

# Soft Shift® Size 4EP

Part Number: 191993-0XX

All products are RoHS Compliant

LINEAR Soft Shift®

## Performance

Maximum Duty Cycle	100%	50%	25%	10%
Maximum ON Time (sec) when pulsed continuously <sup>1</sup>	∞	100	36	9
Maximum ON Time (sec) for single pulse <sup>2</sup>	∞	162	44	10
Watts (@ 20°C)	12.5	25	50	125
Ampere Turns (@ 20°C)	714	1000	1425	2250

## Coil Data

awg (0XX) <sup>3</sup>	Resistance (@20°C)	# Turns <sup>4</sup>	VDC (Nom)	VDC (Nom)	VDC (Nom)	VDC (Nom)
23	1.59	266	4.3	6.0	8.5	13.4
24	2.20	301	5.2	7.3	10.4	16.4
25	3.54	384	6.6	9.2	13.1	21.0
26	5.67	486	8.3	11.7	16.6	26.0
27	8.76	600	10.4	14.6	21.0	33.0
28	13.80	748	13.2	18.5	26.0	42.0
29	22.60	975	16.6	23.0	33.0	52.0
30	34.80	1190	21.0	29.0	42.0	66.0
31	56.70	1520	27.0	37.0	53.0	84.0
32	88.30	1908	33.0	46.0	66.0	104.0
33	138.00	2360	42.0	59.0	83.0	132.0

- <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

Stroke	0.300 ± 0.030 inches (7.62 ± 0.762 mm)
Dielectric Strength	1000 VRMS (23-24 awg); 1200 VRMS (25-33 awg)
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 6¼" square by ⅛" thick
Coil Resistance	±5% tolerance on all coil awg
Spring Rate	1.41 lb/in; 0.35 lb ±30% preload reference
Weight	7 oz (198.4 gms)

## How to Order

Add the coil awg number (0XX) to the part number (for example: to order a 25% duty cycle unit rated at 21 VDC, specify 191993-027).

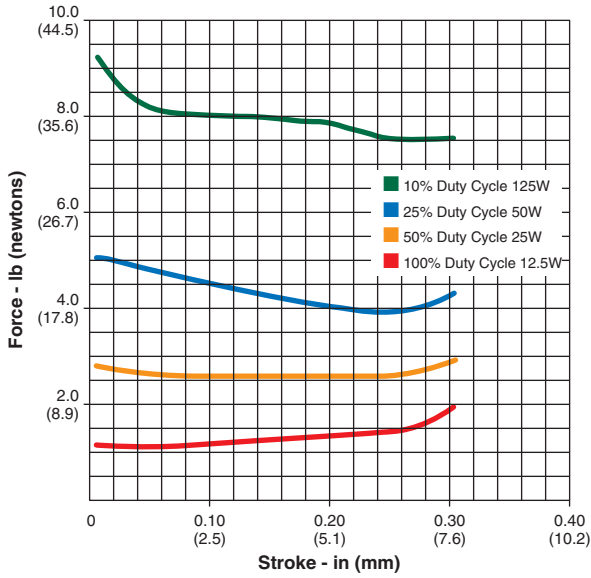
Please see [www.johnsonelectric.com](http://www.johnsonelectric.com) for our list of stock products available through distribution.



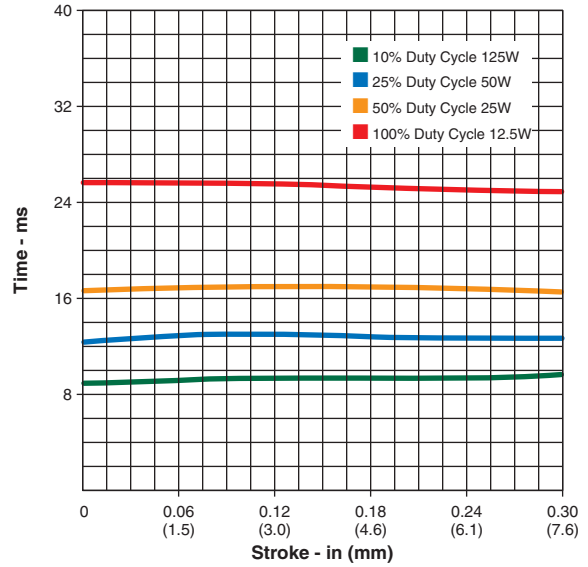
All specifications subject to change without notice.

# Soft Shift® Size 4EP

## Typical Force @ 20°C



## Typical Speed @ No Load, 20°C



## Dimensions

Inches (mm)

All solenoids are illustrated in energized state

