

# Size 150–STA® Pull Tubular Solenoids — 1-1/2" Dia. x 2-1/2"

LINEAR Tubular

Part Number: 154660 - XXX

Coil AWG Number  
(from performance chart below)

Plunger Configurations and anti-rotation flat on mounting  
2 – 60° plunger without anti-rotation flat  
6 – 60° plunger with anti-rotation flat



## Performance

Maximum Duty Cycle	100%	50%	25%	10%
Maximum ON Time (sec) when pulsed continuously <sup>1</sup>	∞	420	100	25
Maximum ON Time (sec) for single pulse <sup>2</sup>	∞	570	252	75
Watts (@ 20°C)	17	34	68	170
Ampere Turns (@ 20°C)	1800	2546	3600	5692



### Coil Data

awg (0XX) <sup>3</sup>	Resistance (@20°C)	# Turns <sup>4</sup>	VDC (Nom)	VDC (Nom)	VDC (Nom)	VDC (Nom)
23	5.58	1030	9.8	13.9	19.7	31.0
24	9.30	1344	12.4	17.6	25.0	39.0
25	14.90	1712	15.7	22.0	31.0	50.0
26	24.00	2180	19.9	28.0	40.0	63.0
27	36.90	2680	25.0	35.0	50.0	79.0
28	58.40	3322	32.0	45.0	63.0	100.0
29	87.50	4008	39.0	56.0	79.0	124.0
30	148.00	5292	50.0	71.0	101.0	159.0
31	224.00	6360	63.0	90.0	127.0	200.0
32	344.00	7956	78.0	110.0	155.0	246.0
33	554.00	10070	100.0	141.0	199.0	315.0

<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 6" square by 1/8" thick
Coil Resistance	±5% tolerance
Holding Force	22.6 lbs (100.4 N) at 20°C
Weight	17.2 oz (487.6 g)
Plunger Weight	4.04 oz (114.5 g)

## How to Order

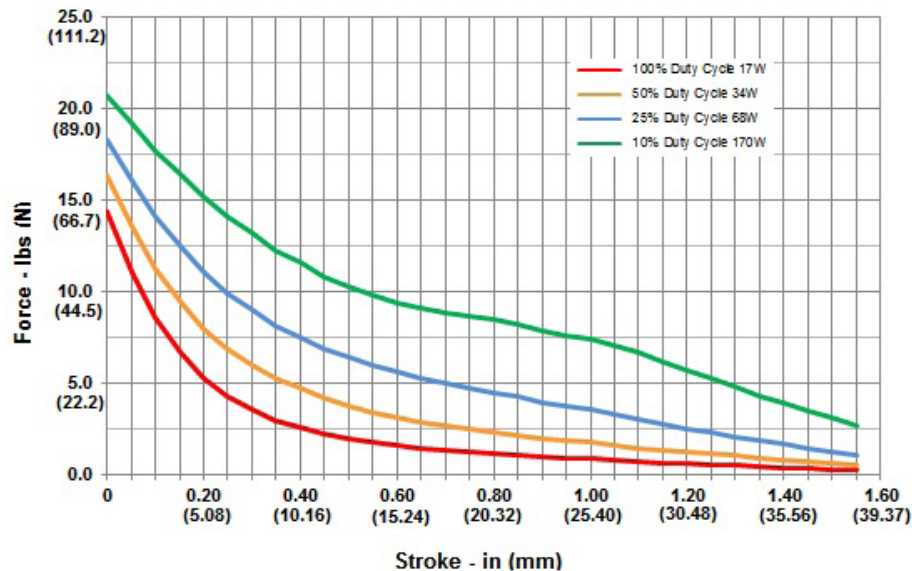
Add the plunger configuration and the coil awg number to the part number (for example: to order a unit with a 60° plunger without an anti-rotation flat rated for 25 VDC at 25% duty cycle, specify 154660-224.)

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

# Size 150–STA® Pull Tubular Solenoids — 1-1/2" Dia. x 2-1/2"

Typical Force @ 20°C

All products are RoHS Compliant

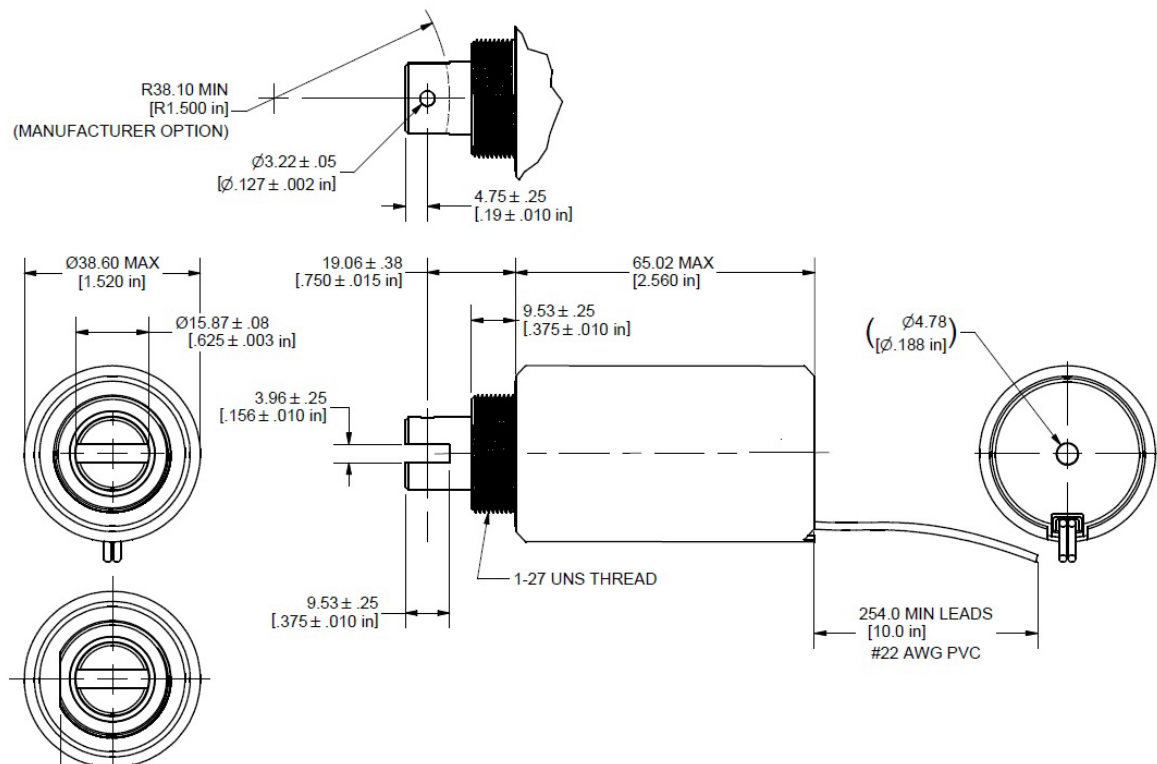


Force values for reference only.

## Dimensions

Inches (mm)

All solenoids are illustrated in energized state



All specifications subject to change without notice.

# Size 150–STA® Push Tubular Solenoids — 1-1/2" Dia. x 2-1/2"

LINEAR Tubular

Part Number: 154661 - X XX

Coil AWG Number  
(from performance chart below)

Plunger Configurations and anti-rotation flat on mounting  
2 – 60° plunger without anti-rotation flat  
6 – 60° plunger with anti-rotation flat



## Performance

Maximum Duty Cycle	100%	50%	25%	10%
Maximum ON Time (sec) when pulsed continuously <sup>1</sup>	∞	420	100	25
Maximum ON Time (sec) for single pulse <sup>2</sup>	∞	570	252	75
Watts (@ 20°C)	17	34	68	170
Ampere Turns (@ 20°C)	1800	2546	3600	5692

### Coil Data

awg (0XX) <sup>3</sup>	Resistance (@20°C)	# Turns <sup>4</sup>	VDC (Nom)	VDC (Nom)	VDC (Nom)	VDC (Nom)
23	5.58	1030	9.8	13.9	19.7	31.0
24	9.30	1344	12.4	17.6	25.0	39.0
25	14.90	1712	15.7	22.0	31.0	50.0
26	24.00	2180	19.9	28.0	40.0	63.0
27	36.90	2680	25.0	35.0	50.0	79.0
28	58.40	3322	32.0	45.0	63.0	100.0
29	87.50	4008	39.0	56.0	79.0	124.0
30	148.00	5292	50.0	71.0	101.0	159.0
31	224.00	6360	63.0	90.0	127.0	200.0
32	344.00	7956	78.0	110.0	155.0	246.0
33	554.00	10070	100.0	141.0	199.0	315.0

<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 6" square by 1/8" thick
Coil Resistance	±5% tolerance
Holding Force	17.7 lbs (78.9 N) at 20°C
Weight	17.1 oz (484.4 g)
Plunger Weight	3.4 oz (95.5 g)

## How to Order

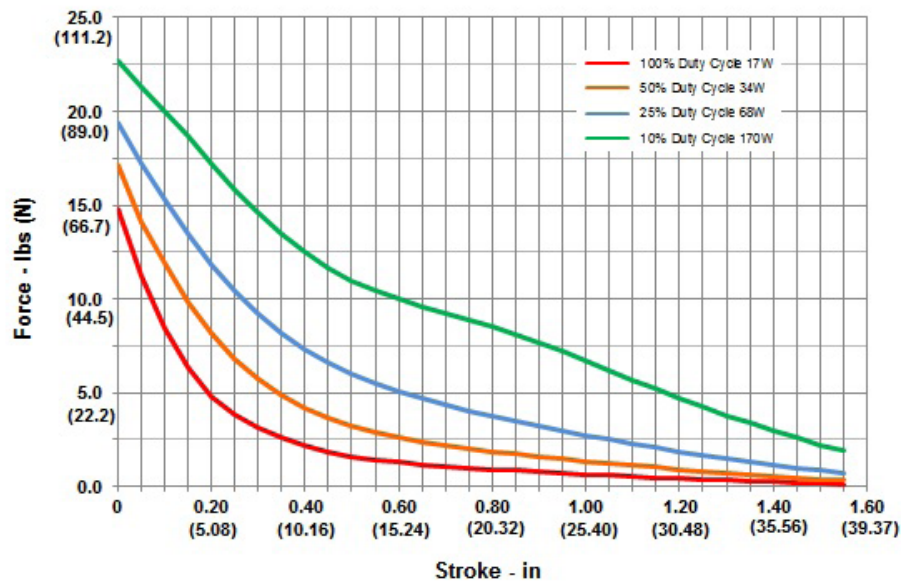
Add the plunger configuration and the coil awg number to the part number (for example: to order a unit with a 60° plunger without an anti-rotation flat rated for 25 VDC at 25% duty cycle, specify 154661-224.)

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# Size 150–STA® Push Tubular Solenoids — 1-1/2" Dia. x 2-1/2"

Typical Force @ 20°C

All products are RoHS Compliant

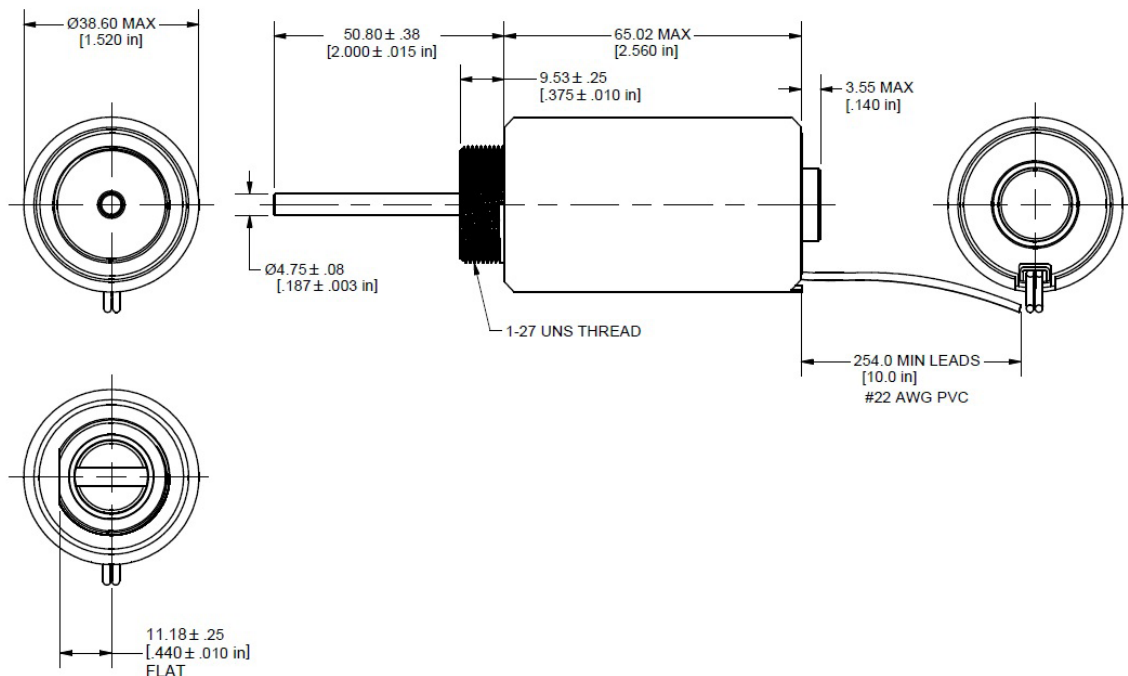


Force values for reference only.

## Dimensions

Inches (mm)

All solenoids are illustrated in energized state



All specifications subject to change without notice.

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