

- 1 → Txd TTL
- 2 → Rxd TTL
- 3 → IN3, Dir, ADC, SPS
- 4 → Reset
- 5 → IN5, EncB, SPS_dir
- 6 → Out6
- 7 → IN7, EncA
- 8 → IN8, Index
- 9 → IN9, Step
- 10 → Gnd
- 11 → Gnd
- 12 → Gnd
- 13 → +V
- 14 → +V
- 15 → +V

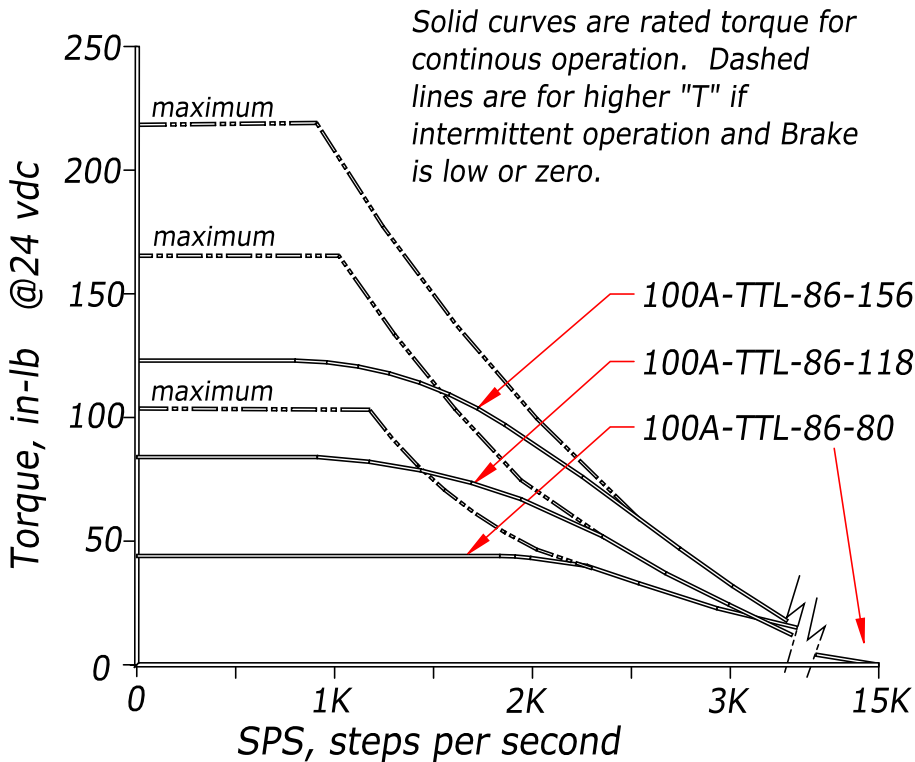
Note! all DB15 signals are TTL (+5v). Maximum allowable voltage is +5.5, minimum is -0.5. Do not connect RS232 (±10v) signals directly. For interface to RS232 PCs, use our RS232-TTL Adaptor, which translates the ±10v to +5v logic. Or connect using our USB Adaptor.

Starting with Controller firmware version 3.42, SPS and SPS_dir provide changing of speed on-the-fly using a potentiometer connected to SPS and a switch to SPS_dir.

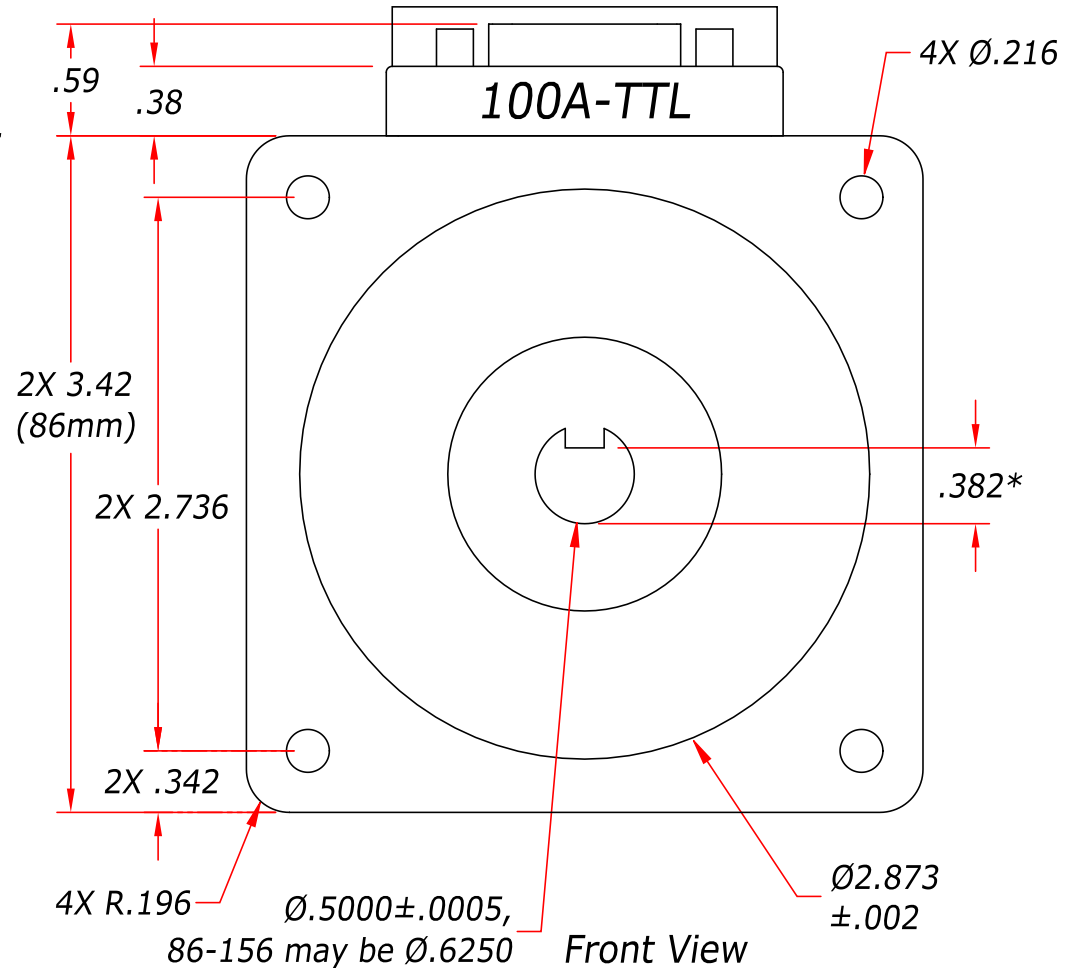
Power supply voltage:	
absolute maximum	30
typical	12 to 24
absolute minimum	10

Optional range is 36 to 48 volts, contact Excitron. DB15 male connector and housing provided with each motor/controller.

DB15F, shell is grounded



Industry standard NEMA size 34 motors. All 86 series motors are 1.8 deg/full step and usually operate best in half-step.



Above 4,000 sps, the 86-80 will run with more torque and speed than the longer motors in this series. The 86-80 may run up to 15,000 half-steps/sec.

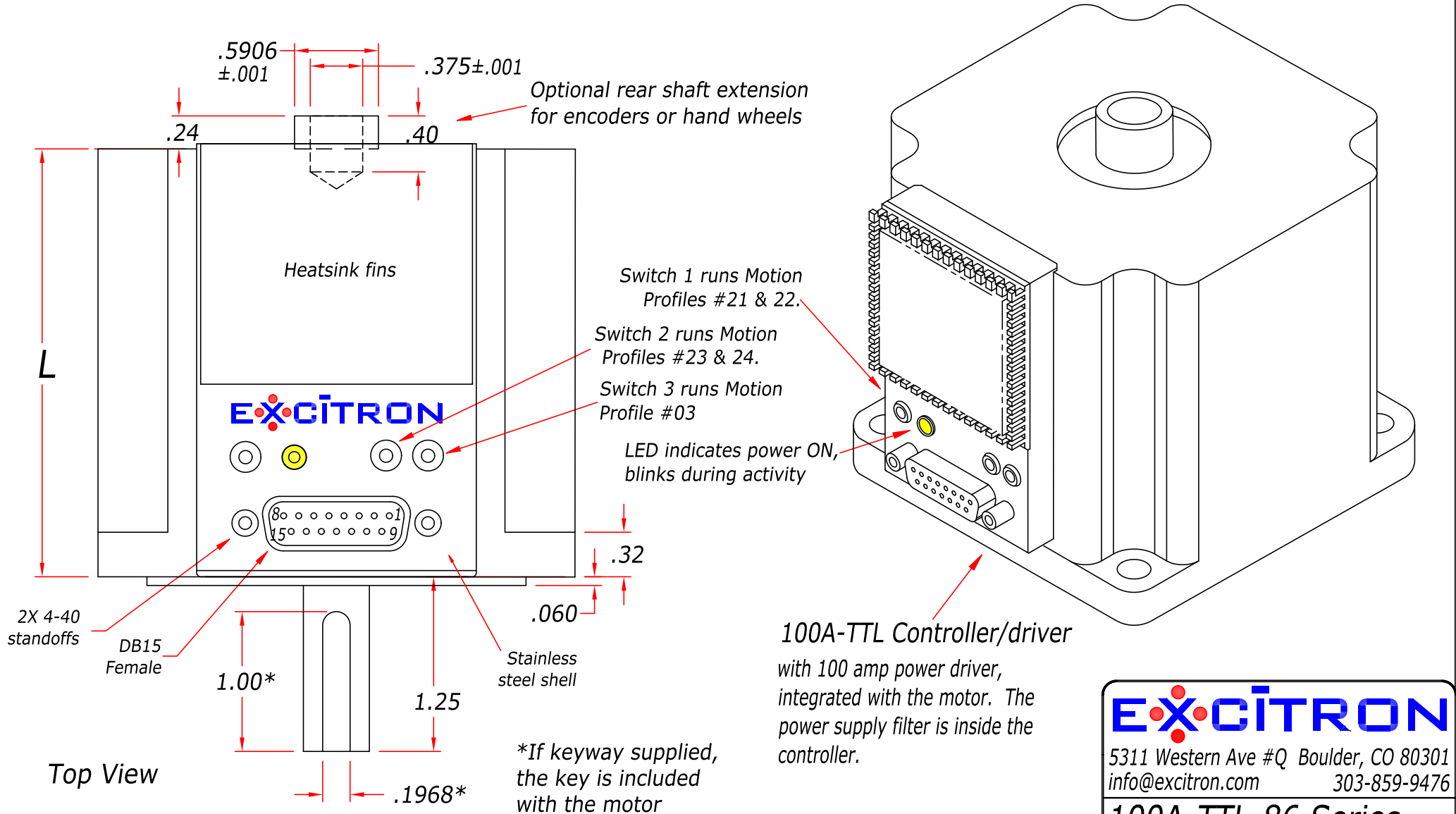
EXCITRON
 5311 Western Ave #Q Boulder, CO 80301
 info@excitron.com 303-859-9476
100A-TTL-86 Series

Motor/Controller	L ±.02"	Wt.	Torque	Trq*
100A-TTL-86-65	2.52"	3.8lb	32 in-lb	009
100A-TTL-86-80	3.07	5.1	44	012
100A-TTL-86-118	4.58	8.4	83	021
100A-TTL-86-156	6.08	11.9	122	026

* Rated Trq values are for command "T" with a 24 vdc supply; for 12 volt, you may double these values.

Important--do not adjust "T" higher in order to improve torque and performance without first adjusting A, M, and V. "T" controls the amperage which increases temperature. Also, when stepping faster than the point on the speed curve where torque starts to decrease, "T" has no effect because the motor's inductance limits the current. "T" only controls the amperage during the flat section of the speed curve, so be aware.

Temperature is the prime limiting factor for proper running and long life. Do not abuse the controller by running T more than 2.5 times higher than rated. If you must operate at higher values than given in the chart, then provide adequate cooling, and you must derate as the motor temperature rises.



EXCITRON
 5311 Western Ave #Q Boulder, CO 80301
 info@excitron.com 303-859-9476
100A-TTL-86 Series
 www.excitron.com 100% 2/2 Rev F