

TECH NOTE:

GTX Quick Reference Guide

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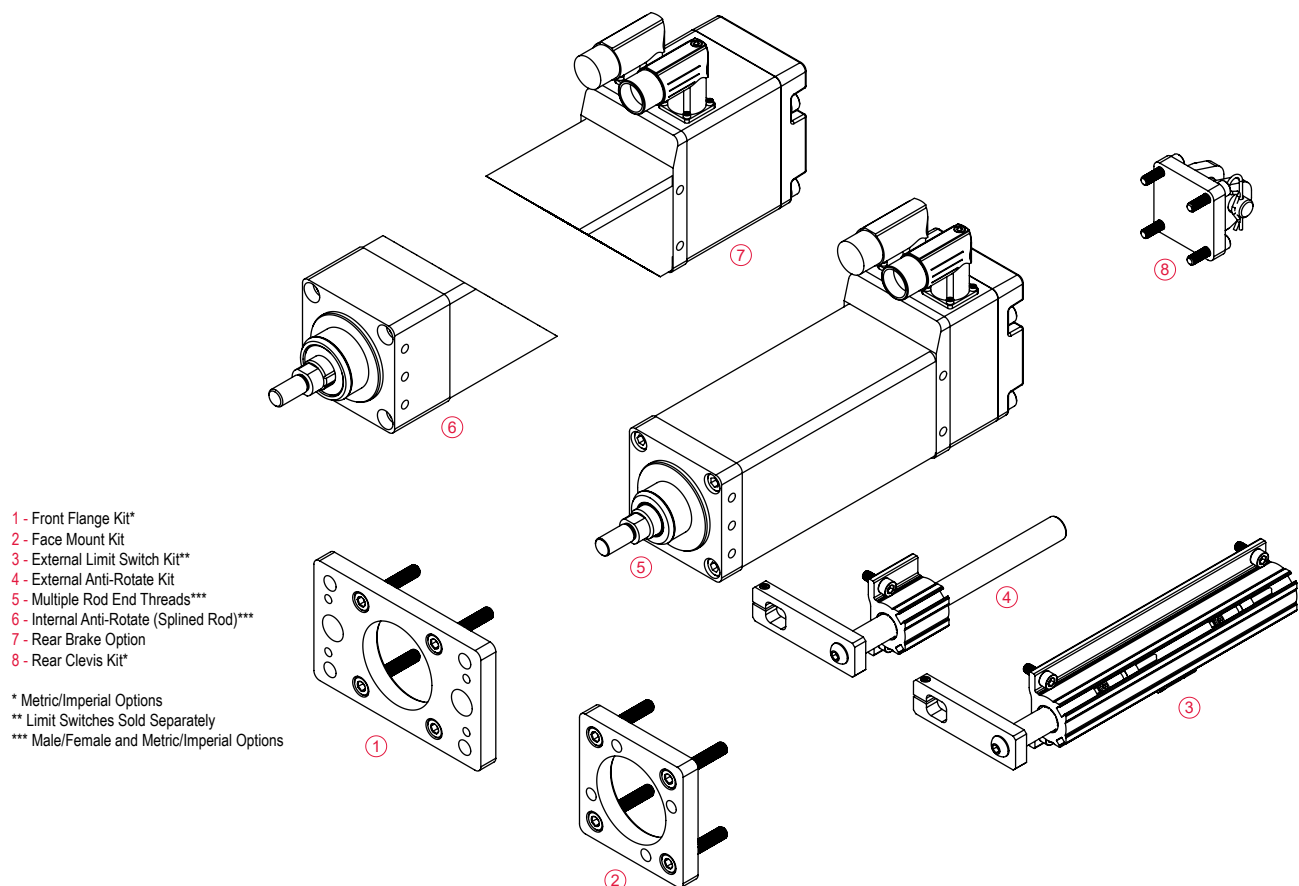
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EXLAR®

Exlar® actuators are a brand of Curtiss-Wright Sensors and Actuation Division

Product Summary

The GTX product is an integrated servo motor and actuator solution that is offered in three different frames sizes, 60mm, 80mm and 100mm. The modular design of the GTX series enables a flexible set of configurations yet supports a fulfillment model with competitive deliveries optimized to your application. Compatibility with market leading 3rd party amplifier manufacturers allows users to specify their own control architecture. The product is engineered to support bolt-on mounting accessories that can be field installed and replaced. The motor housing is sealed and IP66S rated for reliable operation in environments where contaminants are present, ensuring a compact robust solution to support a variety of applications.



GTX Mechanical and Electrical Specifications

Mechanical Specifications		
Model	Continuous Force N (lbf)	Max Speed mm/sec (in/sec)
GTX060	AC -2,688 (600)	AC -1,270 (50)
	DC - 2,688 (600)	DC - 847 (33.3)
GTX080	AC -8,365 (1,881)	AC -1,270 (50)
	DC - 7,101 (1,596)	DC - 508 (20)
GTX100	AC -15,392 (3,460)	AC -953 (37.5)

GTX060 Electrical Specifications							
Stator Type		4 (AC)			D (DC)		
Input Voltage		230/460 Vrms			24/48 Vdc		
Rated RPM		5000/7500			2400/5000		
Actuator Lead	mm	2.54	5.08	10.16	2.54	5.08	10.16
	in	0.1	0.2	0.4	0.1	0.2	0.4
*See Note	Limit of Torque	74.6%	100.0%	100.0%	88.1%	100.0%	100.0%
Continuous Motor Torque @Stall	Nm	1.35	1.81	1.81	1.35	1.53	1.53
	lbf-in	11.9	16.0	16.0	11.9	13.6	13.6

GTX080 Electrical Specifications							
Stator Type		4 (AC)			D (DC)		
Input Voltage		230/460 Vrms			24/48 Vdc		
Rated RPM		3000/6000			1000/2400		
Actuator Lead	mm	2.54	5.08	12.70	2.54	5.08	12.70
	in	0.1	0.2	0.5	0.1	0.2	0.5
*See Note	Limit of Torque	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Continuous Motor Torque @Stall	Nm	4.51	4.51	4.51	3.83	3.83	3.83
	lbf-in	39.9	39.9	39.9	33.9	33.9	33.9
Torque Constant (Kt) (+/- 10% @ 25°C)							
	Nm/A	1.02	1.02	1.02	0.18	0.18	0.18
	lbf-in/A	9.0	9.0	9.0	1.6	1.6	1.6
Continuous Current Rating	Arms	4.9	4.9	4.9	24.2	24.2	24.2

Product Code

(GTX)AAA-BBB-CC-D-E-FF-GGGG-H-M-N

(AAA) Frame Size		(BBB) Stroke Options				
Size Options	Description	Stroke Options	GTX060	GTX080	GTX100	Over Travel
060	60 mm (2.36 in)	080 mm (3 in)	✓			10 mm (90 mm)
080	80 mm (3.15 in)	100 mm (4 in)		✓		10 mm (110 mm)
100	100 mm (3.94 in)	150 mm (6 in)	✓	✓	✓	10 mm (160 mm)
		300 mm (12 in)	✓	✓	✓	10 mm (310 mm)
		450 mm (18 in)		✓		10 mm (460 mm)
		Configured Stroke Options Available in 25mm Increments				
		Over travel is actual product stroke				

(CC) Screw Lead				
Lead Options	GTX060	GTX080	GTX100	Revolution Travel Per Screw
01	✓	✓	✓	0.1 in (2.54 mm)
02	✓	✓	✓	0.2 in (5.08 mm)
04	✓			0.4 in (10.2 mm)
05		✓	✓	

(E) GTX060 Rod Thread/Type	
Thread	Description
A	Male, M8x1.25
B	Female, M8x1.25
C	Male, M8x1.25, Splined
D	Female, M8x1.25, Splined
F	Female, 5/16-24
G	Male, 5/16-24, Splined
H	Female, 5/16-24, Splined
L	Female, M8x1.25, 17-4 SS
M	Male, 5/16-24
R	Male, M8x1.25, 17-4 SS
V	Female, 5/16-24, 17-4 SS
W	Male, 5/16-24, 17-4 SS

(E) GTX080 Rod Thread/Type	
Thread	Description
A	Male, M12x1.25
B	Female, M12x1.25
C	Male, M12x1.25, Splined
D	Female, M12x1.25, Splined
F	Female, 1/2-20
G	Male, 1/2-20, Splined
H	Female, 1/2-20, Splined
L	Female, M12x1.25, 17-4 SS
M	Male, 1/2-20
R	Male, M12x1.25, 17-4 SS
V	Female, 1/2-20, 17-4 SS
W	Male, 1/2-20, 17-4 SS

(E) GTX100 Rod Thread/Type	
Thread	Description
A	Male, M16x1.5
B	Female, M16x1.5
C	Male, M16x1.5, Splined
D	Female, M16x1.5, Splined
F	Female, 5/8-18
G	Male, 5/8-18, Splined
H	Female, 5/8-18, Splined
L	Female, M16x1.5, 17-4 SS
M	Male, 5/8-18
R	Male, M16x1.5, 17-4 SS
V	Female, 5/8-18, 17-4 SS
W	Male, 5/8-18, 17-4 SS

(GGGG) Feedback Configuration							
Drive Manufacturer	(FF) Wiring & Alignment Code	Resolver	Incremental Encoder	SICK Hiperface Absolute Encoder	SICK Hiperface DSL Absolute Encoder	Heidenhain EnDat 2.1 Absolute Encoder ¹	Heidenhain EnDat 2.2 Absolute Encoder ²
AMK	AK	R1A1				H1A1	
B&R Automation	BR	R1A1				H1A2	H3A8 ³
Baldor	BD	R1A1				H1A1	
Baumuller	BM	R1A1		S1A1		H1A2	
Beckhoff Automation	BE				S4C0*	H1A2	H3C2 ³
Control Techniques / Nidec	CT	R2B1	E1B2	S1B1		H1B2	
Elau / Schneider Electric	EU			S1A1 ⁴			
Elmo Motion Control	EL	R1B1	E1B2			H1A	

(H) Internal Holding Brake				(M) Mounting	
Option	060	080	100	Options	Description
N	No Brake	No Brake	No Brake	N	None
B	Brake	Brake	Brake	1	Front Flange, Metric (ISO MF1)
(N) Additional Options				3	Tapped Face, Metric (ISO MX3)
Options	Description			5	Rear Clevis, Metric (ISO MP2)
A	Anti-Rotate Assembly			F	Front Flange, Imperial
L	Limit Switch Housing/Anti-Rotate Kit			c	Rear Clevis, Imperial

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