

Size 51–STA® Pull Tubular Solenoids — 1/2" Dia. x 1"

LINEAR Tubular

Part Number: 195202 - X XX

All products are RoHS Compliant

Coil AWG Number
(from performance chart below)

Plunger Configurations and anti-rotation flat on mounting
 1 Flat face plunger without anti-rotation flat
 2 60° plunger without anti-rotation flat
 5 Flat face plunger with anti-rotation flat
 6 60° plunger with anti-rotation flat

Performance

	100%	50%	25%	10%
Maximum Duty Cycle	100%	50%	25%	10%
Maximum ON Time (sec) when pulsed continuously ¹	∞	50	5	2
Maximum ON Time (sec) for single pulse ²	∞	140	30	8
Watts (@ 20°C)	4	8	16	40
Ampere Turns (@ 20°C)	497	704	994	1573

Coil Data

awg (0XX) ³	Resistance (@20°C)	# Turns ⁴	VDC (Nom)	VDC (Nom)	VDC (Nom)	VDC (Nom)
27	1.43	306	2.4	3.4	4.8	7.6
28	1.95	342	2.8	3.9	5.6	8.8
29	3.84	508	3.9	5.5	7.8	12.4
30	5.29	572	4.6	6.5	9.2	14.5
31	9.56	795	6.2	8.8	12.4	19.6
32	16.54	1068	8.1	11.5	16.3	25.7
33	22.60	1194	9.5	13.4	19.0	30.0
34	37.41	1547	12.2	17.3	24.0	39.0
35	60.71	1976	15.6	22.0	31.0	49.0
36	96.19	2475	19.6	28.0	39.0	62.0
37	141.93	3060	23.8	33.7	47.6	75.3

- Continuously pulsed at stated watts and duty cycle
- Single pulse at stated watts (with coil at ambient room temperature 20°C)
- Other coil awg sizes available — please consult factory
- Reference number of turns

Specifications

Dielectric Strength	500 VRMS
Recommended Minimum Heat Sink	Maximum watts dissipated by solenoid are based on an unrestricted flow of air at 20°C, with solenoid mounted on the equivalent of an aluminum plate measuring 2" square by 1/8" thick
Coil Resistance	±5% tolerance
Holding Force	Flat Face: 1.18 lb (5.3 N) @ 20°C 60°: 0.90 lb (4.0 N) @ 20°C
Weight	0.87 oz (24.7 g)
Plunger Weight	0.16 oz (4.5 g)

How to Order

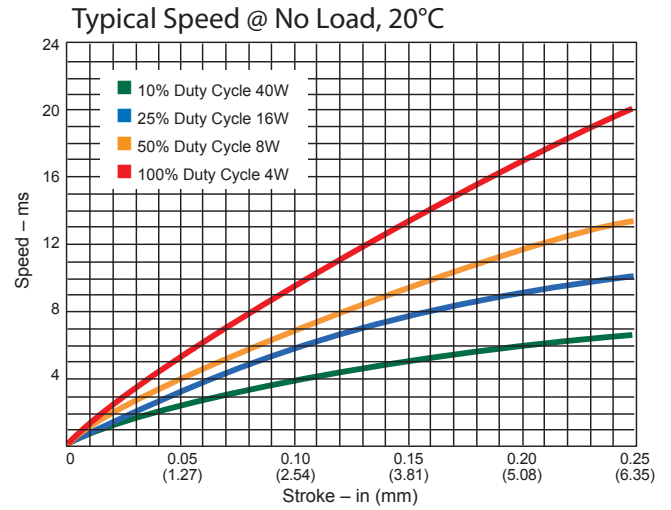
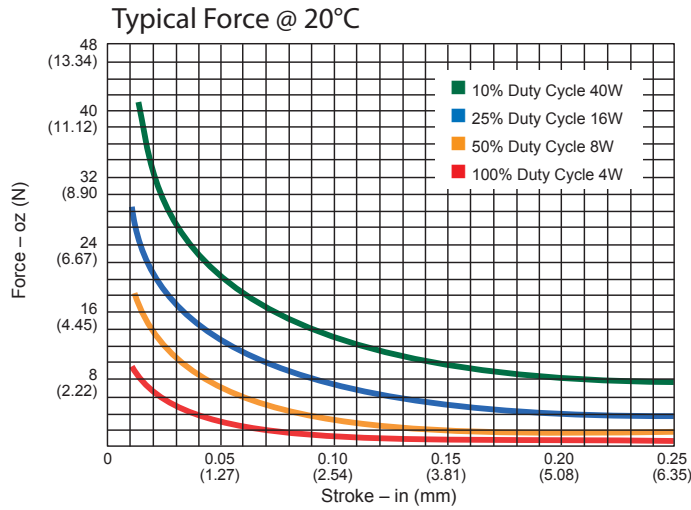
Add the plunger configuration, anti-rotation flat number, and the coil awg number to the part number (for example: to order a unit with a 60° plunger configuration without an anti-rotation flat rated for 4.8 VDC at 25% duty cycle, specify 195202-227).

Please see www.johnsonelectric.com for our list of stock products available through distribution.

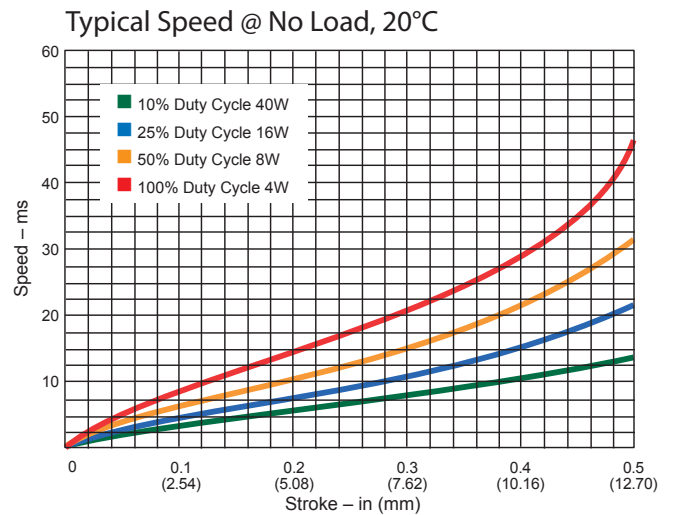
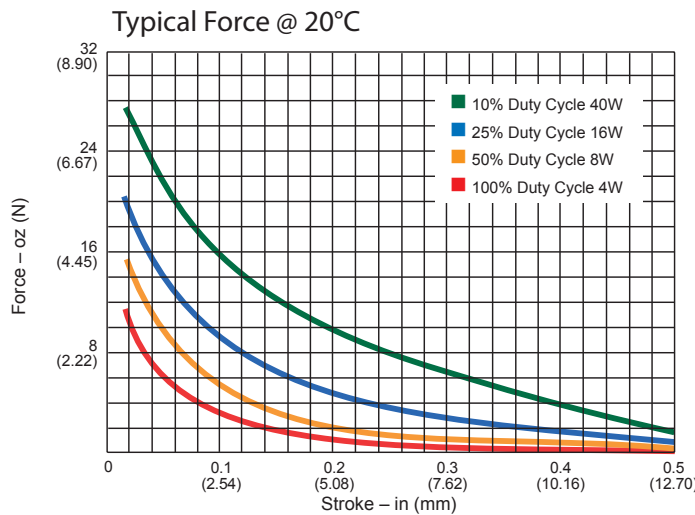
All specifications subject to change without notice.

Size 51–STA® Pull Tubular Solenoids — 1/2" Dia. x 1"

Flat Face Plunger

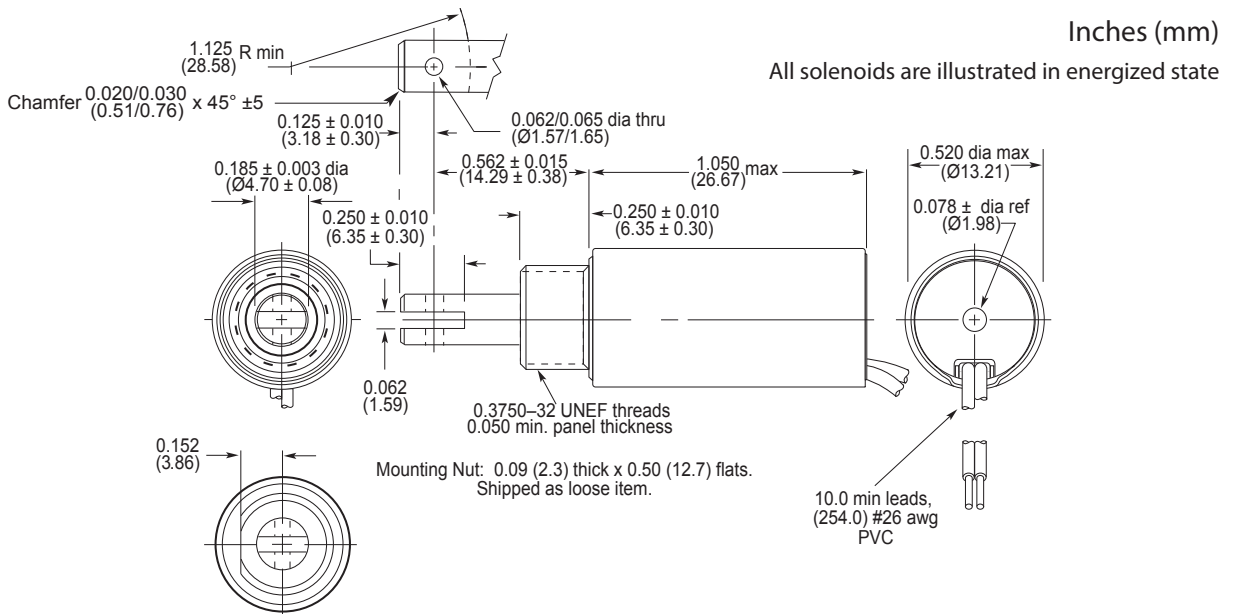


60° Plunger



Force values for reference only.

Dimensions



Size 51–STA® Push Tubular Solenoids — 1/2" Dia. x 1"

LINEAR Tubular

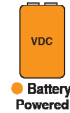
Part Number: 195203 - X XX

All products are RoHS Compliant

Coil AWG Number
(from performance chart below)

Plunger Configurations and anti-rotation flat on mounting
 1 Flat face plunger without anti-rotation flat
 2 60° plunger without anti-rotation flat
 5 Flat face plunger with anti-rotation flat
 6 60° plunger with anti-rotation flat

Performance



	100%	50%	25%	10%
Maximum Duty Cycle	100%	50%	25%	10%
Maximum ON Time (sec) when pulsed continuously ¹	∞	50	5	2
Maximum ON Time (sec) for single pulse ²	∞	140	30	8
Watts (@ 20°C)	4	8	16	40
Ampere Turns (@ 20°C)	497	704	994	1573



Coil Data

awg (0XX) ³	Resistance (@20°C)	# Turns ⁴	VDC (Nom)	VDC (Nom)	VDC (Nom)	VDC (Nom)
27	1.43	306	2.4	3.4	4.8	7.6
28	1.95	342	2.8	3.9	5.6	8.8
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37	141.93	3060	23.8	33.7	47.6	75.3

- ¹ Continuously pulsed at stated watts and duty cycle
- ² Single pulse at stated watts (with coil at ambient room temperature 20°C)
- ³ Other coil awg sizes available — please consult factory
- ⁴ Reference number of turns

Specifications

Dielectric Strength	500 VRMS
Recommended Minimum Heat Sink	Maximum watts dissipated by solenoid are based on an unrestricted flow of air at 20°C, with solenoid mounted on the equivalent of an aluminum plate measuring 2" square by 1/8" thick
Coil Resistance	±5% tolerance
Holding Force	Flat Face: 1.00 lb (4.5 N) @ 20°C 60°: 0.71 lb (3.2 N) @ 20°C
Weight	0.89 oz (25.2 g)
Plunger Weight	0.11 oz (3.1 g)

How to Order

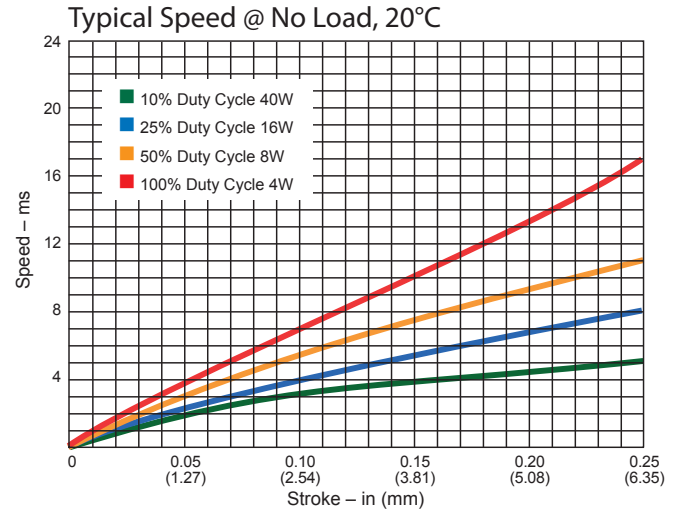
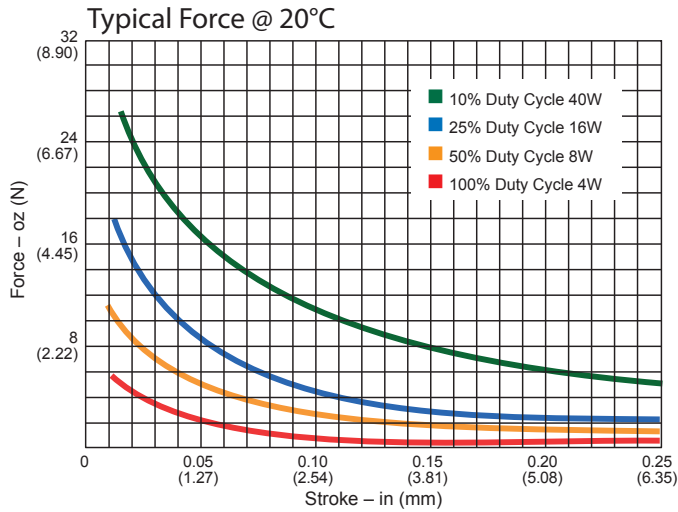
Add the plunger configuration, anti-rotation flat number and the coil awg number to the part number (for example: to order a unit with a 60° plunger configuration without anti-rotation rated for 4.8 VDC at 25% duty cycle, specify 195203-227.

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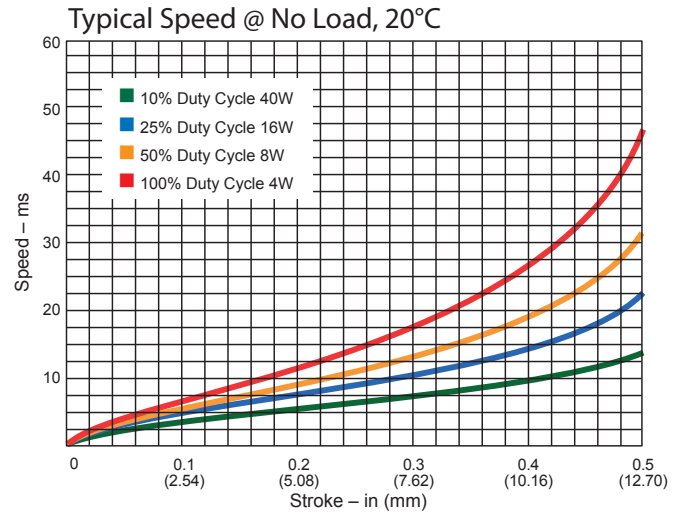
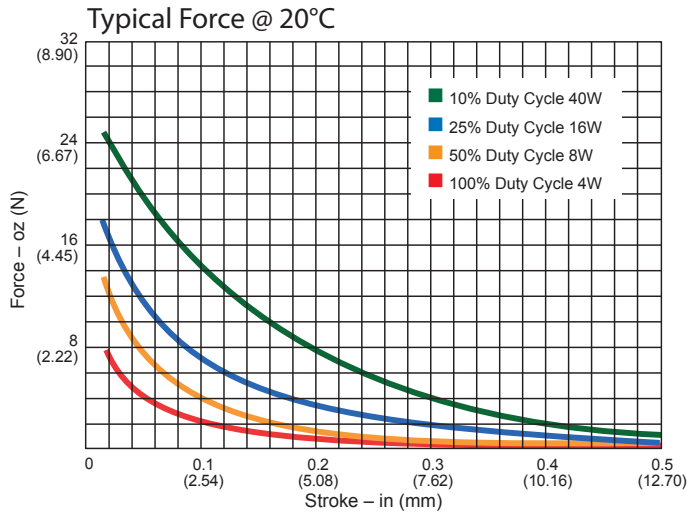
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Flat Face Plunger



60° Plunger



Force values for reference only.

Dimensions

