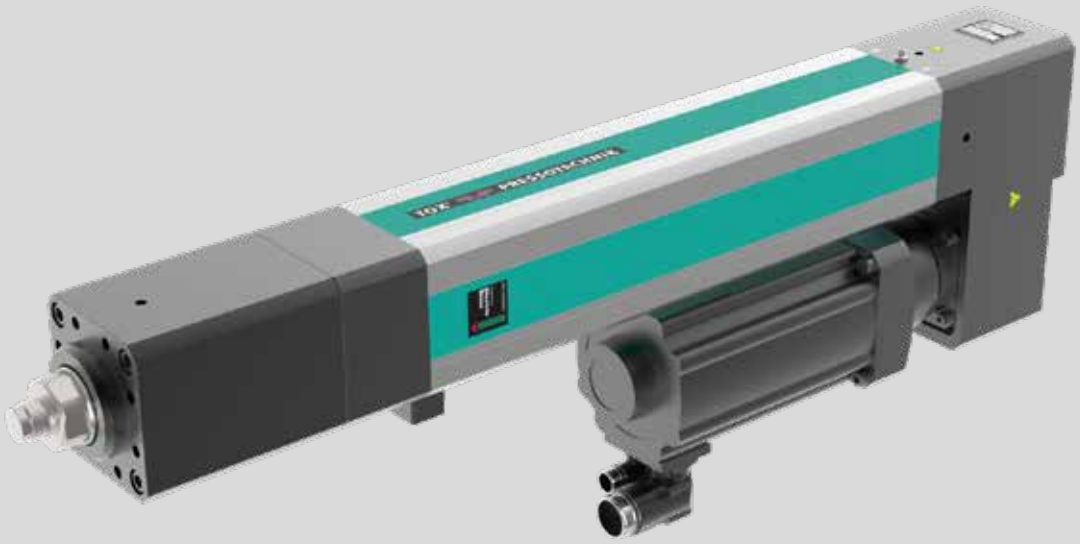
TOX® PRESSOTECHNIK

TOX®-ElectricDrive
Type EX-K

Data sheet 40.50
2021 / 03



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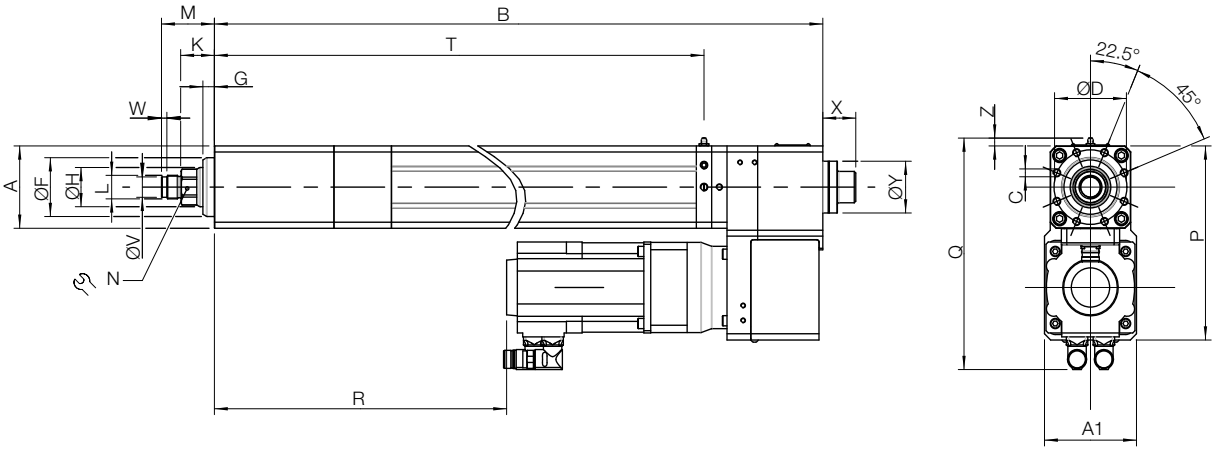
TOX®-ElectricDrive servo drive

Type EX-K, 10 – 200 kN with planetary roller screw



Dimensions and weights

Preferred series (short delivery time)

Type	Stroke length mm	Max. nominal force kN	Weight approx. kg
EX-K 010.XXX.150	150	10	23
EX-K 010.XXX.300	300	10	24
EX-K 030.XXX.150	150	30	40
EX-K 030.XXX.300	300	30	42
EX-K 030.XXX.450	450	30	44
EX-K 060.XXX.150	150	60	67
EX-K 060.XXX.300	300	60	71
EX-K 060.XXX.450	450	60	75
EX-K 100.XXX.150	150	100	105
EX-K 100.XXX.300	300	100	110
EX-K 100.XXX.450	450	100	115
EX-K 200.XXX.150	150	200	177
EX-K 200.XXX.300	300	200	186
EX-K 200.XXX.450	450	200	195

Type	A	A1	B	C	D	F_{f7}	G	H	K[1]	L	M[1]	N	P	Q	R	T	V_{g6}	W	X	Y	Z
EX-K 010.XXX.150	70	90	606	8x M6x12	60	50	10	30	28	M12x1.5	40	27	165	220	202	497	-	-	33	42	10
EX-K 010.XXX.300	70	90	756	8x M6x12	60	50	10	30	28	M12x1.5	40	27	165	220	352	647	-	-	33	42	10
EX-K 030.XXX.150	90	110	703	8x M8x16	80	65	10	40	26	M22x2	46	36	208	258	247	585	18	7	35	52	10
EX-K 030.XXX.300	90	110	853	8x M8x16	80	65	10	40	26	M22x2	46	36	208	258	397	735	18	7	35	52	10
EX-K 030.XXX.450	90	110	1003	8x M8x16	80	65	10	40	26	M22x2	46	36	208	258	547	885	18	7	35	52	10
EX-K 060.XXX.150	105	135	817	8x M10x20	95	75	15	50	44	M30x2	69	41	248	296	323	662	26	7	43	66	10
EX-K 060.XXX.300	105	135	967	8x M10x20	95	75	15	50	44	M30x2	69	41	248	296	473	812	26	7	43	66	10
EX-K 060.XXX.450	105	135	1117	8x M10x20	95	75	15	50	44	M30x2	69	41	248	296	623	962	26	7	43	66	10
EX-K 100.XXX.150	130	160	875	8x M12x24	115	90	17	60	42	M30x2	67	55	295	348	343	702	26	7	46	75	10
EX-K 100.XXX.300	130	160	1025	8x M12x24	115	90	17	60	42	M30x2	67	55	295	348	493	852	26	7	46	75	10
EX-K 100.XXX.450	130	160	1175	8x M12x24	115	90	17	60	42	M30x2	67	55	295	348	643	1002	26	7	46	75	10
EX-K 200.XXX.150	160	160	1000	8x M16x32	135	105	17	75	42	M39x2	77	65	345	379	372	789	-	-	58	90	10
EX-K 200.XXX.300	160	160	1150	8x M16x32	135	105	17	75	42	M39x2	77	65	345	379	522	939	-	-	58	90	10
EX-K 200.XXX.450	160	160	1300	8x M16x32	135	105	17	75	42	M39x2	77	65	345	379	672	1089	-	-	58	90	10

[1] Dimension refers to zero position of drive. Reference position = zero position -3 mm.

Dimensions in mm

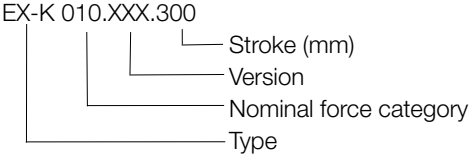
Specifications EX-K	010	030	060	100	200
Mechanical					
Nominal pressing force	10 kN	30 kN	60 kN	100 kN	200 kN
Nominal pulling force	3 kN	8 kN	17 kN	30 kN	60 kN
Max. speed	300 mm/s	280 mm/s	250 mm/s	200 mm/s	120 mm/s
Repeatability[1]	± 0,01 mm				
Max. tool weight without brake[4] with safety brake/motor holding brake[5]	 10 kg 25 kg	 15 kg 125 kg	 25 kg 300 kg	 50 kg 500 kg	 100 kg 1000 kg
Sensors					
Force transducer measuring range[2]	0.5 – 10 kN	1.5 – 30 kN	3 – 60 kN	5 – 100 kN	10 – 200 kN
Accuracy	≤ ± 0,5 % of nominal pressing force				
Resolver	■	■	■	■	■
Resolution (theoretically)	0.00198 mm	0.00185 mm	0.00185 mm	0.00185 mm	0.00106 mm
Electrical					
Protection class[3]	IP 54				
Mains supply	see data sheet 40.18 System & Components				
Climatic conditions	+ 10° to + 40° C, from 40° C performance loss, max. 55° C; air moisture < 75 %, without condensation				

[1] In thermal transient condition
[2] Recommended operating range 5 – 100 %
[3] Optional: Protection class IP 65
[4] For higher weights, the tool can sink in de-energized condition
[5] Higher tool weights on request

A wide range of accessories is available for the servo drive type EX-K (see data sheet 40.90, TOX®-ElectricDrive Accessories).

Ordering example

EX-K 010.XXX.300



Version

003 Basic version
004 Safety brake
005 Safety brake with rotary encoder*
006 Motor holding brake
007 Includes holding time min 10s at min. 80% of nominal pressing force
008 Includes safety brake and holding time min. 10s at min. 80% of nominal pressing force
011 Includes identical nominal pressing/pulling force
012 Includes safety brake and identical nominal pressing/pulling force
053 Includes protection class IP65
054 Includes safety brake and protection class IP65
302 Includes working piston with threaded holes on piston end
303 Includes safety brake and working piston with threaded holes on piston end

*Rotary encoder for safely reduced speed with TOX®-Controls, see brochure TOX®-ElecricDrive

Further versions are available upon request!

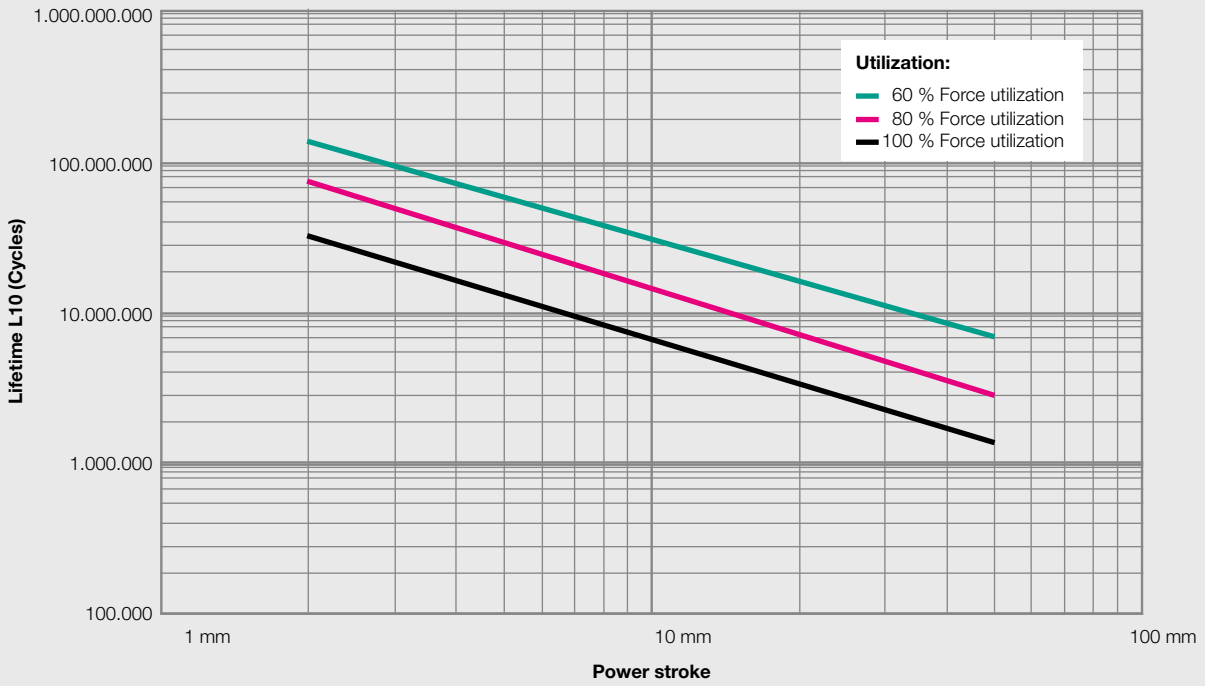
Lifetime L10

The lifetime L10 is a complex calculation. The following factors influence the lifetime L10, in some cases considerably:

- Rate of force application
- Powerstroke
- Punching impact
- Application
- Revolutions per minute

Schematic illustration of the lifetime L10

TOX®-ElectricDrive EX-K



We are happy to carry out the lifetime calculation for your application. Just ask us!