

**Features**

**Internal Components**

A hardened steel pin and self-lubricated bronze bearing support the gripper fingers, minimizing play after millions of cycles.

**Ports**

Standard 10-32 (M5) ports or optional Presto-lok right angle flow controls are available. The body can be rotated in the field in 90° increments to provide ports in other positions, simplifying plumbing and increasing design flexibility.

**Bumpers**

Polyurethane bumper pad absorbs shock and noise, thus permitting faster cycle times, increased production rates and longer life.



**Jaws**

Fingers are made from steel for added strength and durability with through holes for easy addition of customer tooling.

**Extruded Body**

The hard coat anodized body is machined from an aluminum extrusion to provide a slick seal surface which guarantees long seal life and low breakaway pressure.

**Mounting**

Combination side and base tapped holes are standard and provide for design flexibility. The base mount includes a pilot diameter for alignment. Mounting kits are also available to interface with other automation components.

**Seals**

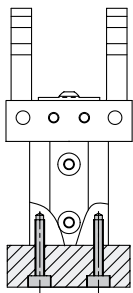
Self lubricating dynamic seals (Nitrile or Fluorocarbon)

**Operation**

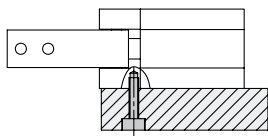
Operating Characteristic ..... Double acting  
 Gripping Force @ 100 PSI ..... 24 - 56 lbs  
 Stroke ..... -5° to +30°  
 Operating Pressure Range ..... 10 - 100 PSI (0.7 - 7 bar)

**Mounting**

Body mounts with screws and locates with center pilot diameter for accuracy.



Fingers attach to jaws with screws.



**WARNING!** Protect drive and bearing mechanism from falling debris when mounted with fingers up.

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**GAA101**

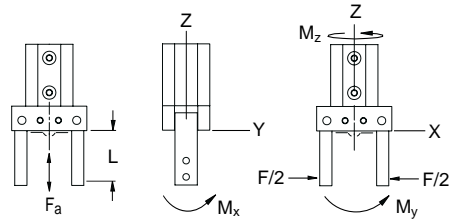
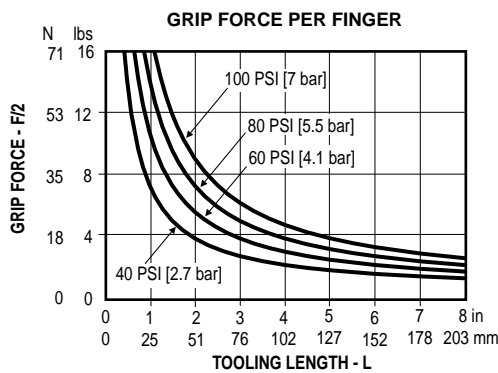


Total Grip Force (100 psi @ 1.5 in)	24 lbs	106 N
Stroke (Degree)	-5 to +30	
Weight	1.1 lbs	0.49 kg
Bore Size	1 in	25.4 mm
Cylinder Volume	3.85 in <sup>3</sup>	15 cm <sup>3</sup>
Repeatability	± 0.001 in	± 0.03 mm
Temperature Range*	0° to 180° F	17° to 80° C
Pressure Range	40-100 psi	3-7 bar
Filtration Requirement	40 micron (dry air)	

\* Fluorocarbon seals available for high temperature applications

**Note:** See model code and ordering information page for complete part number selection.

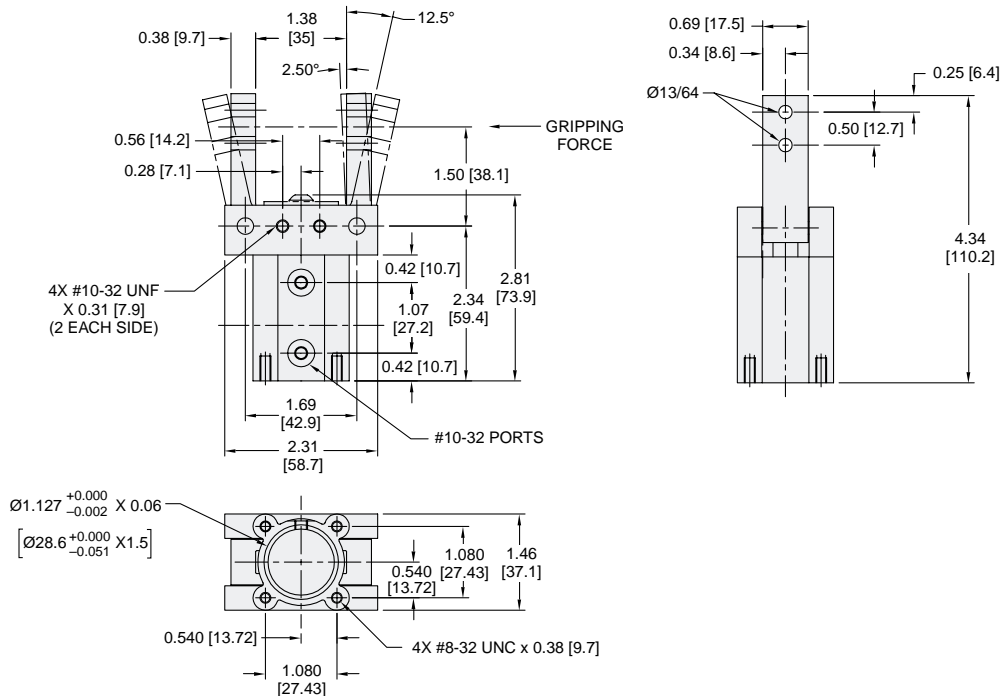
**Loading Information**



**Maximum Loading Capacity**

Loading Capacity	Static	
Axial Forces (Fa)	18 lbs	80 N
Moment (Mx)	22 in-lbs	2.5 Nm
Moment (My)	22 in-lbs	2.5 Nm
Moment (Mz)	12 in-lbs	1.4 Nm

**Dimensional Information**



Dimensions in inch [mm].

**GAA151**

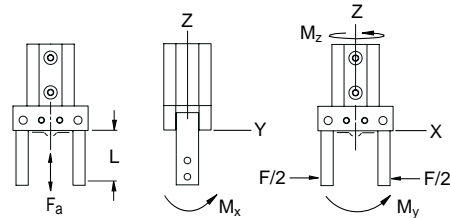
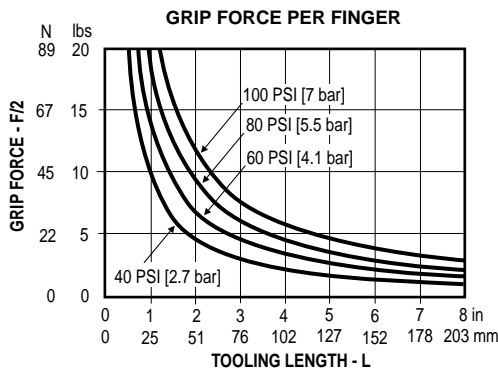


Total Grip Force (100 psi @ 1.5 in)	56 lbs	249 N
Stroke (Degree)	-5 to +30	
Weight	2 lbs	0.90 kg
Bore Size	1.5 in	38.1 mm
Cylinder Volume	3.85 in <sup>3</sup>	63 cm <sup>3</sup>
Repeatability	± 0.001 in	± 0.03 mm
Temperature Range*	0° to 180° F	17° to 80° C
Pressure Range	40-100 psi	3-7 bar
Filtration Requirement	40 micron (dry air)	

\* Fluorocarbon seals available for high temperature applications

**Note:** See model code and ordering information page for complete part number selection.

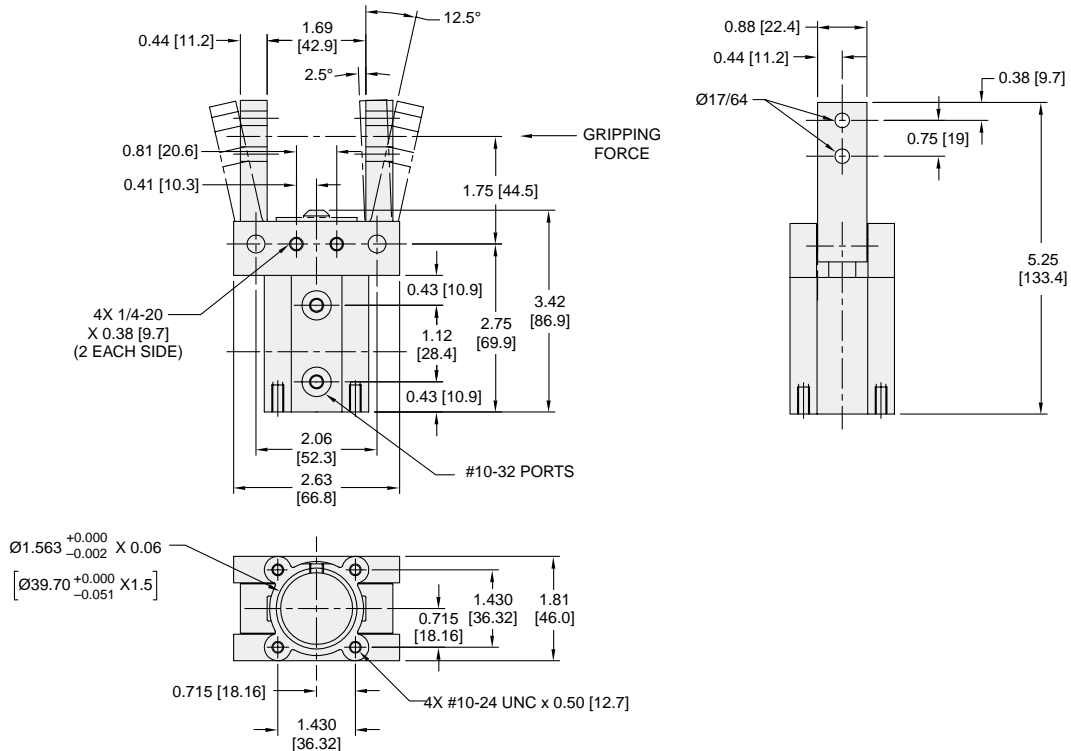
**Loading Information**



**Maximum Loading Capacity**

Loading Capacity	Static	
Axial Forces (Fa)	28 lbs	124 N
Moment (Mx)	30 in-lbs	3.4 Nm
Moment (My)	30 in-lbs	3.4 Nm
Moment (Mz)	17 in-lbs	2.0 Nm

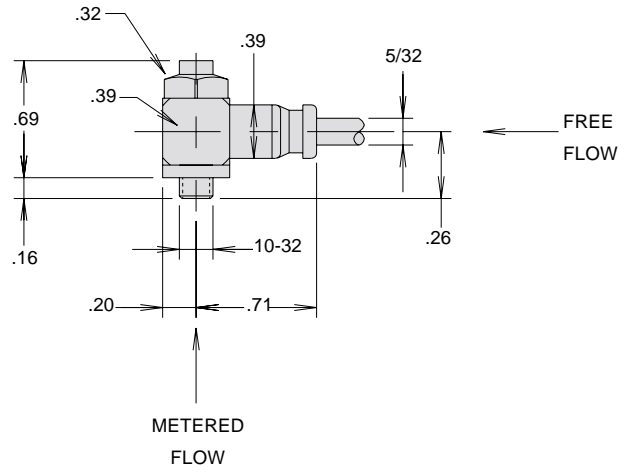
**Dimensional Information**



Dimensions in inch [mm].

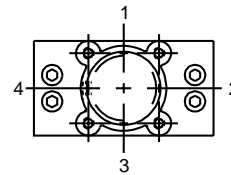
**Right Angle Flow Control (P)**

Right angle flow control valves allow precise adjustment of cylinder speed by metering exhaust air flow. Presto-Lok push-in ports provide 360° orientation capability.



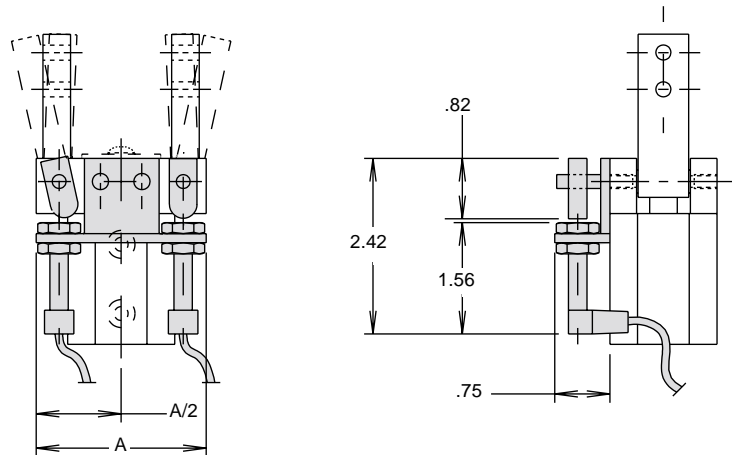
**Port Location (1, 2)**

GA Series grippers are symmetrical. Ports position 1 is standard. Position 3 can be obtained by rotating the gripper 180°. Ports position 2 is an option. Position 4 is obtainable by ordering port position 2 and rotating 180°.



**Proximity Sensor Bracket (J)**

Proximity sensors sense the position of the flag that is attached to the gripper finger. The flag is held onto the gripper finger by a set screw. Loosening the set screw allows positioning of the flag to sense any position of the gripper finger. Care should be taken when adjusting the proximity sensor so that the flag does not physically contact the sensor. The distance from the flag to the sensor should be approximately 0.04 inches.



Model	A
GAA10	2.51
GAA15	2.63

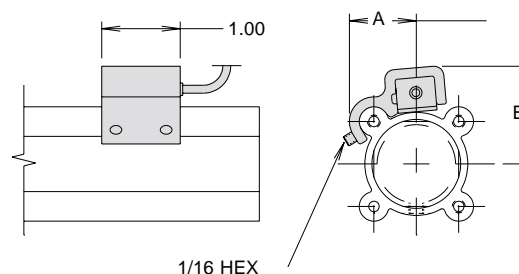
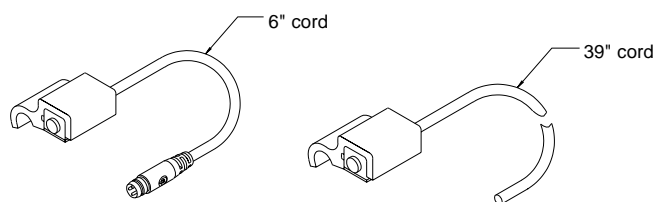
### Magnetic Piston (M)

This option prepares the actuator for use with reed and Hall Effect switches. The "M" option should be specified to provide a magnet on the cylinder piston.

Order switches separately. See Sensor section for part numbers and sensor specifications.

### Hall Effect and Reed Switches

Order switches separately. See Sensor section for part numbers and sensor specifications.



#### Dimensions

Model	A	B
GAA10	.84	1.22
GAA15	.99	1.46

### Fluorocarbon Seals (V)

Standard abrasion resistant nitrile seals should be used for general purpose applications with temperatures of 0 to 180°F.

Fluorocarbon seals are recommended for high temperature applications up to 250°F.

Option	Temperature Range (°F)
Bumpers	0 - 200
Piston Magnets	0 - 165
Switches	14 - 140
Proximity Sensor	-13 - 158

**Model Code and Ordering Information**

**GA A 15 1 P - A 2 1 J V - A**

**Series**

GA

**Type**

A - Standard 30°

**Size**

10 - 1 in. bore  
 15 - 1.5 in. bore

**Opening Characteristics**

1 - Double acting (STD)

**Flow Controls**

Omit - None  
 P - Right angle flow control (both)

**Mounting**

A - Rear and side tapped holes (STD)

**Port Type**

2 - 10-32 (STD)  
 8 - Presto-Lok right angle flow control

**Port Location**

1 - Position 1 (STD)  
 2 - Position 2

**Switches**

Omit - None  
 J - Bracket for proximity sensor option\*  
 M - Magnetic piston for reed and Hall Effect switch option\*

**Seals**

Omit - Nitrile (STD)  
 V - Fluorocarbon

**Design Series**

A - Current Design Series

\* Proximity sensor, Hall Effect, and reed switches to be ordered separately.

**Seal Kits**

Size	Nitrile Seal Kit	Fluorocarbon Seal Kit
GAA10	PSK-G10	PSK-G10V
GAA15	PSK-G15	PSK-G15V