

# Size 75–STA® Pull Tubular Solenoids — 3/4" Dia. x 1-1/2"

LINEAR Tubular

Part Number: 195204 - 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 <sup>1</sup>	∞	230	25	6
Maximum ON Time (sec) for single pulse <sup>2</sup>	∞	265	63	15
Watts (@ 20°C)	7	14	28	70
Ampere Turns (@ 20°C)	855	1200	1700	2700



### Coil Data



awg (0XX) <sup>3</sup>	Resistance (@20°C)	# Turns <sup>4</sup>	VDC (Nom)	VDC (Nom)	VDC (Nom)	VDC (Nom)
24	1.10	330	2.7	3.8	5.6	8.8
25	2.13	488	3.9	5.5	7.7	12.2
26	2.90	544	4.5	6.4	9.0	14.2
27	5.27	760	6.1	8.6	12.1	19.2
28	9.15	1026	8.0	11.3	16.0	25.0
29	12.50	1146	9.4	13.2	18.7	30.0
30	20.70	1491	12.0	17.0	24.0	38.0
31	33.60	1904	15.0	22.0	31.0	48.0
32	53.50	2394	19.4	27.0	39.0	61.0
33	83.50	2970	24.0	34.0	48.0	76.0

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

## Specifications

Dielectric Strength	1000 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 3" square by 1/8" thick
Coil Resistance	±5% tolerance
Holding Force	Flat Face: 5.24 lb (23.3 N) @ 20°C 60°: 2.88 lb (12.8 N) @ 20°C
Weight	2.95 oz (83.6 g)
Plunger Weight	0.71oz (20.1 g)

## How to Order

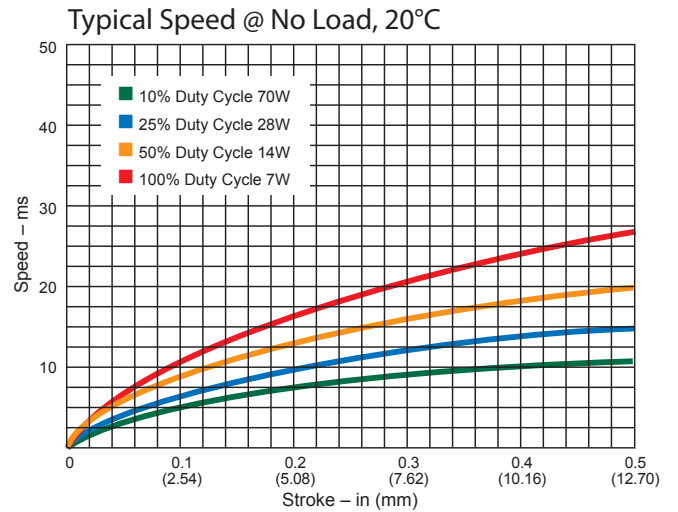
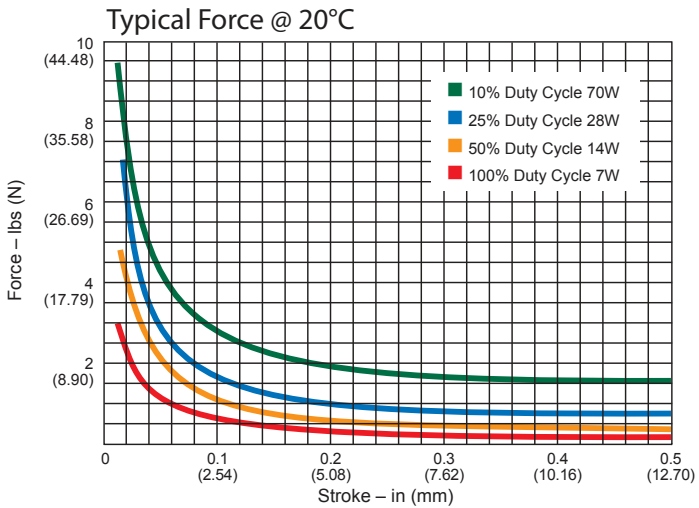
Add the plunger number and the coil awg number to the part number (for example: to order a unit with a 60° plunger configuration without an anti-rotation flat rated for 12.1 VDC at 25% duty cycle, specify 195204-227).

Please see [www.johnsonelectric.com](http://www.johnsonelectric.com) for our list of stock products available through distribution.

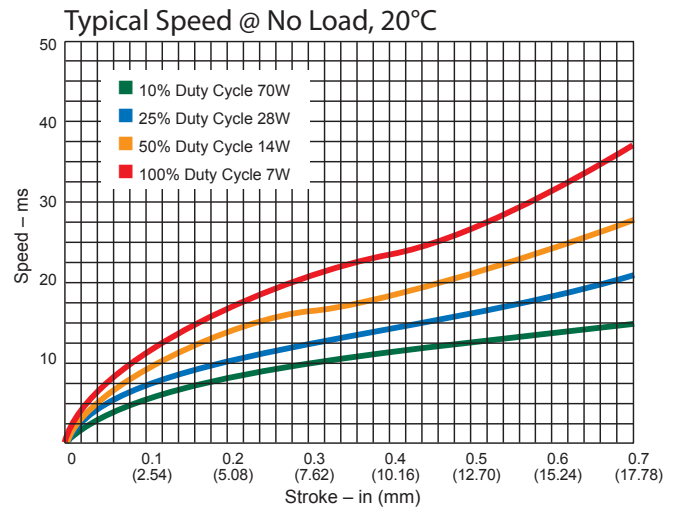
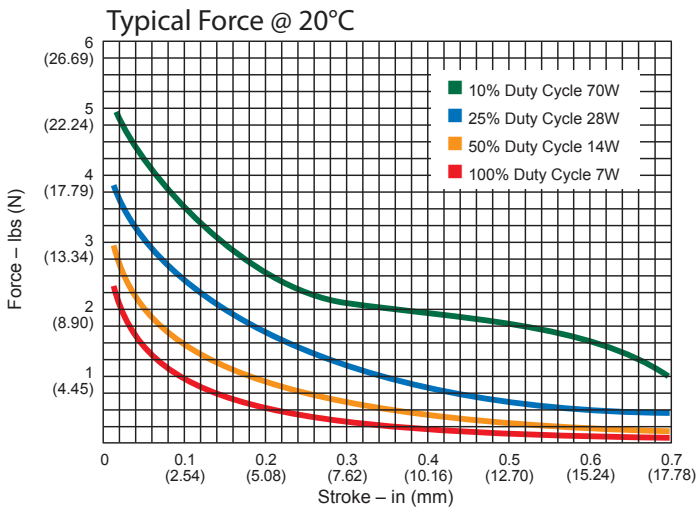
All specifications subject to change without notice.

# Size 75–STA® Pull Tubular Solenoids — 3/4" Dia. x 1-1/2"

## Flat Face Plunger

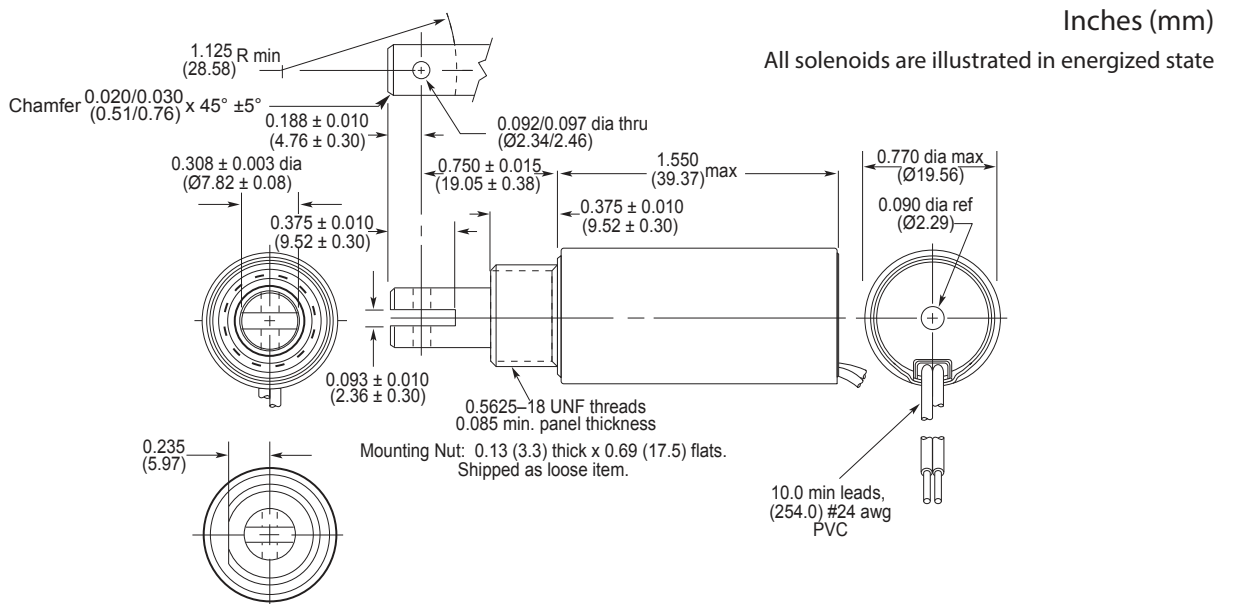


## 60° Plunger



Force values for reference only.

## Dimensions



# Size 75–STA® Push Tubular Solenoids — 3/4" Dia. x 1-1/2"

LINEAR Tubular

Part Number: 195205 - 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 <sup>1</sup>	∞	230	25	6
Maximum ON Time (sec) for single pulse <sup>2</sup>	∞	265	63	15
Watts (@ 20°C)	7	14	28	70
Ampere Turns (@ 20°C)	855	1200	1700	2700



### Coil Data

awg (0XX) <sup>3</sup>	Resistance (@20°C)	# Turns <sup>4</sup>	VDC (Nom)	VDC (Nom)	VDC (Nom)	VDC (Nom)
24	1.10	330	2.7	3.8	5.6	8.8
25	2.13	488	3.9	5.5	7.7	12.2
26	2.90	544	4.5	6.4	9.0	14.2
27	5.27	760	6.1	8.6	12.1	19.2
28	9.15	1026	8.0	11.3	16.0	25.0
29	12.50	1146	9.4	13.2	18.7	30.0
30	20.70	1491	12.0	17.0	24.0	38.0
31	33.60	1904	15.0	22.0	31.0	48.0
32	53.50	2394	19.4	27.0	39.0	61.0
33	83.50	2970	24.0	34.0	48.0	76.0

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

## Specifications

Dielectric Strength	1000 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 3" square by 1/8" thick
Coil Resistance	±5% tolerance
Holding Force	Flat Face: 4.95 lb (22.0 N) @ 20°C 60°: 2.85 lb (12.7 N) @ 20°C
Weight	3.08 oz (87.3 g)
Plunger Weight	0.53 oz (15.0 g)

## How to Order

Add the plunger 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 12.1 VDC at 25% duty cycle, specify 195205-227).

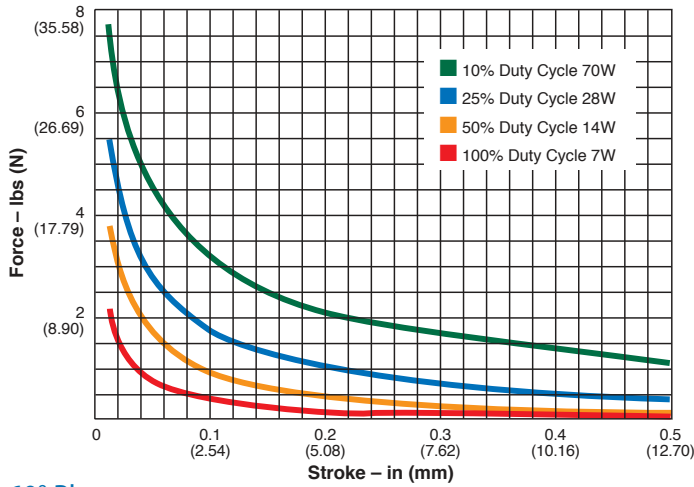
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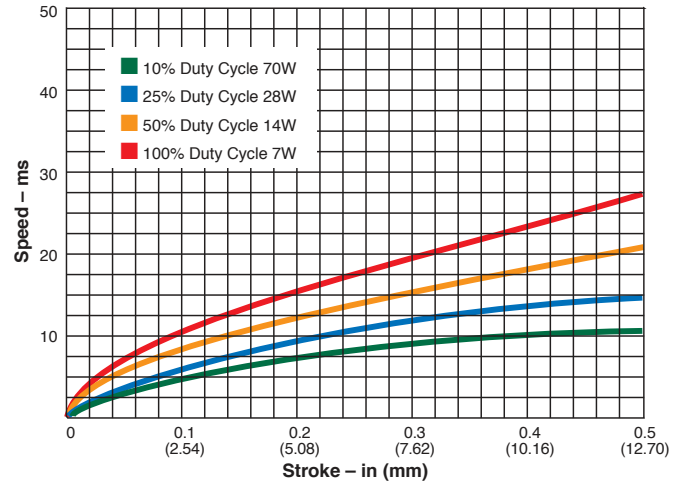
# Size 75–STA® Push Tubular Solenoids — 3/4" Dia. x 1-1/2"

## Flat Face Plunger

Typical Force @ 20°C

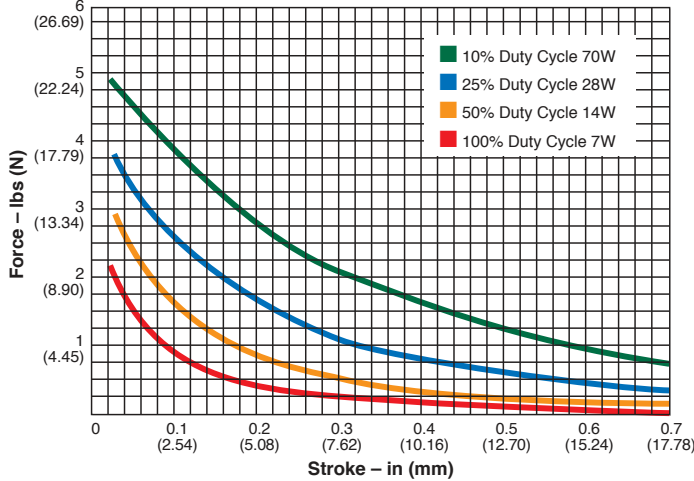


Typical Speed @ No Load, 20°C

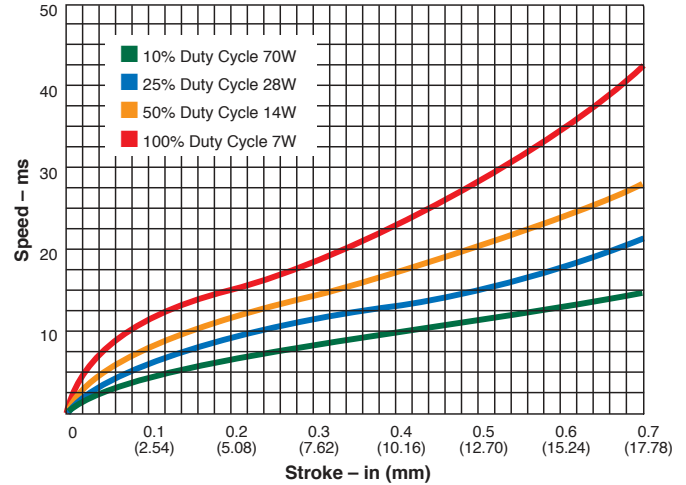


## 60° Plunger

Typical Force @ 20°C



Typical Speed @ No Load, 20°C



Force values for reference only.

## Dimensions

