

X86 Motor/controller with Configurable Precision Spur Gears

- Easily change gear ratios from 5.4:1 to over 133,892. Each gearbox only weighs .69 lbs, gives you the lightest strongest drive available.
- Stainless steel and AL2024 metal high strength gears with 97-99% efficiency per set, near-zero backlash. Rotating in same direction has **zero** backlash.
- 29.16 ratio shown has 11,664 half-steps/rev, 32.4 half-steps/°, 0.03086°/half-step resolution, and 62 rpm output at 12,000 hsp, up to 100 rpm with light loads.
- Gearboxes 3 to 7 can be 5:1 ratio, gives integer hsteps/revolution.

Xtreme Resolution!

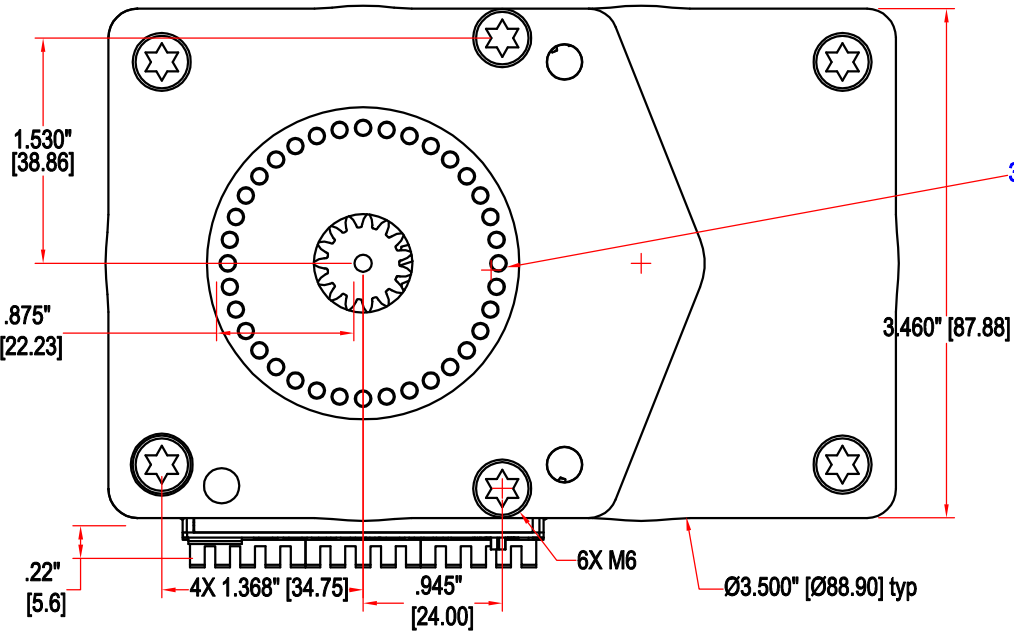
using all 5.4:1 Gearboxes

Sets	Weight	Ratio	Resolution	hSteps/rev
1	.62 lbs	5.4	600 arcsec	2,160
2	1.31	29.16	111.111	11,664
3	2.00	157.+	20.5761	62,295.+
4	2.69	850.+	3.8104	340,122.+
5	3.38	4,591.+	.70563	1,836,660.+
6	4.07	24,794.+	.13067	9,917,964.+
7	4.76	133,892.+	.02420	53,557,008.+

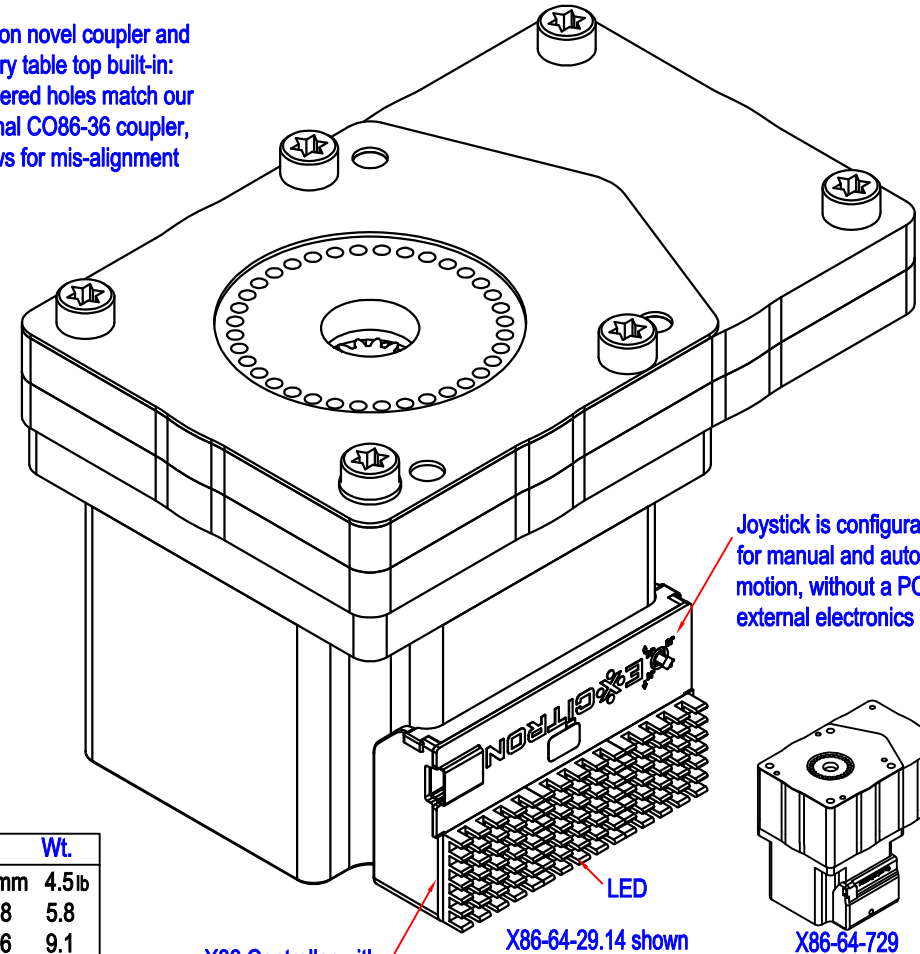
+ means caculate 5.4ⁿ

using 2 5.4:1 & rest are 5:1 Gearboxes

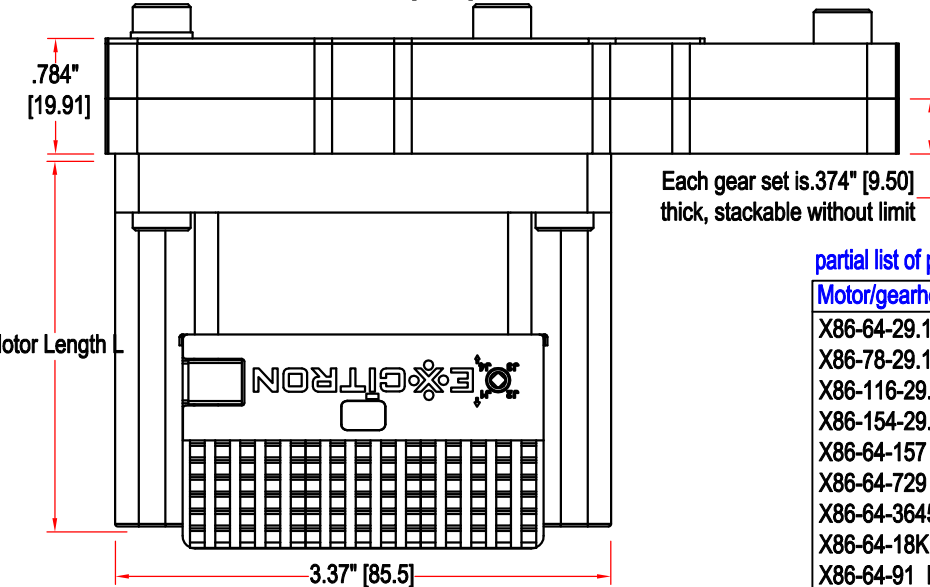
Sets	Ratio	Resolution	hSteps/rev
1	5.4	600 arcsec	2,160
2	29.16	111.111	11,664
3	145.8	22.2222	58,320
4	729	4.4444	291,600
5	3,645	.88889	1,458,000
6	18,225	.17778	7,290,000
7	91,125	.03556	36,450,000



Excitron novel coupler and rotary table top built-in: 36 tapered holes match our optional CO86-36 coupler, allows for mis-alignment



Joystick is configurable for manual and auto motion, without a PC or external electronics



Each gear set is .374" [9.50] thick, stackable without limit

partial list of part numbers:

Motor/gearhead	L ±.02"	Wt.
X86-64-29.14	2.52" 64mm	4.5lb
X86-78-29.14	3.07 78	5.8
X86-116-29.14	4.56 116	9.1
X86-154-29.14	6.06 154	12.6
X86-64-157	2.52 64	5.2
X86-64-729	2.52 64	5.9
X86-64-3645	2.52 64	6.6
X86-64-18K	2.52 64	7.3
X86-64-91 K	2.52 64	8.0

- X86 Controller with:
- 50 amp power drivers
 - Robotic intelligence
 - CNC/gcode system
 - Automatic operation
 - Stand-alone running

EXCITRON
 info@excitron.com 303-859-9476
X86 Gearbox Series