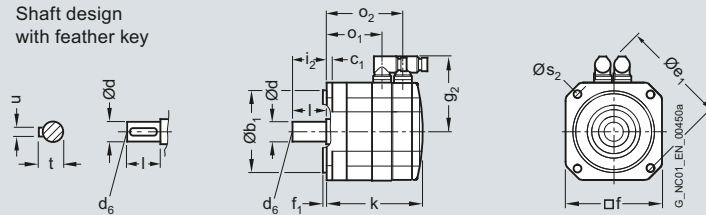


Dimensional drawings

For motor Dimensions in mm (inches)

Shaft height	Type	DIN IEC	b ₁ N	c ₁ LA	e ₁ M	f AB	f ₁ T	g ₂ –	i ₂ –	s ₂ S	Shaft extension DE					
											d D	d ₆ –	l E	t GA	u F	
1FK7 natural cooling, without/with brake																
20	1FK701		30	7	46	40	2.5	66	18	4.5	8	–	18	8.8	2	
			(1.18)	(0.28)	(1.81)	(1.57)	(0.10)	(2.60)	(0.71)	(0.18)	(0.31)		(0.71)	(0.35)	(0.08)	
28	1FK702		40	10	63	55	2.5	75	20	5.4	9	M3	20	10.2	3	
			(1.57)	(0.39)	(2.48)	(2.17)	(0.10)	(2.95)	(0.79)	(0.21)	(0.35)		(0.79)	(0.40)	(0.12)	

For motor		Encoder system: Resolver Absolute encoders AM16S/R / AM15DQ						Encoder system: Incremental encoders IC2048S/R / IC22DQ Absolute encoders AM2048S/R / AM22DQ AM512S/R / AM20DQ AM32S/R / AM16DQ					
Shaft height	Type	Dimensions in mm (inches)											
		without brake			with brake			without brake			with brake		
		k LB	o ₁ –	o ₂ –	k LB	o ₁ –	o ₂ –	k LB	o ₁ –	o ₂ –	k LB	o ₁ –	o ₂ –
20	1FK7011	140 (5.51)	89 (3.50)	118 (4.65)	140 (5.51)	89 (3.50)	118 (4.65)	155 (6.10)	89 (3.50)	118 (4.65)	155 (6.10)	89 (3.50)	118 (4.65)
	1FK7015	165 (6.50)	114 (4.59)	143 (5.63)	165 (6.50)	114 (4.49)	143 (5.63)	180 (7.09)	114 (4.49)	143 (5.63)	180 (7.09)	114 (4.49)	143 (5.63)
28	1FK7022	153 (6.02)	95 (3.74)	128 (5.04)	175 (6.89)	95 (3.74)	150 (5.91)	178 (7.01)	95 (3.74)	128 (5.04)	200 (7.87)	95 (3.74)	150 (5.91)

1FK701
1FK702Shaft design
with feather key

SIMOTICS servomotors

Dimensional drawings

1FK7 – Natural cooling

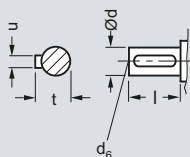
Dimensional drawings

For motor DQI encoder with DRIVE-CLiQ interface (without resolver)/
Encoder system without DRIVE-CLiQ interface (without resolver)
Dimensions in mm (inches)

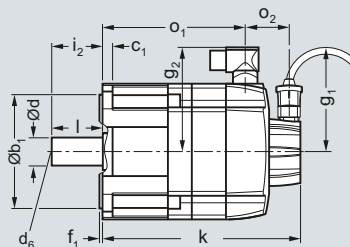
Shaft height	Type	DIN IEC	a ₁ P	b ₁ N	c ₁ LA	e ₁ M	f AB	f ₁ T	i ₂ –	s ₂ S	Shaft extension DE					
											d D	d ₆ –	l E	t GA	u F	
1FK7 Compact/High Dynamic, without/with brake																
36	1FK703		90 (3.54)	60 (2.36)	8 (0.31)	75 (2.95)	72 (2.83)	3 (0.12)	30 (1.18)	6.5 (0.26)	14 (0.55)	M5	30 (1.18)	16 (0.63)	5 (0.20)	
1FK7 Compact/High Dynamic/High Inertia, without/with brake																
48	1FK704		120 (4.72)	80 (3.15)	10 (0.39)	100 (3.94)	96 (3.78)	3 (0.12)	40 (1.57)	6.5 (0.26)	19 (0.75)	M6	40 (1.57)	21.5 (0.85)	6 (0.24)	
63	1FK706		155 (6.10)	110 (4.33)	10 (0.39)	130 (5.12)	126 (4.96)	3.5 (0.14)	50 (1.97)	9 (0.35)	24 (0.94)	M8	50 (1.97)	27 (1.06)	8 (0.31)	
80	1FK708		194 (7.64)	130 (5.12)	11.5 (0.45)	165 (6.50)	155 (6.10)	3.5 (0.14)	58 (2.28)	11 (0.43)	32 (1.26)	M12	58 (2.28)	35 (1.38)	10 (0.39)	
1FK7 Compact, without/with brake																
100	1FK710		245 (9.65)	180 (7.09)	13 (0.51)	215 (8.46)	192 (7.56)	4 (0.16)	80 (3.15)	14 (0.55)	38 (1.50)	M12	80 (3.15)	41 (1.61)	10 (0.39)	

1FK703
1FK704
1FK706
1FK708
1FK710

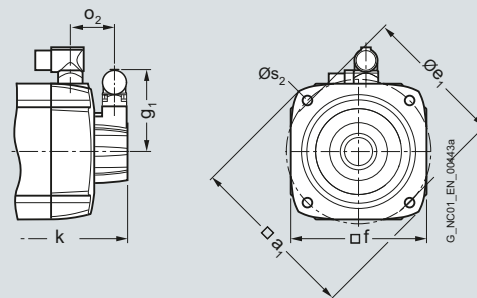
Shaft design
with feather key



Version
with DRIVE-CLiQ interface



Version
without DRIVE-CLiQ interface



Dimensional drawings

For motor		DQI encoder with DRIVE-CLiQ interface (without resolver)								Encoder system without DRIVE-CLiQ interface (without resolver)							
Shaft height	Type	Dimensions in mm (inches)															
		g ₁	g ₂	o ₂	without brake		with brake			g ₁	g ₂	o ₂	without brake		with brake		
		—	—	—	k	o ₁	k	o ₁		—	—	—	k	o ₁	k	o ₁	
					LB	—	LB	—					LB	—	LB	—	
1FK7 Compact																	
36	1FK7032-2A	104.5 (4.11)	78 (3.07)	50 (1.97)	173 (6.81)	111 (4.37)	200 (7.87)	138 (5.43)		77 (3.03)	78 (3.07)	47 (1.85)	173 (6.81)	111 (4.37)	200 (7.87)	138 (5.43)	
	1FK7034-2A				198 (7.80)	136 (5.35)	225 (8.86)	263 (6.42)					198 (7.80)	136 (5.35)	225 (8.86)	263 (6.42)	
48	1FK7040-2A	104.5 (4.11)	90 (4.09)	50 (1.97)	147 (6.61)	85 (4.17)	179 (7.99)	117 (5.55)		93 (3.66)	90 (4.09)	52 (2.05)	152 (6.81)	85 (4.17)	184 (8.19)	117 (5.55)	
	1FK7042-2A				174 (6.85)	112 (4.41)	206 (8.11)	144 (5.67)					179 (7.05)	112 (4.41)	211 (8.31)	144 (5.57)	
63	1FK7060-2A	104.5 (4.11)	104 (4.09)	50 (1.97)	168 (6.61)	106 (4.17)	203 (7.99)	141 (5.55)		93 (3.66)	104 (4.09)	52 (2.05)	173 (6.81)	106 (4.17)	208 (8.19)	141 (5.55)	
	1FK7062-2A				190 (7.48)	128 (5.04)	226 (8.90)	163 (6.42)					195 (7.68)	128 (5.04)	231 (9.09)	163 (6.42)	
	1FK7063-2A				213 (8.39)	151 (5.94)	248 (9.76)	186 (7.32)					218 (8.58)	151 (5.94)	253 (9.96)	186 (7.32)	
80	1FK7080-2A	104.5 (4.11)	119 (4.69)	48 (1.89)	171 (6.73)	111 (4.37)	223 (8.78)	163 (6.42)		93 (3.66)	119 (4.69)	50 (1.97)	176 (6.93)	111 (4.37)	228 (8.98)	163 (6.42)	
	1FK7081-2A				190 (7.48)	130 (5.12)	242 (9.53)	182 (7.17)					196 (7.68)	130 (5.12)	247 (9.72)	182 (7.17)	
	1FK7083-2A				209 (8.23)	149 (5.87)	261 (10.28)	201 (7.91)					214 (8.43)	149 (5.87)	266 (10.47)	201 (7.91)	
	1FK7084-2A				229 (9.02)	168 (6.61)	281 (11.06)	221 (8.70)					234 (9.21)	168 (6.61)	286 (11.26)	221 (8.70)	
100	1FK7100-2A	104.5 (4.11)	137 (5.39)	53 (2.09)	183 (7.20)	118 (4.65)	220 (8.66)	170 (6.69)		93 (3.66)	137 (5.39)	55 (2.17)	188 (7.40)	118 (4.65)	225 (8.86)	170 (6.69)	
	1FK7101-2A		158 (6.22)		209 (8.23)	144 (5.67)	261 (10.28)	196 (7.72)			158 (6.22)		214 (8.43)	144 (5.67)	266 (10.47)	196 (7.72)	
	1FK7103-2A				235 (9.25)	170 (6.69)	287 (11.30)	222 (8.74)					240 (9.45)	170 (6.69)	292 (11.50)	222 (8.74)	
	1FK7105-2A				287 (11.30)	222 (8.74)	339 (13.35)	274 (10.79)					292 (11.50)	222 (8.74)	344 (13.54)	274 (10.79)	
1FK7 High Dynamic																	
36	1FK7033-4C	104.5 (4.11)	78 (3.07)	50 (1.97)	183 (7.20)	121 (4.76)	210 (8.27)	148 (5.83)		77 (3.03)	78 (3.07)	47 (1.85)	183 (7.20)	121 (4.76)	210 (8.27)	148 (5.83)	
48	1FK7043-4C	104.5 (4.11)	90 (3.54)	56 (2.20)	200 (7.87)	132 (5.20)	232 (9.13)	164 (6.46)		93 (3.66)	90 (3.54)	58 (2.28)	205 (8.07)	132 (5.20)	237 (9.33)	164 (6.46)	
	1FK7044-4C				225 (8.86)	157 (6.18)	257 (10.12)	189 (7.44)					230 (9.06)	157 (6.18)	262 (10.31)	189 (7.44)	
63	1FK7061-4C	104.5 (4.11)	104 (4.09)	50 (1.97)	203 (7.99)	141 (5.55)	238 (9.37)	176 (6.93)		93 (3.66)	104 (4.09)	52 (2.05)	208 (8.19)	141 (5.55)	243 (9.57)	176 (6.93)	
	1FK7064-4C				267 (10.51)	205 (8.07)	302 (11.89)	240 (9.45)					272 (10.71)	205 (8.07)	307 (12.09)	240 (9.45)	
80	1FK708.-4CC	104.5 (4.11)	119 (4.69)	48 (1.89)	257 (10.12)	197 (7.76)	309 (12.17)	249 (9.80)		93 (3.66)	119 (4.69)	50 (1.97)	262 (10.31)	197 (7.76)	314 (12.36)	249 (9.80)	
	1FK708.-4CF		139 (5.47)								139 (5.47)						
1FK7 High Inertia																	
48	1FK7042-3B	104.5 (4.11)	90 (3.54)	50 (1.97)	187 (7.36)	125 (4.92)	219 (8.62)	157 (6.18)		93 (3.66)	90 (3.54)	52 (2.05)	192 (7.56)	125 (4.92)	224 (8.82)	157 (6.18)	
63	1FK7060-3B	104.5 (4.11)	104 (4.09)	50 (1.97)	182 (7.17)	120 (4.72)	217 (8.54)	155 (6.10)		93 (3.66)	104 (4.09)	52 (2.05)	187 (7.36)	120 (4.72)	222 (8.74)	155 (6.10)	
	1FK7062-3B				216 (8.50)	153 (6.02)	251 (9.88)	189 (7.44)					221 (8.70)	153 (6.02)	256 (10.08)	189 (7.44)	
80	1FK7081-3B	104.5 (4.11)	119 (4.69)	48 (1.89)	211 (8.31)	151 (5.94)	264 (10.39)	203 (7.99)		93 (3.66)	119 (4.69)	50 (1.97)	216 (8.50)	151 (5.94)	269 (10.59)	203 (7.99)	
	1FK7084-3B				270 (10.63)	209 (8.23)	322 (12.68)	262 (10.31)					275 (10.83)	209 (8.23)	327 (12.87)	262 (10.31)	

SIMOTICS servomotors

Dimensional drawings

1FK7 – Natural cooling

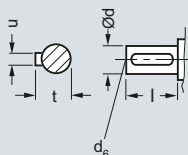
Dimensional drawings

For motor Resolver with/without DRIVE-CLiQ interface
Dimensions in mm (inches)

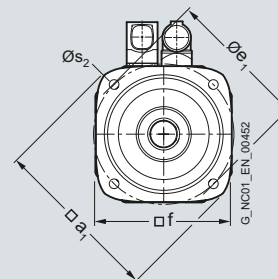
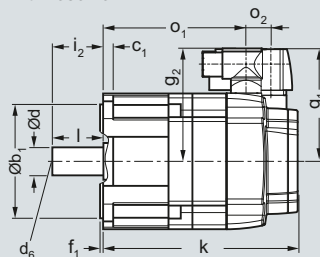
Shaft height	Type	DIN IEC	a ₁ P	b ₁ N	c ₁ LA	e ₁ M	f AB	f ₁ T	i ₂ –	s ₂ S	Shaft extension DE					
											d D	d ₆ –	l E	t GA	u F	
1FK7 Compact/High Dynamic, with/without brake																
36	1FK703		90 (3.54)	60 (2.36)	8 (0.31)	75 (2.95)	72 (2.83)	3 (0.12)	30 (1.18)	6.5 (0.26)	14 (0.55)	M5	30 (1.18)	16 (0.63)	5 (0.20)	
48	1FK704		120 (4.72)	80 (3.15)	10 (0.39)	100 (3.94)	96 (3.78)	3 (0.12)	40 (1.57)	6.5 (0.26)	19 (0.75)	M6	40 (1.57)	21.5 (0.85)	6 (0.24)	
63	1FK706		155 (6.10)	110 (4.33)	10 (0.39)	130 (5.12)	126 (4.96)	3.5 (0.14)	50 (1.97)	9 (0.35)	24 (0.94)	M8	50 (1.97)	27 (1.06)	8 (0.31)	
80	1FK708		194 (7.64)	130 (5.12)	11.5 (0.45)	165 (6.50)	155 (6.10)	3.5 (0.14)	58 (2.28)	11 (0.43)	32 (1.26)	M12	58 (2.28)	35 (1.38)	10 (0.39)	
1FK7 Compact, without/with brake																
100	1FK710		245 (9.65)	180 (7.09)	13 (0.51)	215 (8.46)	192 (7.56)	4 (0.16)	80 (3.15)	14 (0.55)	38 (1.50)	M12	80 (3.15)	41 (1.61)	10 (0.39)	

1FK703
1FK704
1FK706
1FK708
1FK710

Shaft design
with feather key



Version
with resolver



Dimensional drawings

For motor		Resolver with/without DRIVE-CLiQ interface							
		Dimensions in mm (inches)							
Shaft height	Type	g ₁ —	g ₂ —	o ₂ —	without brake		with brake		
					k LB	o ₁ —	k LB	o ₁ —	
1FK7 Compact									
36	1FK7032-2A	80 (3.15)	80 (3.15)	15 (0.59)	153 (6.02)	117 (4.61)	180 (7.09)	144 (5.67)	
	1FK7034-2A				178 (7.01)	142 (5.59)	205 (8.07)	169 (6.65)	
48	1FK7040-2A	90 (3.54)	90 (3.54)	23 (0.91)	132 (5.20)	85 (3.35)	164 (6.46)	117 (4.61)	
	1FK7042-2A				160 (6.30)	112 (4.41)	192 (7.56)	144 (5.67)	
63	1FK7060-2A	103 (4.06)	104 (4.09)	23 (0.91)	153 (6.02)	106 (4.17)	189 (7.44)	141 (5.55)	
	1FK7062-2A				176 (6.93)	128 (5.04)	211 (8.31)	163 (6.42)	
	1FK7063-2A				198 (7.80)	151 (5.94)	234 (9.21)	186 (7.32)	
80	1FK7080-2A	118 (4.65)	119 (4.69)	21 (0.83)	157 (6.18)	111 (4.37)	209 (8.23)	163 (6.42)	
	1FK7081-2A				176 (6.93)	130 (5.12)	228 (8.98)	182 (7.17)	
	1FK7083-2A				195 (7.68)	149 (5.87)	247 (9.72)	201 (7.91)	
	1FK7084-2A				214 (8.43)	168 (6.61)	266 (10.47)	221 (8.70)	
100	1FK7100-2A	136 (5.35)	137 (5.39)	26 (1.02)	169 (6.65)	118 (4.65)	206 (8.11)	155 (6.10)	
	1FK7101-2A		158 (6.22)		195 (7.68)	144 (5.67)	247 (9.72)	196 (7.72)	
	1FK7103-2A				221 (8.70)	170 (6.69)	273 (10.75)	222 (8.74)	
	1FK7105-2A				273 (10.75)	222 (8.74)	325 (12.80)	274 (10.79)	
1FK7 High Dynamic									
36	1FK7033-4C	81 (3.19)	80 (3.15)	15 (0.59)	163 (6.42)	127 (5.00)	190 (7.48)	154 (6.06)	
48	1FK7043-4C	90 (3.54)	90 (3.54)	23 (0.9)	186 (7.32)	138 (5.43)	218 (8.58)	170 (6.69)	
	1FK7044-4C				211 (8.31)	163 (6.42)	243 (9.57)	195 (7.68)	
63	1FK7061-4C	103 (4.06)	104 (4.09)	23 (0.9)	188 (7.40)	141 (5.55)	224 (8.82)	176 (6.93)	
	1FK7064-4C				252 (9.92)	205 (8.07)	288 (11.34)	240 (9.45)	
80	1FK708.-4CC	118 (4.65)	119 (4.69)	21 (0.83)	243 (9.57)	197 (7.76)	295 (11.61)	250 (9.84)	
	1FK708.-4CF		139 (5.47)						