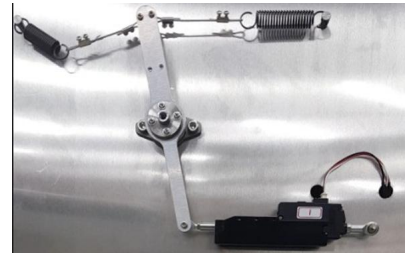


Lifecycle guideline for mightyZAP (27mm stroke basis)

L12-20N-3

- Maximum test condition : 27mm Stroke / 50% Duty Cycle / 2kg pull spring Load
- Average : 1,300,000 cycles (1cycle= 27mm extension & 27mm retraction, total 54mm)



Life Cycle increasing Condition

- Reducing Stroke
: Direct inverse proportional
ie) 10mm stroke, 2.7times longer lifecycle.
- Reducing Duty Cycle
: Every 10% duty cycle reduced, 10% cycle increase
ie) 30% duty cycle reduced, 30% cycle increase
- Reducing Load
: 10% load reduced, 5% lifecycle increase
ie) 1kg load, 25% cycle increase

L12-40N-3

- Maximum test condition : 27mm Stroke / 50% Duty Cycle / 4kg pull spring Load
- 50% of L12-20N-3 cycle data
- Life cycle increasing condition is same as L12-20N-3

L12-64N-3

- Maximum test condition : 27mm Stroke / 50% Duty Cycle / 6.4kg pull spring Load
- 27% of L12-20N-3 cycle data
- Life cycle increasing condition is same as L12-20N-3

L12-100N-3

- Maximum test condition : 27mm Stroke / 50% Duty Cycle / 10kg pull spring Load
- 15% of L12-20N-3 cycle data
- Life cycle increasing condition is same as L12-20N-3

* Important notice

- Described life cycle is not a guarantee as it may vary according to respective using conditions, difference of installation.
- As we are using mechanical contact based position censored (potentiometer), it has a limitation of life cycle in our experiment, from 1mil to 2mil cycle, its quality can't be assured on certain point.
- Force adjustment : If servo motor's force and speed are enough for customer's application, customer may lengthen lifecycle by adjusting "Maximum force" by mightyZAP manager software. Please note that speed will also be decreased if force is decreased.