speed		Stroke (S)	Retr. Length* (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CAP 43A	3000	3000	48	10	50 - 400	S + 150/158/189	24 DC	44/65	2 - 2.7

* Dimension depends on selected front attachment.

Type key

Dynamic load (N)/ Speed (mm/s)			Motor options	
3000/xx	2000/xx	1000/xx	No motor	00000
3000/7-5	2000/13-8	1000/26-19	24 V DC, IP44(65)	C24CW
3000/7-5	2000/13-8	1000/26-19	24 V DC, flat motor, low speed, IP44	D24CW
3000/13-10	2000/26 -20	1000/48 -35	24 V DC, IP44(65)	C24C
3000/13-10	2000/26 -20	1000/48 -35	24 V DC, flat motor, IP44	D24C
1	2	4		



Type

Motor assembly:
 Right R
 Left L

Stroke (S):
 100 mm 100
 200 mm 200
 300 mm 300
 400 mm 400

Rear attachment (see page 46):
 Fork ear, ø = 12.0 mm A1
 Fork ear, ø = 12.7 mm A2
 Single ear, ø = 12.0 mm K1
 Single ear, ø = 12.7 mm K2

Front attachment (see page 46):
 Hole, ø = 12.0 mm G1
 Hole, ø = 12.7 mm G2
 Male thread, M12 G3
 Female thread, M12 G4
 Fork ear, ø = 10.1 mm G5

Options:
 Friction clutch F

Cable options for C24C(W) motors:
 No cable U
 Straight, 2.0m T2

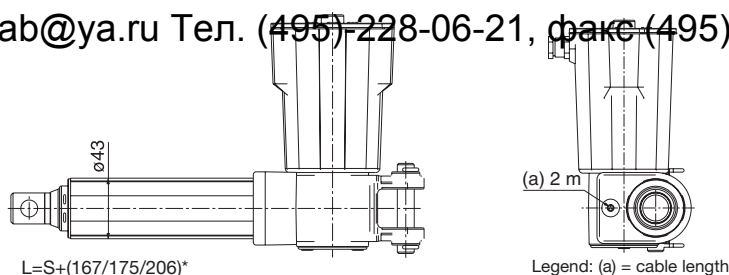
Options for motor:
 EMC filter M

Options motor protection:
 Motor without cover N
 Protection class IP 65 (always order motor cable when selecting IP65) I



CAP 43B

See drawings of front and rear attachments and motor options on page 46



Type	Force		Max. speed		Stroke (S)	Retr. Length* (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CAP 43B	4000	4000	65	13	50 - 700	S + 167/175/206	24 DC	44/65	2 - 3.5

* Dimension depends on selected front attachment.

Type key

Dynamic load (N)/Speed (mm/s)			Motor options	
4000/xx	2500/xx	1500/xx	No motor	0000
4000/17-13	2500/33 -24	1500/65-50	24 V DC, IP44(65)	C24C
4000/9-5	2500/18-10	1500/34-24	24 V DC, low speed, IP44(65)	C24CW
4000/17-13	2500/33 -24	1500/65-50	24 V DC, flat motor, IP44	D24C
4000/9-5	2500/18-10	1500/34-24	24 V DC, flat motor, low speed, IP44	D24CW
1	2	4		



Type

Motor assembly:

- Right
- Left

R
L

Stroke (S):

- 50 mm
- 100 mm
- 200 mm
- 300 mm
- 400 mm
- 500 mm
- 700 mm

- 50
- 100
- 200
- 300
- 400
- 500
- 700

Rear attachment (see page 46):

- Fork ear, $\phi = 12.0$ mm
- Fork ear, $\phi = 12.7$ mm
- Single ear, $\phi = 12.0$ mm
- Single ear, $\phi = 12.7$ mm

- A1
- A2
- K1
- K2

Front attachment (see page 46):

- Hole, $\phi = 12.0$ mm
- Hole, $\phi = 12.7$ mm
- Male thread, M12
- Female thread, M12
- Fork ear, $\phi = 10.1$ mm

- G1
- G2
- G3
- G4
- G5

Options:

- Friction clutch
- Back-up nut

F
S

Cable options for C24C(W) motors:

- No cable
- Straight, 2.0m

U
T2

Options for motor:

- EMC filter

M

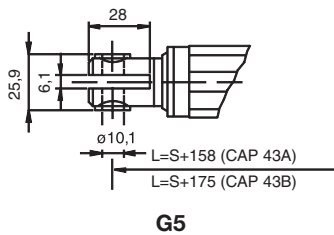
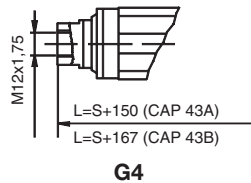
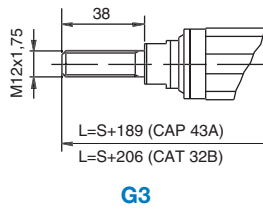
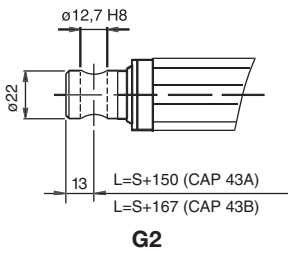
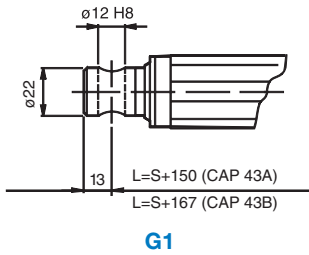
Options motor protection:

- Motor without cover
- Protection class IP 65 (always order motor cable when selecting IP65)

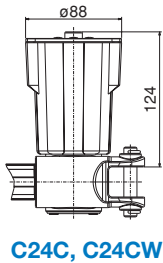
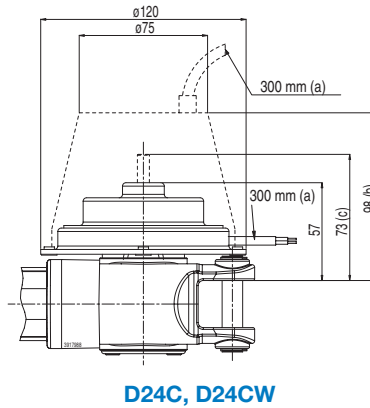
N
I

Detailed drawings of attachments and motor options for CAP 43 + motor options for CAP 32.

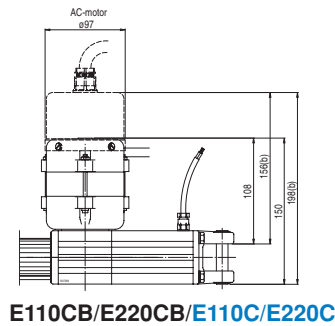
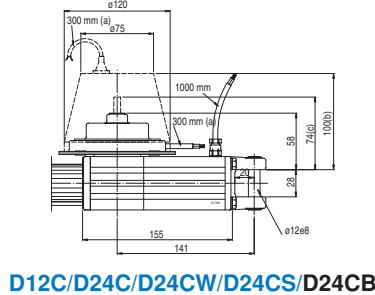
Front attachments and retracted length



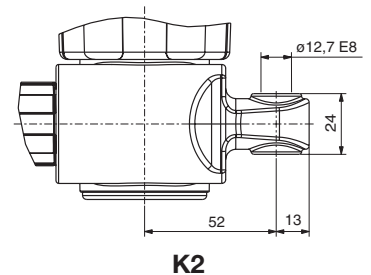
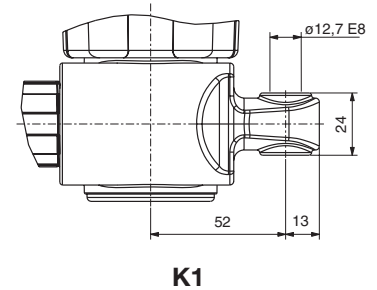
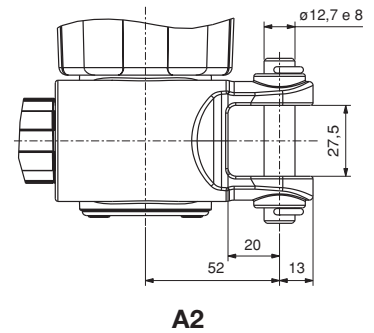
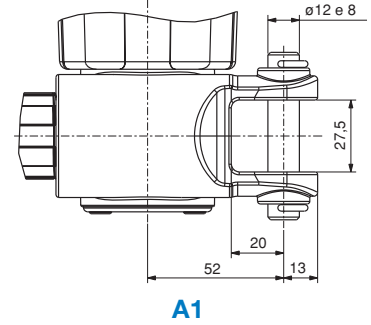
Motor options CAP 43



Motor options CAP 32



Rear attachments



Legend:
 (a) = Cable length
 (b) = Cover for brake (D24CB)
 (c) = D24CS version
 S = stroke
 L = retracted length



CAR

The CAR range of industrial type actuators offers a unique standard of performance, durability, and reliability. The compact design incorporates well-proven parts, like the SKF high efficiency ball screw, a sturdy gearbox assembly, and high quality DC and AC-motors. All to give the best performance possible with extensive operational life. Individual application requirements can easily be matched thanks to the modular design concept.



Benefits:

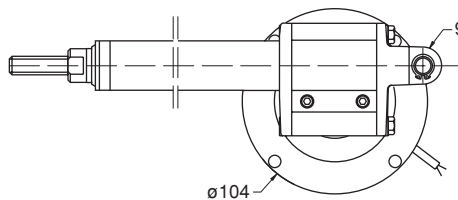
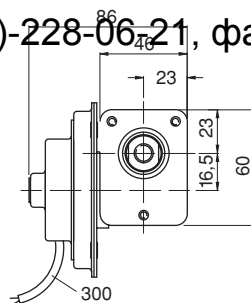
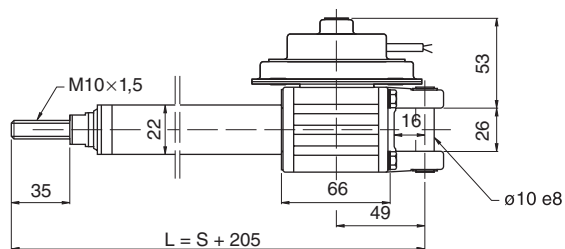
- Robust and reliable
- Long lifetime
- Wide component range
- Right-hand and left-hand versions

Type	Force		Max. speed		Stroke (S)	Retr. Length* (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CAR 22	1500	1500	30	10	50 - 300	S+205	12/24 DC	44	1.2 - 1.6
CAR 32	3500	3500	60	10	50 - 700	S+218	12/24 DC 120/230 AC	20/44/54	2.1 - 3.7
CAR 40	6000	6000	60	10	100 - 700	S+263	12/24 DC 120/230 AC	20/44/54	5.8 - 8.4
CARN 32	3500	3500	N/A	N/A	N/A	S+218	N/A	N/A	2.0 - 3.6
CCBR 32	3500	3500	N/A	N/A	N/A	S+177	N/A	N/A	1.1 - 1.5

* Dimension depends on selected front attachment.

CAR 22

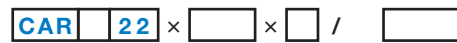
Legend:
S = stroke
L = retracted length



Type	Force push	Force pull	Max. speed no load	Max. speed full load	Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CAR 22	1500	1500	30	10	50 - 300	S + 205	12/24 DC	44	1.2 - 1.6

Type key

Dynamic load (N)/ Speed (mm/s)		Motor options	
1500/xx	1000/xx	No motor	0000
1500/15 - 10	1000/30 - 20	12 V DC, flat motor, IP44	D12B
1500/15 - 10	1000/30 - 20	24 V DC, flat motor, IP44	D24B
1	2		



Type

Motor assembly:

Right

Left

Stroke (S):

50 mm

100 mm

150 mm

200 mm

300 mm

50 < S < 300 (> 300 mm contact SKF)

50

100

150

200

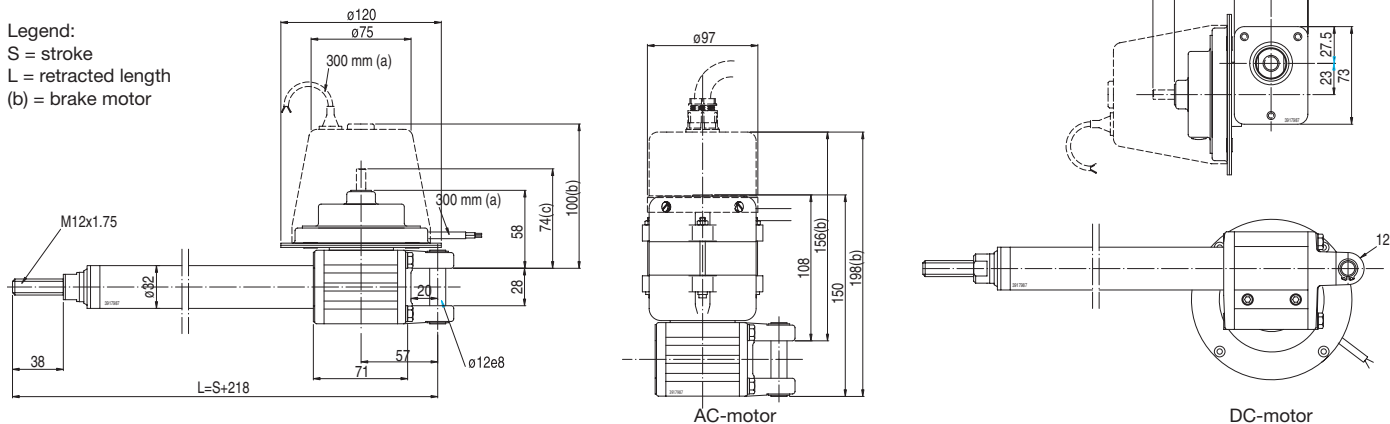
300

XXX

Options written in BLUE text are included in the Easy Range concept, which is our special service range for quick delivery from stock. A type key made with ALL POSITIONS in BLUE qualifies a product for this service.

CAR 32

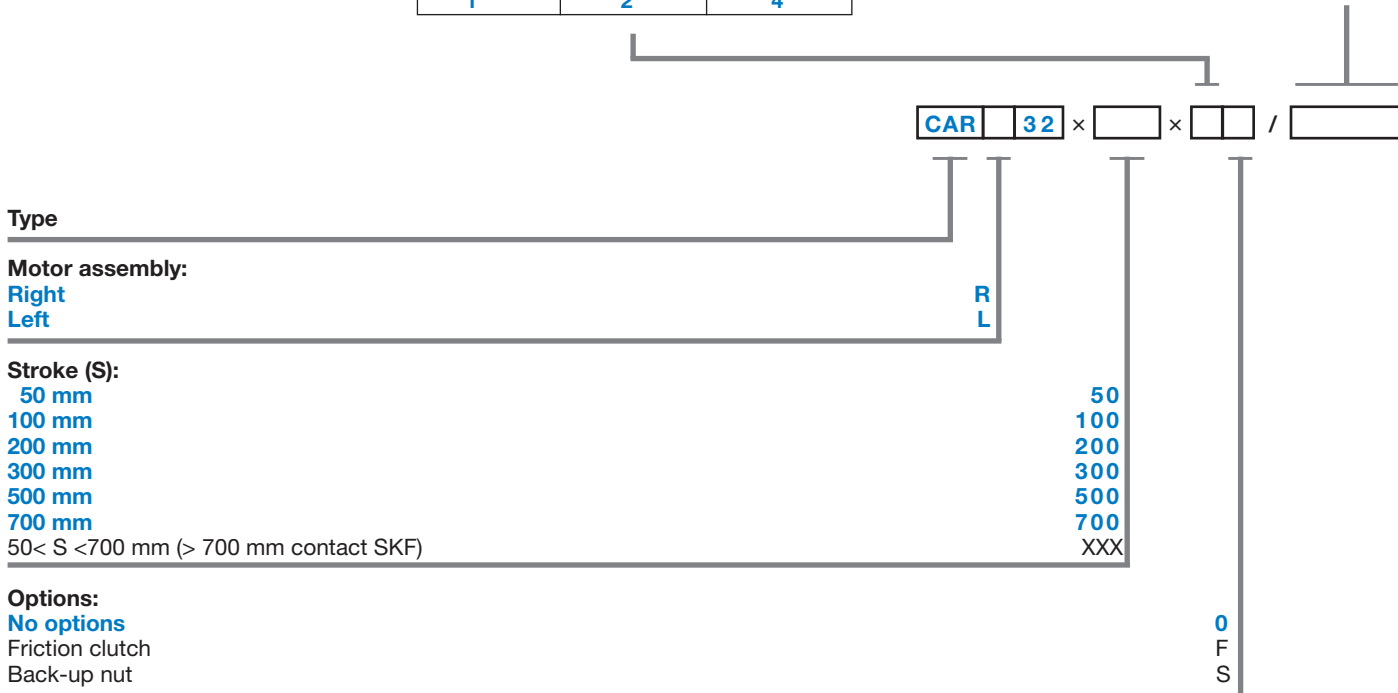
Legend:
 S = stroke
 L = retracted length
 (b) = brake motor



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CAR 32	3500	3500	60	10	50 - 700	S + 218	12/24 DC 120/230 AC	20/44/54	2.1 - 3.7

Type key

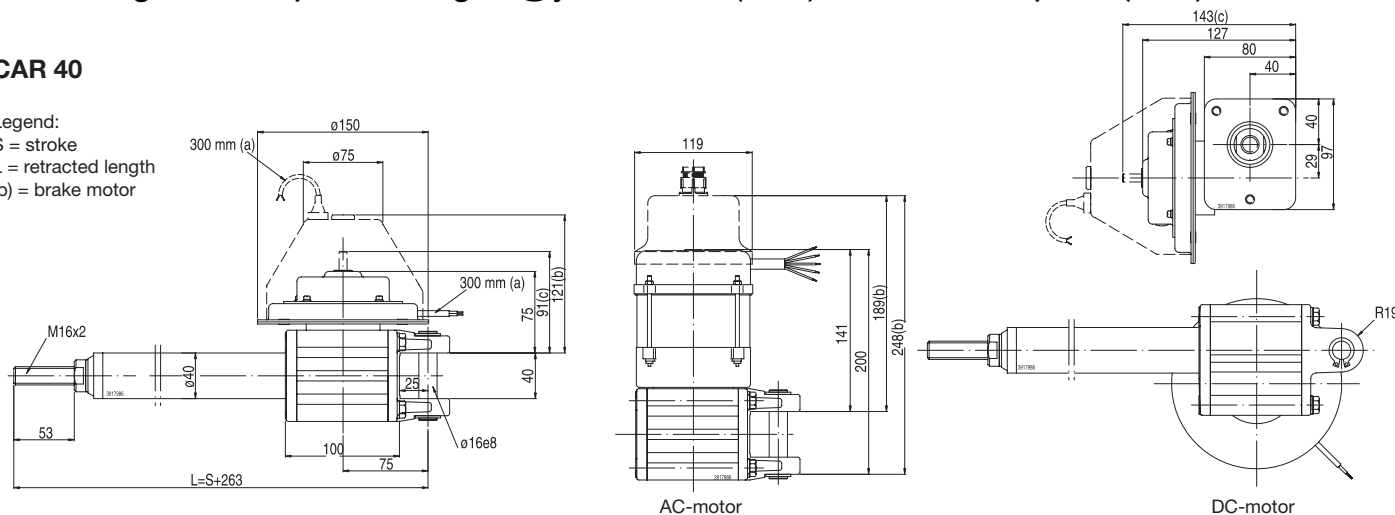
Dynamic load/Speed (N)/(mm/s)			Motor options	
3500/xx	2500/xx	1500/xx	No motor	0000
2500/15 - 10	2000/30 - 20	1000/60 - 40	12 V DC, flat motor, IP44	D12C
3500/15 - 10	2500/30 - 20	1500/60 - 40	24 V DC, flat motor, IP44	D24C
3500/9 - 5	2500/18 - 10	1500/34 - 24	24 V DC, flat motor, low speed, IP44	D24CW
3500/15 - 10	2500/30 - 20	1500/60 - 40	24 V DC, flat motor, extended shaft, IP44	D24CS
3500/15 - 10	2500/30 - 20	1500/60 - 40	24 V DC, flat motor, brake, IP20	D24CB
3500/8	2500/16	1500/32	120 V AC/60Hz, single phase, IP54	E110C
3500/8	2500/16	1500/32	120 V AC/60Hz, single phase, brake, IP20	E110CB
3500/6	2500/13	1500/26	230 V AC/50Hz, single phase, IP54	E220C
3500/6	2500/13	1500/26	230 V AC/50Hz, single phase, brake, IP20	E220CB
1	2	4		



Options written in BLUE text are included in the Easy Range concept, which is our special service range for quick delivery from stock. A type key made with ALL POSITIONS in BLUE qualifies a product for this service.

CAR 40

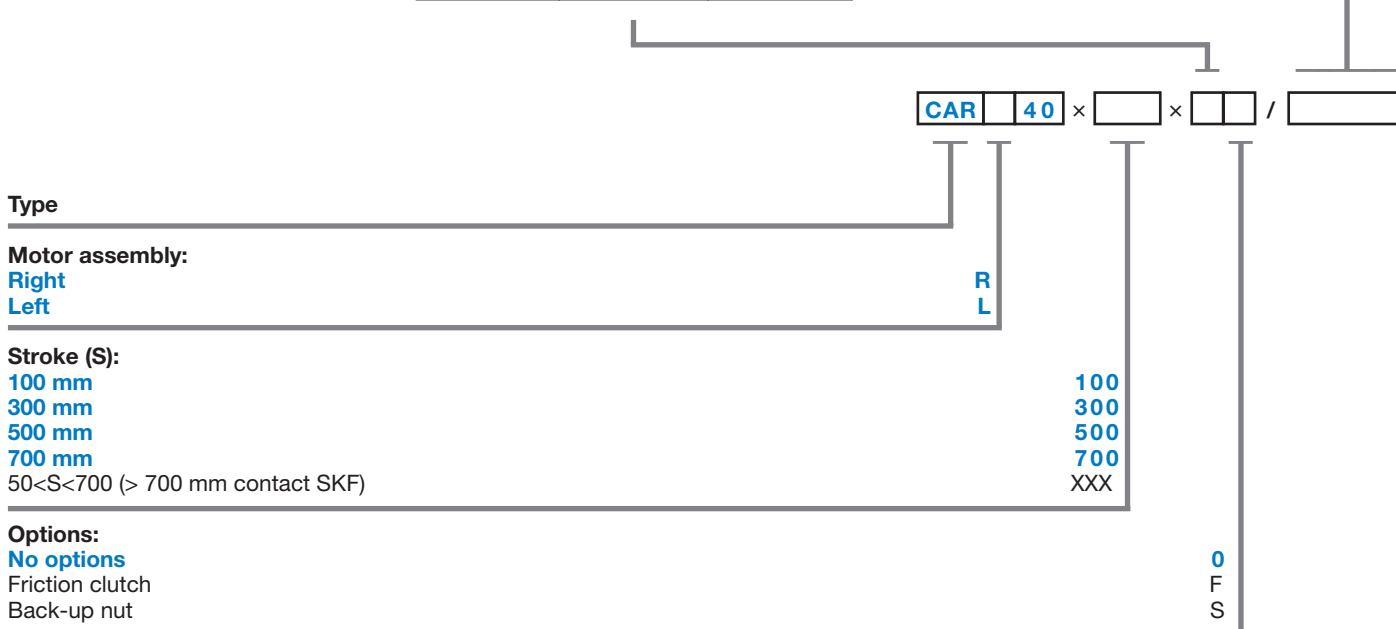
Legend:
 S = stroke
 L = retracted length
 (b) = brake motor



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CAR 40	6000	6000	60	10	100 - 700	S + 263	12/24 DC 120/230 AC	20/44/54	5.8 - 8.4

Type key

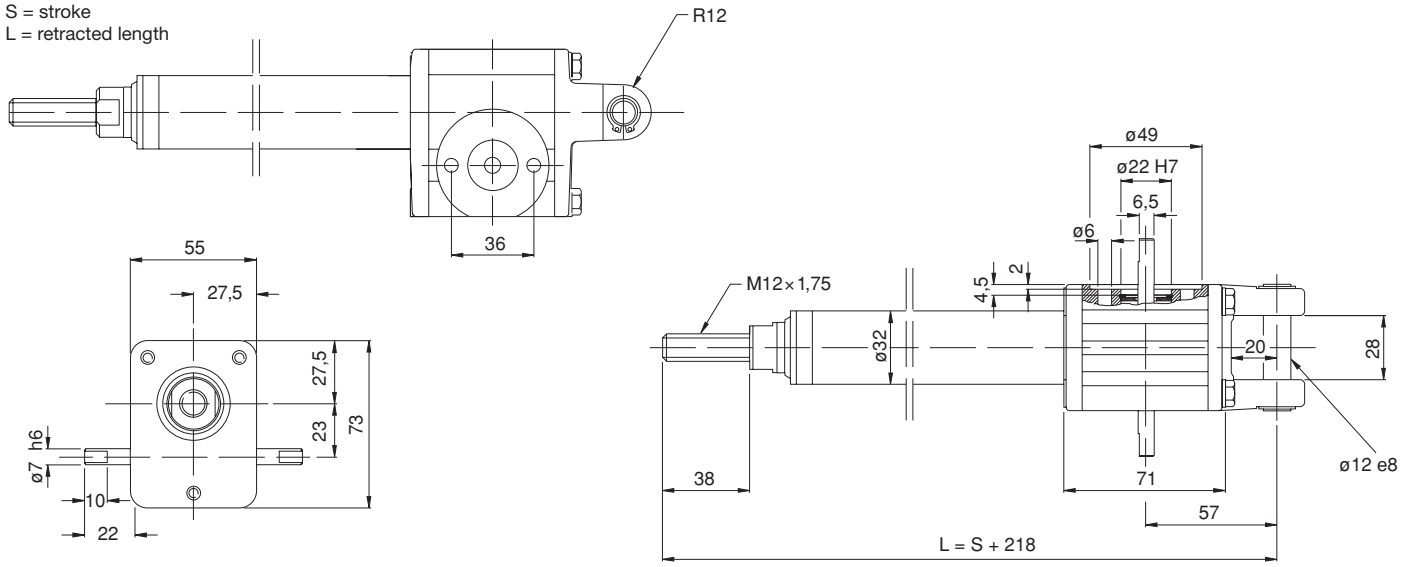
Dynamic load / Speed (N)/(mm/s)			Motor options	
6000/xx	4000/xx	2000/xx	No motor	0000
6000/15 - 10	4000/30 - 20	2000/60 - 40	24 V DC, flat motor, IP44	D24D
6000/15 - 10	4000/30 - 20	2000/60 - 40	24 V DC, flat motor, brake, IP20	D24DB
6000/10	4000/20	2000/40	120 V AC/60Hz, single phase, IP54	E110D
6000/10	4000/20	2000/40	120 V AC/60Hz, single phase, brake, IP20	E110DB
6000/9	4000/17	2000/34	230 V AC/50Hz, single phase, IP54	E220D
6000/9	4000/17	2000/34	230 V AC/50Hz, single phase, brake, IP20	E220DB
1	2	4		



Options written in BLUE text are included in the Easy Range concept, which is our special service range for quick delivery from stock. A type key made with ALL POSITIONS in BLUE qualifies a product for this service.

CARN 32

Legend:
S = stroke
L = retracted length



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CARN 32	3500	3500	N/A	N/A	50 - 700	S + 218	N/A	N/A	2.0-3.6

Type key



Type

Stroke (S):

- 50 mm
- 100 mm
- 200 mm
- 300 mm
- 500 mm
- 700 mm
- 50 < S < 700 mm (> 700 mm contact SKF)

- 50
- 100
- 200
- 300
- 500
- 700
- XXX

Gear ratio:

- 25 : 1
- 12.5 : 1
- 6.25 : 1

- 1
- 2
- 4

Options:

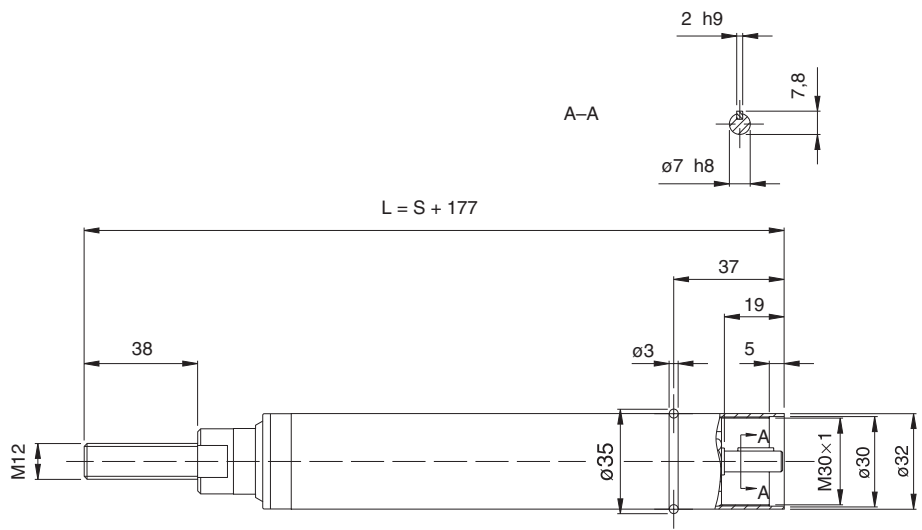
- Friction clutch
- Back-up nut

- F
- S



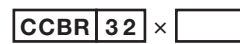
CCBR 32

Legend:
 S = stroke
 L = retracted length



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CCBR 32	3500	3500	N/A	N/A	50 - 300	S+177	N/A	N/A	1.1-1.5

Type key



Type

Stroke (S):

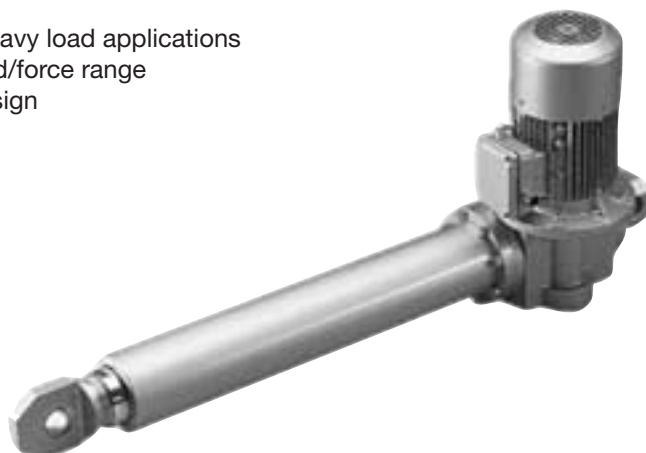
50 mm	50
100 mm	100
200 mm	200
300 mm	300
500 mm	500
700 mm	700
50 < S > 700 mm (> 700 mm contact SKF)	XXX

MAGFORCE

The MAGFORCE line consists of spindle lifting drives with worm gears. They fulfil the highest demands for industrial and other applications. The drives are available in several different motor versions. MAGFORCE offers strong, fast and quiet movements with high safety and duty cycle. The drives include many interface options as hall encoder, end switch, extended shaft etc.

Benefits:

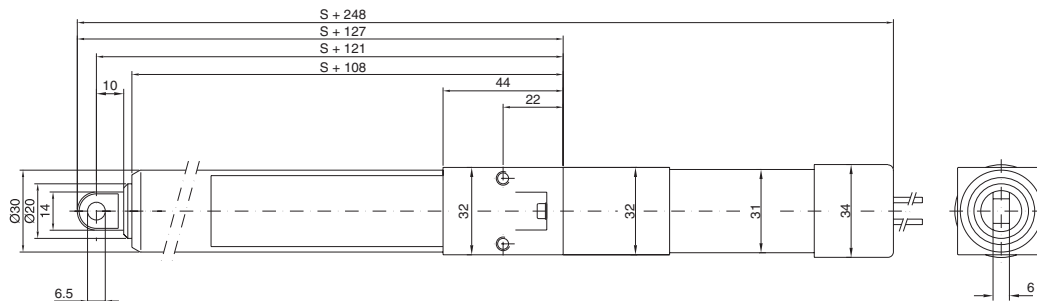
- Ideal for heavy load applications
- Wide speed/force range
- Robust design



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
GTD 0220	200	200	30	25	50-300	S+99	24 DC	00	0.9
WSP 0510	500	500	68	57	100-700	S+230	230 AC	54	5.7
WSP 1030	1000	1000	23	19	100-700	S+230	230 AC	54	5.7
DSP 1010	1000	1000	62	52	100-700	S+230	3x400 AC	54	5.6
ASM 1010	1000	1000	58	48	100-700	S+230	12/ 24 DC	44	5.0
WSP 1550	1500	1500	13	11	100-700	S+230	230 AC	54	5.7
ASM 2030	2000	2000	22	18	100-700	S+230	12/ 24 DC	44	5.0
DSP 2530	2500	2500	20	17	100-700	S+230	3x400 AC	54	5.6
WSP 2650	2600	2600	6.5	5.4	100-700	S+230	230 AC	54	5.7
ASM 3030	3000	3000	9.6	8	100-700	S+230	12/ 24 DC	44	5.0
DSP 3250	3200	3200	12	10	100-700	S+230	3x400 AC	54	5.6
ASM 4050	4000	4000	6	5	100-700	S+230	12/ 24 DC	44	5.0
DSP 4550	4500	4500	6	5	100-700	S+230	3x400 AC	54	5.6
STW 5007	5000	5000	14	12	100-700	S+273	230 AC	54	14.6
SKG 6005	6000	6000	66	55	100-700	S+273	24 DC	54	14.6
STW 7010	7000	7000	9.6	8	100-700	S+273	230 AC	54	14.6
STW 10020	10000	10000	5.2	4.3	100-700	S+273	230 AC	54	14.6
STG 10007	10000	10000	17	14	100-700	S+273	24 DC	54	14.6
STD 10007	10000	10000	12	10	100-700	S+273	3x400 AC	54	16.3
SKG 10010	10000	10000	36	30	100-700	S+273	24 DC	54	14.6
SKD 10007	10000	10000	30	25	100-700	S+273	3x400 AC	54	14.6
SKD 12010	12000	12000	25	21	100-700	S+273	3x400 AC	54	14.6
STG 12010	12000	12000	13	11	100-700	S+273	24 DC	54	14.6
STD 12010	12000	12000	9	7.5	100-700	S+273	3x400 AC	54	16.3
SKG 13020	13000	13000	18	15	100-700	S+273	24 DC	54	14.6
SKG 15040	15000	15000	9.6	8	100-700	S+273	24 DC	54	14.6
SKD 15020	15000	15000	13.2	11	100-700	S+273	3x400 AC	54	14.6
SKD 15040	15000	15000	6.3	5.3	100-700	S+273	3x400 AC	54	14.6
STW 15040	15000	15000	2.4	2	100-700	S+273	230 AC	54	14.6
STG 15040	15000	15000	3.6	3	100-700	S+273	24 DC	54	14.6
STG 15020	15000	15000	6	5	100-700	S+273	24 DC	54	14.6
STD 15040	15000	15000	2.6	2.2	100-700	S+273	3x400 AC	54	16.3
STD 15020	15000	15000	4.8	4	100-700	S+273	3x400 AC	54	16.3
SKS 15404	15000	15000	54	45	100-700	S+165	3x400 AC	54	30.0
SLA 18006	18000	18000	88	74	100-700	S+446	3x400 AC	54	40.0
SKS 20406	20000	20000	41	34	100-700	S+165	3x400 AC	54	30.0
SKS 25412	25000	25000	20	17	100-700	S+165	3x400 AC	54	30.0
SKS 30423	30000	30000	11	9.7	100-700	S+165	3x400 AC	54	30.0
SLA 34013	34000	34000	43	36	100-700	S+446	3x400 AC	54	40.0
SLA 50020	50000	50000	27	23	100-700	S+446	3x400 AC	54	40.0
SLA 50028	50000	50000	19	16	100-700	S+446	3x400 AC	54	40.0
SLA 50050	50000	50000	10.5	9	100-700	S+446	3x400 AC	54	40.0

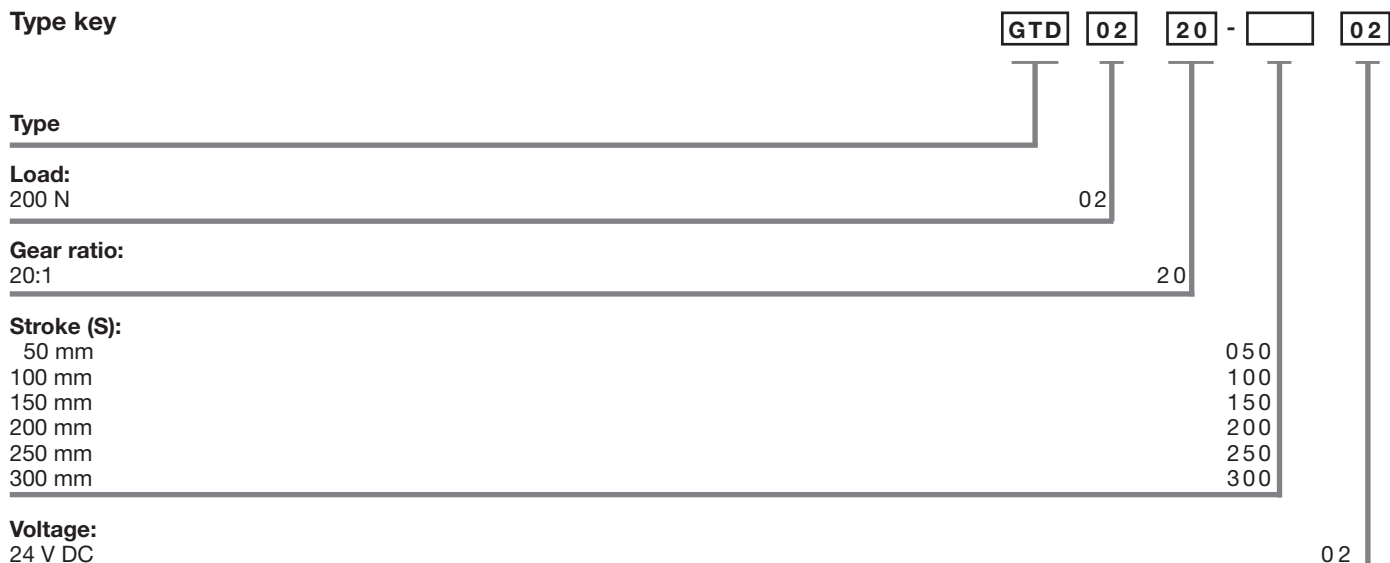
MAGFORCE GTD

Legend:
S = stroke



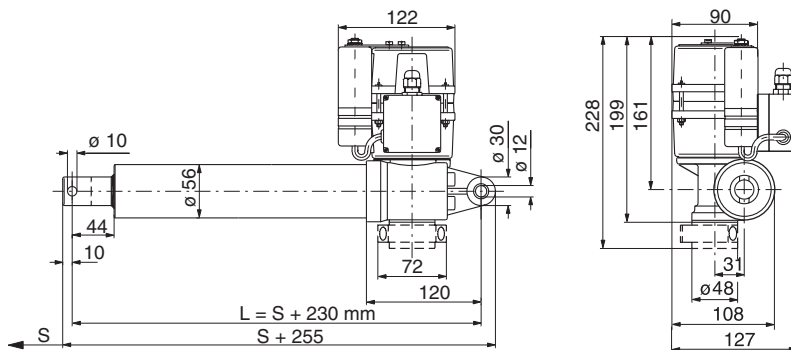
Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
GTD 0220	200	200	30	25	50 - 300	S+99	24 DC	00	0.9

Type key



MAGFORCE WSP

Legend:
S = stroke
L = retracted length



Type	Force		Speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
WSP 0510	500	500	68	57	100-700	S+230	120/230 AC	54	5.7
WSP 1030	1000	1000	23	19	100-700	S+230	120/230 AC	54	5.7
WSP 1550	1500	1500	13	11	100-700	S+230	120/230 AC	54	5.7
WSP 2650	2600	2600	6.5	5.4	100-700	S+230	120/230 AC	54	5.7

Type key

Type

Load/Speed

500 N / 57 mm/s
1000 N / 19 mm/s
1500 N / 11 mm/s
2600 N / 5.4 mm/s

Stroke (S):

100 mm
200 mm
 300 mm
 400 mm
 500 mm
 600 mm
 700 mm



0510
1030
1550
2650

100
200
 300
 400
 500
 600
 700

Customer options:

Standard

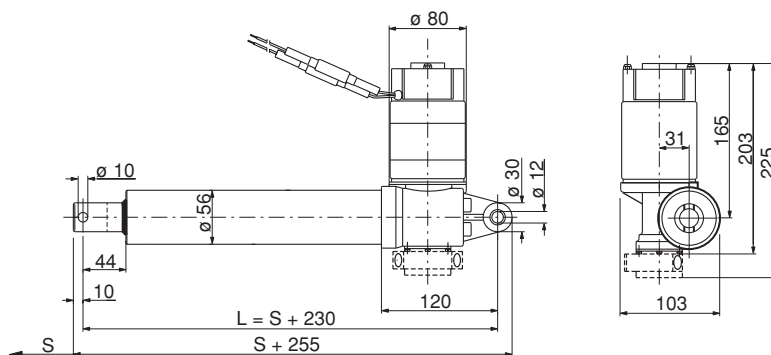
Brake for self-locking on push
 Extended shaft
 Brake for self-locking on pull
 Bronze nut / Low temperature grease / Extended shaft
 Others (brake, limit switch, ext. motorshaft, incr. encoder, potentiometer, ...)

01
 03
 16
 24
 81
 XX

Options written in BLUE text are included in the Easy Range concept, which is our special service range for quick delivery from stock. A type key made with ALL POSITIONS in BLUE qualifies a product for this service.

MAGFORCE ASM

Legend:
S = stroke
L = retracted length



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
ASM 1010	1000	1000	58	48	100 - 700	S + 230	12/24 DC	44	5.0
ASM 2030	2000	2000	22	18	100 - 700	S + 230	12/24 DC	44	5.0
ASM 3030	3000	3000	9.6	8	100 - 700	S + 230	12/24 DC	44	5.0
ASM 4050	4000	4000	6	5	100 - 700	S + 230	12/24 DC	44	5.0

Type key

Type

Load/Speed:

1000 N / 48 mm/s
2000 N / 18 mm/s
3000 N / 8 mm/s
4000 N / 5 mm/s

Stroke (S):

100 mm
200 mm
300 mm
400 mm
500 mm
600 mm
700 mm

Customer options:

12 V DC
24 V DC
24 V DC / Brake for self-locking on push
24 V DC / Bronze nut / Low temperature grease
24 V DC / Brake for self-locking on push and pull
24 V DC / Brake for self-locking on push and pull / Low temperature grease
24 V DC / Low temperature grease
24 V DC / Extended shaft
Others (brake, limit switch, ext. motorshaft, incr. encoder, potentiometer, ...)

ASM - - -

1010
2030
3030
4050

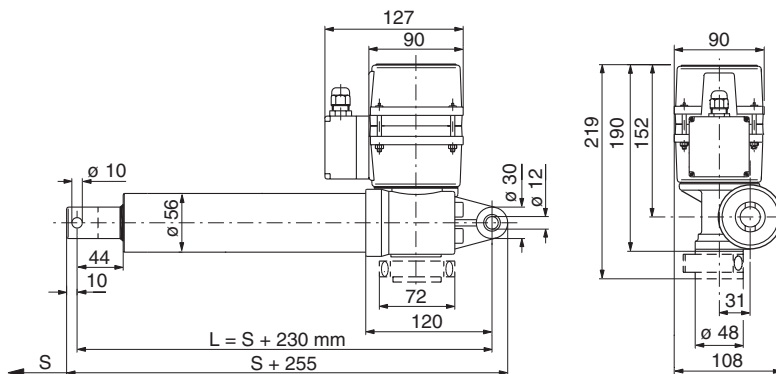
100
200
300
400
500
600
700

01
02
06
07
09
13
14
16
XX

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MAGFORCE DSP

Legend:
 S = stroke
 L = retracted length



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
DSP 1010	1000	1000	62	52	100-700	S+230	3x400 AC	54	5.6
DSP 2530	2500	2500	20	17	100-700	S+230	3x400 AC	54	5.6
DSP 3250	3200	3200	12	10	100-700	S+230	3x400 AC	54	5.6
DSP 4550	4500	4500	6	5	100-700	S+230	3x400 AC	54	5.6

Type key

Type

Load/Speed

1000 N / 52 mm/s
 2500 N / 17 mm/s
 3200 N / 10 mm/s
 4500 N / 5 mm/s

Stroke (S):

100 mm
 200 mm
 300 mm
 400 mm
 500 mm
 600 mm
 700 mm

Customer options:

Standard

Brake for self-locking on push
 Bronze nut / Low temperature grease
 Brake for self-locking on pull
 Bronze nut / Brake for self-locking on push
 Brake for self-locking on push and pull
 Low temperature grease
 Extended shaft
 Others (brake, limit switch, ext. motorshaft, incr. encoder, potentiometer, ...)

DSP - - -

1010
 2530
 3250
 4550

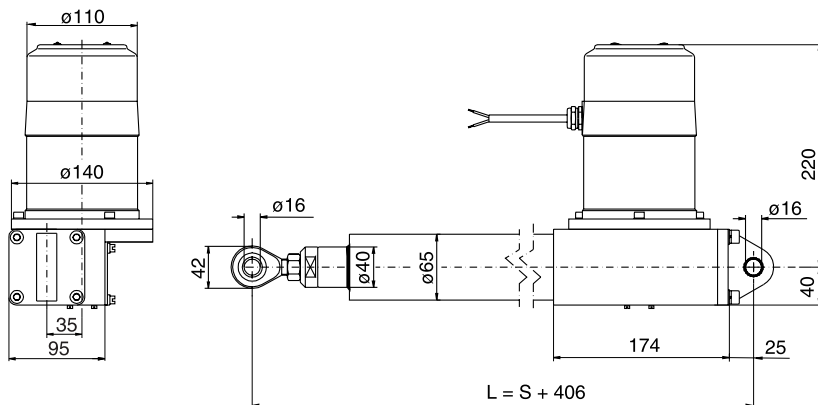
100
 200
 300
 400
 500
 600
 700

01
 03
 08
 10
 12
 17
 30
 122
 XXX

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MAGFORCE SKG

Legend:
S = stroke
L = retracted length



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
SKG 6005	6000	6000	66	55	100 - 700	S+406	24 DC	54	14.6
SKG 10010	10000	10000	36	30	100 - 700	S+406	24 DC	54	14.6
SKG 13020	13000	13000	18	15	100 - 700	S+406	24 DC	54	14.6
SKG 15040	15000	15000	9.6	8	100 - 700	S+406	24 DC	54	14.6

Type key



Type

Load/Speed

6000 N / 55 mm/s
10000 N / 30 mm/s
13000 N / 15 mm/s
15000 N / 8 mm/s

06005
10010
13020
15040

Stroke (S):

100 mm
200 mm
300 mm
400 mm
500 mm
600 mm
700 mm

100
200
300
400
500
600
700

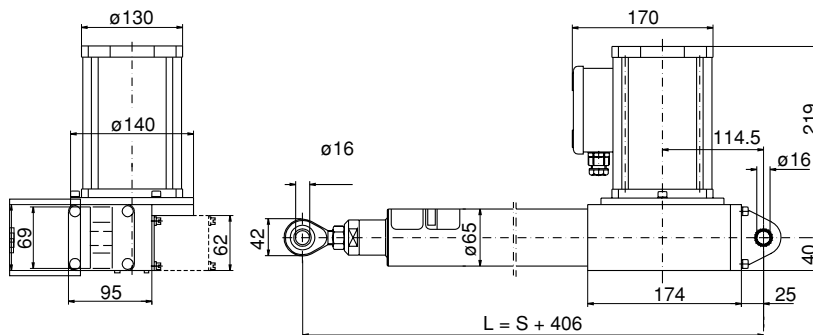
Customer options:

Standard
Others (brake, limit switch, ext. motorshaft, incr. encoder, potentiometer, ...)

01
XX

MAGFORCE SKD

Legend:
 S = stroke
 L = retracted length



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
SKD 10007	10000	10000	30	25	100-700	S+406	3x400 AC	54	14.6
SKD 12010	12000	10000	25	21	100-700	S+406	3x400 AC	54	14.6
SKD 15020	15000	10000	13.2	11	100-700	S+406	3x400 AC	54	14.6
SKD 15040	15000	10000	6.3	5.3	100-700	S+406	3x400 AC	54	14.6

Type key

Type

Load/Speed

10000 N / 25 mm/s
 12000 N / 21 mm/s
 15000 N / 11 mm/s
 15000 N / 5.3 mm/s

Stroke (S):

100 mm
 200 mm
 300 mm
 400 mm
 500 mm
 600 mm
 700 mm

Customer options:

Standard
 Others (brake, limit switch, ext. motorshaft, incr. encoder, potentiometer, ...)



10007
 12010
 15020
 15040

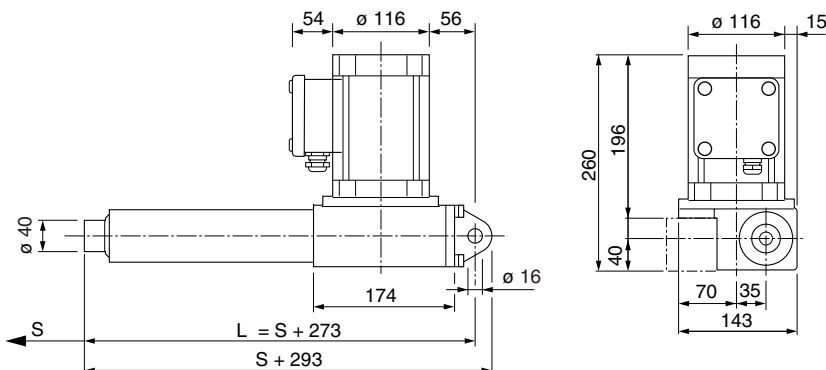
100
 200
 300
 400
 500
 600
 700

01
 XX



MAGFORCE STW

Legend:
S = stroke
L = retracted length



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V AC	IP	kg
STW 5007	5000	5000	14.0	12.0	100 - 700	S + 273	120/230	54	14.6
STW 7010	7000	7000	9.6	8.0	100 - 700	S + 273	120/230	54	14.6
STW 10020	10000	10000	5.2	4.3	100 - 700	S + 273	120/230	54	14.6
STW 15040	15000	15000	2.4	2.0	100 - 700	S + 273	120/230	54	14.6

Type key

Type

Load/Speed

5000 N / 12 mm/s
7000 N / 8 mm/s
10000 N / 4.3 mm/s
15000 N / 2 mm/s

Stroke (S):

100 mm
200 mm
300 mm
400 mm
500 mm
600 mm
700 mm

Customer options:

Standard

Limit switch
Low temperature grease
Others (brake, limit switch, ext. motorshaft, incr. encoder, potentiometer, ...)



05007
07010
10020
15040

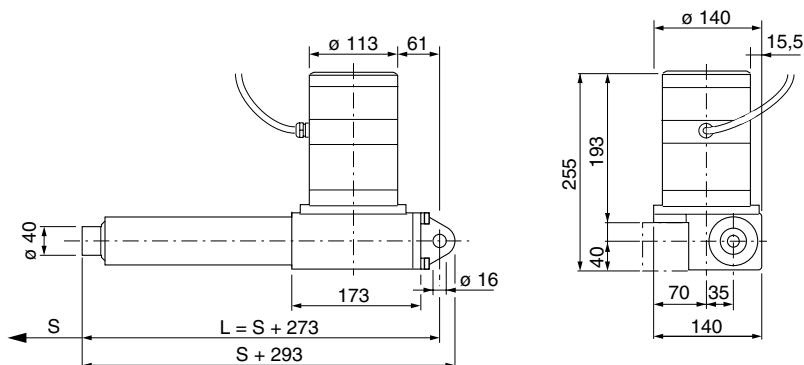
100
200
300
400
500
600
700

01
05
08
XX

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MAGFORCE STG

Legend:
S = stroke
L = retracted length



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
STG 10007	10000	10000	17	14	100 - 700	S+273	24 DC	54	14.6
STG 12010	12000	12000	13	11	100 - 700	S+273	24 DC	54	14.6
STG 15020	15000	15000	6	5	100 - 700	S+273	24 DC	54	14.6
STG 15040	15000	15000	3.6	3	100 - 700	S+273	24 DC	54	14.6

Type key

Type

Load/Speed

10000 N / 14 mm/s
12000 N / 11 mm/s
15000 N / 5 mm/s
15000 N / 3 mm/s

Stroke (S):

100 mm
200 mm
300 mm
400 mm
500 mm
600 mm
700 mm

Customer options:

Standard

Others (brake, limit switch, ext. motorshaft, incr. encoder, potentiometer, ...)

STG - - -

10007
12010
15020
15040

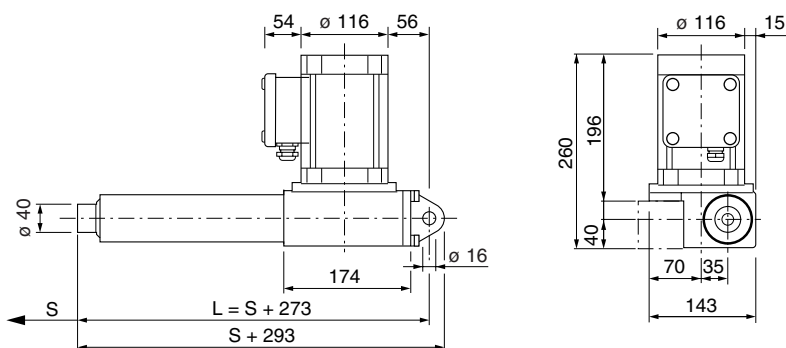
100
200
300
400
500
600
700

01
XX

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MAGFORCE STD

Legend:
 S = stroke
 L = retracted length



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V AC	IP	kg
STD 10007	10000	10000	12.0	10.0	100 - 700	S+273	3x400	54	16.3
STD 12010	12000	12000	9.0	7.5	100 - 700	S+273	3x400	54	16.3
STD 15020	15000	15000	4.8	4.0	100 - 700	S+273	3x400	54	16.3
STD 15040	15000	15000	2.6	2.2	100 - 700	S+273	3x400	54	16.3

Type key

Type

Load/Speed

10000 N / 10 mm/s
 12000 N / 7,5 mm/s
 15000 N / 4 mm/s
 15000 N / 2,2 mm/s

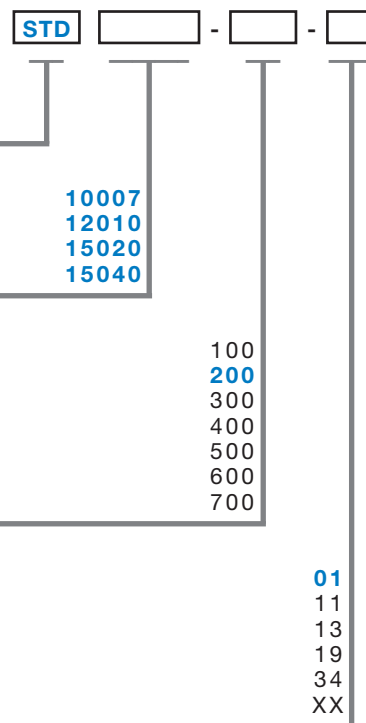
Stroke (S):

100 mm
 200 mm
 300 mm
 400 mm
 500 mm
 600 mm
 700 mm

Customer options:

Standard

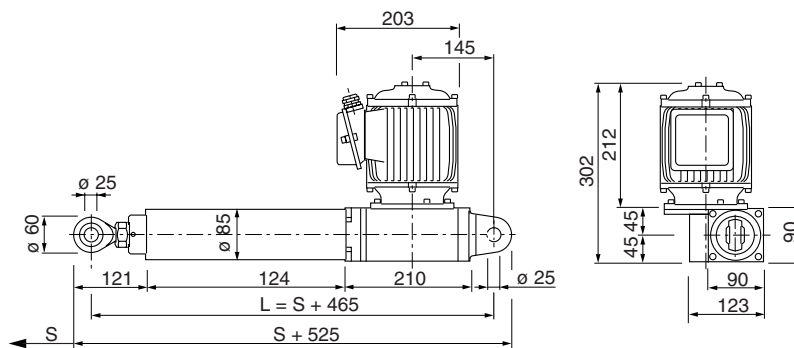
Extended shaft
 Safety nut on push
 Low temperature grease
 Safety nut on push and pull
 Others (brake, limit switch, ext. motorshaft, incr. encoder, potentiometer, ...)



Options written in BLUE text are included in the Easy Range concept, which is our special service range for quick delivery from stock. A type key made with ALL POSITIONS in BLUE qualifies a product for this service.

MAGFORCE SK

Legend:
 S = stroke
 L = retracted length



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V AC	IP	kg
SKS 15404	15000	15000	54	45	100 - 700	S + 465	3x400	54	30.0
SKS 20406	20000	20000	41	34	100 - 700	S + 465	3x400	54	30.0
SKS 25412	25000	25000	20	17	100 - 700	S + 465	3x400	54	30.0
SKS 30423	30000	30000	11	9.7	100 - 700	S + 465	3x400	54	30.0

Type key

Type

Option:

No option
 With limit switches

Load/Speed

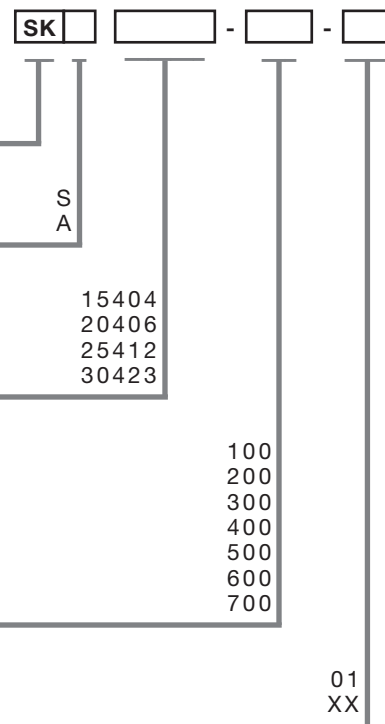
15000 N / 45 mm/s
 20000 N / 34 mm/s
 25000 N / 17 mm/s
 30000 N / 9.7 mm/s

Stroke (S):

100 mm
 200 mm
 300 mm
 400 mm
 500 mm
 600 mm
 700 mm

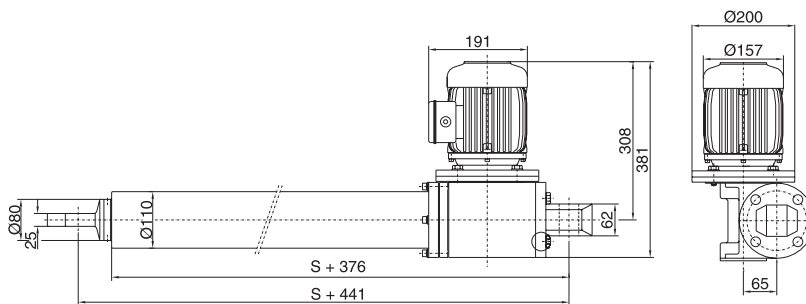
Customer options:

Standard
 Others (ext. motorshaft, incr. encoder, potentiometer, ...)



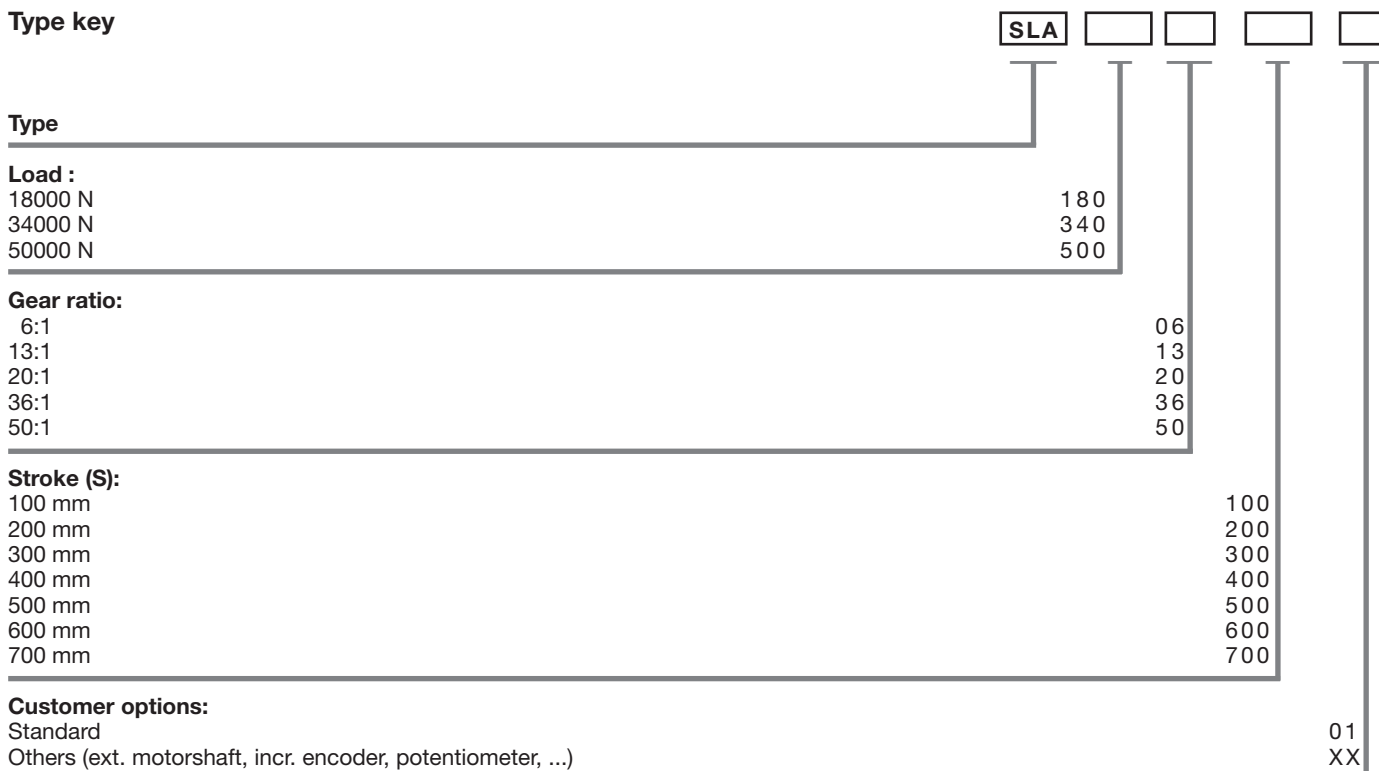
MAGFORCE SLA

Legend:
S = stroke



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V AC	IP	kg
SLA 18006	18000	18000	88	74	100 - 700	S + 446	3x400	54	40
SLA 34013	34000	34000	43	36	100 - 700	S + 446	3x400	54	40
SLA 50020	50000	50000	27	23	100 - 700	S + 446	3x400	54	40
SLA 50028	50000	50000	19	16	100 - 700	S + 446	3x400	54	40
SLA 50050	50000	50000	10.5	9	100 - 700	S + 446	3x400	54	40

Type key

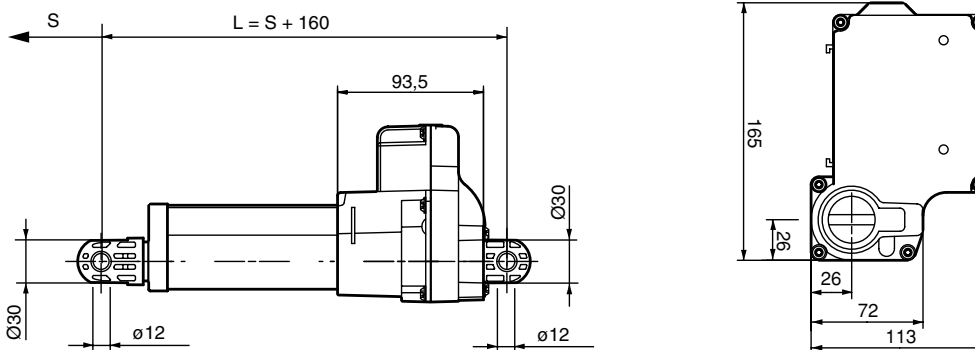
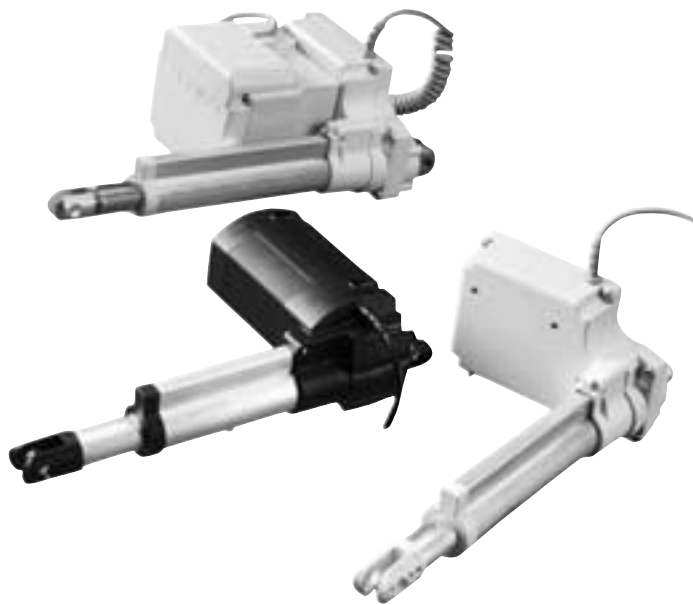


ECOMAG

The ECOMAG is a compact and cost effective actuator which is designed for medical and home environment. It allows precise movements and ergonomically correct positioning. The safety and reliability of the ECOMAG is well proven.

Benefits:

- Compact
- Cost effective
- Control unit can be mounted to the actuator



Legend:
S = stroke
L = retracted length

Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
ECO 20/40	2000	0	13	9	50 - 300	S + 160	24 DC	X4	2.1
ECO 60/80	6000	0	7	4	50 - 300	S + 160	24 DC	X4	2.1
ECO 30/50	2000	2000	13	9	50 - 300	S + 160	24 DC	X4	2.5
ECO 70/90	6000	6000	7	4	50 - 300	S + 160	24 DC	X4	2.5

ECOMAG

Type key

ECO [] [] - [] [] [] [] [] [] - 000

Type

Load / Housing:

Push	Pull	Housing	
2000 N	0	Large	2
2000 N	2000 N	Large	3
2000 N	0	Small	4
2000 N	2000 N	Small	5
6000 N	0	Large	6
6000 N	4000 N	Large	7
6000 N	0	Small	8
6000 N	4000 N	Small	9

Encoder:

Without (cable coiled with 2-pin Minifit plug / or clientoption)	0
With 3 imp.(cable coiled with 8-pin DIN plug / or clientoption)	1
No, (cable coiled with Jack plug 6,3mm)	2
Yes, with 3 imp., (cable coiled with Jack-plug / or client option)	3
Yes, with 8 imp., (cable coiled with 8-pin DIN plug / or client option)	5
With 8 imp. (cable coiled with Jack plug 6.3 mm)	7
Yes, with 8 imp., (cable coiled with Jack plug 6,3mm)	8

Current cut-off:

Without	0
Yes (not available for ECO4.-/ ECO5.-/ ECO8.-/ ECO9.-)	1

Stroke (S):

50 mm	0 5
100 mm	1 0
150 mm	1 5
200 mm	2 0
250 mm	2 5
300 mm	3 0
Other lengths (S < 300mm), contact SKF	0 0

Fork Head (slot 17mm deep):

Hole, Ø=10mm / groove width 6mm (Not available for ECO3.-/ECO5.-/ECO7.-/ECO9.-)	A
Hole, Ø=10mm / groove width 8mm	B
Hole, Ø=10mm / groove width 10mm	C
Hole, Ø=12mm / groove width 6mm (Not available for ECO3.-/ECO5.-/ECO7.-/ECO9.-)	K
Hole, Ø=12mm / groove width 8mm (Not available for ECO3.-/ECO5.-/ECO7.-/ECO9.-)	L
Hole, Ø=12mm / groove width 10mm	M
Customised	Z

Hinge (slot 15mm deep):

Hole, Ø=10mm / groove width 6mm (Not available for ECO3.-/ECO5.-/ECO7.-/ECO9.-)	A
Hole, Ø=10mm / groove width 8mm	B
Hole, Ø=10mm / groove width 10mm	C
Hole, Ø=12mm / groove width 6mm (Not available for ECO3.-/ECO5.-/ECO7.-/ECO9.-)	K
Hole, Ø=12mm / groove width 8mm (Not available for ECO3.-/ECO5.-/ECO7.-/ECO9.-)	L
Hole, Ø=12mm / groove width 10mm	M
Customised	Z

Hinge position:

0°	1
22.5°	2
45°	3
77.5°	4
90°	5
112.5°	6
135°	7
157.5°	8

Colour:

Black	A
Grey RAL 7035	B

Options:

No options	0
Back-up nut (available only for drives with 6kN, obligatory for UL 2601) - only for ECO7/ECO9	A
FOR ECO3.- / ECO5.- ONLY (no back up nut)	
Quick-release, motor direction push, fork head bore parallel to lever, AD +40mm.	B
Quick-release, motor direction push, fork head bore 90° to lever, AD +40mm	C
Quick-release, motor direction pull, fork head bore parallel to lever, AD +40mm	F
Quick-release, motor direction pull, fork head bore 90° to lever, AD +40mm	G
Mech. anti-pinching protection pull, motor direction push, AD +13mm	K
Mech. anti-pinching protection push, motor direction pull, AD +13mm	L

Options written in italic fonts are not available as standard. Please, contact SKF for verification.

ILD

ILD stands for “Intelligent Linear Drive” and features electronic microprocessor technology for flexible, powerful and durable automation. The concept of the compact ILD actuator consists of a linear drive with an electrically communicated and regulated motor to achieve a linear motion. A powerful micro-controller allows the control of position, speed and direction of the drive. ILD actuators are especially suitable for industrial applications with heavy loads.

Benefits:

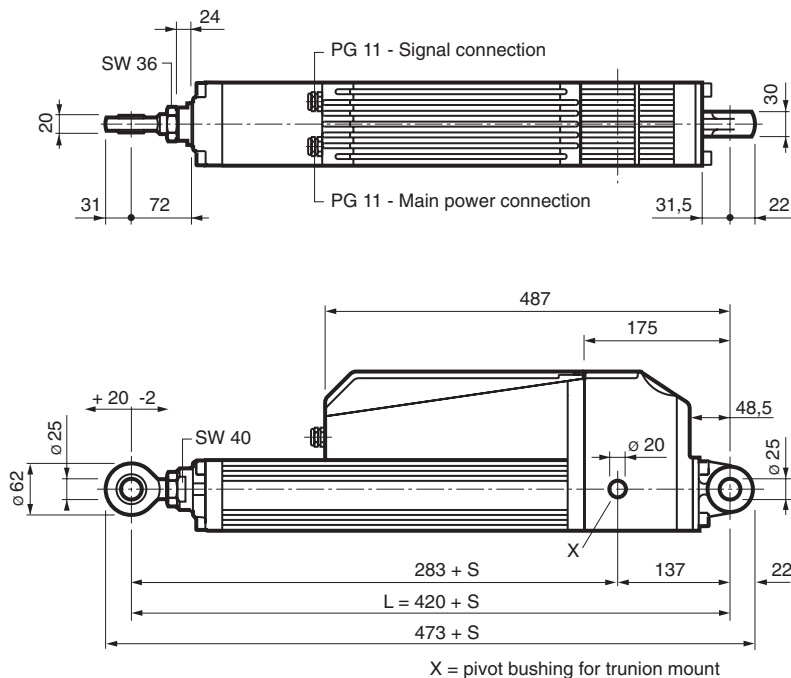
- Programmable by PC
- Speed and position regulated
- Start-stop- ramp
- Easy to install



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
ILD 02	2000	2000	200	200	100 - 1500	S+420	230 AC	54	20.0
ILD 05	5000	5000	100	100	100 - 700	S+420	230 AC	54	20.0
ILD 10	10000	10000	50	50	100 - 700	S+420	230 AC	54	20.0
ILD 20	20000	20000	25	25	100 - 700	S+420	230 AC	54	20.0

ILD

Legend:
S = stroke
L = retracted length



Type key

ILD [] [] [] [] E XX 02

Type

Load/Speed

- 2000 N / 200 mm/s
- 5000 N / 100 mm/s
- 10000 N / 50 mm/s
- 20000 N / 25 mm/s

02
05
10
20

Positioning options:

- Speed control (standard)
- Positioning control
- Interface card

S
P
C

Stroke (S):

- 100 mm
- 200 mm
- 300 mm
- 400 mm
- 500 mm
- 600 mm
- 700 mm

100
200
300
400
500
600
700

Limit switches:

- Sensor for limit of travel
- Sensor for limit of travel and safety switch
- Sensor for limit of travel and customer switch
- Sensor for limit of travel, safety switch and customer switch

E
S
A
B

Electrical options:

- 230 V / 50 Hz

E

Back-up nuts:

- Without back-up nuts (standard)
- With back-up nuts

X
S

Mechanical options:

- No options

XX

CALA 36

CALA 36 is a compact 12 or 24 V DC actuator, intended for industrial use. The motor and drive spindle are connected in-line through a planetary gear assembly. This makes the compact design suitable in applications where space is restricted. A comprehensive range of suitable SKF control systems is available.

Benefits:

- In-line layout
- Aesthetic design
- High operating reliability



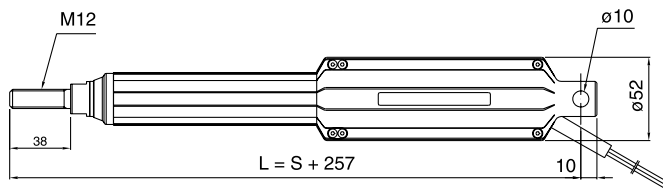
Type	Force		Max. speed		Stroke (S)	Retr. Length* (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CALA 36A	600	600	31	17	50-200	S+215/226/257	12/24 DC	44	0.9 - 1.5

* Dimension depends on selected front attachment

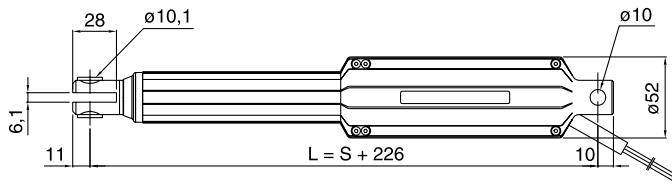
CALA 36A

Legend:
S = stroke
L = retracted length

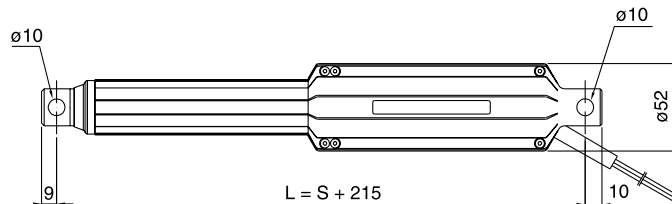
G3



G5



G6



Type key



Type

Load/Speed:
600 N/33-17 mm/s

Stroke (S):
50 mm
100 mm
150 mm
200 mm
50 mm < S < 200 mm

Front attachment:
Male thread, M12
Fork end, $\phi = 10.0$ mm
Hole, $\phi = 10.0$ mm

Motor voltage:
12 V DC
24 V DC

Cable:
Straight 0.25m, no plug
Straight 1.9 m, jack plug
Straight 1.9 m, no plug

A

G3
G5
G6

D12
D24

U
T2
T2P

Options written in BLUE text are included in the Easy Range concept, which is our special service range for quick delivery from stock. A type key made with ALL POSITIONS in BLUE qualifies a product for this service.

MATRIX

The MATRIX series includes powerful AC and DC-actuators. They run very quietly, take up little space and can be installed at virtually every angle in vertical or horizontal position. The MATRIX series is complemented by the KOM control units, which allow a flexible and application focused system control.

Benefits:

- Long lifetime
- Quiet
- Full system with control, operating units and accessories

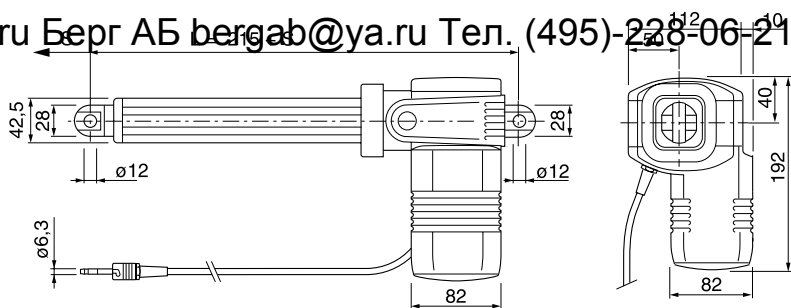


Type	Force ¹⁾		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
MAX1.-C	1500	1500	18	13	50-700	S+195*	24 DC	66	3.0
MAX1.-B	2000	2000	9	6	50-700	S+195*	24 DC	66	3.0
MAX3.-C	3000	3000	18	13	50-700	S+215**	24 DC	66	4.0
MAX6.-C	3000	3000	18	13	50-700	S+215**	120/230 AC	66	5.0
MAX1.-A	4000	4000	7	5	50-700	S+195*	24 DC	66	3.5
MAX3.-B	4000	4000	9	6	50-700	S+215**	24 DC	66	4.0
MAX6.-B	4000	4000	10	8	50-700	S+215**	120/230 AC	66	5.0
MAX3.-A	8000	6000	7	5	50-700	S+215**	24 DC	66	4.5
MAX6.-A	8000	6000	8	6	50-700	S+215**	120/230 AC	66	5.5

* if stroke < 350 mm: L = S + 260 mm

** if stroke > 350 mm: L = S + 280 mm

MAX3



Legend:
S = stroke
L = retracted length

Type key



Type

Motor voltage:

24 V DC
24 V DC, with integrated current cut-off
12 V DC

0
1
2

Load/Speed:

8000 N / 7-5 mm/s
4000 N / 9-6 mm/s
3000 N / 18-13 mm/s

A
B
C

Stroke (S) / Retracted length:

50 mm
100 mm
150 mm
200 mm
250 mm
300 mm
350 mm
400 mm
450 mm
500 mm
550 mm
600 mm
650 mm
700 mm
50 < S < 700

050 265
100 315
150 365
200 415
250 465
300 515
350 565
400 680
450 730
500 780
550 830
600 880
650 930
700 980
XXX XXX

Colour:

Grey RAL 7035

A

Cable/Connecting plug:

Straight, 1.2m
Straight, 2.5m, jack plug (stereo)
Coiled, 0.75m (not stretched)
Straight, 2.4m-0.5m (select in 0.1m steps)

1 2
25
0A
XX

Orientation of rear attachment:

No fork head (customized option)
Standard (as drawing)
Turned 90°

0
1
2

Options 1:

No options, only valid for actuator A (see load)

Quick-release + EKZm, push, fork head bore parallel to button (for actuator design "C" L+115mm)
Quick-release + EKZm, push, fork head bore 90° to button (for actuator design "C" L+115mm)
Quick-release + EKZm, push, fork head bore parallel to Bowden cable (for actuator design "C" L+115mm)
Quick-release + EKZm, push, fork head bore 90° to Bowden cable (for actuator design "C" L+115mm)
Mechanical anti-pinching protection, pull, without fixing in term. position, L+30mm
Mechanical anti-pinching protection, push, without fixing in term. position, L+30mm
Electrical anti-pinching protection (safety switch), pull
Electrical anti-pinching protection (safety switch), push

0
E
F
G
H
I
J
K
L
M
N

Motor direction push, only valid for actuator B and C (see load)

Pull force (for actuator design "B" and "C")

Options 2:

No options
Encoder, 8 pulses/revolution

0
A

Options 3:

Emergency lowering, fork head bore parallel to clamping lever (for actuator design "A", L+30mm)
Emergency lowering, fork head bore 90° to clamping lever (for actuator design "A", L+30mm)

V
W

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Accessories

Mains cable	Plug	Country	Order number	Comment
Straight cable 3.5	Schuko	DE	140306	
Straight cable 3.5	SEV	CH	140316	
Straight cable 3.5	UL	USA	140355	
Straight cable 3.5	Hospital grade	USA	140360	
Straight cable 3.5	British standard	UK	140350	
Coiled cable 1.2 m/2.2 m	Schuko	DE	140342	
Coiled cable 1.2 m/2.2 m	SEV	CH	140378	
Straight cable 3.5	SEV	CH	140422-3500	Polyurethane cable
Straight cable 3.5	Schuko	DE	140426-3500	Polyurethane cable
Strain relief for mains cable			ZBE-952253	
Operating unit adapter			140420	
Tool for plugs (Jack/D-Sub/Mains)			140375	



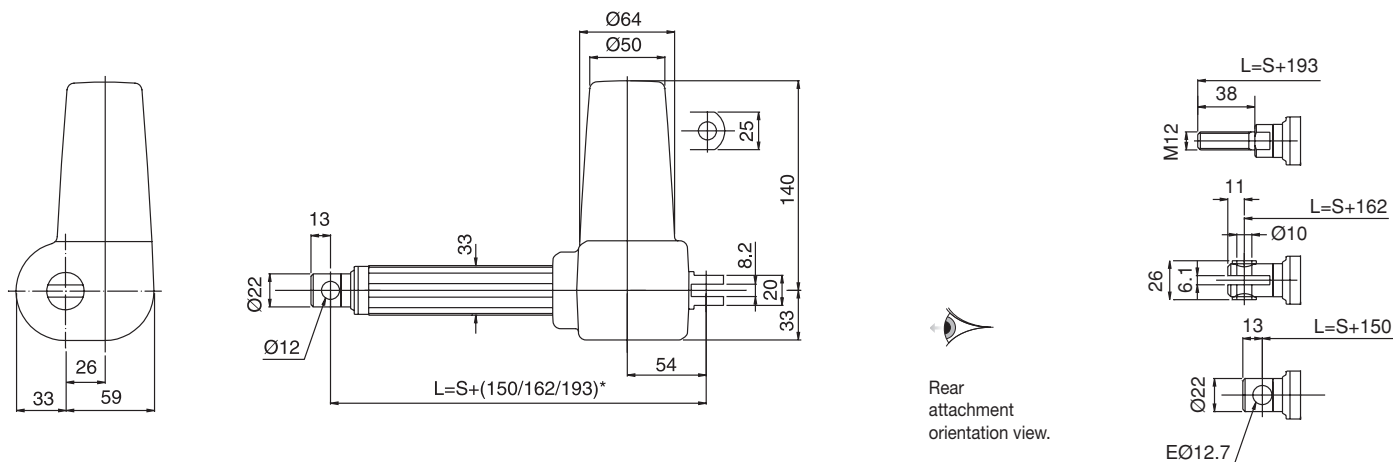
CARE 33

Efficient design provides the CARE 33 actuators with a high dynamic load capacity, silent operation and low current consumption. The safety features of the design make it particularly suitable for solving a large number of positioning needs in equipment for ergonomic and/or industrial applications. The gearbox floats so that the load path passes directly through a support bearing located in the rear attachment. This design offers a long operational life and minimised the transmitted noise level.



Benefits:

- Silent
- Multiple speed/load variants
- Easy to adjust limit switches
- Different attachment options



Legend:
S = stroke
L = retracted length

Type	Force		Max. speed		Stroke (S)	Retr. Length* (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CARE 33H	800	800	45	32	50 - 500	S + 150/162/193	12/24 DC	44/65	1.5 - 2.4
CARE 33M	1400	1400	22	16	50 - 500	S + 150/162/193	12/24 DC	44/65	1.5 - 2.4
CARE 33A	2000	2000	12	8	50 - 300	S + 150/162/193	12/24 DC	44/65	1.5 - 2.0

* Dimension depends on selected front attachment



Type key

CARE 33

Type

Load (N)/Speed (mm/s):

2000/12-8

1400/22-16

800/45-32

A
M
H

Stroke (S):

50 mm

100 mm

150 mm

200 mm

300 mm

400 mm (not possible for CARE 33A)

500 mm (not possible for CARE 33A)

50 < S < 500 mm (> 500 mm contact SKF)

0 5 0
1 0 0
1 5 0
2 0 0
3 0 0
4 0 0
5 0 0
XXX

Front attachment:

Hole, $\phi = 12.0$ mm

Hole, $\phi = 12.7$ mm

Hole, $\phi = 10.0$ mm, slot 6.1 mm

Male thread

1
2
3
4

Rear attachment:

Hole, $\phi = 12.0$ mm

Hole, $\phi = 12.7$ mm

Hole, $\phi = 8.0$ mm

Hole, $\phi = 10.0$ mm

1
2
3
4

Protection class:

IP65

IP44

1
2

Feed back:

No option

Encoder (2-channel)

0
1

Cable/Connection plug:

Straight, 2.0 m, no connector

Coiled, 2.0 m, jack plug

Straight, 2.0 m, DIN 8U-plug (for 2-channel encoder)

Straight, 2.0 m, jack plug

1
2
3
5

Orientation of rear attachment:

0°

15° clockwise

30° clockwise

45° clockwise

60° clockwise

75° clockwise

90° clockwise

105° clockwise

120° clockwise

135° clockwise

150° clockwise

165° clockwise

0 0 0
0 1 5
0 3 0
0 4 5
0 6 0
0 7 5
0 9 0
1 0 5
1 2 0
1 3 5
1 5 0
1 6 5

Motor voltage:

24 V DC

12 V DC

2 4
1 2

Self locking feature (mandatory when selecting load/speed version "H" or "M"):

No self locking required

Self locking for pulling load

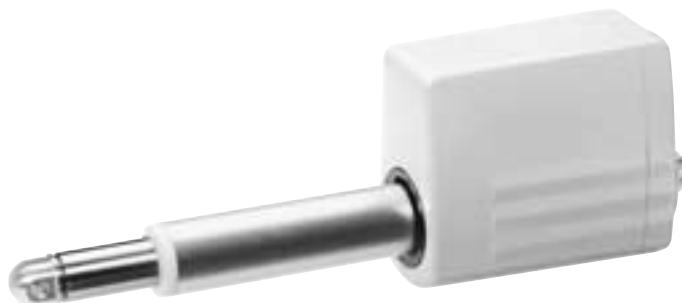
Self locking for pushing load

0
1
2

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RUNNER

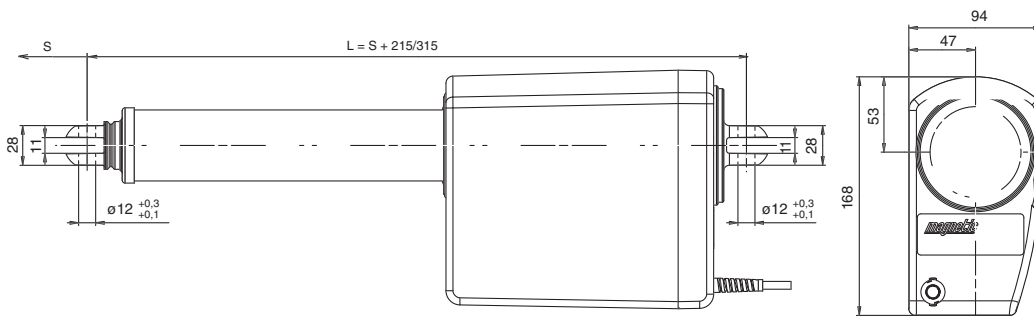
The RUNNER is a very compact, high performance actuator combining maximum load and maximum speed. The system includes a single fault safe control unit for up to 3 actuators as well as corresponding accessories. The RUNNER system is compatible with the TELEMAG DC series.



Benefits:

- High offset load
- High push/pull force
- Compact design
- Quiet
- Long lifetime

R20/R21/R22



Legend:
S = stroke
L = retracted length

Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
R20	8000	8000	10.5	7.5	100 - 700	S+215	24 DC	X4/X6	5.7
R21	10000	8000	8.5	6	100 - 700	S+215	24 DC	X4/X6	5.7
R22	12000	8000	6.5	4.5	100 - 700	S+215	24 DC	X4/X6	5.7

Type key



Typ

Voltage:

24 V DC

2

Load(N) / Speed(mm/s):

12000/8000N/4.5-6.5 mm/s

10000/8000N/6.0-8.5 mm/s

8000/8000N/7.5-10.5 mm/s

2

1

0

Stroke (S) / Retracted length (L):

50 mm / 315mm

100 mm / 315mm

150 mm / 365 mm

200 mm / 415 mm

250 mm / 465 mm

300 mm / 515 mm

350 mm / 565 mm

400 mm / 615 mm

450 mm / 665 mm

500 mm / 815 mm

550 mm / 865 mm

600 mm / 915 mm

650 mm / 965 mm

700 mm / 1015 mm

50 < S < 700mm

Others

0 5 0 3 1 5

1 0 0 3 1 5

1 5 0 3 6 5

2 0 0 4 1 5

2 5 0 4 6 5

3 0 0 5 1 5

3 5 0 5 6 5

4 0 0 6 1 5

4 5 0 6 6 5

5 0 0 8 1 5

5 5 0 8 6 5

6 0 0 9 1 5

6 5 0 9 6 5

7 0 0 x x x

x x x x x x

x x x x x x

Protection class / Colour:

IPx4, gray RAL 7035

IPx6, gray RAL 7035

A

B

Cable:

Straight cable, 0.2m, Jack-plug 90°

Straight cable, 0.2m, DIN-8 plug

Straight cable, 1.5m, DIN-8 plug

Straight cable, 1.5m, Jack-plug 180°

Straight cable, 1.5m, Jack-plug 90°

RR

02

15

OD

WR

Rear attachment - orientation / hole diameter:

0°, ø=12.0 mm

45°, ø=12.0 mm

90°, ø=12.0 mm

135°, ø=12.0 mm

0

2

4

6

Option 1:

No option

Electrical antipinching (safety switch), pull, L+20mm

Electrical antipinching (safety switch), push, L+20mm

0

K

L

Option 2:

No option

Encoder, 14 pulses per revolution

Fixing bracket for BCU control unit

0

A

X

Option 3:

Emergency lowering, L+53mm

V

Customization:

No options

0 0

Options written in italic fonts are not available as standard. Please, contact SKF for verification.

CAFM

The CAFM master control (Evolution III)* with integrated CAF actuator can control up to 3 actuators for simple up/down movements. The CAFM master control is manufactured in accordance with the most comprehensive standards. Additional feature: outlet for external battery is also available.

* Evolution III is the CAFM version providing higher degree of ESD protection, system surveillance and shut down features.

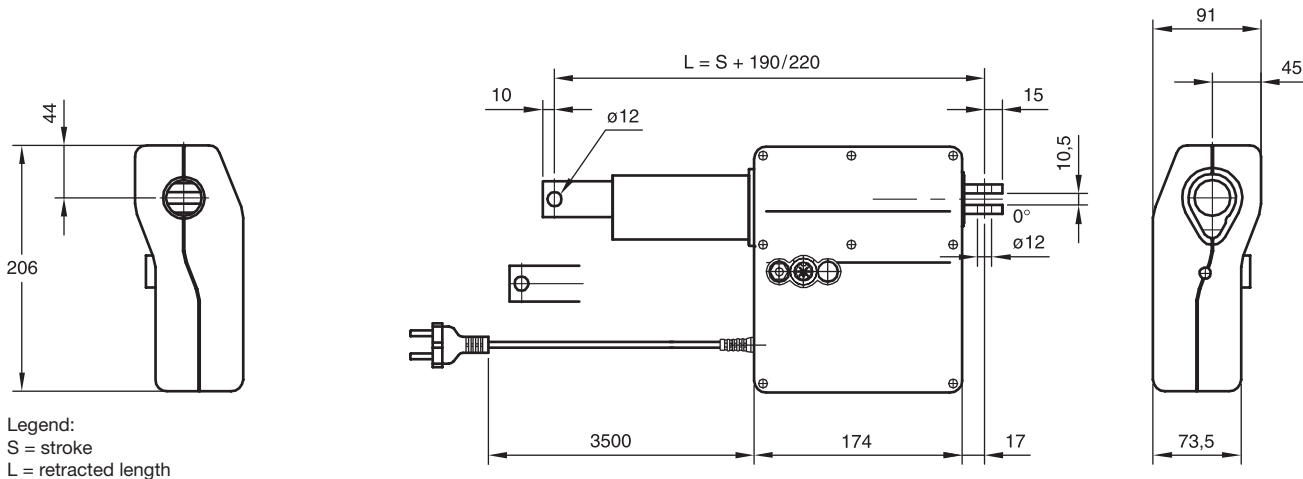
Benefits:

- Economical design solutions
- High load capacity
- Maintenance-free systems
- Integration and approval made easy



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V AC	IP	kg
CAFM-H - motor A	3000	3000	20	13	50 - 300	S + 190/220	120/230	51/X4/66	4.5
CAFM-H - motor B	3000	3000	14	9	50 - 300	S + 190/220	120/230	51/X4/66	4.5
CAFM-L - motor A	7000*	3000	10	5	50 - 300	S + 190/220	120/230	51/X4/66	4.5
CAFM-L - motor B	7000*	3000	7	4	50 - 300	S + 190/220	120/230	51/X4/66	4.5

*Push force for strokes > 250mm: 5000N



Accessories

Item / Product	CAFM M1	CAFM M2	CAFM M3
Cable handset	CAFH M1/S118C CAFH M1/S118CE CAFH M1/S746C CAFH M1/S746CE	CAFH M2/S116C CAFH M2/S116CE CAFH M2/S784C CAFH M2/S784CE	CAFH M3/S120C CAFH M3/S120CE CAFH M3/S822C CAFH M3/S822CE
Foot switch	CAFH F1/S401D CAFH F1/S403D	CAFH F1/S401D CAFH F1/S403D	CAFH F1/S402D CAFH F1/S404D
Desk switch	CAFH T1/S457D	CAFH T2/S458D	
Battery	CAFB/S693D	CAFB/S693D	CAFB/S693D
Junction box	CAFR/S238D	CAFR/S238D	CAFR/S239D

3000/20 - 13 3000/14 - 9	7000/10 - 5 7000/7 - 4	24 VDC, high speed 24 VDC	A B
H		L	* Overload protection is standard

Type key

CAFM 3 × / 1

Type

Actuator connections:

Master control only 1
One (1) additional actuator 2
Two (2) additional actuators 3

Tube:

Plastic, fixed 1
Plastic, free with tube end stop (anti-jamming) 2
Steel, fixed 3
Steel, free without tube end stop (anti-jamming) 4

Stroke (S)/Retracted length (L):

50-100mm / 290mm XXX 2 9 0
101-150mm / 340mm XXX 3 4 0
151-200mm / 410mm XXX 4 1 0
201-250mm / 510mm (not available with plastic push tube) XXX 5 1 0

Rear attachment length:

Hole Ø10 mm, plastic A
Hole Ø12 mm, plastic B
Hole Ø12 mm, aluminium D
Hole Ø10 mm, plastic natural, high load E
Hole Ø12 mm, plastic natural, high load F

Orientation of rear attachment:

0° 0
90° 9

Tube attachment:

Hole Ø10 mm (only for steel tube) A
Hole Ø12 mm (only for steel tube) B
U-fork end with hole Ø10 mm, (standard for plastic tube) C
U-fork end with hole Ø12 mm, (standard for plastic tube) D
Hole Ø12 mm, with bushing 12-14 (only for steel tube) E
Hole Ø10 mm, with bushing 10-12 (only for steel tube) F

Back-up nut:

No 0
Yes (only for CAFS L) 1

Colour:

Black B
Grey G

Quick release:

No 0

Transformer & mains cable (PVC cable, class II):

230 VAC, Coiled cable, 3.0m, grey, EU-plug A
230 VAC, Straight cable, 3.2m, black, EU-plug B
230 VAC, Straight/coiled cable 3.0m (1m+2m), grey, EU-plug G
120 VAC, Straight cable, 3.0m, grey, US-plug H
240 VAC, Straight cable, 3.0m, grey, UK-plug I

Battery:

No battery 0
Battery connection 2

Protection class:

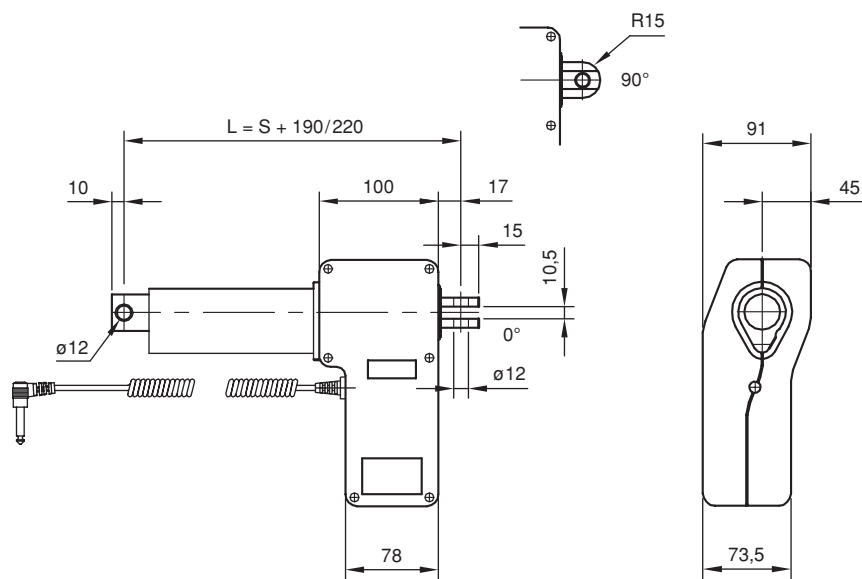
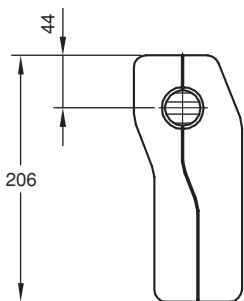
IP51 51
IPX4 X4
IP66 66

CAFS

The efficient design of the CAF actuator enables a high dynamic load capacity in combination with a low current consumption and noise level. The standard design includes built-in limit switches and flexible orientation of attachments. Design options are available to optimize application safety. The most common of these is the metal back-up nut (mechanical failure), nonfixed extension tube (prevents crush injuries).

Benefits:

- Economical design solutions
- High load capacity
- Maintenance-free
- Integration and approval made easy



Legend:
S = stroke
L = retracted length

Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CAFS-H - motor A	3000	3000	20	13	50 - 300	S + 190/220	12/24 DC	51/X4/66	3.5
CAFS-H - motor B	3000	3000	14	9	50 - 300	S + 190/220	12/24 DC	51/X4/66	3.5
CAFS-L - motor A	7000*	3000	10	5	50 - 300	S + 190/220	12/24 DC	51/X4/66	3.5
CAFS-L - motor B	7000*	3000	7	4	50 - 300	S + 190/220	12/24 DC	51/X4/66	3.5

*Push force for strokes > 250mm: 5000N

Type key

Dynamic load (N)/ Speed (mm/s)		Motor options	
3000/20 - 13	7000/10 - 5	24 V DC, high speed	A
3000/14 - 9	7000/7 - 4	24 V DC	B
3000/8.5 - 5.5*	7000/4.5 - 2*	12 V DC	C
H	L	* Speed at 12 V	



Type

Extension tube:

Plastic, fixed	1
Plastic, free with tube end stop (anti-jamming)	2
Steel, fixed	3
Steel, free without tube end stop (anti-jamming)	4

Stroke (S)/Retracted length (L):

50-100mm / 290mm	X X X 2 9 0
101-150mm / 340mm	X X X 3 4 0
151-200mm / 410mm	X X X 4 1 0
201-250mm / 510mm (not available with plastic push tube)	X X X 5 1 0

Rear attachment:

Hole Ø10 mm, plastic	A
Hole Ø12 mm, plastic	B
Hole Ø12 mm, aluminium	D
Hole Ø10 mm, plastic natural, high load	E
Hole Ø12 mm, plastic natural, high load	F

Orientation of rear attachment:

0°	0
90°	9

Tube attachment:

Hole Ø10 mm, (only for steel tube)	A
Hole Ø12 mm, (only for steel tube)	B
U-fork end with hole Ø10 mm, (standard for plastic tube)	C
U-fork end with hole Ø12 mm, (standard for plastic tube)	D
Hole Ø12 mm, with bushing 12-14 (only for steel tube)	E

Back-up nut:

No	0
Yes (only for CAFS L)	1

Colour:

Black	B
Grey	G

Quick release:

No	0
----	---

Encoder:

No	0
----	---

Cable:

Coiled cable, 2.5m, grey, jack plug	A
Straight cable, 1.1m, grey, jack plug	C
Straight cable, 2.6m, grey, jack plug	D
Straight cable, 1.2m, grey, jack plug	E
Coiled cable, 2.5m, black, jack plug	F

Protection class:

IP51	5 1
IPX4	X 4
IP66	6 6

MAGPUSH

MAGPUSH linear actuators are extremely quiet and smooth running. They take up little space, are maintenance-free and can be installed vertically or horizontally or at an intermediate angle. The MAGPUSH actuators are very robust and work in many applications. They are ideally suited for raising and lowering large loads.

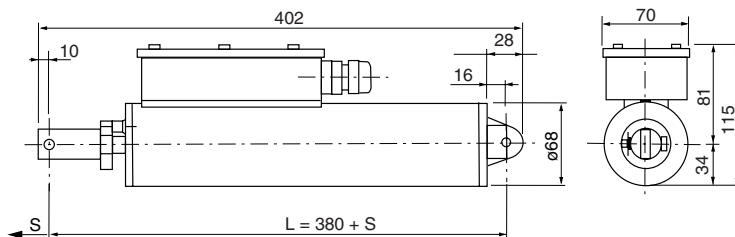


Benefits:

- Big stroke by a short assembly dimension
- Long lifetime
- Quiet
- Robust

Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
GC 84 UB	400	400	8	8	210	S+170	230 AC	55	3.0
GC 84 TL	500	500	6	6	200-300	S+123	230 AC	54	2.3-2.4
HC 85 UB	1500	1500	10	10	260	S+190	230 AC	55	6.0

MAGPUSH GC 84 UB



Legend:
 S = stroke
 L = retracted length

Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
GC 84 UB	400	400	8	8	210	S+170	230 AC	55	3.0

Type key

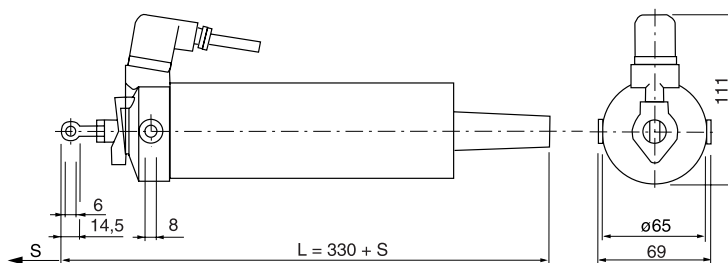
GC 84 UB - 01

Type

Load / Speed / Stroke (S):
 400 N / 8 mm/s / 210 mm

01

MAGPUSH GC 84 TL



Legend:
S = stroke
L = retracted length

Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
GC 84 TL	500	200	6	6	200 - 300	S + 123	230 AC	54	2.3 - 2.4

Type key

GC 84 TL -

Type

Load / Speed / Stroke (S):

500 N (push) 200 N (pull) / 6 mm/s / 200 mm
500 N (push) 200 N (pull) / 6 mm/s / 300 mm

20
30

Option:

No option
With integrated relays

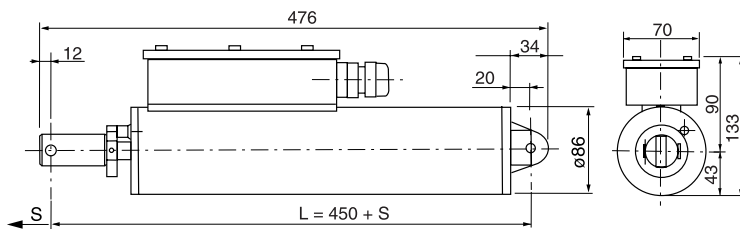
01
02

Accessories for MAGPUSH GC 84 TL

Accessories	Order N°
Fixing bracket	940303
Pivot screws, alone	940306
Pull adapter	939185
Rear adapter, short	940646
Rear adapter, long	940611



MAGPUSH HC 85 UB



Legend:
S = stroke
L = retracted length

Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
HC 85 UB	1500	1500	10	10	260	S + 190	230 AC	55	6.0

Type key

HC 85 UB - 01

Type

Option:

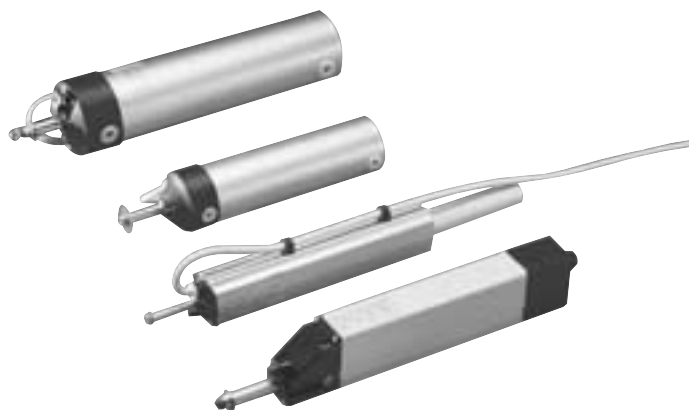
No option
Potentiometer 1000 Ohm

Load / Speed / Stroke (S):
1500 N / 10 mm/s / 260 mm

01

MAGTOP CS

The MAGTOP product family is a compact and cost-effective actuator, primarily designed for the building and construction segment. The MAGTOP is suitable for the opening and closing of windows, doors, smoke vents, etc., and for skylight and dome-light applications. These rod actuators are powerful, economical and capable of withstanding high maximum loads (from 200 to 2000 N) and provide a wide range of opening and closing strokes (up to 500 mm).



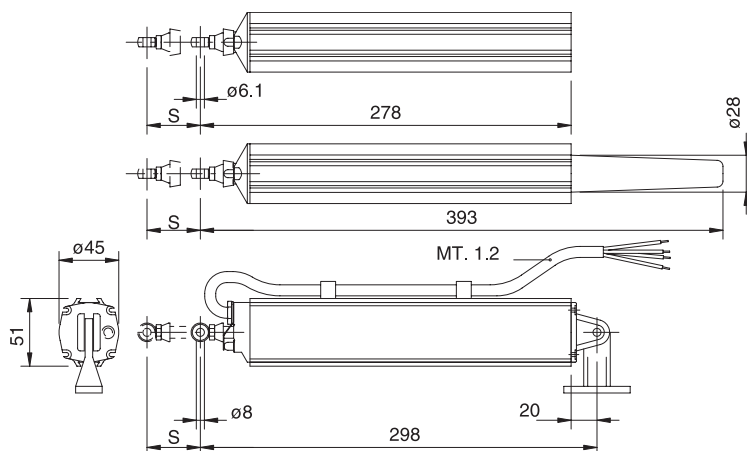
Benefits:

- Compact and silent
- Cost-effective
- Maintenance-free
- Easy to install
- Rigid rod movement
- Resistance to atmospheric agents

Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CS10	200	200	37	30	105-300	S+298	230 AC	44	1.3
CS20	450	450	24	18	120-300	S+266/346/411	230 AC	54	1.5/1.9
CS30	500	500	24	19	200-400	S+300/400/500	230 AC	55	1.8
CS40	450	450	12	8	200-500	S+330/430/630	230 AC/24DC	55	1.3/1.5
CS50	1000	1000	24	21	300-500	S+415/615	230 AC	55	3.4
CS60	600	600	24	22	180-500	S+345/427/620	230 AC	44	3.4
CS70	2000	2000	19	14	180-500	S+278/398/498/598	230 AC	40	6.0/6.5

MAGTOP CS10

Legend:
S = stroke



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CS10	200	200	37	30	105-300	S+298	230 AC	44	1.3

Type key



Type
Spindel - Actuator

CS

Load/Speed:
200N / 37mm/s

10

Stroke (S):

- 105 mm
- 165 mm
- 180 mm
- 240 mm
- 300 mm

- 0105
- 0165
- 0180
- 0240
- 0300

Supply voltage:
230 V AC

230

Color:
Silver EV1

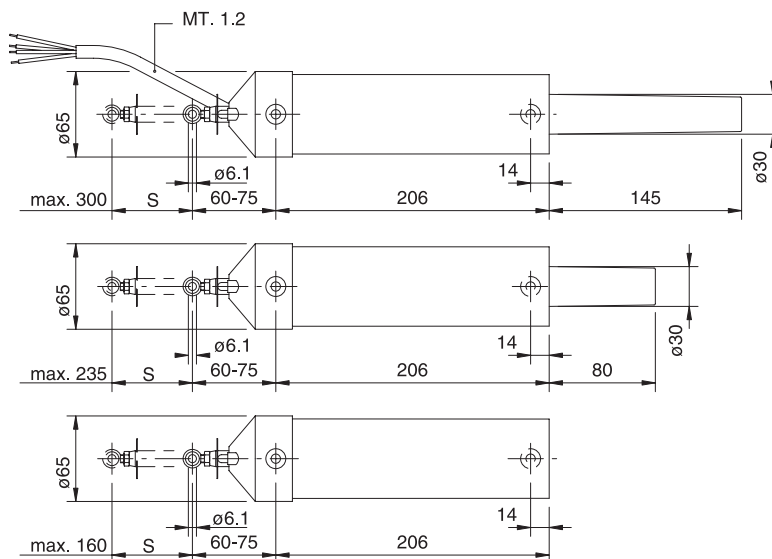
S

Options:
Customization

00

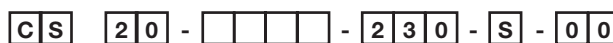
MAGTOP CS20

Legend:
S = stroke



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CS20	450	450	24	18	120-300	S+266/346/411	230 AC	54	1.5/1.9

Type key



Type
Spindel - Actuator

CS

Load/Speed:
450N / 24mm/s

20

Stroke (S):

- 120 mm
- 140 mm
- 160 mm
- 180 mm
- 200 mm
- 235 mm
- 300 mm

- 0120
- 0140
- 0160
- 0180
- 0200
- 0235
- 0300

Supply voltage:
230 V AC

230

Color:
Silver EV1

S

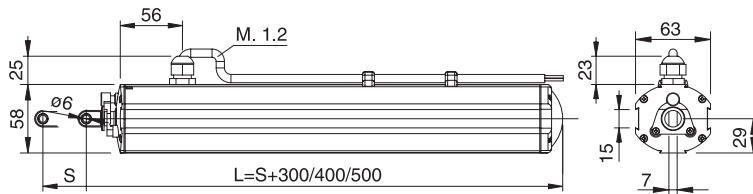
Options:
Customization

00



MAGTOP CS30

Legend:
 S = stroke
 L = retracted lengt



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CS30	500	500	24	19	200-400	S+300/400/500	230 AC	55	1.8

Type key

C S | **3 0** - | | | - | **2 3 0** - | **S** - | **0 0**

Type
 Spindel - Actuator

CS

Load/Speed:
 500N / 24mm/s

30

Stroke (S):
 200 mm
 300 mm
 400 mm

0200
 0300
 0400

Supply voltage:
 230 V AC

230

Color:
 Silver EV1

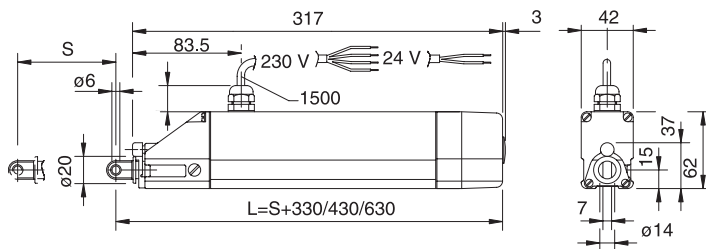
S

Options:
 Customization

00

MAGTOP CS40

Legend:
 S = stroke
 L = retracted length



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CS40	450	450	12	8	200-500	S+330/430/630	24DC/ 230AC	55	1.3/1.5

Type key



Type
 Spindel - Actuator

CS

Load/Speed:
 450N / 12.5mm/s

40

Stroke (S): (adjustable from 1mm to max. length)

- 200 mm
- 300 mm
- 500 mm

- 0200
- 0300
- 0500

Supply voltage:

- 230 V AC
- 24 V DC

- 230
- 024

Color:

Silver EV1

S

Options:

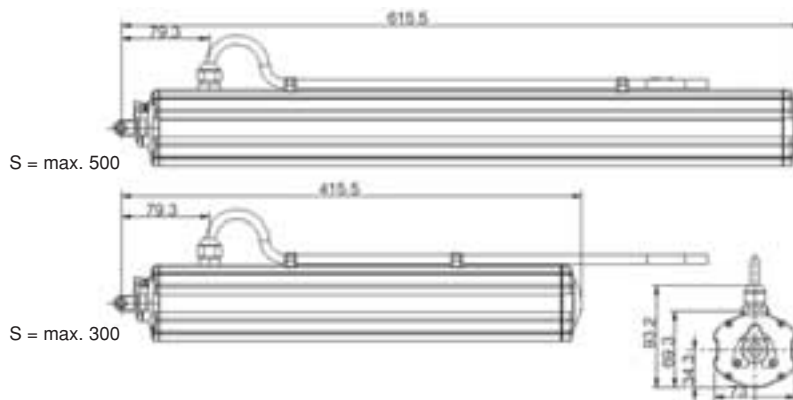
Customization

00



MAGTOP CS50

Legend:
S = stroke



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V	IP	kg
CS50	1000	1000	24	21	300-500	S+415/615	230 AC	55	3.4

Type key

CS | **50** - | | | - **230** - **S** - **00**

Type
Spindel - Actuator

CS

Load/Speed:
1000N / 24mm/s

50

Stroke (S):
300 mm
500 mm

0300
0500

Supply voltage:
230 V AC

230

Color:
Silver EV1

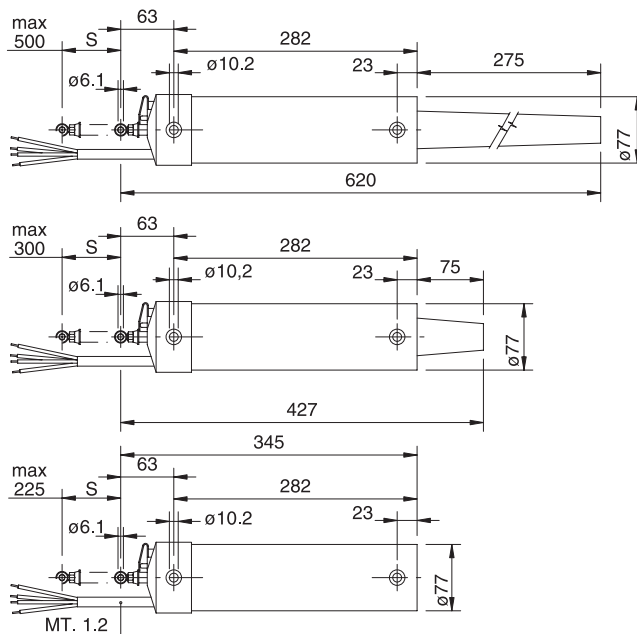
S

Options:
Customization

00

MAGTOP CS60

Legend:
S = stroke



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
CS60	600	600	24	22	180-500	S+345/427/620	230 AC	IP 44	3.4

Type key



Type
Spindel - Actuator

CS

Load/Speed:
600N / 24mm/s

60

Stroke (S):
180 mm
225 mm
300 mm
500 mm

0180
0225
0300
0500

Supply voltage:
230 V AC

230

Color:
Silver EV1

S

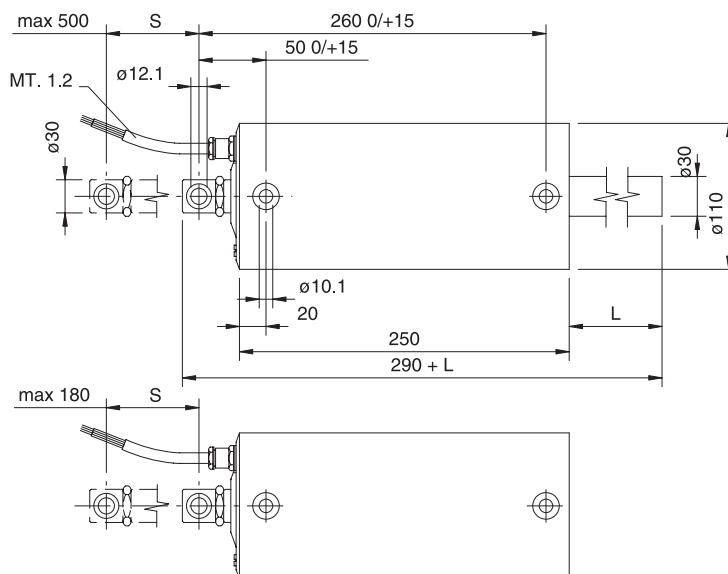
Options:
Customization

00



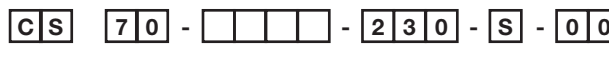
MAGTOP CS70

Legend:
S = stroke



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V AC	IP	kg
CS70	2000	2000	19	14	180-500	S+278/398/498/598	230	40	6.0/6.5

Type key



Type
Spindel - Actuator

CS

Load/Speed:
2000N / 19mm/s

70

Stroke (S):
180 mm
300 mm
500 mm

0180
0300
0500

Supply voltage:
230 V AC

230

Color:
Silver EV1

S

Options:
Customization

00

VARIMAG CC

The VARIMAG product family is a compact and cost-effective actuator, primarily designed for the building and construction segment. VARIMAG chain actuators are the ideal solution for automatically controlled windows. They take up very little space and the comprehensive range provides the correct strokes, thrust forces and chain resistance required for all window application.



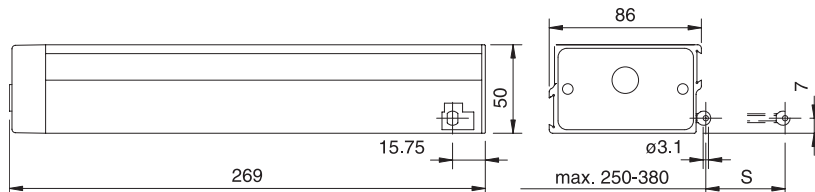
Benefits:

- Compact and silent
- Cost-effective
- Take up minimum space
- Easy to install
- Automatic compensatory window coupling system

Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V DC/AC	IP	kg
CC10	150	300	40	35	130-380	N/A	24 / 230	20	1.6
CC20	200	200	20	10	200-250	N/A	24 / 230	20	1.0
CC30	200	200	20	15	400	N/A	24 / 230	20	1.0
CC40	350	350	18	15	280-380	N/A	24 / 230	22	1.8
CC50	400	400	25	20	420-835	N/A	24 / 230	22	3.5

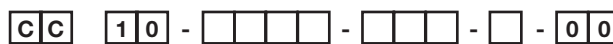
VARIMAG CC10

Legend:
S = stroke



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V AC/DC	IP	kg
CC10	150	300	40	35	130-380	N/A	24 / 230	20	1.6

Type key



Type
Chain - Actuator



Load/Speed:
150N (push) 300N (pull) / 40mm/s



Stroke (S):
130 mm
150 mm
250 mm / 380 mm



Supply voltage:
230 V AC
24 V DC



Color:
Silver EV1
White RAL 9016

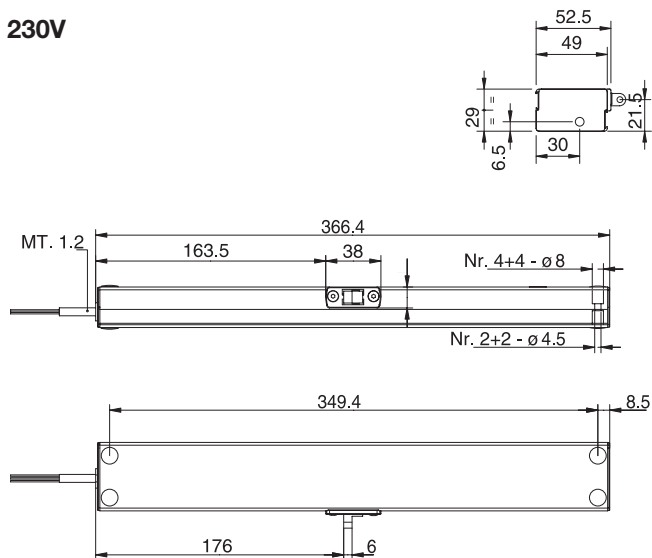


Options:
Customization

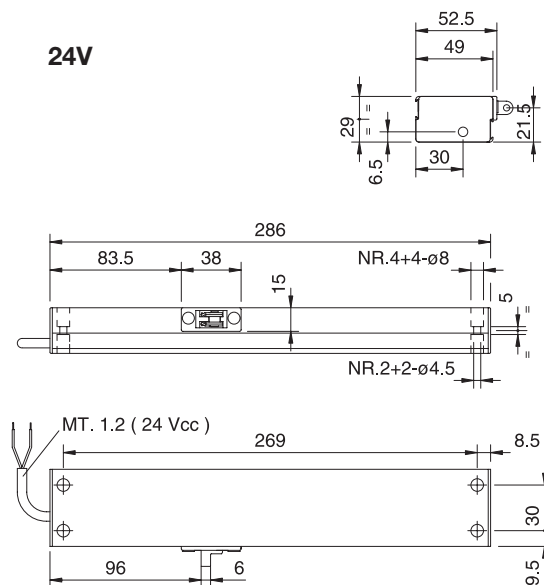


VARIMAG CC20

230V

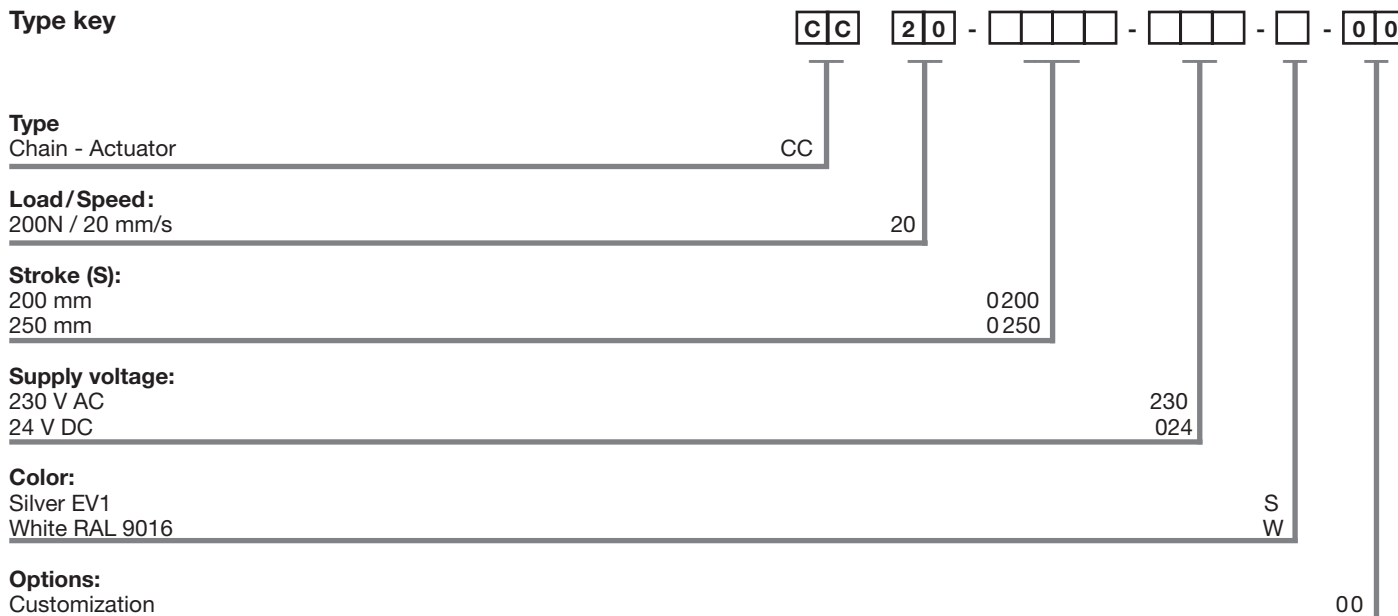


24V

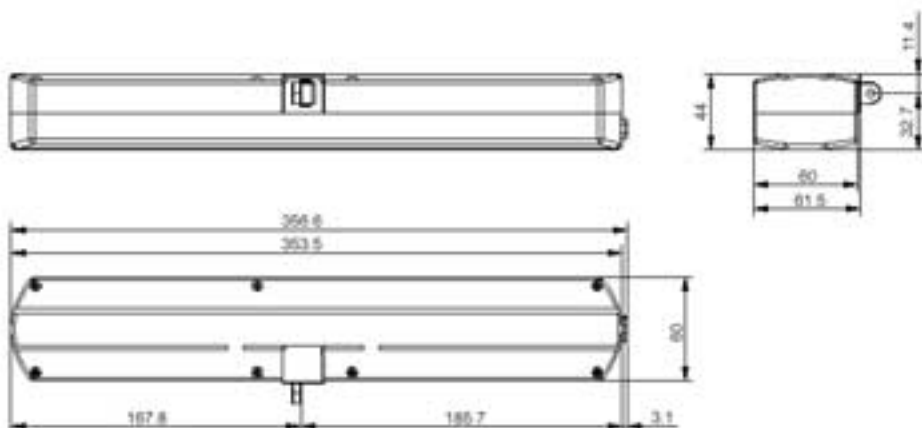


Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
CC20	200	200	20	10	200-250	N/A	24 / 230	IP 20	1.0

Type key



VARIMAG CC30



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V DC/AC	IP	kg
CC30	200	200	20	15	400	N/A	24 / 230	20	1.0

Type key

CC 30 - 0400 - - - - 00

Type

Chain - Actuator

CC

Load/Speed:

200N / 20 mm/s

30

Stroke (S):

400 mm (adjustable in 12.5 mm steps)

0400

Supply voltage:

230 V AC

24 V DC

230

024

Color:

Silver EV1

Black

S

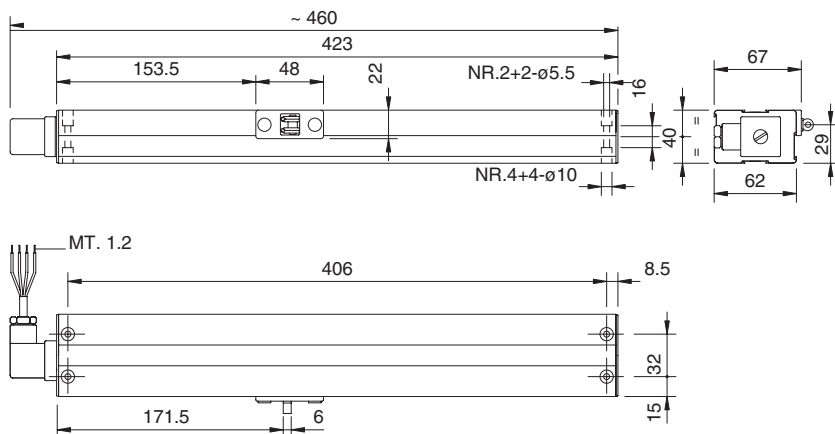
B

Options:

Customization

00

VARIMAG CC40



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V DC/AC	IP	kg
CC40	350	350	18	15	280-380	N/A	24 / 230	22	1.8

Type key



Type
Chain - Actuator

CC

Load/Speed:
350N / 18 mm/s

40

Stroke (S):
280 mm
380 mm

0280
0380

Supply voltage:
230 V AC
24 V DC

230
024

Color:
Silver EV1
White RAL 9016

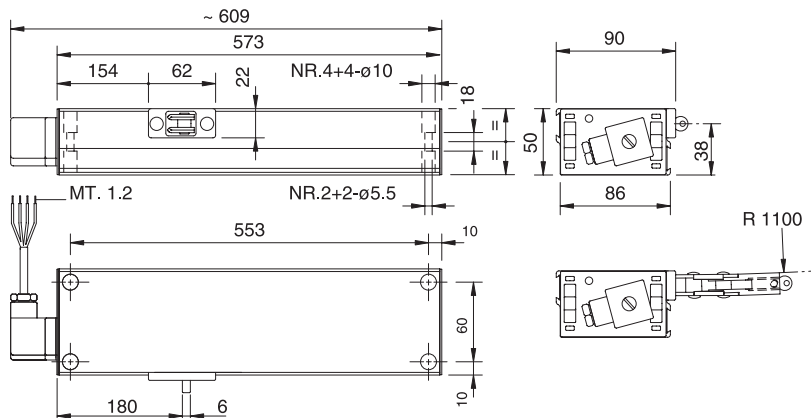
S
W

Options:
Customization

00



VARIMAG CC50



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V DC/AC	IP	kg
CC50	400	400	25	20	420-835	N/A	24 / 230	22	3.5

Type key



Type
Chain - Actuator

CC

Load/Speed:
400N / 25 mm/s

50

Stroke (S):
420 mm
600 mm
835 mm (Force, push: 200 N)

0420
0600
0835

Supply voltage:
230 V AC
24 V DC

230
024

Color:
Silver EV1
White RAL 9016

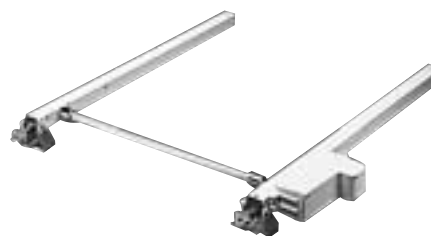
S
W

Options:
Customization

00

MAGRACK CK

MAGRACK rack actuators are designed for the building and construction segment, especially for large window applications. They are ideal for heavy-duty applications in corrosive environments. They are also extremely flexible to use as they have been designed to provide synchronised thrust at two, three or four points. The ability to combine two motors to provide double thrust force should not be undervalued. The advance of the thrust points is always perfectly synchronised thanks to the mechanical link provided by the linking bar.



Benefits:

- Compact and silent
- Cost-effective
- Maintenance-free
- Easy to install
- Tandem operation possible
- Resistance to atmospheric agents

Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage	Protection	Weight
	push	pull	no load	full load					
	N	N	mm/s	mm/s	mm	mm	V DC/AC	IP	kg
CK10	N/A	N/A	N/A	N/A	180-1000	S+145	N/A	N/A	0.7-1.8
CK20	800/600	800/600	N/A	N/A	N/A	N/A	24/230	55	1.1
CK30	200-600	200-600	8-20	5...15	180-1000	S+145	24 /230	55	1.4/2.7
CK40	200-600	200-600	8-20	5...15	180-1000	S+145	24 /230	55	1.4/2.7
CK50	200-600	200-600	8-20	5...15	180-1000	S+145	24 /230	55	1.4/2.7

Type key

Type
Rack - Actuator

Design model:

Rack without motor
 Motor only
 Rack with motor
 Two (2) racks with one (1) motor
 Two (2) racks with two (2) motors

Stroke (S):

180 mm
 230 mm
 350 mm
 550 mm
 750 mm
 1000 mm
 Only motor CK 20

Motor voltage:

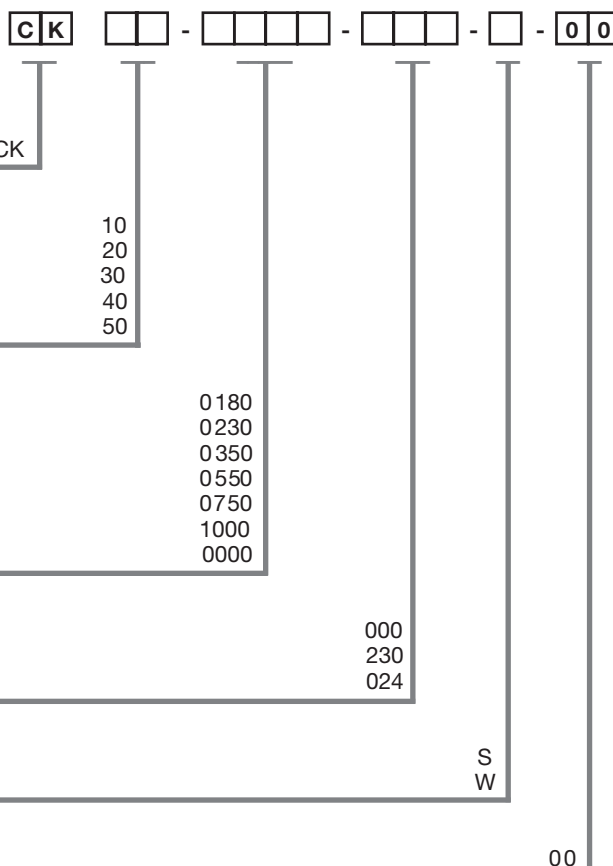
Without motor (selection of CK 10)
 230 V AC (not applicable for CK 10, max. force: 600N)
 24 V DC (not applicable for CK 10, max. force: 800N)

Color:

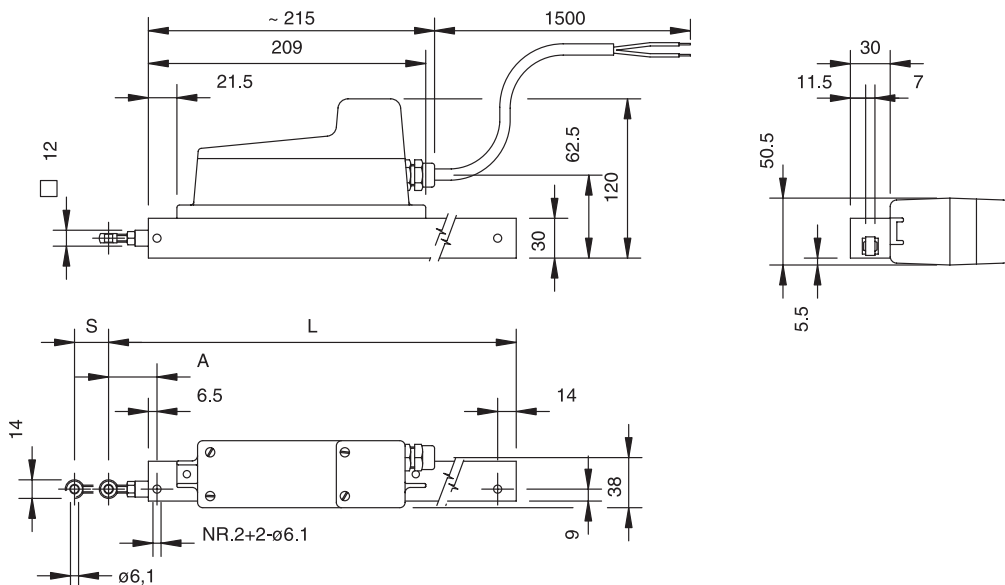
Silver EV1
 White RAL 9016 (only for CK 20)

Options:

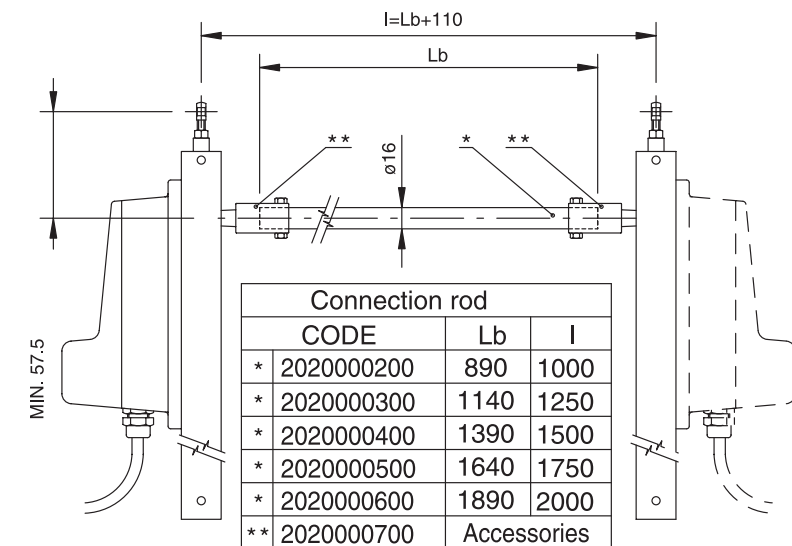
Customization



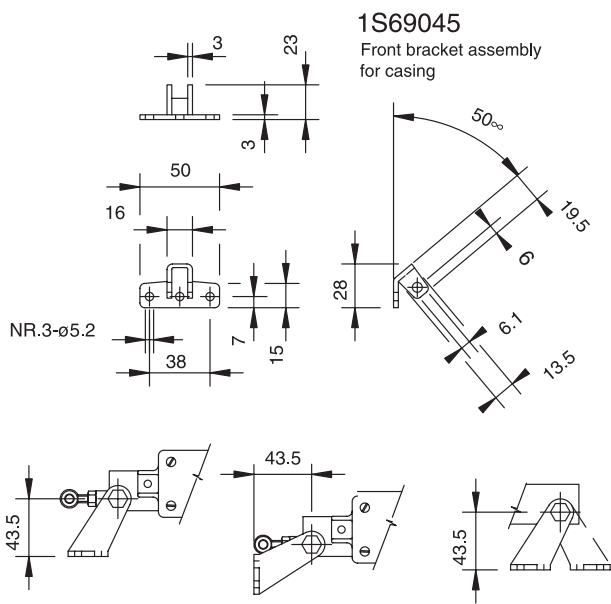
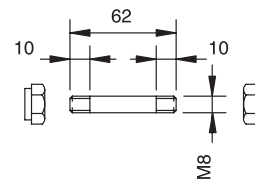
MAGRACK CK - 24 VDC



Legend:
 S = stroke
 L = retracted length
 A = 30-45mm

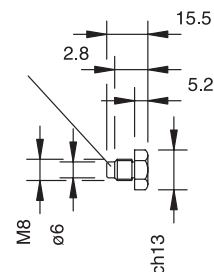


A00565
 Pin for louvre casing levers and sunshade levers

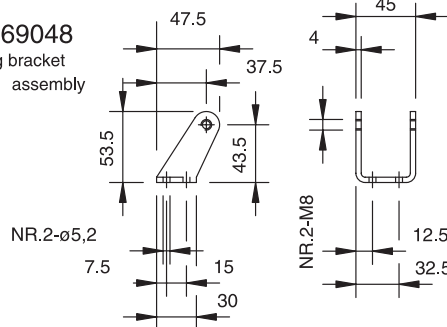


1S69045
 Front bracket assembly for casing

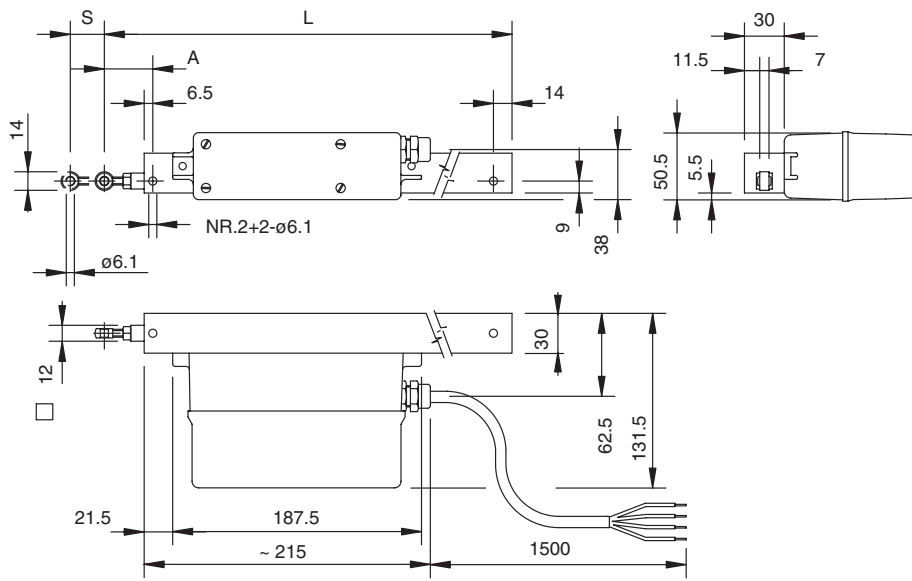
(CD9068)
 Side pin



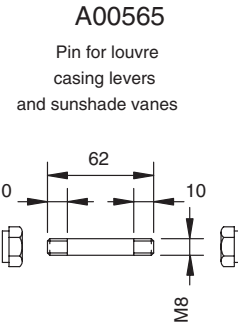
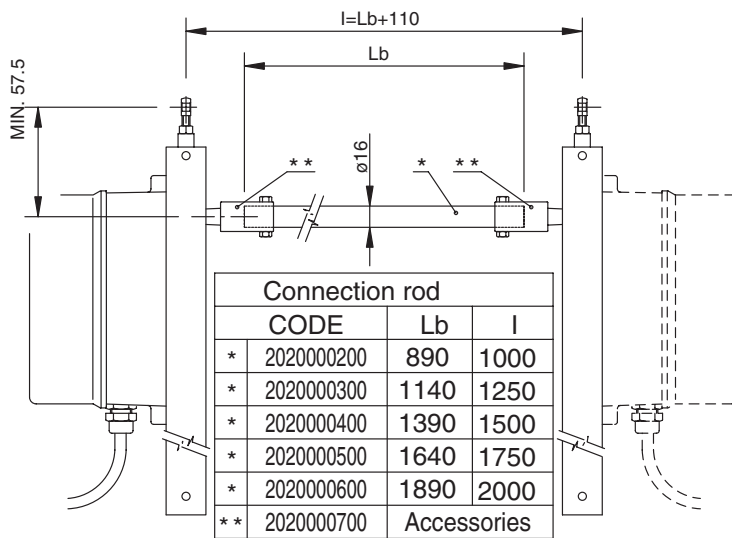
1S69048
 Slanting bracket assembly



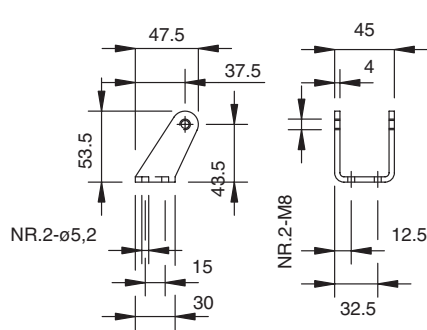
MAGRACK CK - 230 VDC



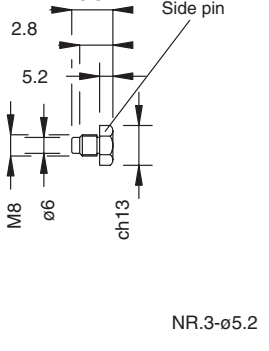
Legend:
 S = stroke
 L = retracted length
 A = 30-45mm



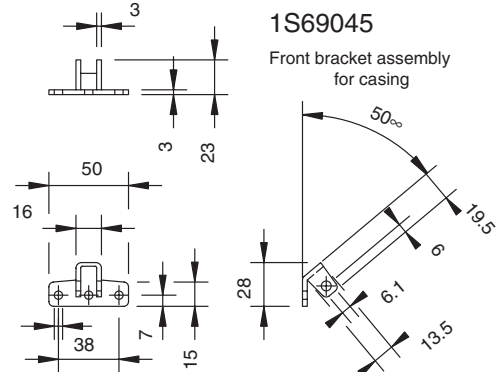
1S69048
Slanting bracket assembly



(CD9068)



1S69045
Front bracket assembly for casing





Rotary actuators

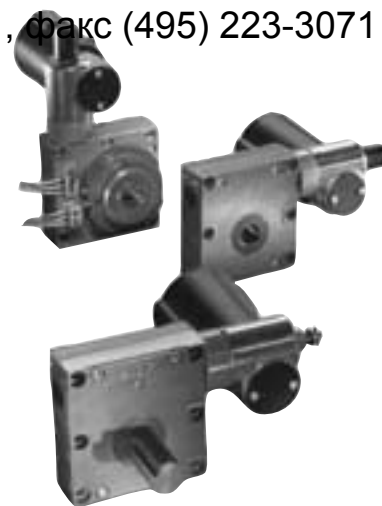
CRAB 17

The CRAB 17 rotary actuator is modular so that critical components can be interchanged to meet the needs of a special design priority. The purpose with CRAB 17 is designed to be small and compact but still be able to produce high torque. As the actuator can withstand high loads it can also serve as a load-bearing element of your design.

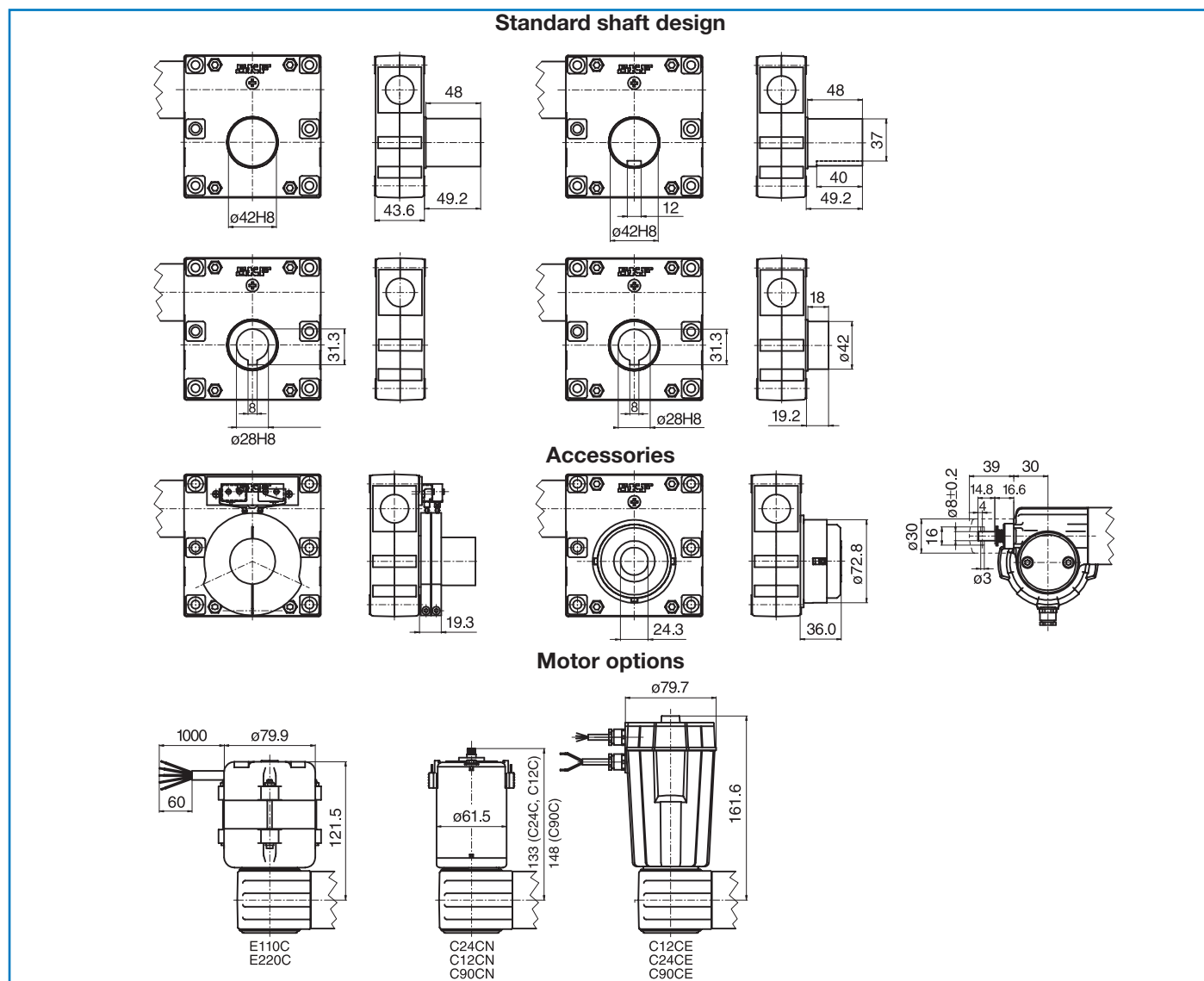
Special bearings arrangements are not usually required.

Benefits:

- Multiple output shafts
- Multiple motor options
- Small and compact



Type	Max.torque	Max. speed	Size	Working range	Voltage	Protection	Weight
	Nm	rpm	mm	degrees	V	IP	kg
CRAB 17	70	8	125	multi turn	120/230 AC	20/44	3
CRAB 17	105	20	125	multi turn	12/24/90 DC	20/44	3



CRAB 05

The design of the CRAB 05 rotary actuator series has been developed from a completely new recliner technology. This recliner technology is a new patent and has been successfully used in the automotive industry for car seat applications. Car seat applications demand low cost, high impact strength and ease of operation, electrically or manually, when adjusting the seat. This design makes it possible to build low cost and space saving solutions in application where dynamic force demands are below 100 Nm.

Benefits:

- Recliner
- Multiple motor options
- Thin and small



Type	Torque	Speed	Size	Working range	Voltage	Protection	Weight
	Nm	rpm	mm	degrees	V DC	IP	kg
CRAB 05	100	3	86	multi turn	24	20	0,5

Control units

A large variety of control units is available to operate the linear drives and telescopic pillars. They allow the connection of up to 5 actuators or several external options. There is also a version to operate battery powered DC-actuators. For combinations of actuators and control units please see the matrix on page 106.

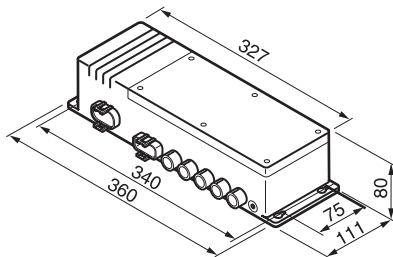
Benefits:

- Application focused system control
- Operation of up to 5 actuators
- Connections for foot, hand or desk switches
- Standard or microprocessor versions



Control units	Type	Control	Max. motor connections	Input	Output
			n°	V	V/A
KOM	KOM 1	Standard	4	230/120	24/6
	KOM 2	Microprocessor	5	230/120	24/12
	KOM 3	Standard	3	230/120	24/6
	KOM 3T	Standard	2	230/120	24/9
	KOM 6	Microprocessor	4	230/120	24/12
MCU	MCU	Standard	2	230/120	24/6
LD	LD-015	Microprocessor	2	230/120	24/12
	LD-014	Microprocessor	4	230/120	24/12
CAFC 04	M1	Microprocessor	1	230/120	40/6
	M2	Microprocessor	2	230/120	40/6
	M3	Microprocessor	3	230/120	40/6
CAFM	M1	Microprocessor	1	230/120	N/A
	M2	Microprocessor	2	230/120	N/A
	M3	Microprocessor	3	230/120	N/A
CAEN	10R	Standard (on/off)	1	230/120	24/1-10
	15	Standard (on/off)	1	230	24/15
CAEV	110/220	Standard (on/off)	1	230/120	400/200
CAED ANR	5-24R-PO	Microprocessor	1	22-28	24/5
	9-24R-PO	Microprocessor	1	22-28	24/9
CAED	3-24R	Standard (on/off)	1	24	24/3
	5-24R	Standard (on/off)	1	24	24/5
	9-24R	Standard (on/off)	1	24	24/9
CAEP	10P-SL	Standard	1	230	24/2-10
	8V	Standard	1	230	24/10
BCU	4/5	Microprocessor	3	120	24/7
	8/9	Microprocessor	3	230	24/7
CAEL	10-24R	Standard	1	24DC/19AC	24/2-10

KOM1



Type	Control	Max. motor connections	Input	Output power
		n°	V AC	VDC/A
KOM 1	Standard	4	230/120	24/6

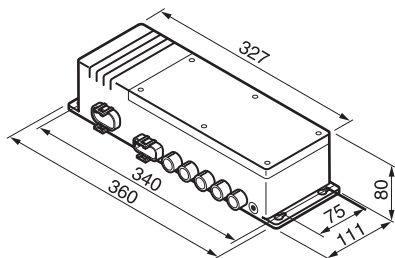
Type key

Type				
Number of channels:				
1 channel				1
2 channels				2
3 channels				3
4 channels				4
2-channel with customized current cut-off				A
3-channel with customized current cut-off				B
4-channel with customized current cut-off				C
Battery option:				
No battery				0
With battery and charge circuit (not possible with enhanced power)				1
With charge circuit for external battery				3
Voltage:				
230 V AC., 50/60Hz				1
120 V AC., 50/60Hz				2
Cable/Connecting plug:				
No				0
Colour:				
Grey, RAL 7035				A
Customization:				
None				000

Options written in BLUE text are included in the Easy Range concept, which is our special service range for quick delivery from stock. A type key made with ALL POSITIONS in BLUE qualifies a product for this service.

Item	Plug	Country	Order number	Comment
Straight cable 3.5	Schuko	DE	140306	
Straight cable 3.5	SEV	CH	140316	
Straight cable 3.5	UL	USA	140355	
Straight cable 3.5	Hospital grade	USA	140360	
Straight cable 3.5	British standard	UK	140350	
Coiled cable 1.2 m / 2.2 m	Schuko	DE	140342	
Coiled cable 1.2 m / 2.2 m	SEV	CH	140378	
Straight cable 3.5	SEV	CH	140422-3500	Polyurethane cable
Straight cable 3.5	Schuko	DE	140426-3500	Polyurethane cable
Tool for plugs (Jack/D-Sub/Mains)			140375	

KOM2



Type	Control	Max. motor connections	Input	Output
		n°	V AC	V/A
KOM 2	Microprocessor	5	230/120	24/12

Type key



Type

Number of channels:

- 1 channel (not available with parallel option)
- 2 channels
- 3 channels
- 4 channels (not available with memory option)
- 5 channels

- 1
- 2
- 3
- 4
- 5

Battery option:

- No battery
- With battery and charge circuit (not possible with enhanced power)
- With charge circuit for external battery

- 0
- 1
- 3

Voltage:

- 230 V AC, 50/60Hz
- 120 V AC, 50/60Hz
- 120 V AC, 50/60Hz with enhanced power
- 120 V AC, 50/60Hz with enhanced power

- 1
- 2
- 4
- 5

Cable/Connecting plug:

- No cable

- 0

Colour:

- Grey, RAL 7035

- A

Software options:

- Up and down function (up to 5 channels)
- Parallel operation of actuators (all connected actuators move together)
- Parallel operation of 2 x 2 actuators
- 3 free programmable memory positions
- Customer-specific programming*

- E
- P
- D
- M
- K

Customization:

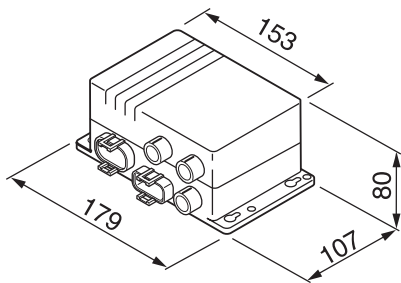
- None

- 0 0 0

Options written in italic fonts are not available as standard. Please, contact SKF for verification.

Item	Plug	Country	Order number	Comment
Straight cable 3.5	Schuko	DE	140306	
Straight cable 3.5	SEV	CH	140316	
Straight cable 3.5	UL	USA	140355	
Straight cable 3.5	Hospital grade	USA	140360	
Straight cable 3.5	British standard	UK	140350	
Coiled cable 1.2 m/2.2 m	Schuko	DE	140342	
Coiled cable 1.2 m/2.2 m	SEV	CH	140378	
Straight cable 3.5	SEV	CH	140422-3500	Polyurethane cable
Straight cable 3.5	Schuko	DE	140426-3500	Polyurethane cable
Tool for plugs (Jack/D-Sub/Mains)			140375	

KOM3



Type	Control	Max. motor connections	Input	Output
		n°	V AC	V/A
KOM 3	Standard	3	230/120	24/6
KOM 3T	Standard	2	230/120	24/9

Type key

Type

Number of channels:

- 1 channel
- 2 channels
- 3 channels**
- 2 channels (only for TLT-Telemag)

Voltage:

- 230 V AC, 50/60Hz**
- 120 V AC, 50/60Hz**

Cable/Connecting plug:

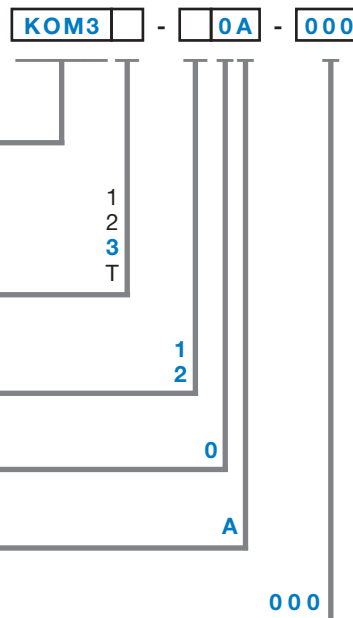
No

Colour:

Grey RAL 7035

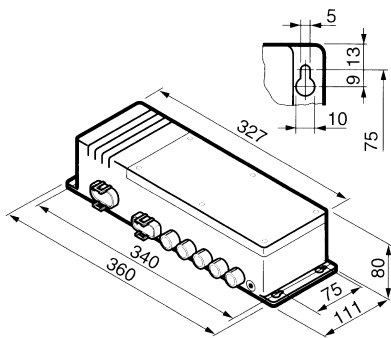
Customization:

None



Options written in BLUE text are included in the Easy Range concept, which is our special service range for quick delivery from stock. A type key made with ALL POSITIONS in BLUE qualifies a product for this service.

Item	Plug	Country	Order number	Comment
Straight cable 3.5	Schuko	DE	140306	
Straight cable 3.5	SEV	CH	140316	
Straight cable 3.5	UL	USA	140355	
Straight cable 3.5	Hospital grade	USA	140360	
Straight cable 3.5	British standard	UK	140350	
Coiled cable 1.2 m/2.2 m	Schuko	DE	140342	
Coiled cable 1.2 m/2.2 m	SEV	CH	140378	
Straight cable 3.5	SEV	CH	140422-3500	Polyurethane cable
Straight cable 3.5	Schuko	DE	140426-3500	Polyurethane cable
Tool for plugs (Jack/D-Sub/Mains)			140375	



Type	Control	Max. motor connections	Input	Output
		n°	V AC	V/A
KOM 6	Microprocessor	4	230/120	24/12

Type key

Type

Number of channels:

- 1 channel (not available with parallel option)
- 2 channels
- 3 channels
- 4 channels (not available with memory option)

Battery option:

- No battery
- With battery and charge circuit (not possible with enhanced power)
- With charge circuit for external battery

Voltage:

- 230 V AC, 50/60Hz
- 120 V AC, 50/60Hz
- 230 V AC, 50/60Hz with enhanced power
- 120 V AC, 50/60Hz with enhanced power

Cable/Connecting plug:

- Without cable

Colour:

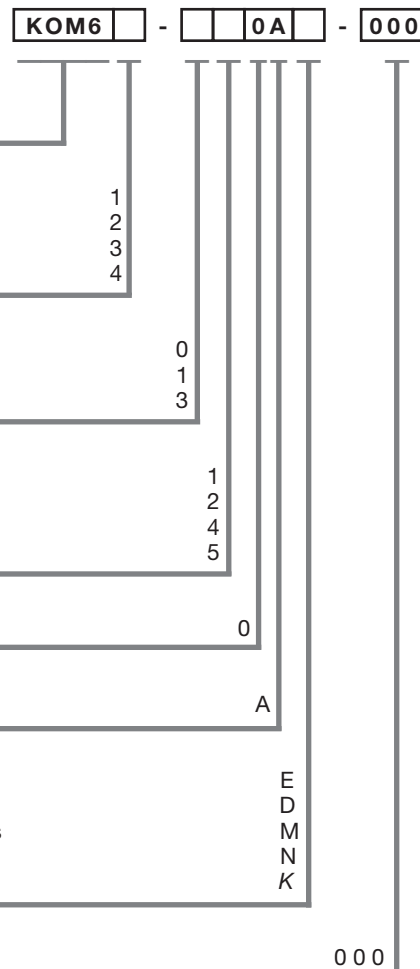
- Grey, RAL 7035

Software options:

- Up and down function (up to 4 channels)
- Parallel operation of 2 x 2 actuators
- Parallel operation of actuators (all connected actuators move together), incl. 3 memory positions
- 3 free programmable memory positions
- Customer-specific programming*

Customization:

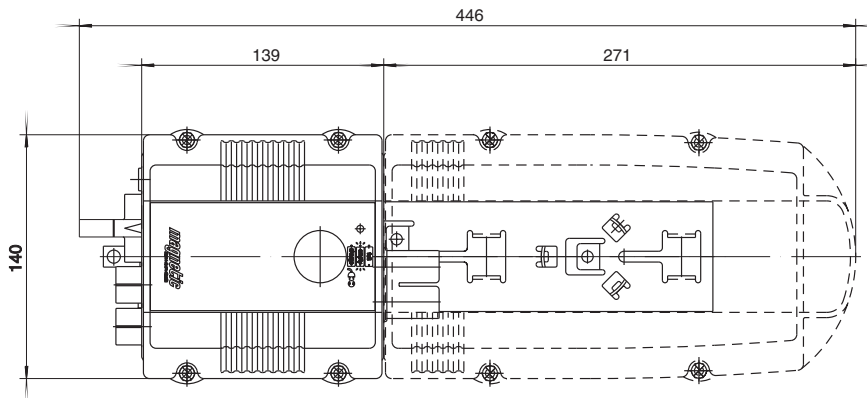
- None



Options written in italic fonts are not available as standard. Please, contact SKF for verification.

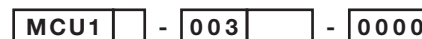
Item	Plug	Country	Order number	Comment
Straight cable 3.5	Schuko	D	140306	
Straight cable 3.5	SEV	CH	140316	
Straight cable 3.5	UL	USA	140355	
Straight cable 3.5	Hospital grade	USA	140360	
Straight cable 3.5	British standard	GB	140350	
Coiled cable 1.2 m/2.2 m	Schuko	D	140342	
Coiled cable 1.2 m/2.2 m	SEV	CH	140378	
Straight cable 3.5	SEV	CH	140422-3500	Polyurethane cable
Straight cable 3.5	Schuko	D	140426-3500	Polyurethane cable
Tool for plugs (Jack/D-Sub/Mains)			140375	

MCU



Type	Control	Max. motor connections	Input	Output
		n°	V AC	V/A
MCU	Standard	2	230/120	24/6

Type key



Type

Voltage:
24 V DC

Number of channels:

1 channel
2 channels

Cable/Connecting plug:

Without cable

Colour:

Grey

Options:

None
Cut-off current 7.5A
Cut-off current 9A
Emergency lowering, channel 1
Cut-off current 7.5A, electric emergency lowering, channel 1
Cut-off current 9A, electric emergency lowering, channel 1

Symbols/customization:

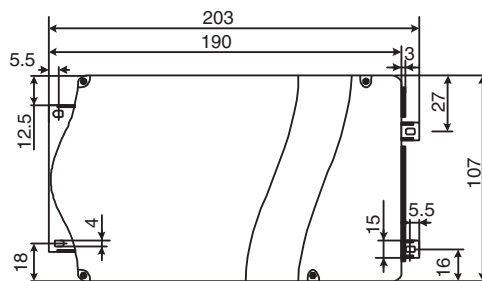
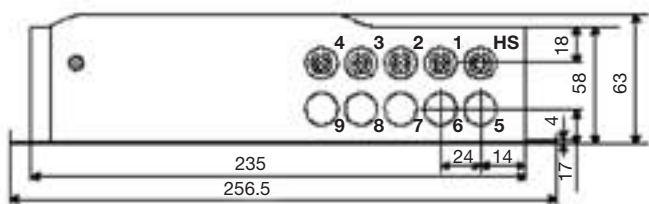
Not used

0 0 0
EWP
EXP
EYE
2DU
2AT

0000

Item	Data	Plug	Order number
Battery unit	4.5 Ah		ZBA-142211
Mains adapter	230 V	Euro plug	ZDV-142331
Mains adapter	120 V	UL plug	ZDV-142332
Wall charging station			ZLA-142221
Tool for plugs (Jack/D-Sub/Mains)			140375

LD



LD-014

LD-015

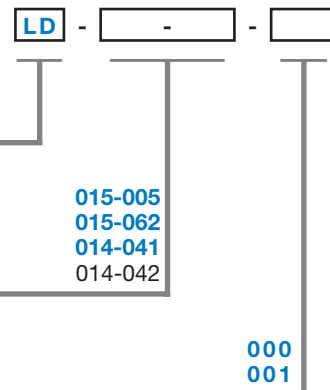
Type	Control	Max. motor connections	Input	Output
		n°	V AC	V/A
LD-014	Microprocessor	4	230/120	24/12
LD-015	Microprocessor	2	230/120	24/12

Type key

Type

Number of channels:
 2 channels for **TELESMA**R T XG
 2 channels for **TMA/TMD**
 3 channels for **TMA/TMD**
 4 channels for **TMA/TMD**

Voltage:
 230 V AC
 120 V AC

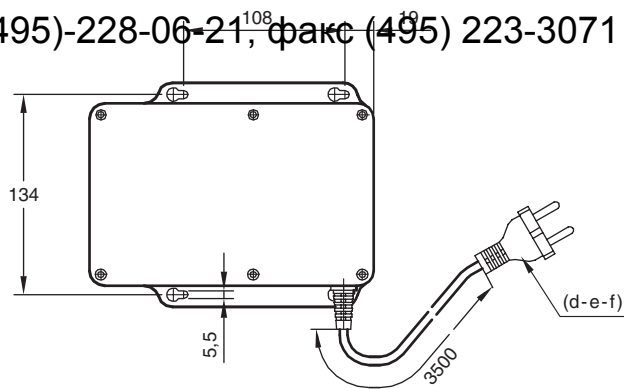
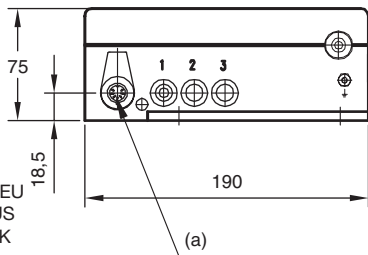


Options written in BLUE text are included in the Easy Range concept, which is our special service range for quick delivery from stock. A type key made with ALL POSITIONS in BLUE qualifies a product for this service.

CAFC 04

Legend:

- (a) = depth 150
- (d) = 230V straight 3,5m black EU
- (e) = 120V straight 3,0m grey US
- (f) = 240V straight 3,0m grey UK



Type	Control	Max. motor connections	Input	Output
		n°	V AC	V/A
M1	Microprocessor	1	230/120	40/6
M2	Microprocessor	2	230/120	40/6
M3	Microprocessor	3	230/120	40/6

Type key



Type

Number of actuators:

- 1 actuator
- 2 actuators
- 3 actuators

Mains cable (PVC cable class II):

- Coiled cable, 3.0m, grey, EU-plug
- Straight cable, 3.2m, black, EU-plug
- Straight/coiled cable 3.0m (1m+2m), grey, EU-plug
- Straight cable, 3.0m, grey, US-plug
- Straight cable, 3.0m, grey, UK-plug, straight

Overload protection (factory pre-set):

Yes

Protection class:

IPX4

Battery options:

- No battery
- Battery plug

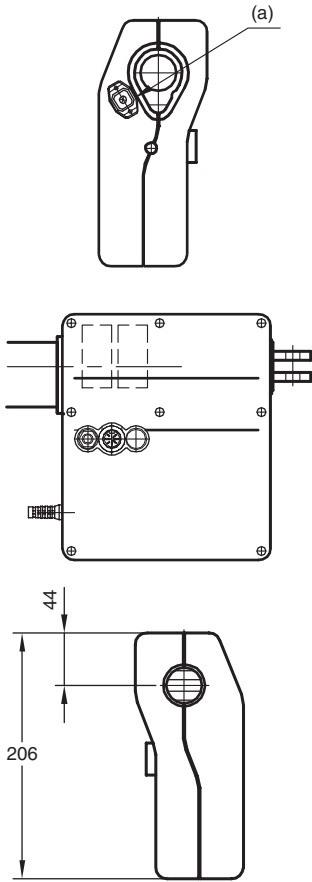
Colour:

RAL 7035, grey

Accessories

Item / Product	CAFC04 M1	CAFC04 M2	CAFC04 M3
Cable handset	CAFH M1/S118C CAFH M1/S118CE CAFH M1/S746C CAFH M1/S746CE	CAFH M2/S116C CAFH M2/S116CE CAFH M2/S784C CAFH M2/S784CE	CAFH M3/S120C CAFH M3/S120CE CAFH M3/S822C CAFH M31/S822CE
Foot switch	CAFH F1/S401D CAFH F1/S403D	CAFH F1/S401D CAFH F1/S403D	CAFH F1/S402D CAFH F1/S404D
Desk switch	CAFH T1/S457D	CAFH T2/S458D	
Battery	CAFB/S693D	CAFB/S693D	CAFB/S693D
Junction box	CAFR/S238D	CAFR/S238D	CAFR/S239D

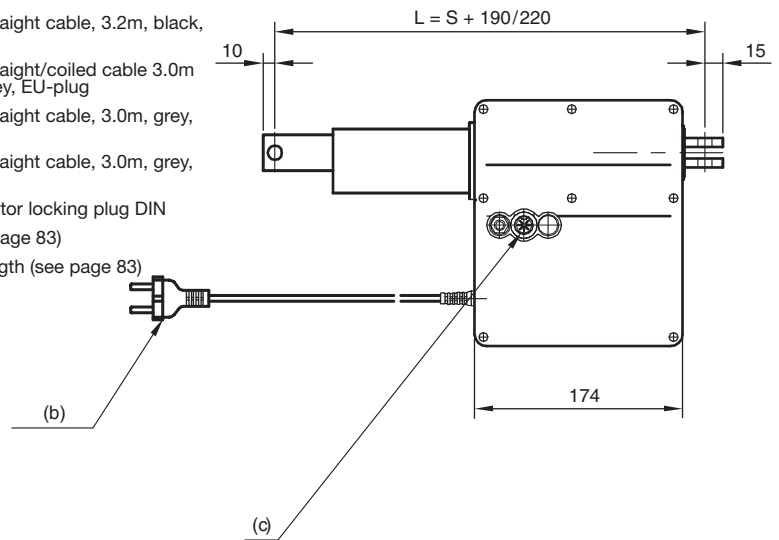
CAFM



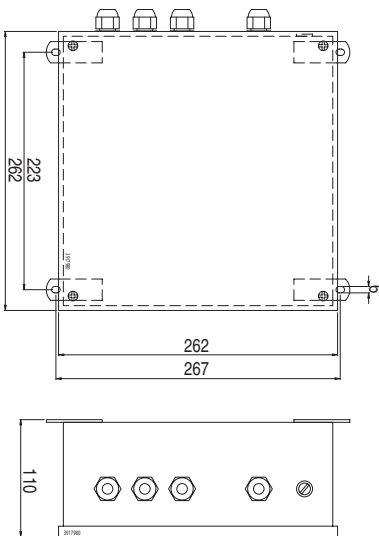
Type	Control	Max. motor connections	Input	Output
		n°	V AC	V/A
M1	Microprocessor	1	230/120	40/6
M2	Microprocessor	2	230/120	40/6
M3	Microprocessor	3	230/120	40/6

See Type key on page 83 for further information.

- Legend:
 (a) = battery connection or external switch
 (b) = 230 VAC, Coiled cable, 3.0m, grey, EU-plug
 230 VAC, Straight cable, 3.2m, black, EU-plug
 230 VAC, Straight/coiled cable 3.0m (1m+2m), grey, EU-plug
 120 VAC, Straight cable, 3.0m, grey, US-plug
 240 VAC, Straight cable, 3.0m, grey, UK-plug
 (c) = multi conductor locking plug DIN
 S = stroke (see page 83)
 L = retracted length (see page 83)



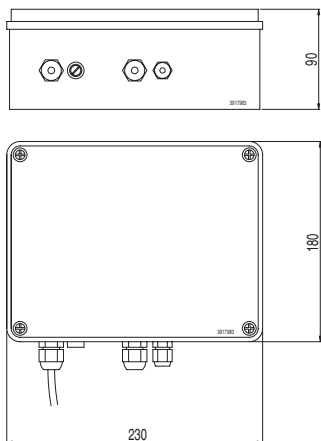
CAEN



Type	Control	Max. motor connections	Input	Output
		n°	V AC	V/A
15	Standard (on/off)	1	230	24/10

Type code:
CAEN 15

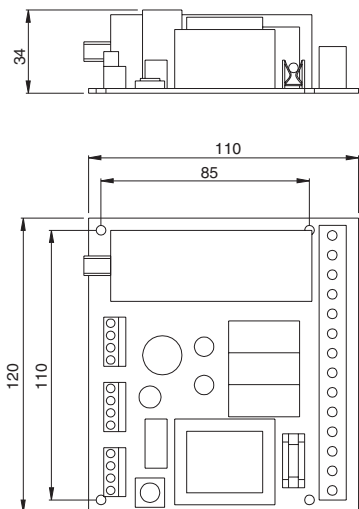
CAEN



Type	Control	Max. motor connections	Input	Output
		n°	V AC	V/A DC
10R	Standard (on/off)	1	230/120	24/1-10

Type code:
CAEN 10R

CAEV

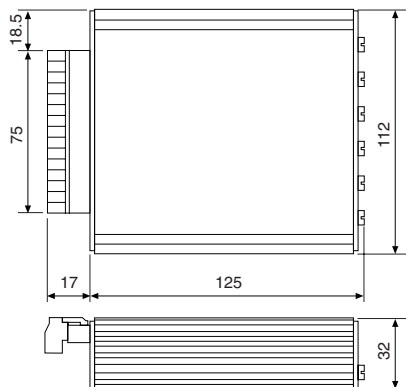


Type	Control	Max. motor connections	Input	Output
		n°	V AC	VA
110/220	Standard (on/off)	1	230/120	400/200

Available start capacitors: Values = 3μF / 4 μF / 6 μF / 8 μF or 12 μF

Type code:
CAEV 110/220

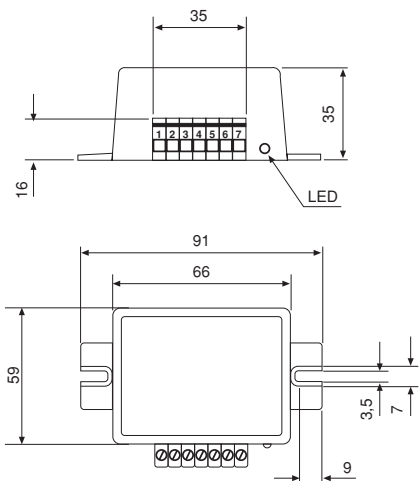
CAED ANR



Type	Control	Max. motor connections	Input	Output
		n°	V DC	V/A DC
5-24 R-PO	Microprocessor	1	22-28	24/5
9-24 R-PO	Microprocessor	1	22-28	24/9

Type code:
CAED ANR 5-24R-PO
CAED ANR 9-24R-PO

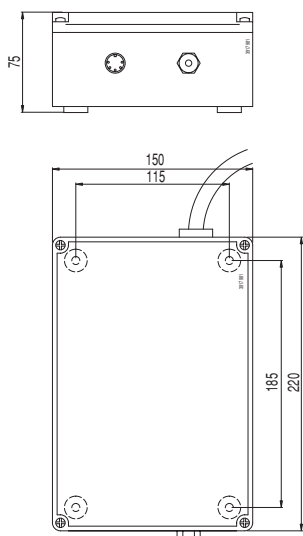
CAED



Type	Control	Max. motor connections	Input	Output
		n°	V DC	V/A DC
3-24R	Standard (on/off)	1	24	24/3
5-24R	Standard (on/off)	1	24	24/5
9-24R	Standard (on/off)	1	24	24/9

Type code:
 CAED 3-24R 1
 CAED 5-24R 1
 CAED 9-24R 1

CAEP

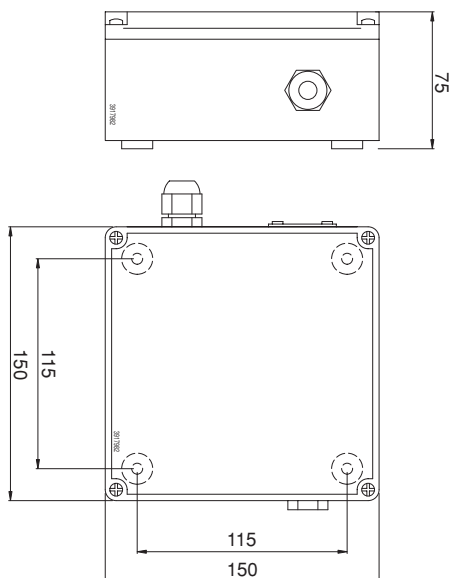


Type	Control	Max. motor connections	Input	Output
		n°	V AC	V/A DC
10P-SL	Standard	1	230	24/2-10
8V	Standard	1	230	24/10

* Dimension of housing: 260x260x107mm

Type code:
 CAEP 10P-SL
 CAEP 8V

CAEL

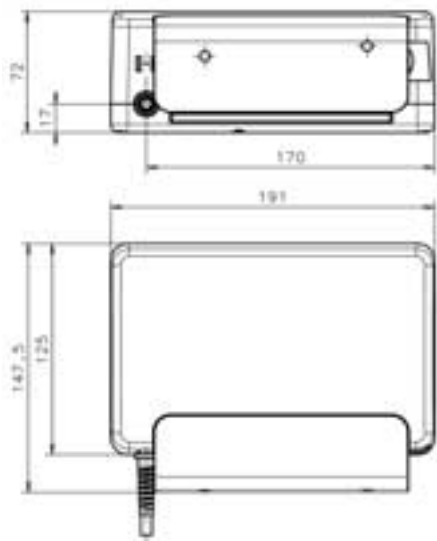


Type	Control	Max. motor connections	Input	Output
		n°	V AC	V/A DC
10-24R	Standard	1	230	24/2-10

Type code:
 CAEL 10-24R



BCU

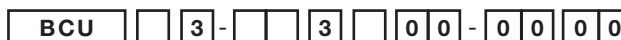


Type	Control	Max. motor connections	Input	Output
		n°	VAC	V/A DC
BCU 43	Microprocessor	3	120	24/7
BCU 53	Microprocessor	3	120	24/7
BCU 83	Microprocessor	3	120	24/7
BCU 93	Microprocessor	3	120	24/7

Type code:

- BCU 43
- BCU 53
- BCU 83
- BCU 93

Type key



Typ

Voltage:

- 120 V AC 50/60Hz (Class II)
- 120 V AC 50/60Hz (Class I)
- 230 V AC 50Hz (Class II)
- 230 V AC 50Hz (Class I)

Numer of channels:

3-channel

Mains power supply cable:

- Straight, 3.5m, 2-pole plug, EU, class II
- Straight, 3.5m, 2-pole plug, UK, class II
- Straight, 3.5m, 2-pole plug, UL, class II
- Coiled, 1.5/2.4m, 2-pole plug, EU, class II
- Coiled, 1.5/2.4m, 2-pole plug, UK, class II
- Coiled, 1.5/2.4m, 2-pole plug; UL, class II
- Straight, 3.5m, 3-pole plug, SEV, class I*
- Straight, 3.5m, 3-pole plug, Schuko, class I*
- Straight, 3.5m, 3-pole plug, UK, class I*
- Straight, 3.5m, 3-pole plug, Hospital grade, class I*
- Straight, 3.5m, 3-pole plug, UL class I*
- Coiled, 1.5/2.4m, 3-pole plug, SEV, class I*
- Coiled, 1.5/2.4m, 3-pole plug, Schuko, class I*
- Coiled, 1.5/2.4m, 3-pole plug, UK, class I*
- Coiled, 1.5/2.4m, 3-pole plug, Hospital grade, class I*
- Coiled, 1.5/2.4m, 3-pole plug, UL, class I*

- 2 J
- 2 H
- 2 M
- GJ
- GH
- GM
- 2 C
- 2 E
- 2 G
- 2 N
- 2 L
- GC
- GE
- GG
- GN
- GL

Colour/Design:

Gray, RAL 7035

Option 1:

- Jack motor plug
- DIN 8 motor plug

Option2:

None

Functions/symbols:

None

Customer specification:

None

Options written in italic fonts are not available as standard. Please, contact SKF for verification.

Hand switches

The hand switches serve for operating one or several actuators. With the pushbuttons field on the front panel the movements of the actuators can be controlled easily and precisely. The hand switches are available with different plug options. There is also an infrared version for more flexibility in remote operating.

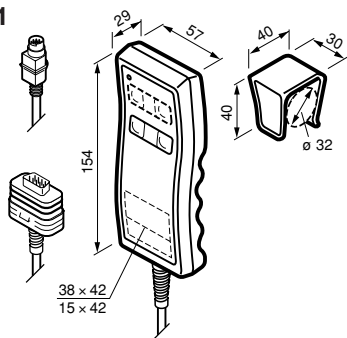
Benefits:

- Easy and precise
- Flexible and remote operation
- Ergonomic design
- Different plug options



Hand switches	Type	Operating power	Max. operating motors	Prot. class	Colour
		VDC/ mA	n°	IP	
EHA	EHA 1	12/50	4	67	grey
	EHA 2	12/50	5	67	grey
EHE	EHE 1	38/50	4	X7	grey/black
	EHE 6	38/50	4	X7	grey
PHC	PHC	–	4	66	grey
CAFH	M1	40/50	1	X4	black
	M2	40/50	2	X4	black
	M3	40/50	3	X4	black
CAES	31B	30/33	1	54	black
	31C	30/33	1	54	black
	3xD	30/33	2	54	black

EHA1



Type	Operating power	Max. operating motors	Prot. class	Colour
	VDC / mA	n°	IP	
EHA 1	12/50	4	67	grey

Type key

Type

Number of channels:

- 1 channel
- 2 channels
- 3 channels
- 4 channels**

Mounting bracket:

- No
- Yes mounted with hook**
- Hook supplied separately

Colour:

- Grey RAL 7035**

Cable/Connecting plug:

- Straight, 2.5m, Dsub plug
- Coiled, 1.3m/2.3m**
- Straight 2.5m (mini DIN 6-pin plug)
- Coiled 1.0m/2.0m (only possible up to 3-channel)
- Coiled 1.8m/2.8m, D-sub 9-pin plug
- Coiled Dsub plug, 2.5 m/3.5 m
- Straight 2.5m (DIN 8 plug 90°, no LED)*
- Coiled 1.3m/ 2.3m*

Symbols:

- None
- 1 channel: Arrow up/down**
 - Head
 - Foot
 - Level
- 2 channels: Arrow up/down**
 - Head/level
 - Head/foot
 - Level/head
- 3 channels: Arrow up/down**
 - Head/level/foot
 - Foot/level/head
 - Level/head/foot
- 4 channels: Arrow up/down**
 - Head/level/foot/knee lever
 - Level/head/foot/Autocontour

Customer logo:

- Yes (position as per dimension drawing, template required)
- No**

EHA1 - - - - **000**

1
2
3
4

0
1
2

1

A
B
C
D
E
F
G
H

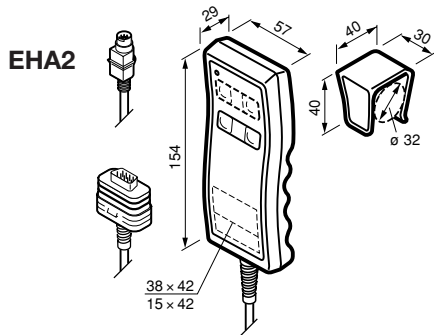
00
10
11
12
13
20
21
22
23
30
31
32
33
40
41
42

J
N

Options written in BLUE text are included in the Easy Range concept, which is our special service range for quick delivery from stock. A type key made with ALL POSITIONS in BLUE qualifies a product for this service.

Options written in italic fonts are not available as standard. Please, contact SKF for verification.

Item	Order number
Hook with sticker	145361-0001



Type	Operating power	Max. operating motors	Prot. class	Colour
	VDC / mA	n°	IP	
EHA 2	12/50	5	67	grey

Type key

EHA2 - [] - [] - [] - [] - 000

Type

Number of channels:

- 1 channel
- 2 channels
- 3 channels
- 4 channels
- 5 channels
- 1 channel with 3 memory functions
- 2 channels with 3 memory functions
- 3 channels with 3 memory functions

- 1
- 2
- 3
- 4
- 5
- A
- B
- C

Mounting bracket:

- No
- Yes mounted with hook
- Hook supplied separately

- 0
- 1
- 2

Colour:

Grey, RAL 7035

1

Cable/Connecting plug:

- Straight, 2.5m, D-sub plug
- Coiled, 1.3/2.3m
- Coiled, 1.8/2.8m, D-sub plug
- Coiled, 2.5/3.5m

- A
- B
- E
- F

Symbols:

- None
- 1 channel: Arrow up/down
- Head
- Foot
- Level
- 2 channels: Arrow up/down
- Head/level
- Head/foot
- Level/head
- 3 channels: Arrow up/down
- Head/level/foot
- Foot/level/head
- Level/head/foot
- 4 channels: Arrow up/down
- Head/level/foot/knee lever
- Level/head/foot/Autocontour
- 5 channels: Arrow up/down

- 00
- 10
- 11
- 12
- 13
- 20
- 21
- 22
- 23
- 30
- 31
- 32
- 33
- 40
- 41
- 42
- 50

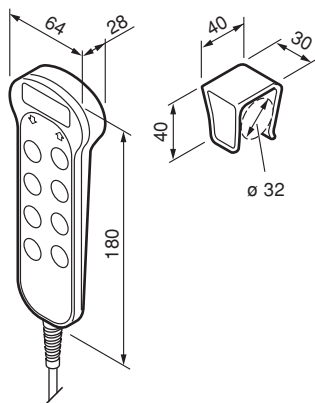
Customer logo:

- Yes (position as per dimension drawing, template required)
- No

- J
- N

Item	Order number
Hook with sticker	145361-0001

EHE



Type	Operating power	Max. operating motors	Prot. class	Colour
	VDC / mA	n°	IP	
EHE	38 / 50	4	X7	grey / black

Type key

Type

EHE, standard
EHE, with locking device

Number of channels:

1 channel
2 channels
3 channels
4 channels
1 channel with 3 memory functions (only for TXG)
2-channel with 3 memory functions

System of protection:

IPX7

Colour:

Black
Grey RAL 7035

Mounting bracket:

No
Yes

Symbols:

1 channel: arrow up/down	10
Head	11
Foot	12
Level	13
2 channels: arrow up/down	20
Head/level	21
Head/foot	22
Level/head	23
3 channels: arrow up/down	30
Head/level/foot	31
Foot/level/head	32
Level/head/foot	33
4 channels: arrow up/down	40
Head/level/foot/knee lever	41
Level/head/foot/Autocontour	42

Customer logo:

Yes (position as per dimension drawing, template required)
No



EHE1
EHE3

1
2
3
4
A
B

1

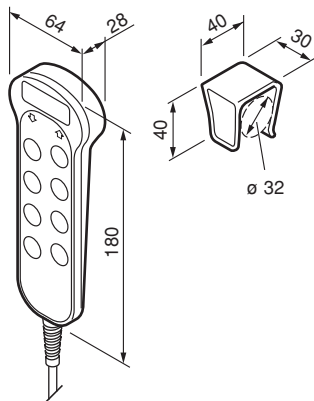
A
B

0
1

J
N

Item	Colour	Order number
Hook with sticker	grey	145361-0001
Hook with sticker	black	145361-0003

EHE6



Type	Operating power	Max. operating motors	Prot. class	Colour
	VDC / mA	n°	IP	
EHE 6	38 / 50	4	X7	grey

Type key

EHE6 - 1 - 000

Type

Number of channels:

- 1 channel
- 2 channels
- 3 channels
- 4 channels
- 5 channels
- 1 channel with 3 memory functions
- 2 channels with 3 memory functions
- 3 channels with 3 memory functions

1
2
3
4
5
A
B
C

System of protection:

IPX7

1

Colour:

Black
Grey RAL 7035

A
B

Mounting bracket:

No
Yes

0
1

Symbols:

- 1 channel: arrow up/down
- Head
- Foot
- Level
- 2 channels: arrow up/down
- Head/level
- Head/foot
- Level/head
- 3 channels: arrow up/down
- Head/level/foot
- Foot/level/head
- Level/head/foot
- 4 channels: arrow up/down
- Head/level/foot/knee lever
- Level/head/foot/Autocontour
- 5 channels: arrow up/down

10
11
12
13
20
21
22
23
30
31
32
33
40
41
42
50

Customer logo:

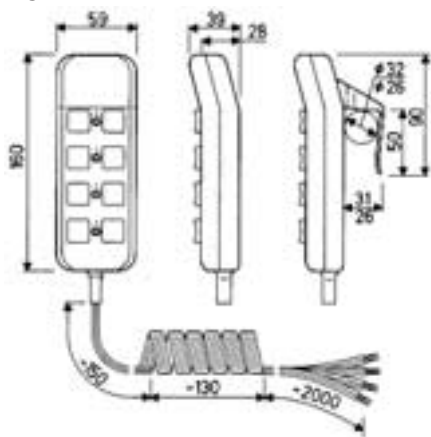
Yes (position as per dimension drawing, template required)
No

J
N

Item	Colour	Order number
Hook with sticker	grey	145361-0001
Hook with sticker	black	145361-0003



PHC

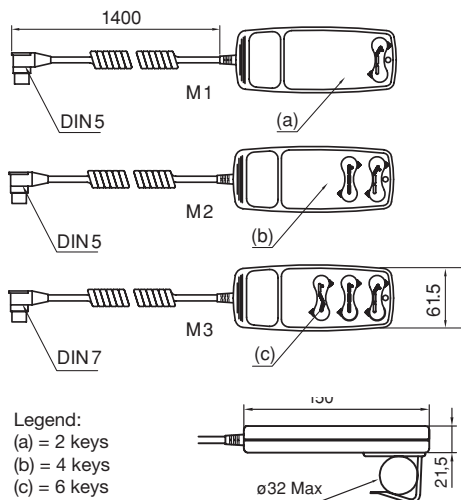


Type	Operating power	Max. operating motors	Prot. class	Colour
	VDC / mA	n°	IP	
PHC	-	4	66	anthracite

Type code:

- PHC 1 - 130660 (1 channel)
- PHC 2 - 130625 (1 channel)
- PHC 3 - 130756 (1 channel)
- PHC 4 - 130955 (1 channel)

CAFH

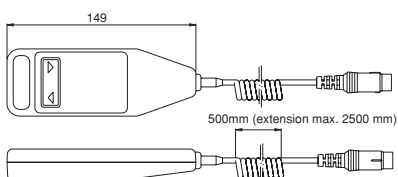


Type	Operating power	Max. operating motors	Prot. class	Colour
	VDC / mA	n°	IP	
CAFHM1	40 / 50	1	X4	black
CAFHM2	40 / 50	2	X4	black
CAFHM3	40 / 50	3	X4	black

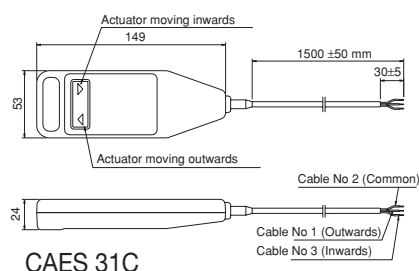
Type code:

- CAFHM1/118C
- CAFHM2/116C
- CAFHM3/120C

CAES



CAES 31B, CAES 31D*, CAES 32D*



Type	Operating power	Max. operating motors	Prot. class	Colour
	VDC / mA	n°	IP	
31B	30/33	1	54**	black
31C	30/33	1	54**	black
31D*	30/33	2	54**	black
32D*	30/33	2	54**	black

* Elbowed DIN plug.
 ** According to IP class 54.

Type code:

- CAES 31B (5-pole DIN plug, 2 buttons)
- CAES 31C (No connector, 2 buttons)
- CAES 31D (5-pole DIN plug, 2 buttons)
- CAES 32D (5-pole DIN plug, 4 buttons)

Foot switches

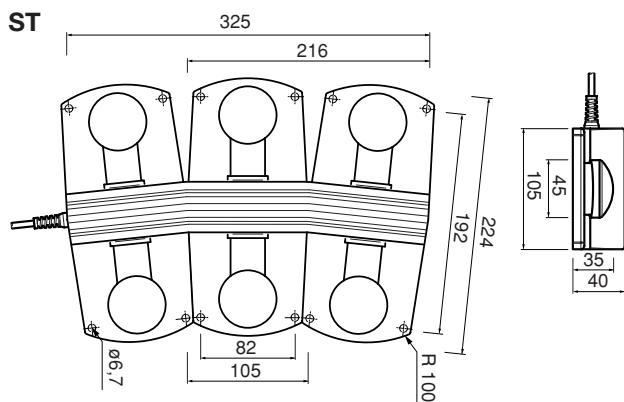
With the electrical foot switches direct current actuators can be operated. The large-size buttons enable an easy and precise control of the actuators. Depending on the plug the foot switches can be used on different control units.

Benefits:

- Easy and precise
- Flexible and remote operation
- Ergonomic design
- Different plug options



Foot switches	Type	Operating power	Max. operating motors	Prot. class	Colour
		VDC/ mA	n°	IP	
ST	ST	12/50	3	X5	blue/anthracite
PFP	PFP1	–	1	21	grey/anthracite
	PFP2	–	2	21	grey/anthracite
CAHFH	F1-DIN5	40/50	1	X4	anthracite
	F1-DIN7	40/50	1	X4	anthracite



Type	Operating power	Max. operating motors	Prot. class	Colour
	VDC / mA	n°	IP	
ST	12/50	3	X5	blue/anthracite

Type key

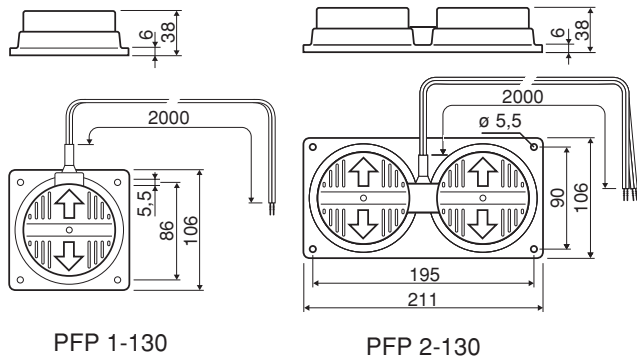
Type	ST	0	-	000	-	00
Product group: Standard For microprocessor units (only for KOM2) For first failure safety units (only for KOM6)	F	G	H			
Voltage: Not used				0		
Number of channels: 1 channel 2 channels 3 channels					1	2
Cable/Connecting plug: Coiled cable, 2.5m with D-sub plug Coiled cable, 2.5m with FCC plug Straight cable, 2.5m with D-sub plug Straight cable, 2.5m with FCC plug					LU	L
Colour: Charcoal Blue						4
Options: None <i>Mounted with rubber feet</i> <i>Mounted with threaded expansion inserts</i>						000 MAY MCA
Symbols: Without symbols 1-3 channels: arrow up/down (on each pair of keys) 3 channels: arrow up/down, M/1, 2/3 (3 memory keys)						0 0 X 1 3 7

Options written in italic fonts are not available as standard. Please, contact SKF for verification.

Accessories

Item	Symbol	Order number	Item	Symbol	Order number
Rubber feet		ZBE-135310	Symbol sticker	level down	135309-0008
Threaded expansion inserts		ZBE-521122	Symbol sticker	head up	135309-0009
Symbol sticker	arrow up	135309-0001	Symbol sticker	head down	135309-0010
Symbol sticker	arrow down	135309-0002	Symbol sticker	foot up	135309-0011
Symbol sticker	level up	135309-0007	Symbol sticker	foot down	135309-0012

PFP



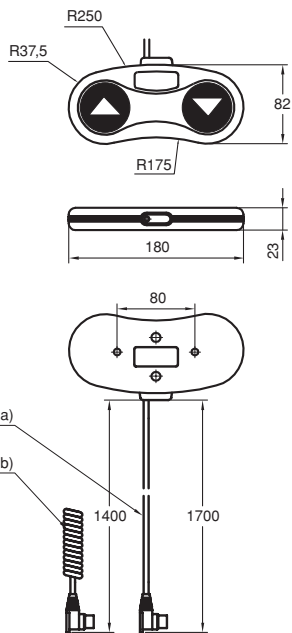
Type	Operating power	Max. operating motors	Prot. class	Colour
	VDC / mA	n°	IP	
PFP 1	N/A	1	21	grey / anthracite
PFP 2	N/A	2	21	grey / anthracite

Type key

PFP 1	-	1	2	1	5	4	5
PFP 2	-	1	3	0	5	6	0

Pneumatic foot switch

CAHF



Type	Operating power	Max. operating motors	Prot. class	Colour	Suitable for
	VDC / mA	n°	IP		
F1-DIN 5	40/50	1	X4	anthracite	CAFM M1/M2 and CAFC04 M1/M2
F1-DIN 7	40/50	1	X4	anthracite	CAFM M3 and CAFC04 M3

Type code

- CAFH F1/S401D, Coiled cable, DIN 5-pole plug
- CAFH F1/S402D, Coiled cable, DIN 7-pole plug
- CAFH F1/S403D, Straight cable, DIN 5-pole plug
- CAFH F1/S404D, Straight cable, DIN 7-pole plug

Legend:
 (a) = straight cable DIN5 or DIN7-pole-plug
 (b) = coiled cable DIN5 or DIN7-pole-plug



Desk switches

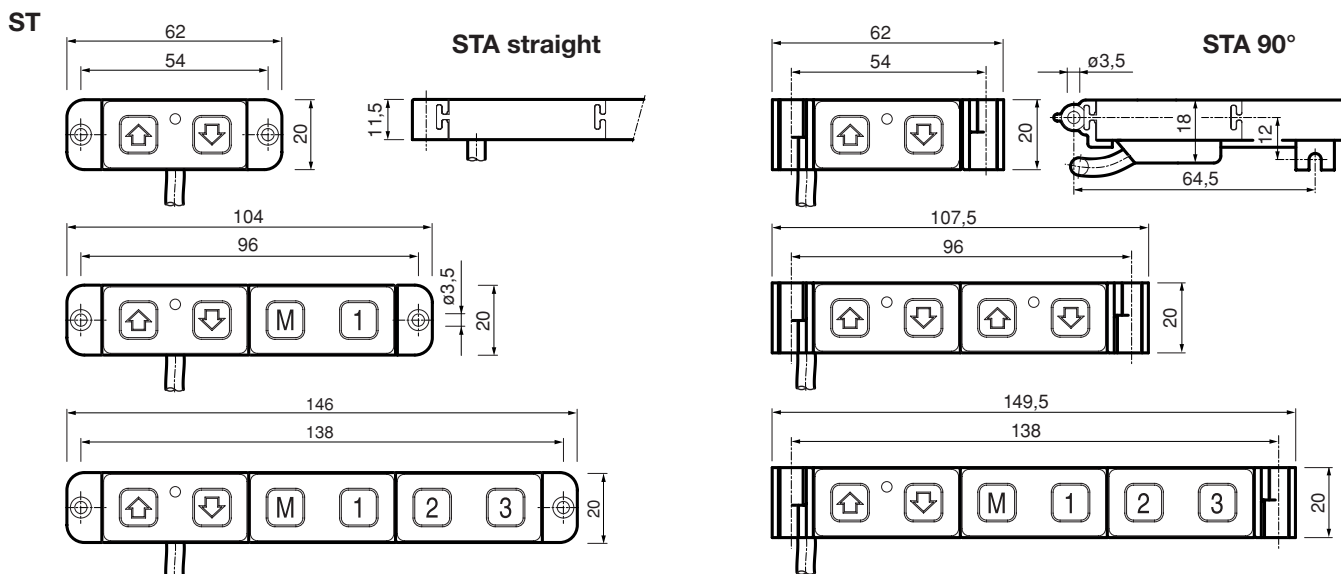
The desk switches serve for adjusting actuators in desks, chairs, couches and other adjustable furniture. They allow to operate up to 3 actuator functions, also with memory positions, and can easily be fitted to furniture without compromising the design.

Benefits:

- Easy and precise
- Stylish design
- Memory position

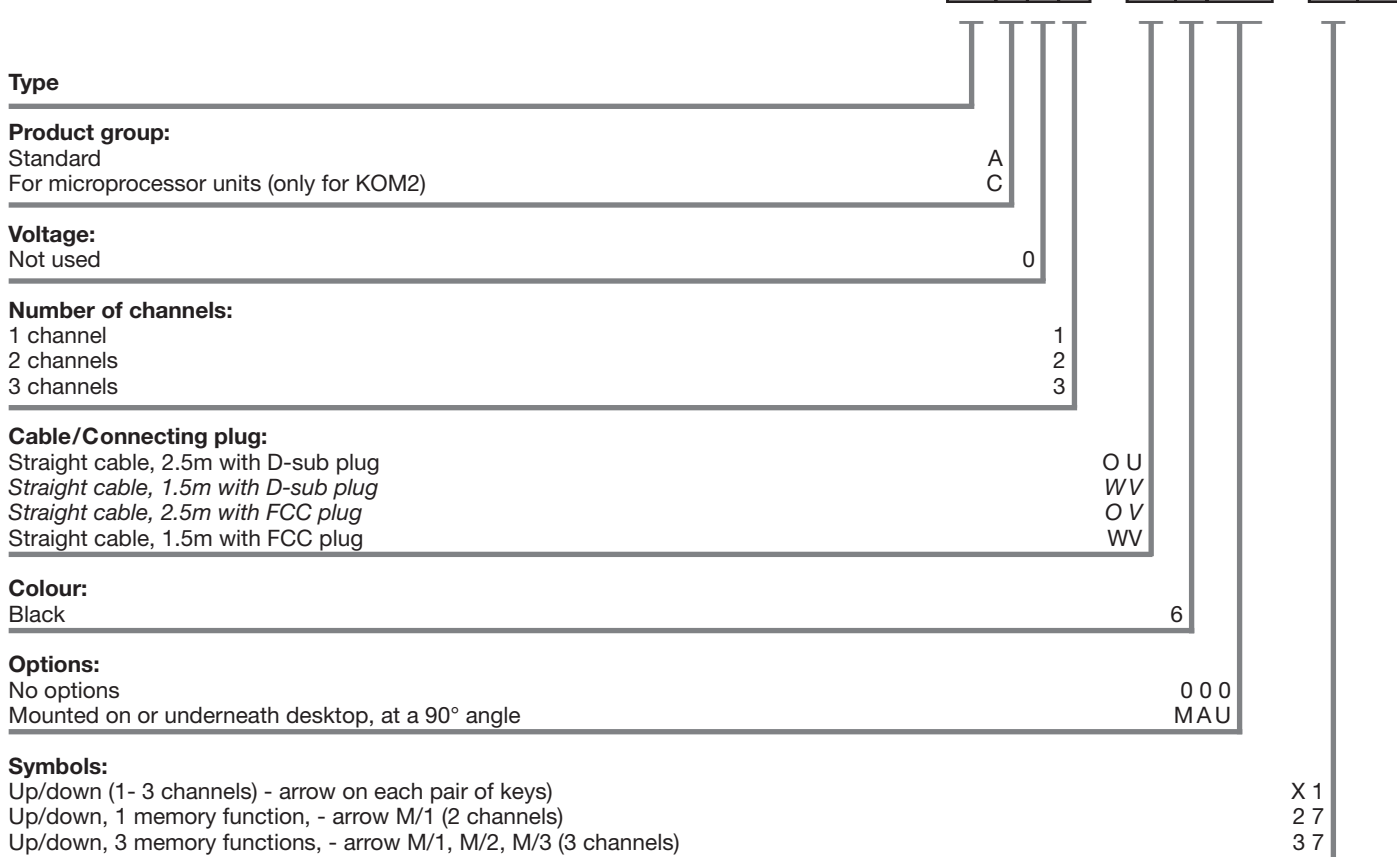


Desk switches	Type	Operating power	Max. operating motors	Prot. class	Colour
		VDC/ mA	n°	IP	
ST	ST	12/50	3	X0	black
LD	LD	5/50	2	32	black
CAFHT	T1	40/50	1	X4	black
	T2	40/50	2	X4	black



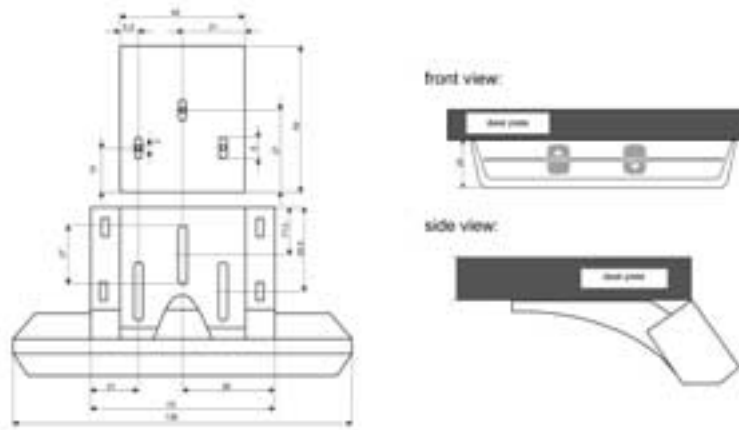
Type	Operating power	Max. operating motors	Prot. class	Colour
	VDC / mA	n°	IP	
ST	12/50	3	X0	black

Type key



Options written in italic fonts are not available as standard. Please, contact SKF for verification.

LD



Type	Operating power	Max. operating motors	Prot. class	Colour
	VDC / mA	n°	IP	
LD	5/50	2	32	black

Type key



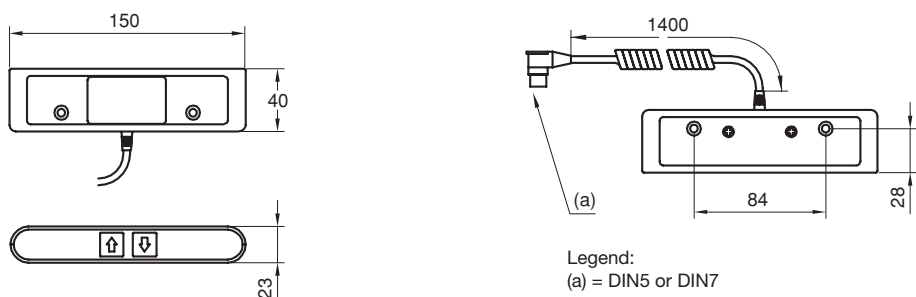
Type

1-channel, without display, for LD control units	001 . 005
<i>1-channel, with memory keys, without display, for LD control units</i>	001 . 012
1-channel, with memory keys, with display, for LD control units with FCC plug	002 . 016
1-channel, without memory and display, for TXG	001 . 006
<i>1-channel, with memory keys, without display, for TXG</i>	008 . 008
1-channel, with memory keys, with display, for TXG	002 . 014

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Options written in italic fonts are not available as standard. Please, contact SKF for verification.

CAFHT



Type	Operating power	Max. operating motors	Prot. class	Colour
	VDC / mA	n°	IP	
T1	40/50	1	X4	black / grey
T2	40/50	2	X4	black / grey

Type code

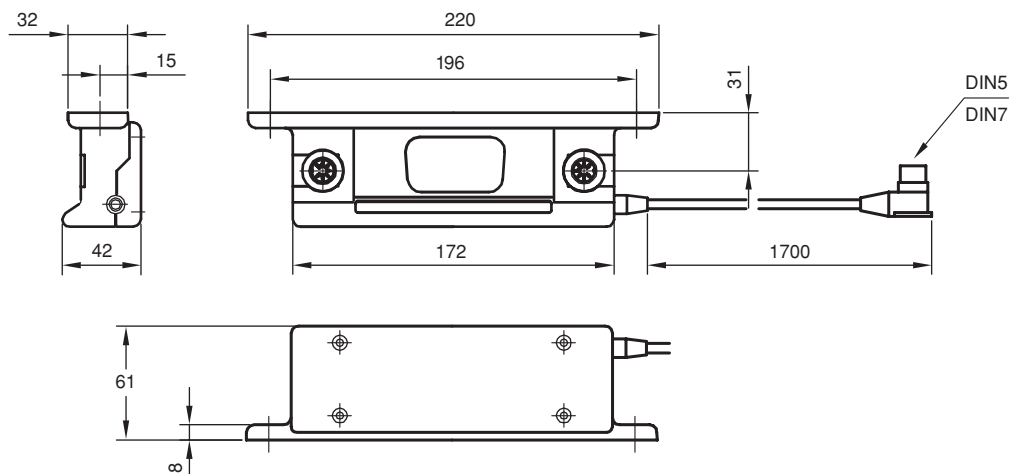
- CAFH T1/S457D, 2 keys, grey
- CAFH T2/S458D, 4 keys, grey
- CAFH T1/S459D, 2 keys, black
- CAFH T2/S460D, 4 keys, black

Junction box

The junction box serves to connect 2 hand, foot or table switches in a complete system. They can be used with CAFM or CAFC.



CAFR



Type	Operating power	Max. operating motors	Prot. class	Colour	Suitable for
	VDC / mA	n°	IP		
DIN5	40 / 50	2	X4	grey	CAFM M1/M2 and CAFC04 M1/M2
DIN7	40 / 50	2	X4	grey	CAFM M3 and CAFC04 M3

Type code

CAFR/S238D, DIN 5-pole

CAFR/S239D, DIN 7-pole



Easy3

SKF has put together actuator systems with component parts that are integrated to give you optimal safety and unbeatable reliability. Just switch the power on and you are ready for operation. The system can handle the indicated load with ease, in addition we have taken the extra precaution of building in adjustable end limits and overload protection to safeguard the equipment from impact damage.

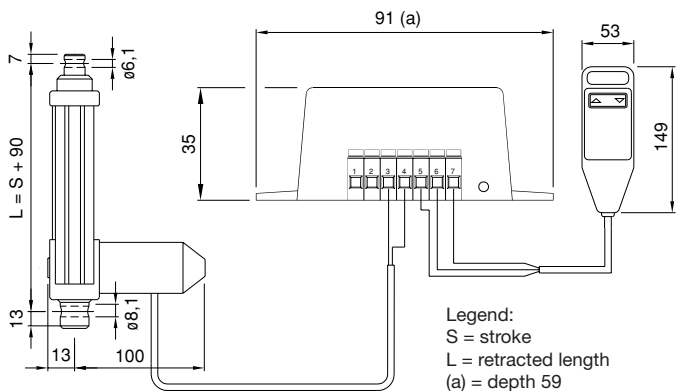
Benefits:

- Plug and play systems
- Easy to order
- Easy to install
- Easy to use



Type	Force		Max. speed		Stroke (S)	Retr. Length (L)	Voltage
	push	pull	no load	full load			
	N	N	mm/s	mm/s	mm	mm	V
Easy3-01	500	500	16	10	50 - 200	S+90	24 DC
Easy3-02	600	600	31	17	50 - 200	S+215	24 DC
Easy3-03	2000	2000	12	8	100 - 300	S+150	24 DC
Easy3-04	2000	2000	14	9	100 - 300	S+150	230 AC
Easy3-05	2000	2000	14	9	100 - 300	S+150	230 AC
Easy3-10	7000	3000	7	4	100 - 200	S+190	230 AC
Easy3-11	7000	3000	7	4	100 - 200	S+190	230 AC
Easy3-12	7000	3000	7	4	100 - 200	S+190	230 AC
Easy3-13	7000	3000	7	4	100 - 200	S+190	230 AC

Easy3-01



Technical data	Stroke (S)	Linear speed	Max dynamic load	Supply voltage
	mm	mm/s	N	V DC
EASY3-01	50 - 200	16 - 10	500	24

Type key

CATR11E301 ×

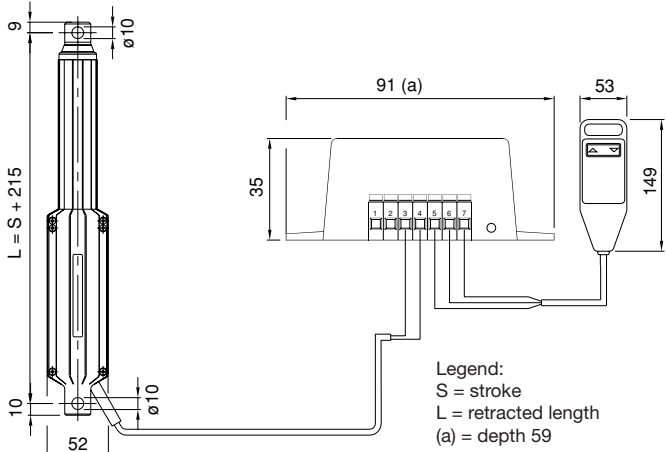
Kit type

Stroke (S):

- 50 mm
- 100 mm
- 200 mm

- 50
- 100
- 200

Easy3- 02



Technical data	Stroke (S)	Linear speed	Max dynamic load	Supply voltage
	mm	mm/s	N	V DC
EASY3-02	50 - 200	31 - 17	600	24

Type key

CALA36E302 ×

Kit type

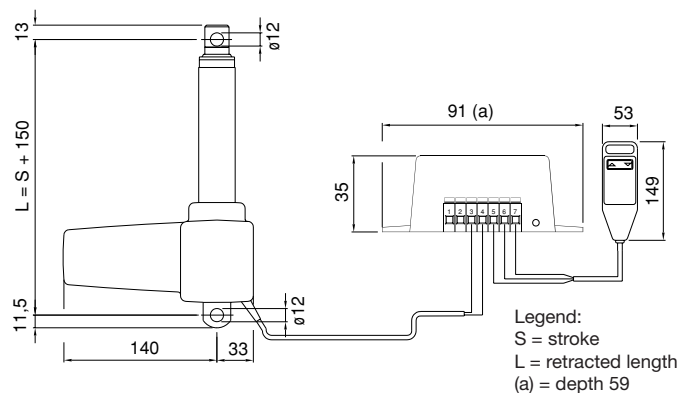
Stroke (S):

- 50 mm
- 100 mm
- 200 mm

- 50
- 100
- 200

Options written in BLUE text are included in the Easy Range concept, which is our special service range for quick delivery from stock. A type key made with ALL POSITIONS in BLUE qualifies a product for this service.

Easy3-03



Technical data	Stroke (S)	Linear speed	Max dynamic load	Supply voltage
	mm	mm/s	N	V DC
EASY3-03	100-300	12-8	2000	24

Type key

CARE33E303 ×

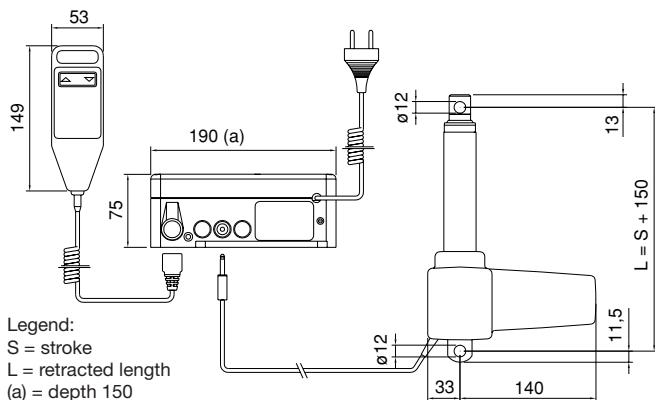
Kit type

Stroke:

100 mm
200 mm
300 mm

100
200
300

Easy3- 04



Technical data	Stroke (S)	Linear speed	Max dynamic load	Supply voltage
	mm	mm/s	N	V AC
EASY3-04	100-300	14-9	2000	230

Type key

CARE33E304 ×

Kit type

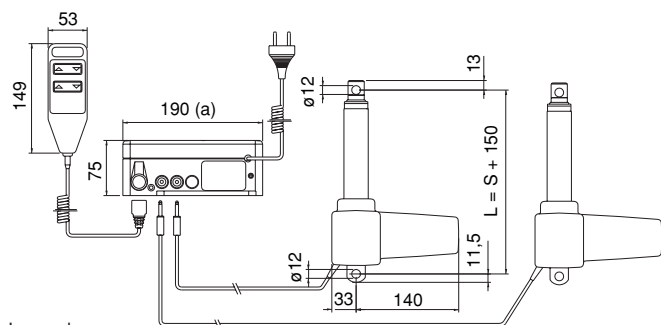
Stroke:

100 mm
200 mm
300 mm

100
200
300

Options written in BLUE text are included in the Easy Range concept, which is our special service range for quick delivery from stock. A type key made with ALL POSITIONS in BLUE qualifies a product for this service.

Easy3-05



Legend:
S = stroke
L = retracted length
(a) = depth 150

Technical data	Stroke (S)	Linear speed	Max dynamic load	Supply voltage
	mm	mm/s	N	V AC
EASY3-05	100-300	14-9	2000	230

Type key

CARE33E305 ×

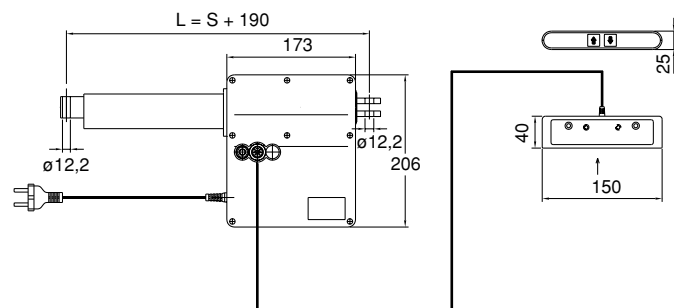
Kit type

Stroke (S):

100 mm
200 mm
300 mm

100
200
300

Easy3-10



Legend:
S = stroke
L = retracted length

Technical data	Stroke (S)	Linear speed	Max dynamic load	Supply voltage
	mm	mm/s	push pull N	V AC
EASY3-10	100-200	7-4	7000 3000	230

Type key

EASY3-10 ×

Kit type

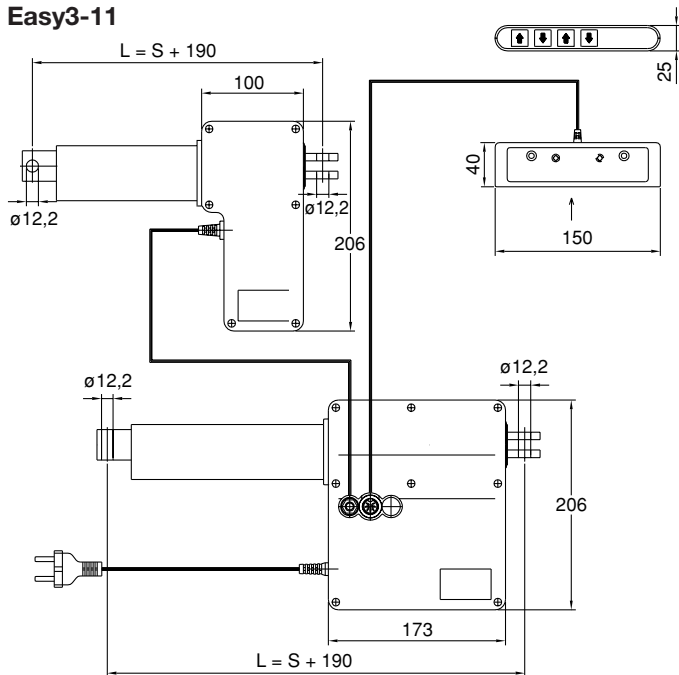
Stroke:

100 mm
150 mm
200 mm

100
150
200

Options written in BLUE text are included in the Easy Range concept, which is our special service range for quick delivery from stock. A type key made with ALL POSITIONS in BLUE qualifies a product for this service.

Easy3-11



Legend:
S = stroke
L = retracted length

Technical data	Stroke (S)	Linear speed	Max dynamic load		Supply voltage
			push	pull	
	mm	mm/s	N		V AC
EASY3-11	100-200	7-4	7000	3000	230

Type key

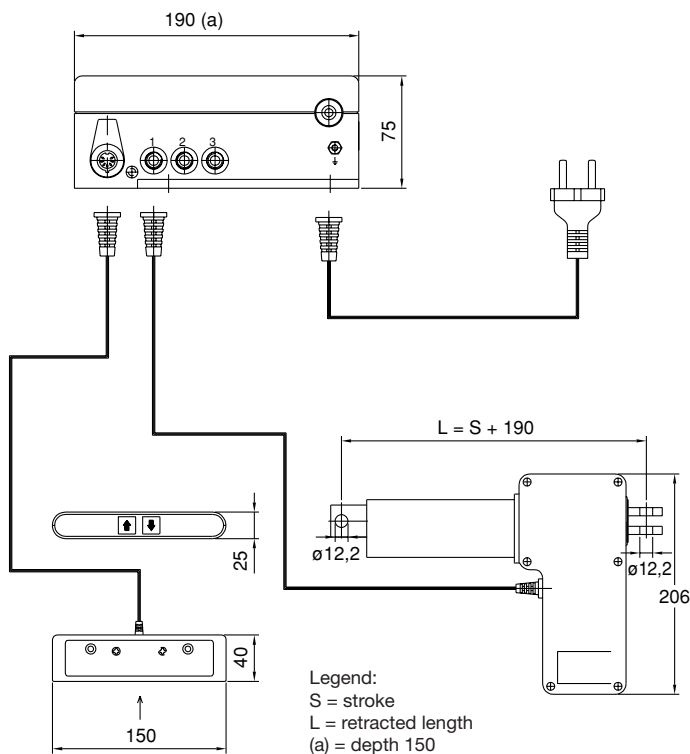
EASY3-11 ×

Kit type

Stroke (S):

100 mm 100
150 mm 150
200 mm 200

Easy3-12



Legend:
S = stroke
L = retracted length
(a) = depth 150

Technical data	Stroke (S)	Linear speed	Max dynamic load		Supply voltage
			push	pull	
	mm	mm/s	N		V AC
EASY3-12	100-200	7-4	7000	3000	230

Type key

EASY3-12 ×

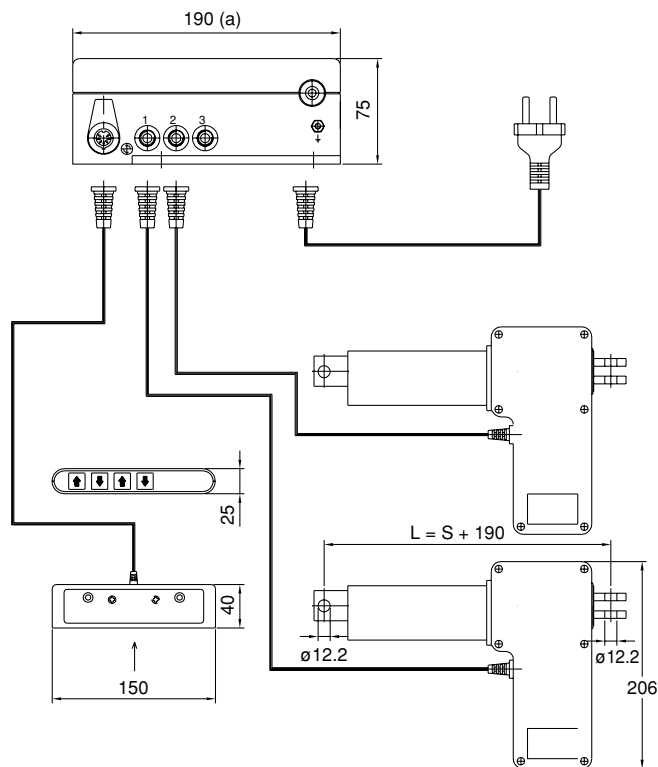
Kit type

Stroke (S):

100 mm 100
150 mm 150
200 mm 200

Options written in BLUE text are included in the Easy Range concept, which is our special service range for quick delivery from stock. A type key made with ALL POSITIONS in BLUE qualifies a product for this service.

Easy3-13



Legend:
 S = stroke
 L = retracted length
 (a) = depth 150

Technical data	Stroke (S)	Linear speed	Max dynamic load push	pull	Supply voltage
	mm	mm/s	N		V AC
EASY3-13	100-200	7-4	7000	3000	230

Type key

EASY3-13 ×

Kit type

Stroke (S):

- 100 mm
- 150 mm
- 200 mm

- 100
- 150
- 200

Options written in BLUE text are included in the Easy Range concept, which is our special service range for quick delivery from stock. A type key made with ALL POSITIONS in BLUE qualifies a product for this service.

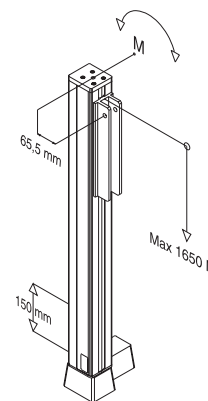
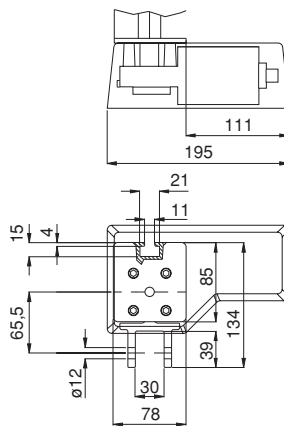
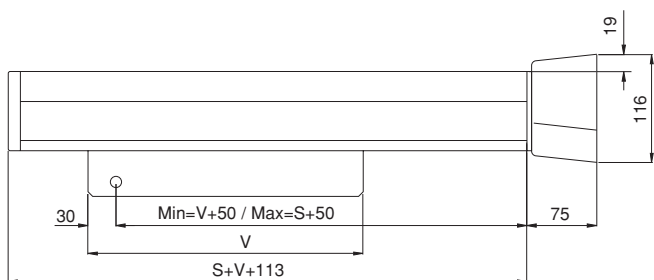
Linear drive profile

CAWA

The CAWA is a powerful, sturdy yet compact linear drive unit designed for vertically hanging loads. Its smooth operation and clean lines make it especially suitable for use in patient lifters and similar applications. The CAWA can easily be mounted in an application using the T-slot running the full length of its body. There are 54 combinations of stroke length and carriages available as standard.

Benefits:

- Dedicated design for mobile hoists
- Complete linear bearing and guiding solution



Type	Force push	Max. speed no load	Max. speed full load	Stroke (S)	Voltage	Protection	Weight
	N	mm/s		mm	V	IP	Kg
CAWA	1650	22	14	500 - 1000	24 DC	30	10-15

Notice! Please contact SKF for information regarding configuration and availability for this product

Rotary actuators

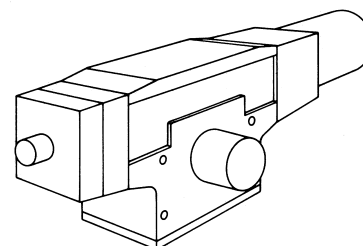
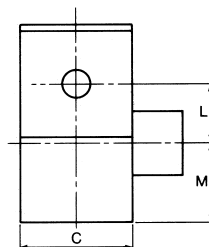
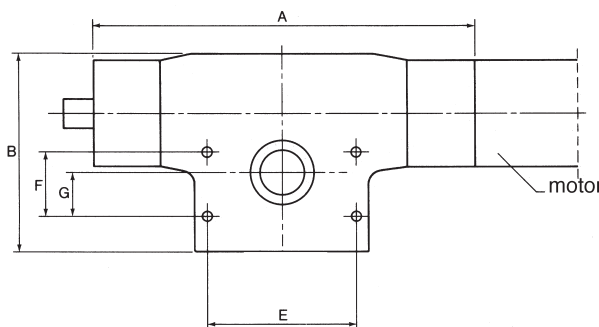
CRAB

SKF Rotary Actuators are designed to provide partial rotary motion. Fast or slow. Heavy or light duty. Complex or simple arrangements. The design of the rotary actuator enables very high torque. Furthermore, the power requirements are modest and the degree of efficiency is high. You can select the zero-backlash versions for maximum precision. Our other models provide reliable operation at a lower cost. With SKF Rotary Actuators you have complete units which are maintenance and lubrication-free.



Benefits:

- Ready to build in component
- Outdoor application
- Elasticity negligible



Actuator series	A Dimensions in mm										Actuator series	Dimensions in mm						
	≤110°	140°	160°	180°	200°	240°	270°	300°	330°	360°		B	C	E	F	G	L	M
CRAB 20	306	356	381	419	444	507	557	607	658	720	CRAB 20	155	90	120	50	35	46	63
CRAB 30	455	532	579	626	689	783	846	924	1003	1097	CRAB 30	228	122	176	85	60	72	92
CRAB 40	565	655	711	768	843	956	1050	1145	1239	1371	CRAB 40	286	134	230	115	80	92	116

Type	Max. angular working range	Gear ratio		Max. angular speed	Efficiency factor			Max. instantaneous output torque	Max. axial load	Max. tilting torque	Backlash			Temperature range	Weight
		Ball screw	Acme screw		Ball screw	Acme screw	Ball screw				Acme screw	Start torque	Acme screw		
CRAB 10	135	-	1:110	180	-	30	75	5000	160	-	±0.35	≈0.3	-20 +60	5	
CRAB 11	135	-	1:74	120	-	30	200	5000	160	-	±0.30	≈0.3	-20 +60	7	
CRAB 12	125	1:44	-	120	75	-	200	5000	160	±0.05	-	≈0.3	-20 +60	7	
CRAB 13	∞	-	1:38	120	-	40	150	5000	160	-	±0.35	≈0.3	-20 +60	6	
CRAB 20	360	1:56	1:71	90	75	30	400	1000	1120	0.0	±0.20	≈0.5	-20 +60	9	
CRAB 30	360	1:88	1:88	60	75	30	1000	1500	3465	0.0	±0.15	≈1.0	-20 +60	25	
CRAB 40	360	1:113	1:94	45	75	30	1700	2000	6240	0.0	±0.10	≈2.0	-20 +60	42	

SKF ServoMove System

The SKF ServoMove System consists of a CAOP (Operator Interface) with integrated PLC (Programmable Logic Controller) and integrated local I/O module. The CAOP operates several newly designed linear servo actuators, as well as an unlimited number of sub-masters, offering cost effective servo solutions for any situation.

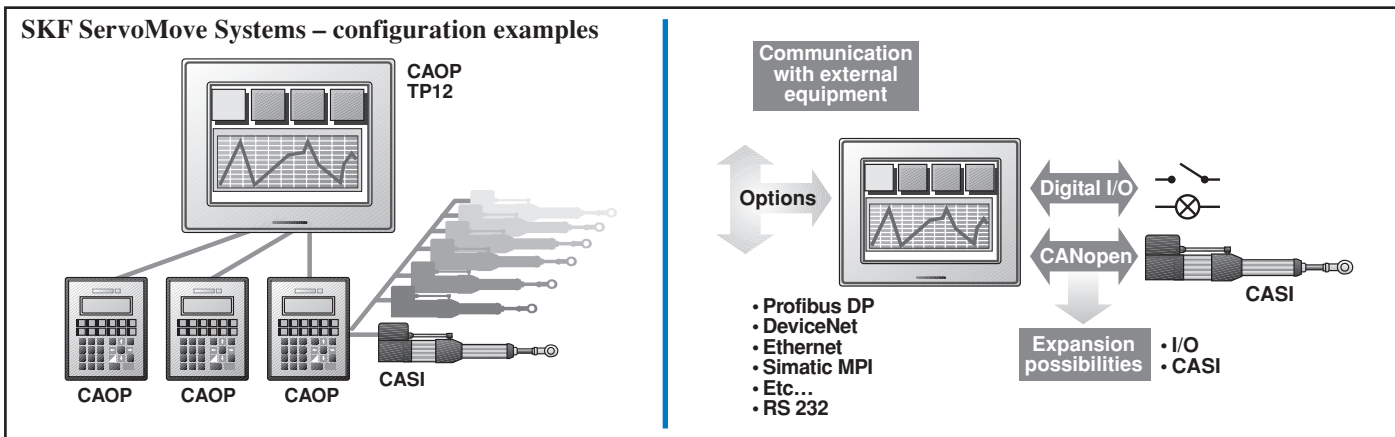
The CASI linear actuators are the electro-mechanical muscle of the SKF ServoMove. The CASI is a new, cost-effective, compact, in-line high-efficiency ball screw actuator with a brushless DC-motor engineered with a modular concept in mind. The actuator has a build in electronic drive and hall sensor for electronic commutation.

CASI has factory pre-set. The fact that CAOP is compatible with the majority and the most common PLC's on the market makes it suitable as a master or secondary unit in any other PLC system.



Benefits:

- Easy to use servo system
- Plug and play with SKF software



	CASI 32	CASI 40	CASI 60
Max. speed:	250mm/s	650mm/s	1200mm/s
Max dynamic load:	3500N	5200N	18000N
Max.stroke:	50-700mm*	50-700mm*	50-1000mm*
Duty factor:	100%	100%	100%
Service life:	>10 ⁶ meters	>10 ⁶ meters	>10 ⁶ meters
System backlash:	0.07mm	0.07mm	0.12mm
Unidirectional repeatability:	0.05-0.35mm	0.03-1.06mm	0.04-1.39mm
Supply voltage:	24 V DC (16-29V)	24 V DC (16-29V)	48 V DC (33-58V)
Peak current:	60A (5 seconds)	60A (5 seconds)	50A (5 seconds)
Communication:	CANopen, RS 232, Analogue 0-5V	CANopen, RS 232, Analogue 0-5V	CANopen, RS 232, Analogue 0-5V
Ambient temperature:	+0°C to +65°C	+0°C to +65°C	+0°C to +65°C
Standards:	EN 50081-1, EN 61000-6-2	EN 50081-1, EN 61000-6-2	EN 50081-1, EN 61000-6-2
Protection class:	In accordance with IP54	In accordance with IP54	In accordance with IP54

* For other strokes contact SKF

Compact electromechanical cylinder

Dynamic with high power for optimised process or machine control:

The design minimises inertia allowing excellent control, responsive performance, significantly improved cycle times and high productivity. The CEMC range integrates proven technologies in a compact robust package. Attributes include high acceleration, speed, precision, high load and a long life resulting in high reliability and maximised machine availability.

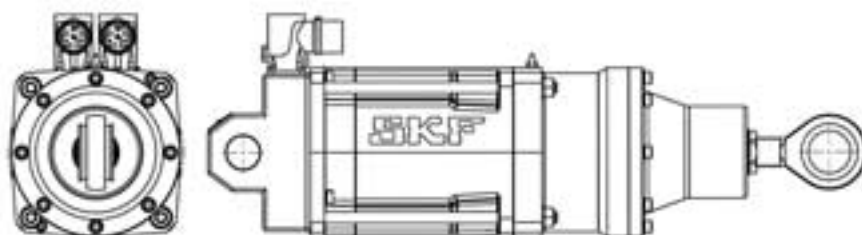
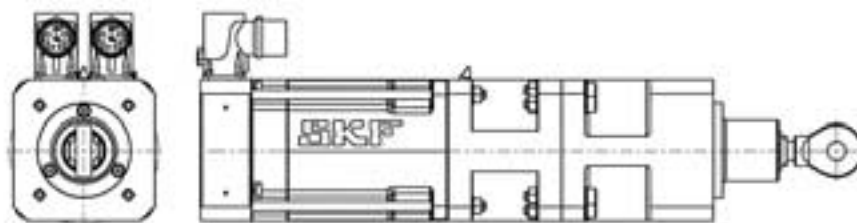
Compact for all applications:

This product range provides high power density in a small package. Approximately 40% smaller than standard electromechanical cylinders there is the added advantage of reduced weight. Ideal for fixed and robot mounted applications.

Whatever the requirement, CEMC cylinders provide a compact and dynamic solution, maximum performance and value through high availability, productivity and consequent low through life costs.

Benefits:

- High power and reliability
- Compact and dynamic solution



Type	C _a	C _{oa}	Nominal load	Peak	Speed
	kN	kN	kN	kN	mm/s
CEMC2404-xxx-62L	61	105	8.7	23.8	300
CEMC2406-xxx-62L	61	105	5.8	15.9	450
CEMC2407-xxx-62L	61	105	5.0	13.6	525
CEMC2404-xxx-63I	61	105	13.1	26	300
CEMC2406-xxx-63I	61	105	8.7	17.3	450
CEMC2407-xxx-63I	61	105	7.5	14.8	525
CEMC2404-xxx-63N	61	105	13.1	31.8	266
CEMC2406-xxx-63N	61	105	8.7	21.2	400
CEMC2407-xxx-63N	61	105	7.5	18.2	466
CEMC1804-xxx-42J	26.6	42.9	4.7	10.3	350

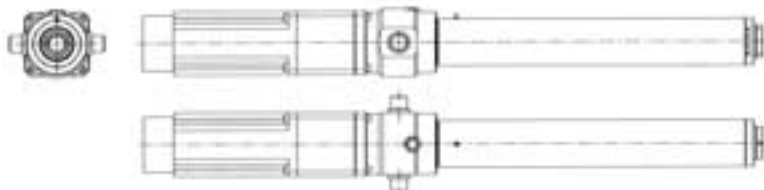
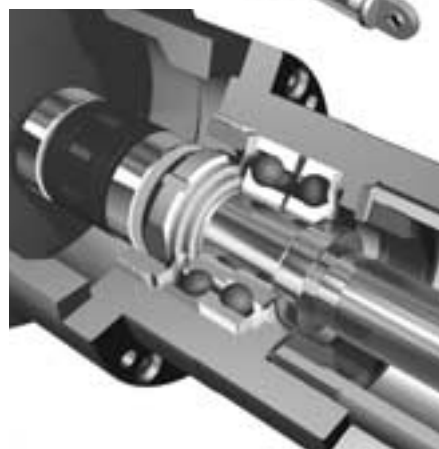
Standard plug&play electromechanical cylinder

SKF cylinders using SKF planetary roller screws are expanding the limits of linear cylinders. They are designed for long life, high acceleration and high force applications. The cylinders use brushless servomotor technology, with an in line direct drive as standard.

The high performance electro-mechanical cylinder consists of an SKF planetary roller screw directly driven through a coupling by a brushless motor. The roller screw converts rotary motion into linear movement.

Benefits:

- The power of hydraulics
- The velocity of pneumatics



Designation	Mechanical performance				Performance				
	Screw Lead	Dynamic Capacity	Static Capacity		Nominal Force	Peak Force	Max.linear Speed	Nominal Torque	Maximum Torque
	mm	N	N	rpm	N	N	rpm	Nm	Nm
SRSA2505	5	51700	90200	4500	6500	15100	22.5	6.7	15.5
SRSA2510	10	59400	87800	4500	6200	12500	40	12	24
SRSA3005	5	75200	148600	4000	8500	17100	20	9	18
SRSA3010	10	88900	145300	4000	6200	12500	40	12	24
SRSA3905	5	105600	210000	3350	19200	37600	17.5	21	41
SRSA3910	10	124800	210000	3350	14200	28000	35	28	55
SRSA4805	5	161900	300000	2650	38700	71200	14	44	81
SRSA4810	10	189300	300000	2650	34200	52100	28	69	105
SRSA4815	15	207800	300000	2650	23700	36000	42	69	105
SRSA6010	10	276800	460000	2150	47700	71600	21.5	100	150
SRSA6015	15	303900	460000	2150	33500	50200	32.25	100	150
SRSA6020	20	303900	460000	2150	26000	39100	43	100	150
SRSA7510	10	412700	740000	1300	106000	119000	13	228	256
SRSA7515	15	458900	740000	1300	74400	83600	19.5	228	256
SRSA7520	20	485200	740000	1300	58000	65100	26	228	256
SLSA4020	20	35300	81700	2250	5700	11100	45	21	41
SLSA4040	40	43800	81700	2250	3850	7600	90	28	55

CAR 22 – Type codes for accessories and spare parts

Item Code	Type code
12 V DC-motor (flat motor)	D12B
24 V DC-motor (flat motor)	D24B
Limit switch for stroke = 50 mm	CAXB 22 x 50
Limit switch for stroke = 100 mm	CAXB 22 x 100
Limit switch for stroke = 150 mm	CAXB 22 x 150
Limit switch for stroke = 200 mm	CAXB 22 x 200
Limit switch for stroke = 300 mm	CAXB 22 x 300
Proximity switch for CAXB	CAXB Proximity switch
Front mounting attachments type Rod-end	575-22
Front mounting attachments type Clevis	576-22
Rear mounting attachments type Single ear bracket	580-22
Rear mounting attachments type Ball-joint bracket	581-22
Control unit (suitable for D24B motor)	CAED 5-24R
Handset matched for CAED	CAES 31C

CAR 32 – Type codes for accessories and spare parts

Item Code	Type code
12 V DC-motor (flat motor)	D12C
24 V DC-motor (flat motor)	D24C
24 V DC-motor (flat motor with low speed)	D24CW
24 V DC-motor (flat motor with extended shaft)	D24CS
24 V DC-motor (flat motor with brake)	D24CB
120 V AC-motor (cylindrical motor)	E110C
120 V AC-motor (cylindrical motor with brake)	E110CB
230 V AC-motor (cylindrical motor)	E220C
230 V AC-motor (cylindrical motor with brake)	E220CB
Capacitor value 25 µF (120 VAC)	Capacitor 25 µF
Capacitor value 6 µF (230 VAC)	Capacitor 6 µF
Limit switch for stroke = 50 mm	CAXB 32 x 50
Limit switch for stroke = 100 mm	CAXB 32 x 100
Limit switch for stroke = 200 mm	CAXB 32 x 200
Limit switch for stroke = 300 mm	CAXB 32 x 300
Limit switch for stroke = 500 mm	CAXB 32 x 500
Limit switch for stroke = 700 mm	CAXB 32 x 700
Proximity switch for CAXB	CAXB Proximity switch
Front mounting attachments type Rod-end	575-32
Front mounting attachments type Clevis	576-32
Rear mounting attachments type Single ear bracket	580-32
Rear mounting attachments type Universal joint	582-32
Control unit (suitable for D24C/CB/CS motors)	CAEP 10P-SL
Control unit (suitable for D24C/CB/CS motors)	CAEL 10-24R
Control unit (suitable for D24C/CB/CS motors)	CAEN 10R
Control unit (suitable for E110, E220 motors)	CAEV 110/220
Control unit (suitable for D24CW motors)	CAED 5-24R
Control unit (suitable for D24C/CB/CS motors)	CAED 9-24R
Handset matched for CAEN, CAEP units	CAES 31B
Handset matched for CAED, CAEV, CAEL units	CAES 31C

CAR 40 – Type codes for accessories and spare parts

Item Code	Type code
24 V DC-motor (flat motor)	D24D
230 V AC-motor (cylindrical motor)	E220D
Capacitor value 12 µF (230 V AC-motor)	Capacitor 12 µF
Limit switch for stroke = 100 mm	CAXB 40 x 100
Limit switch for stroke = 300 mm	CAXB 40 x 300
Limit switch for stroke = 500 mm	CAXB 40 x 500

Spare parts written in BLUE text are included in the Easy Range concept and available for quick delivery from stock.

CAR 40 – Type codes for accessories and spare parts

Item Code	Type code
Limit switch for stroke = 700 mm	CAXB 40 x 700
Proximity switch for CAXB	CAXB Proximity switch
Front mounting attachments type Rod-end	575-40
Front mounting attachments type Clevis	576-40
Rear mounting attachments type Single ear bracket	580-40
Rear mounting attachments type Ball-joint bracket	581-40

CAP 32 – Type codes for accessories and spare parts

Item Code	Type code
12 V DC-motor (flat motor)	D12C
24 V DC-motor (flat motor)	D24C
24 V DC-motor (flat motor with brake)	D24CB
24 V DC-motor (flat motor with extended shaft)	D24CS
24 V DC-motor (flat motor with low speed)	D24CW
120 V AC-motor (cylindrical motor)	E110C
120 V AC-motor (cylindrical motor with brake)	E110CB
230 V AC-motor (cylindrical motor)	E220C
230 V AC-motor (cylindrical motor with brake)	E220CB
Capacitor value 25 µF (120 VAC)	Capacitor 25 µF
Capacitor value 6 µF (230 VAC)	Capacitor 6 µF
Limit switch for stroke = 50 mm	CAXB 32 x 50
Limit switch for stroke = 100 mm	CAXB 32 x 100
Limit switch for stroke = 200 mm	CAXB 32 x 200
Limit switch for stroke = 300 mm	CAXB 32 x 300
Limit switch for stroke = 500 mm	CAXB 32 x 500
Limit switch for stroke = 700 mm	CAXB 32 x 700
Proximity switch for CAXB	CAXB Proximity switch
Front mounting attachments type Rod-end	575-32
Front mounting attachments type Clevis	576-32
Rear mounting attachments type Single ear bracket	580-32
Rear mounting attachments type Universal joint	582-32
Control unit (suitable for D24C/CB/CS/CW motors)	CAEP 8V

CARN 32 – Type codes for accessories and spare parts

Item Code	Type code
Limit switch for stroke = 50 mm	CAXB 32 x 50
Limit switch for stroke = 100 mm	CAXB 32 x 100
Limit switch for stroke = 200 mm	CAXB 32 x 200
Limit switch for stroke = 300 mm	CAXB 32 x 300
Limit switch for stroke = 500 mm	CAXB 32 x 500
Limit switch for stroke = 700 mm	CAXB 32 x 700
Proximity switch for CAXB	CAXB Proximity switch
Front mounting attachments type Rod-end	575-32
Front mounting attachments type Clevis	576-32
Rear mounting attachments type Single ear bracket	580-32
Rear mounting attachments type Universal joint	582-32

CCBR 32 – Type codes for accessories and spare parts

Item Code	Type code
Limit switch for stroke = 50 mm	CAXB 32 x 50
Limit switch for stroke = 100 mm	CAXB 32 x 100
Limit switch for stroke = 200 mm	CAXB 32 x 200

Spare parts written in BLUE text are included in the Easy Range concept and available for quick delivery from stock.

CCBR 32 – Type codes for accessories and spare parts

Item Code	Type code)
Limit switch for stroke = 300 mm	CAXB 32 x 300
Limit switch for stroke = 500 mm	CAXB 32 x 500
Limit switch for stroke = 700 mm	CAXB 32 x 700
Proximity switch for CAXB	CAXB Proximity switch
Front mounting attachments type Rod-end	575-32
Front mounting attachments type Clevis	576-32

CAT 33 – Type codes for accessories and spare parts

Item Code	Type code
12 V DC-motor (cylindrical motor)	C12C
12 V DC-motor (flat motor)	D12C
24 V DC-motor (cylindrical motor)	C24C
24 V DC-motor (cylindrical with low speed)	C24CW
24 V DC-motor (flat motor)	D24C
24 V DC-motor (flat motor with brake)	D24CB
24 V DC-motor (flat motor with extended shaft)	D24CS
24 V DC-motor (flat motor with low speed)	D24CW
120 V AC-motor (cylindrical motor)	E110C
120 V AC-motor (cylindrical motor with brake)	E110CB
230 V AC-motor (cylindrical motor)	E220C
230 V AC-motor (cylindrical motor with brake)	E220CB
400 V AC-motor (cylindrical motor)	E380C
Capacitor value 25 µF (120 VAC)	Capacitor 25 µF
Capacitor value 6 µF (230 VAC)	Capacitor 6 µF
Limit switch for any stroke	CAXC33
Front mounting attachments type Rod-end	575-32
Front mounting attachments type Clevis	576-32
Rear mounting attachments type Single ear bracket	580-32
Rear mounting attachments type Universal joint	582-32
Control unit (suitable for C24C, D24C/CB/CS motors)	CAEP 10P-SL
Control unit (suitable for D24C/CB/CS motors)	CAEL 10-24R
Control unit (suitable for C24C, D24C/CB/CS motors)	CAEN 10R
Control unit (suitable for E110, E220 motors)	CAEV 110/220
Control unit (suitable for D24CW, C24CW motor)	CAED 5-24R
Control unit (suitable for D24C/CB/CS motors)	CAED 9-24R
Handset matched for CAEN, CAEP units	CAES 31B
Handset matched for CAED, CAEV, CAEL units	CAES 31C

CAT 33H – Type codes for accessories and spare parts

Item Code	Type code
12 V DC-motor (cylindrical motor)	C12C
12 V DC-motor (flat motor)	D12C
24 V DC-motor (cylindrical motor)	C24C
24 V DC-motor (cylindrical with low speed)	C24CW
24 V DC-motor (flat motor)	D24C
24 V DC-motor (flat motor with brake)	D24CB
24 V DC-motor (flat motor with extended shaft)	D24CS
24 V DC-motor (flat motor with low speed)	D24CW
230 V AC-motor (cylindrical motor)	E220C
230 V AC-motor (cylindrical motor with brake)	E220CB
Capacitor value 6 µF (230 VAC)	Capacitor 6 µF
Limit switch for any stroke	CAXC33
Front mounting attachments type Rod-end	575-32
Front mounting attachments type Clevis	576-32
Rear mounting attachments type Single ear bracket	580-32
Rear mounting attachments type Universal joint	582-32
Control unit (suitable for C24C, D24C/CB/CS motors)	CAEP 10P-SL

Spare parts written in BLUE text are included in the Easy Range concept and available for quick delivery from stock.

CAT 33H – Type codes for accessories and spare parts

Item Code	Type code
Control unit (suitable for D24C/CB/CS motors)	CAEL 10-24R
Control unit (suitable for C24C, D24C/CB/CS motors)	CAEN 10R
Control unit (suitable for E110, E220 motors)	CAEV 110/220
Control unit (suitable for D24CW, C24CW motor)	CAED 5-24R
Control unit (suitable for D24C/CB/CS motors)	CAED 9-24R
Handset matched for CAEN, CAEP units	CAES 31B
Handset matched for CAED, CAEV, CAEL units	CAES 31C

CAT 32B – Type codes for accessories and spare parts

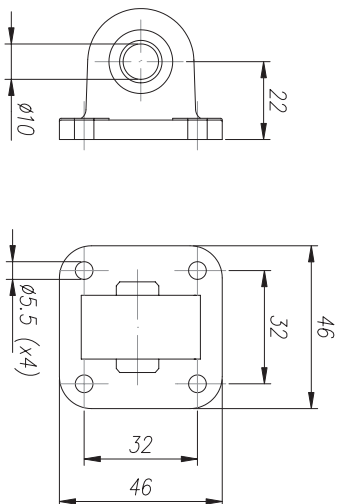
Item Code	Type code
12 V DC-motor (cylindrical motor)	C12C
12 V DC-motor (flat motor)	D12C
24 V DC-motor (cylindrical motor)	C24C
24 V DC-motor (cylindrical with low speed)	C24CW
24 V DC-motor (flat motor)	D24C
24 V DC-motor (flat motor with brake)	D24CB
24 V DC-motor (flat motor with extended shaft)	D24CS
24 V DC-motor (flat motor with low speed)	D24CW
120 V AC-motor (cylindrical motor)	E110C
120 V AC-motor (cylindrical motor with brake)	E110CB
230 V AC-motor (cylindrical motor)	E220C
230 V AC-motor (cylindrical motor with brake)	E220CB
400 V AC-motor (cylindrical motor)	E380C
Capacitor value 25 µF (120 VAC)	Capacitor 25 µF
Capacitor value 6 µF (230 VAC)	Capacitor 6 µF
Limit switch for stroke = 50 mm	CAXB 32 x 50
Limit switch for stroke = 100 mm	CAXB 32 x 100
Limit switch for stroke = 200 mm	CAXB 32 x 200
Limit switch for stroke = 300mm	CAXB 32 x 300
Limit switch for stroke = 500mm	CAXB 32 x 500
Limit switch for stroke = 700mm	CAXB 32 x 700
Proximity switch for CAXB	CAXB Proximity switch
Front mounting attachments type Rod-end	575-32
Front mounting attachments type Clevis	576-32
Rear mounting attachments type Single ear bracket	580-32
Rear mounting attachments type Universal joint	582-32
Control unit (suitable for C24C, D24C/CB/CS motors)	CAEP 10P-SL
Control unit (suitable for D24C/CB/CS motors)	CAEL 10-24R
Control unit (suitable for C24C, D24C/CB/CS motors)	CAEN 10R
Control unit (suitable for E110, E220 motors)	CAEV 110/220
Control unit (suitable for D24CW, C24CW motor)	CAED 5-24R
Control unit (suitable for D24C/CB/CS motors)	CAED 9-24R
Handset matched for CAEN, CAEP units	CAES 31B
Handset matched for CAED, CAEV, CAEL units	CAES 31C

CAP 43 – Type codes for accessories and spare parts

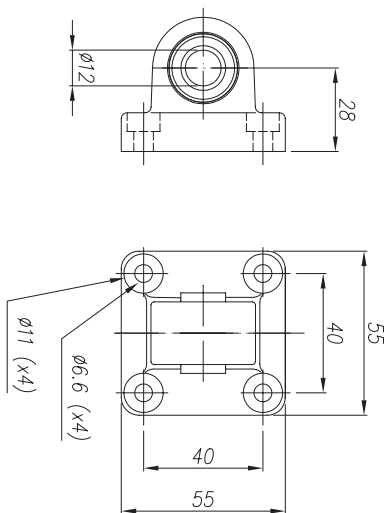
Item Code	Type code
24 V DC-motor (cylindrical motor)	C24C
24 V DC-motor (cylindrical with low speed)	C24CW
24 V DC-motor (flat motor)	D24C
24 V DC-motor (flat motor with low speed)	D24CW
Front mounting attachments type Rod-end	575-32
Front mounting attachments type Clevis	576-32
Rear mounting attachments type Single ear bracket	580-32
Rear mounting attachments type Universal joint	582-32
Control unit (suitable for D24C motors)	CAED-ANR

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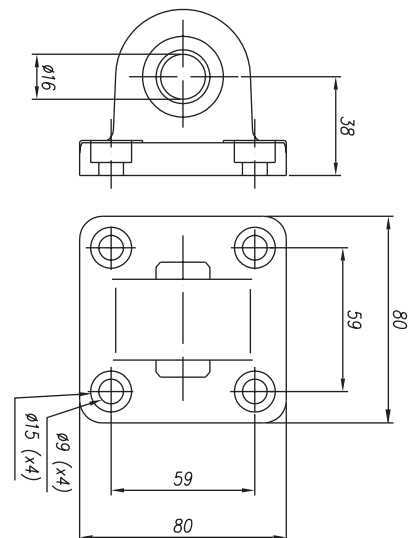
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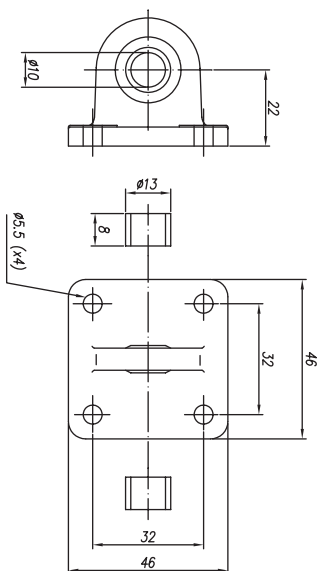
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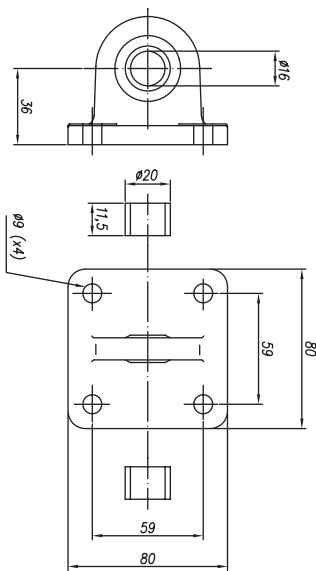
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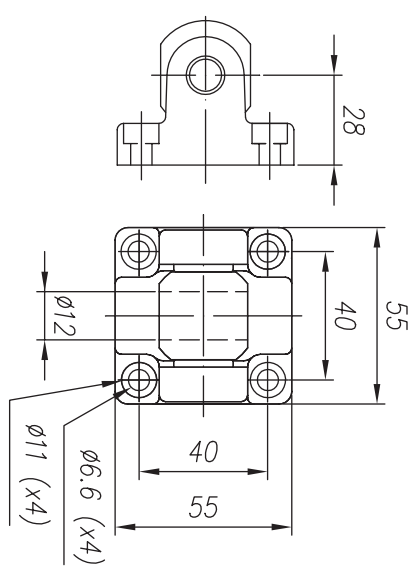
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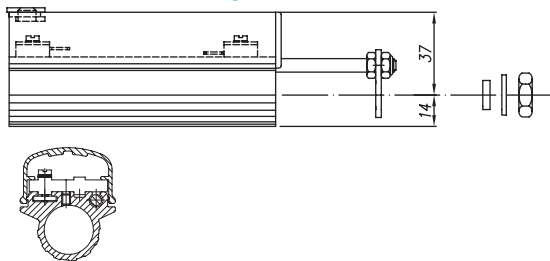
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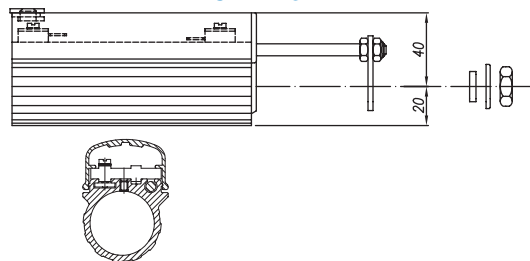
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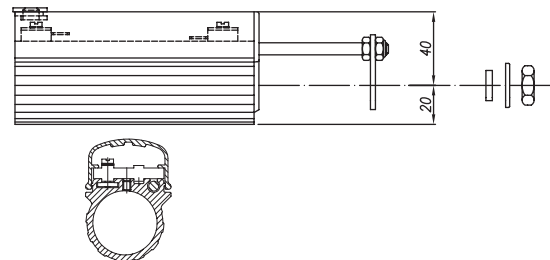
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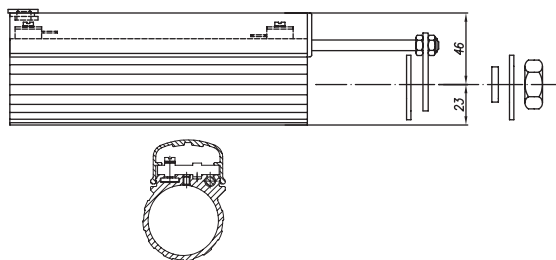
CAXB 32B



CAXB 32

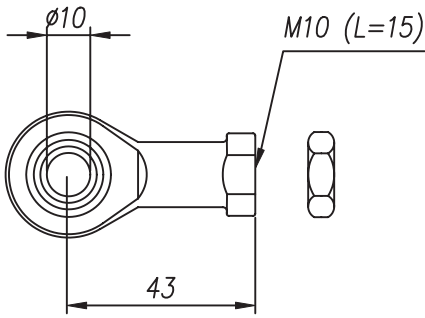


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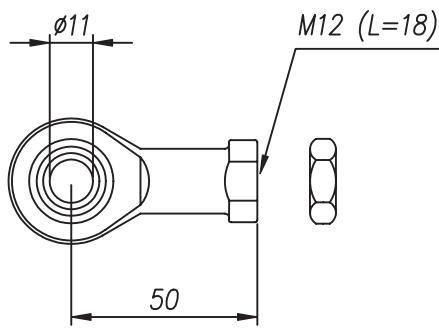


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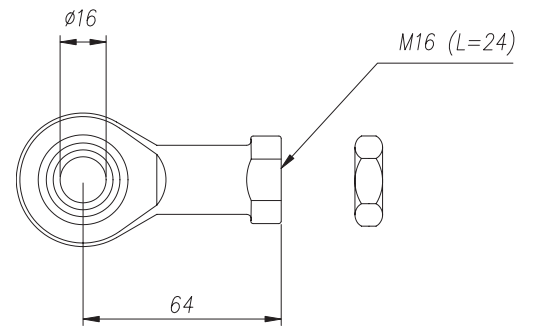
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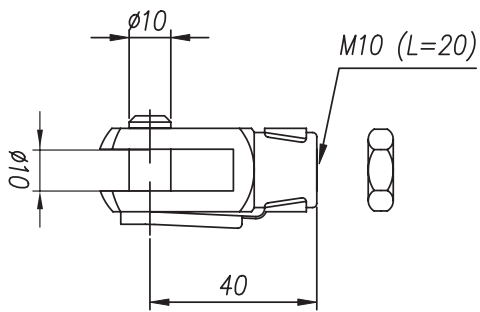
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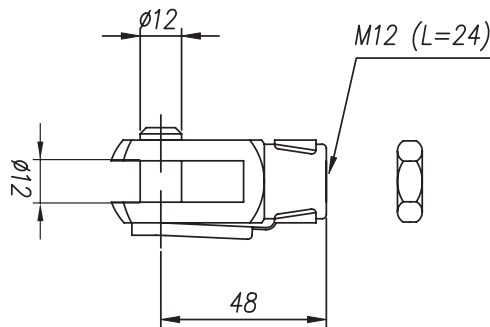
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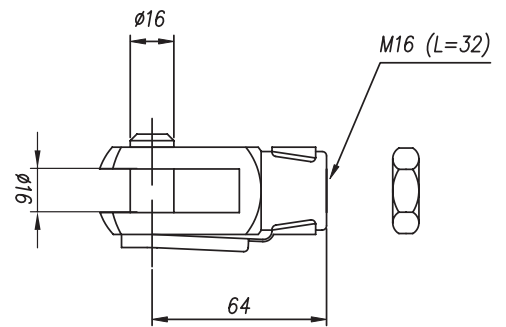
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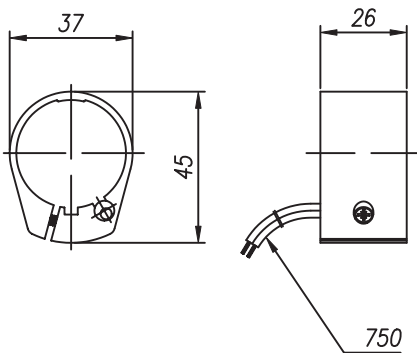
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576-40



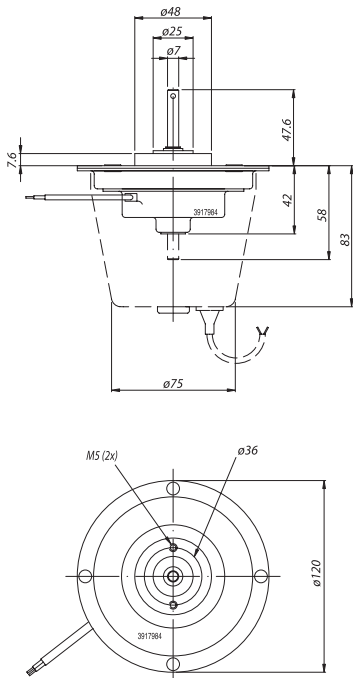
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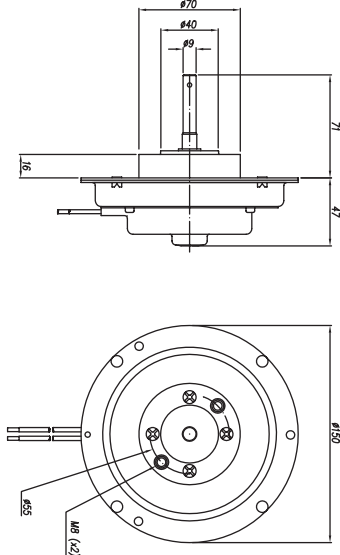
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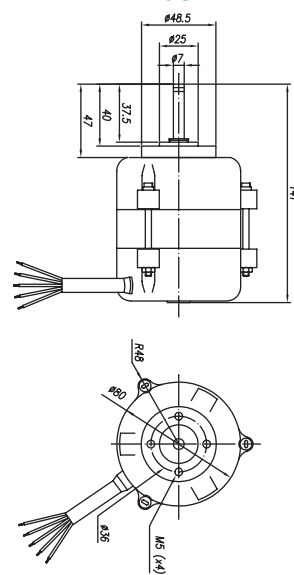
D12C/D24C



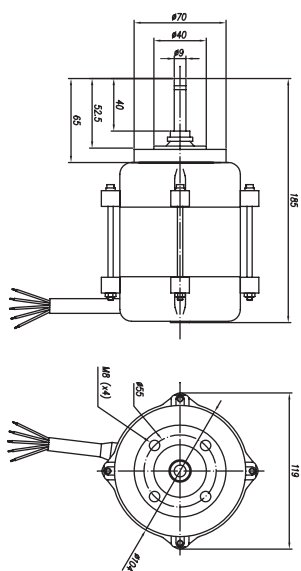
D24D



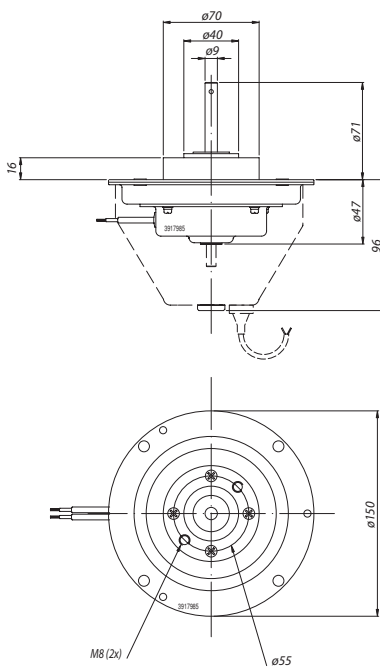
E220C



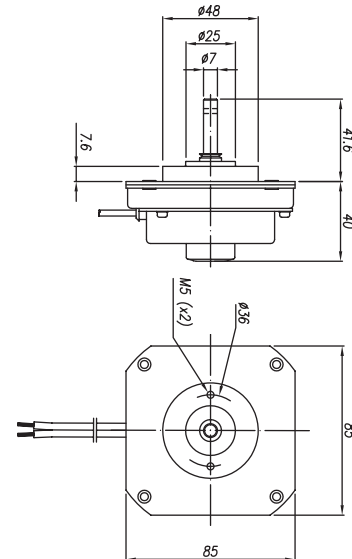
E220D



D24D/D24DB/D24DS



D12B/D24B



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Anti-pinching (electric)

A safety option that is available on certain SKF actuators. It shuts-off the motor when an external force is applied in the opposite direction to the direction of travel.

Anti-pinching (mechanical)

This safety mechanism allows the actuator to push but not pull or pull but not push. This feature is designed to prevent injury to persons due to being trapped by the force of the actuator.

Back up nut

A nut, usually metal, of greater anti-shear strength than the drive nut and which only makes contact with the threads of the spindle when the threads of the drive nut fail.

Emergency lowering

The emergency lowering safety feature enables the actuator to be lowered in the event of a power failure or malfunction. This option is used in most medical & care applications.

Encoder

A rotary or linear sensor device that, when connected to a control unit, can be used to determine the position of an electric linear actuator.

First failure safety

First Failure Safety is a control system utilising redundant micro processors in which one processor monitors the functions of the other and shuts down the system if a malfunction in the microprocessor occurs.

Hall sensor

A sensor whose output changes based on changes in magnetic flux. Typically used for RPM, position, or current measurement.

IP protection

This standard describes a system for classifying the degrees of protection required by the enclosures of electrical equipment. Developed by the European Committee for Electro-technical Standardization (CENELEC), these standards are designed to numerically rate an electrical product based on the level of protection its

enclosure provides.

Limit switches

A switch used to limit motion or travel in a particular direction. Mechanical devices that when activated open or close an electrical contact. When the contact is closed voltage will flow through the switch, when open no voltage will flow through the switch. Limit switches come in various physical sizes and configurations and can be mounted internally or externally.

Potentiometer

The potentiometer is a displacement transducer. It incorporates the sensor and transducer function into one. A typical potentiometer consists of a uniform coil of wire of an element of high resistance such as carbon, platinum or conductive plastic. This uniform coil makes up the resistive element of the potentiometer whose resistance is proportional to its length.

Pull force

The maximum retracting force that an electric linear actuator can produce in Newton (N). Some SKF actuators do not produce equal push and pull forces and others do not permit pull force at all.

Push force

The maximum extending force that an electric linear actuator can produce in Newton (N). Some SKF actuators do not produce equal push and pull forces and others do not permit pull force at all.

Stroke length

Describes the length in millimetres that an electric linear actuator will extend or retract. Most standard products are available in increments of 50 mm or 100 mm. Customer specific lengths are available, minimum order quantities apply.

Thermal protection

Protects drives and control units from overheating. A device that signals when an electrical assembly becomes too hot. The signal usually causes the shut-off of the electrical device.

Linear speed

Linear speed is the term used when we talk about the distance, in millimetres, the tube in an actuator moves linearly over a given period of time (mm/s.), moving a load from its starting point to a new position. The speed can vary in different ways, depending, for example, on the motor employed. Actuators with direct current (DC) motors have a speed variation directly proportional to the load on the device. That is to say, the larger the load, the lower the speed and vice versa. Actuators with alternating current (AC) motors move at a constant speed, which is not affected by the load on the actuator. Other factors affecting speed include ambient temperature and how well or poorly the actuator is integrated within an application. An actuator integrated in such a way that it is subject to uneven loads wears abnormally, which results in increased friction forces and decreased speed.

Dynamic load

Maximal dynamic load refers to the maximum total weight or mass the actuator can move. Often, the decisive factor for maximal load is the size of the motor and the gearing employed. When an actuator is subject to loads exceeding the maximum stated value, the device simply stops.

Certain actuator types have an integral mechanical safety device similar to a slip-clutch, designed to protect the motor and gears from damage. Electrical limit switches are another alternative. These protect the actuator from damage caused by excessive electrical current. All such safety devices are part of an operating system and it is important to be aware of them when using SKF actuators with other operating equipment.

Static load (value not available in this brochure)

Maximal static load refers to the weight or mass that an actuator can be subjected to when standing still without causing permanent damage or causing the actuator to start "going backwards".

Subjecting an actuator to loads in excess of stated values can risk permanent deformation to some part of

the actuator. N.B. Remember that in many applications and installations, it is not the weight applied directly but rather the load caused by leverage or similar forces acting on the actuator that are the decisive factor. An actuator is strongest in its shortest position and weakest in its outermost, most extended position.

DC-motors

An electric motor powered by direct current electricity (12-48 VDC) that can be run on batteries. These motors are suitable for use in situations where you want to be able to move the product easily and do not want a cable in the way. The speed of a DC-motor is directly proportional to the load, i.e., the motor moves slowly under maximum load and fastest when run with no load at all. In many applications the actuator works both pushing and pulling, which means that the load works to “assist” in one direction and “resist” in the other. Consequently, considerable speed variations can arise.

AC-motors

An electric motor powered by alternating current electricity (120-400 VAC), which requires an electrician for its connection. Start-up properties can be improved with various accessories and different methods of connection. There are many standard accessories available for control and regulation of an AC-motor. An AC-motor is best suited to non-mobile products, i.e., fixed installations, often in industrial environments. An actuator with an AC-motor is less sensitive to load variations and maintains virtually the same speed regardless of load. The normal working temperature for this type of motor is 70°C. An AC-motor has few moving parts that wear and is consequently rugged and has a long life span.

Retracted length

“Retracted length” is an expression for the shortest distance between the two fixed points on an actuator when the actuator is in its innermost position. The dimensions given reflect a measurement from the centre of the mounting holes, which means that the

actuator requires a few millimetres beyond the given “retracted length” in order to fit. Remember that very few actuators are symmetrical. Thus it is important to note other dimensions as well for optimum fit and integration of the actuator. An actuator should always be mounted, insofar as is possible, so that it works linearly over its entire working range.

Duty factors

A technical term expressing how long a motor can handle non-stop operation before it becomes overheated or otherwise damaged. It should be noted that “Duty Factor”, whether expressed as a percentage or time, varies depending on the working load for the motor. The duty-cycle tells how often an actuator will be in operation within an application and the amount of time between operations. Because of the power lost due to inefficiency dissipated as heat, the actuator component with the lowest allowable temperature – usually the motor – sets the duty-cycle limit for the complete actuator. Although, there is some heat loss from friction in the gearbox and by ball-screw and acme-screw drive systems. An example of a duty cycle calculation: assume an actuator runs for 10 seconds cumulatively, up and down, and then does not run for another 40 seconds. The duty cycle is $10/(40+10)$, or 20%.

Temperature

Ambient work site temperature can be highly significant when making a choice between different actuators. Extreme heat or cold can reduce the working capacity of the equipment. If the equipment is used in temperatures as low as about – 20°C, for instance, the lubricant can harden and impair the

efficiency of the motor. If the temperatures climb up towards 50°C, for instance, the grease can melt so that it drains away from the screw system, resulting in reduced or eliminated lubricant effect and increasing the risk of overheating in the motor.

Power consumption

An expression of how much electricity the motor uses when working. For DC motors the power consumption is directly proportional to the load, and for AC motors the power consumption is constant. With alternating current, power consumption is low, so simple cabling and other inexpensive accessories suffice. Installation is easy and the components are readily available. With battery operation, it is often adequate to use a small, lightweight battery that does not require much space and is relatively inexpensive.

Supply voltage

Supply voltage is a measure of the voltage supplying a system, regardless of whether it employs AC or DC motors.

Properties of the sliding screw (Fig. 1)

Sliding screws are manufactured from rolled steel and the nut is made of plastic. This is a relatively cost effective design with favourable properties: plastic and metal work well together without binding. Also, actuators incorporating sliding screws usually offer a price advantage over those built around other types of screws. The sliding screw works very quietly, which means that it is well suited for office environments, hospitals, etc. Another significant advantage is the high friction coefficient in the sliding screw. This design is particularly well suited for actuators used in applications where

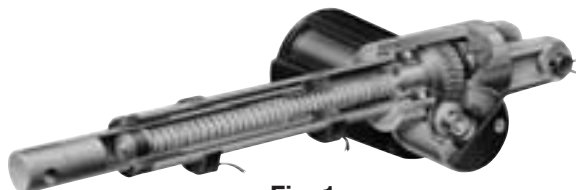


Fig. 1



Fig. 2

they should be self locking, i.e., will not begin “moving backwards” under the weight of the load. For instance, when using the actuator to drive vertically adjustable tables, a sliding screw design allows you to put heavy loads on the surface of the table without changing its vertical position. In short, this means that no additional locking mechanism or brake will be necessary to keep the actuator in position when it is not in operation (however, e.g., in extreme vibrating application types additional arrangements may be needed to prevent back driving).

Properties of ball screws (Fig. 2)

The ball screws incorporated in SKF actuators are manufactured entirely of steel and equipped with a row of bearings located in a closed system between the nut and screw. The design yields extremely low friction coefficients between the nut and the screw, because of the rolling contact between the balls, the nut and raceway (similar to ball bearings). Wear is significantly

reduced compared with a sliding screw, which results in a life span 10 times longer for a ball screw under the same working conditions. The durability of the screw also means that it tolerates extreme loads as well as high duty cycles. Thanks to its low frictional resistance, the ball screw can maintain a very low operating temperature. As a consequence, the ball screw is particularly well suited in situations where it is required to operate over long periods at high speeds. High efficiency is one of the main characteristics of ball screws. Thanks to this high efficiency, it is possible to use a motor half the size compared to a sliding screw design. This means that, as a user, you obtain a more economical solution. An actuator based on a ball screw has minimal play, and consequently its precision is significantly higher in applications where positioning and repetitive precision are important.

Self-locking

This property of the actuator means that

it will not continue to move under the weight of the load after it has been switched off. The self-locking ability depends on the total efficiency of the actuator. If an actuator is not self locking the function can be obtained by using a brake. On DC-motors, the motor has to be short circuited. Self-locking load can under certain circumstances not be completely ensured on all actuator models due to the type of application being run (e.g., high vibration levels)!

Alignment

It is important that the product is mounted properly from the beginning. If the actuator is improperly installed, normal operation may cause poor performance. Remember, therefore, to carefully follow the accompanying mounting instructions. Naturally, you can turn to your supplier or distributor whenever you have questions about our products.





SKF Actuation Systems - Product groups



Systems



Linear actuators



Telescopic pillars



Rotary actuators

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