

Features

Body
 Permanently sealed, anodized aluminum to provide maximum corrosion resistance.

Jaws
 Available in short and long configurations with tapped through-holes and dowel pin holes.

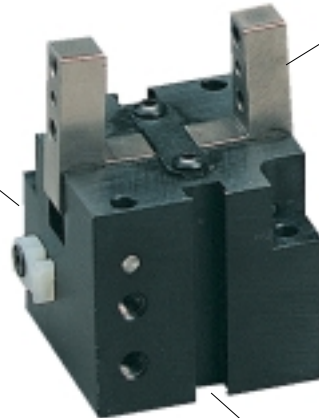
Fail Safe Option
 Internal springs act in the closed position to ensure that the part remains clamped in the event of a power failure.

Contaminant Tolerance
 Sealed design resists internal contamination.

Seals
 Self lubricating dynamic seals (Nitrile only)

Dowel Pin Holes
 Press fit dowels located in gripper body and jaws.

Sensors
 Sensor grooves allow easy installation, adjustment of magneto resistive sensor. Magnetic piston is standard.



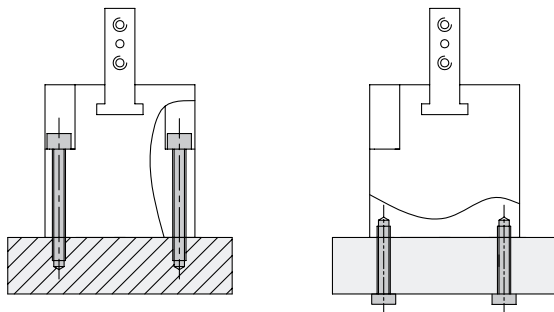
Operation

Operating Characteristic Double acting, spring closed
 Gripping Force @ 100 PSI 7 - 522 lbs
 Stroke -3° to +30°
 Operating Pressure Range 44 - 116 PSI (3 - 8 bar)

Mounting

Grippers can be mounted and operated in any orientation.

Gripper can be mounted on three faces and locates with dowel pin holes for accuracy.



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

Contents

P5G-RK1	162
P5G-RK2	163
P5G-RK3	164
P5G-RK4	165
P5G-RK5	166
Jaw Option	167
Spring Assist Option	167
Dust Cover Option	167
Ordering Information	168
Seal Kits	168

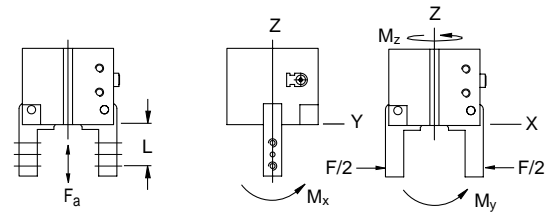
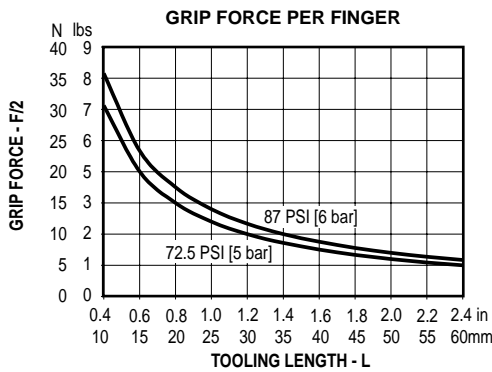
P5G-RK1



Total Grip Force (0.7 Mpa @ 25 mm)	7.4 lbs	33 N
Total Stroke (Degree)	-3 to +30	
Weight w/ flat jaw carrier	0.176 lbs	0.08 kg
Weight w/ square jaw carrier	0.198 lbs	0.09 kg
Bore Size	0.6299 in	16 mm
Cylinder Volume	0.045 in ³	0.75 cm ³
Repeatability	± 0.002 in	± 0.05 mm
Temperature Range	-4° to 158° F	-20° to 70° C
Pressure Range	43.5-116 psi	3-8 bar
Filtration Requirement	40 micron (dry air)	

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

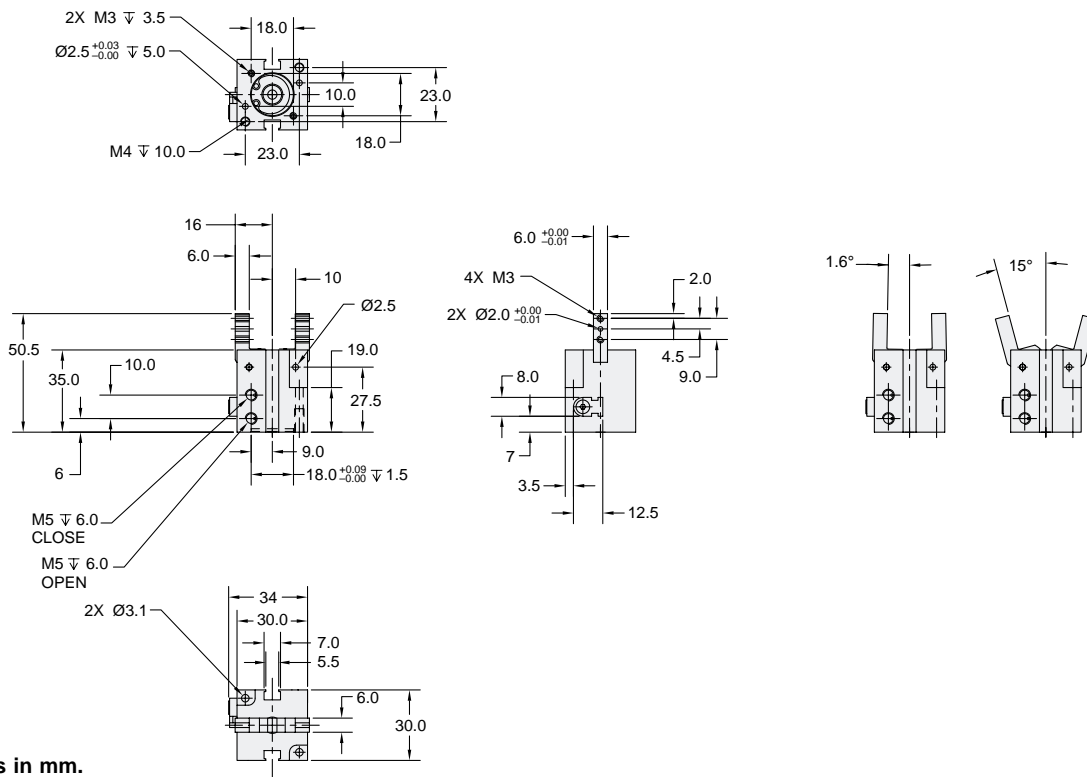
Loading Information



Maximum Loading Capacity

Load	Static	
Axial Forces (Fx)	7.64 lbs	34 N
Moment (Mx)	10.6 in-lbs	1.2 Nm
Moment (My)	10.6 in-lbs	1.2 Nm
Moment (Mz)	6.19 in-lbs	0.7 Nm

Dimensional Information



Dimensions in mm.

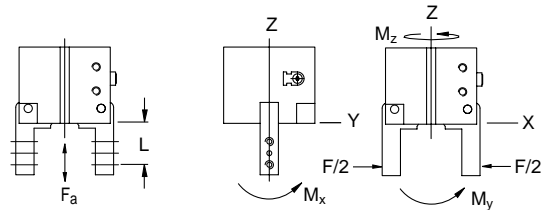
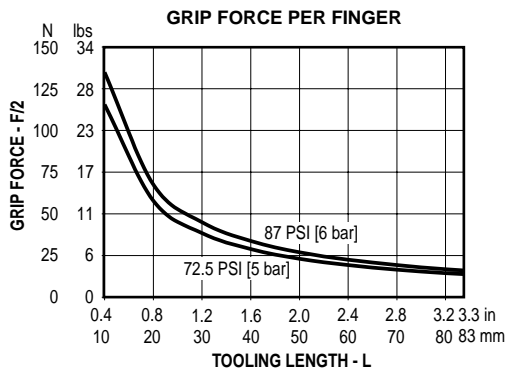
P5G-RK2



Total Grip Force (0.7 Mpa @ 25 mm)	27.3 lbs	121.8 N
Total Stroke (Degree)	-4 to +30	
Weight w/ flat jaw carrier	0.418 lbs	0.19 kg
Weight w/ square jaw carrier	0.44 lbs	0.2 kg
Bore Size	0.984 in	25 mm
Cylinder Volume	0.167 in ³	2.75 cm ³
Repeatability	± 0.002 in	± 0.05 mm
Temperature Range	-4° to 158° F	-20° to 70° C
Pressure Range	43.5-116 psi	3-8 bar
Filtration Requirement	40 micron (dry air)	

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

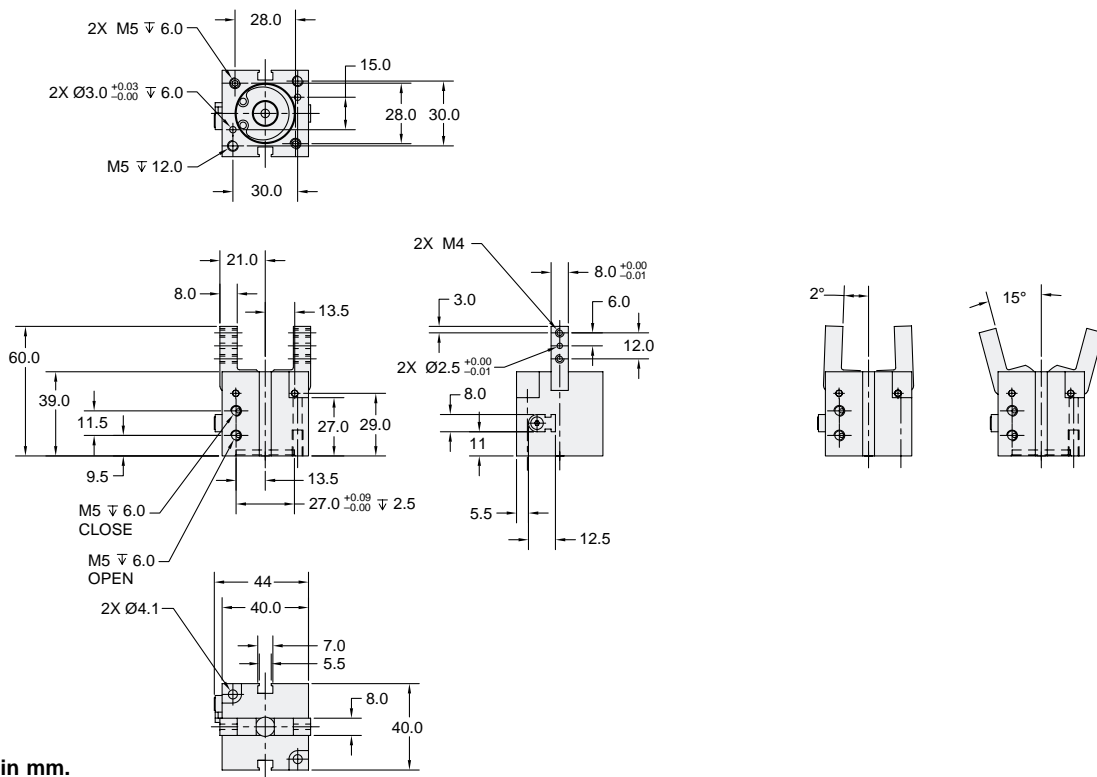
Loading Information



Maximum Loading Capacity

Load	Static	
Axial Forces (Fx)	35.9 lbs	160 N
Moment (Mx)	40.7 in-lbs	4.6 Nm
Moment (My)	40.7 in-lbs	4.6 Nm
Moment (Mz)	23.8 in-lbs	2.7 Nm

Dimensional Information



Dimensions in mm.

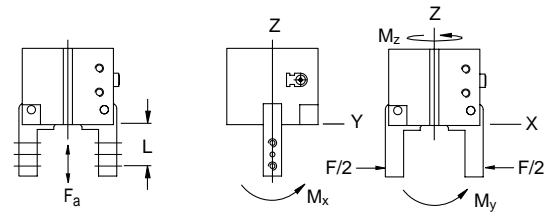
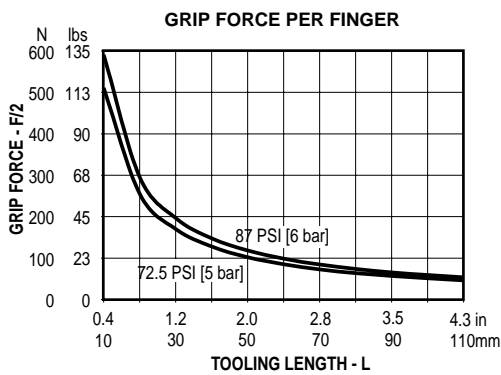
P5G-RK3



Total Grip Force (0.7 Mpa @ 25 mm)	123.8 lbs	551 N
Total Stroke (Degree)	-5 to +30	
Weight w/ flat jaw carrier	0.837 lbs	0.38 kg
Weight w/ square jaw carrier	0.925 lbs	0.42 kg
Bore Size	1.57 in	40 mm
Cylinder Volume	0.72 in ³	11.8 cm ³
Repeatability	± 0.002 in	± 0.05 mm
Temperature Range	-4° to 158° F	-20° to 70° C
Pressure Range	43.5-116 psi	3-8 bar
Filtration Requirement	40 micron (dry air)	

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

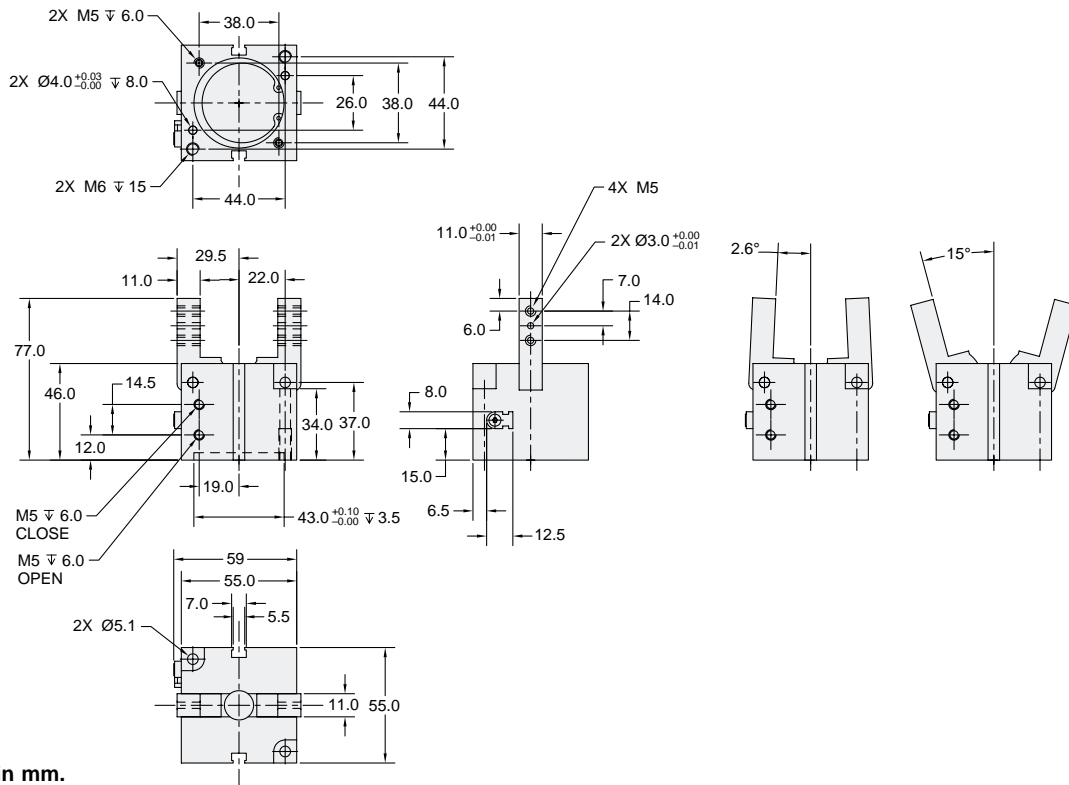
Loading Information



Maximum Loading Capacity

Load	Static	
Axial Forces (Fx)	58.45 lbs	260 N
Moment (Mx)	169 in-lbs	19.2 Nm
Moment (My)	169 in-lbs	19.2 Nm
Moment (Mz)	105 in-lbs	11.9 Nm

Dimensional Information



Dimensions in mm.

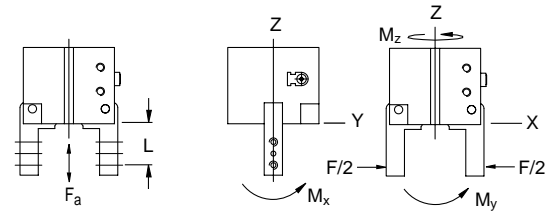
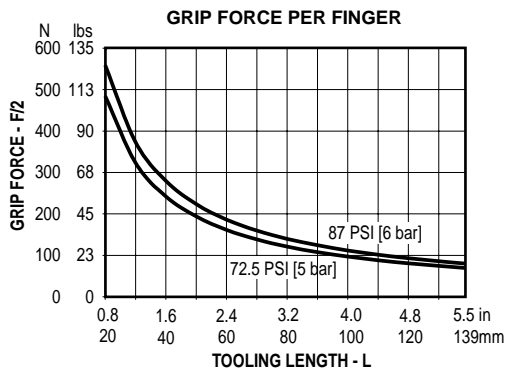
P5G-RK4



Total Grip Force (0.7 Mpa @ 25 mm)	234.7 lbs	1044 N
Total Stroke (Degree)	-13 to +30	
Weight w/ flat jaw carrier	1.43 lbs	0.65 kg
Weight w/ square jaw carrier	1.60 lbs	0.73 kg
Bore Size	1.968 in	50 mm
Cylinder Volume	1.476 in ³	24.2 cm ³
Repeatability	± 0.002 in	± 0.05 mm
Temperature Range	-4° to 158° F	-20° to 70° C
Pressure Range	43.5-116 psi	3-8 bar
Filtration Requirement	40 micron (dry air)	

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

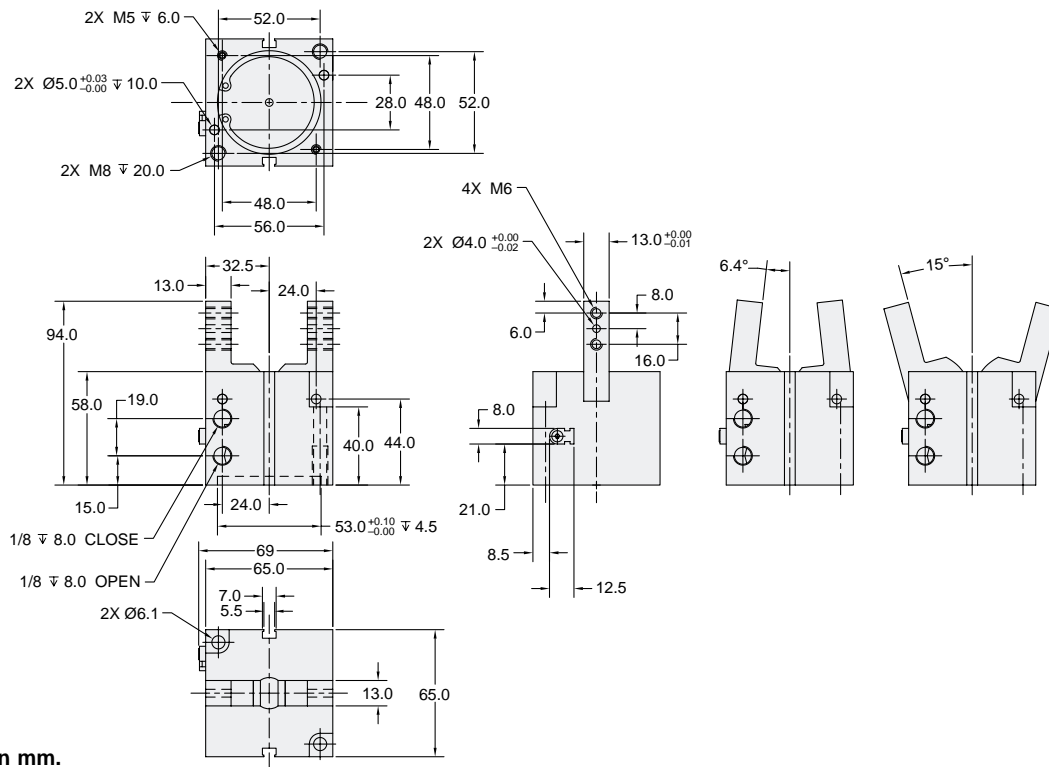
Loading Information



Maximum Loading Capacity

Load	Static	
Axial Forces (Fx)	107.9 lbs	480 N
Moment (Mx)	318.6 in-lbs	36 Nm
Moment (My)	318.6 in-lbs	36 Nm
Moment (Mz)	198.2 in-lbs	22.4 Nm

Dimensional Information



Dimensions in mm.

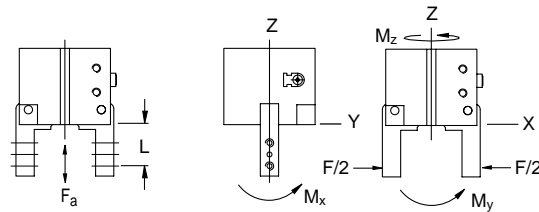
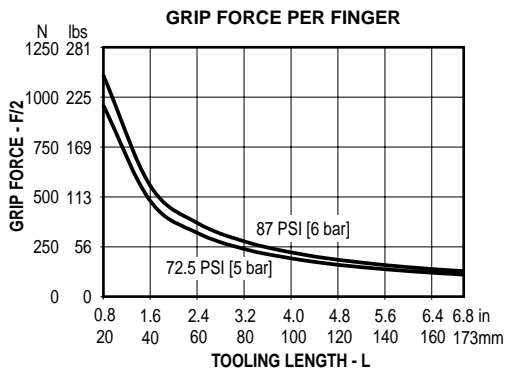
P5G-RK5



Total Grip Force (0.7 Mpa @ 25 mm)	521.5 lbs	2320 N
Total Stroke (Degree)	-13 to +30	
Weight w/ flat jaw carrier	2.57 lbs	1.17 kg
Weight w/ square jaw carrier	2.86 lbs	1.30 kg
Bore Size	2.48 in	63 mm
Cylinder Volume	3.27 in ³	53.6 cm ³
Repeatability	± 0.002 in	± 0.05 mm
Temperature Range	-4° to 158° F	-20° to 70° C
Pressure Range	43.5-116 psi	3-8 bar
Filtration Requirement	40 micron (dry air)	

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

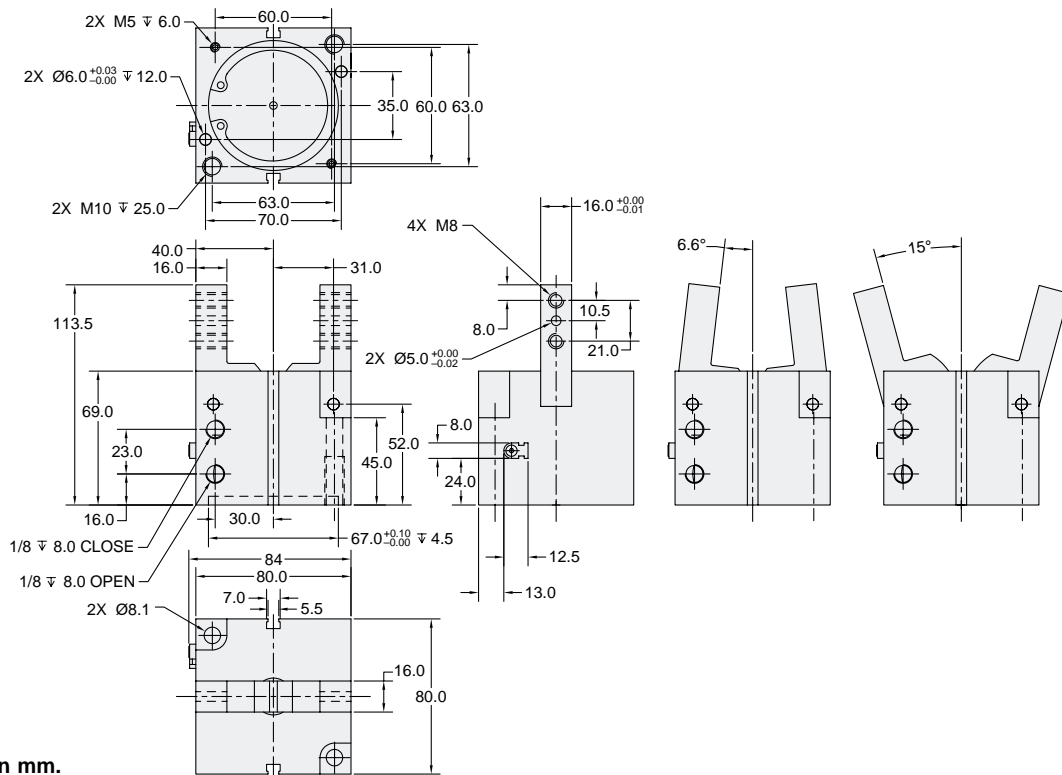
Loading Information



Maximum Loading Capacity

	Static	
Axial Forces (Fx)	139.3 lbs	620 N
Moment (Mx)	647.8 in-lbs	73.2 Nm
Moment (My)	647.8 in-lbs	73.2 Nm
Moment (Mz)	393.8 in-lbs	44.5 Nm

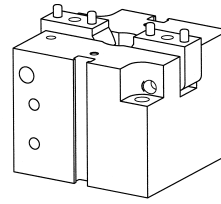
Dimensional Information



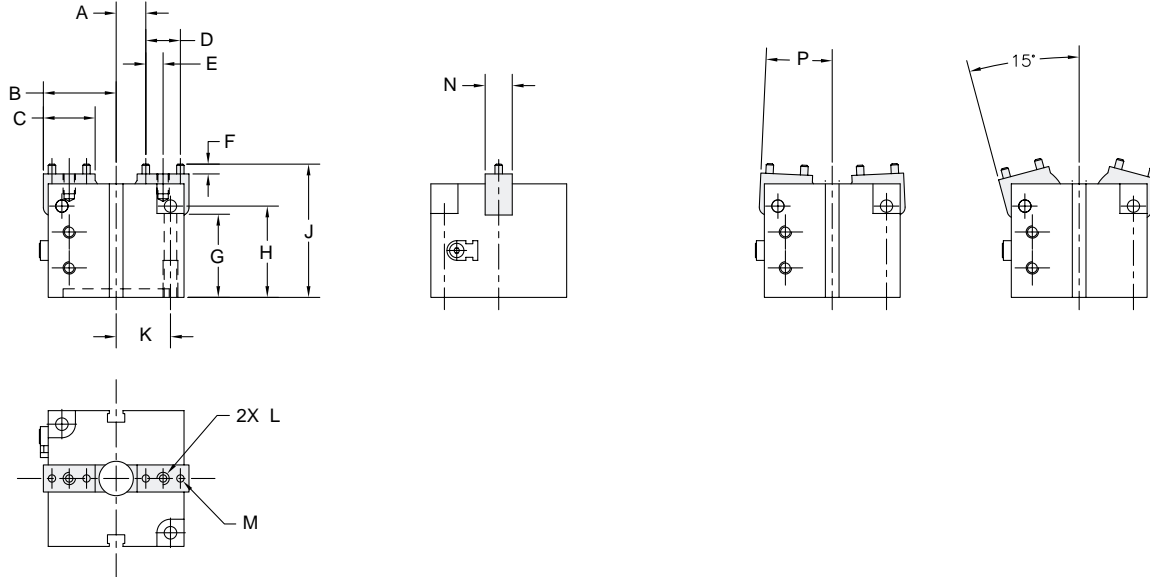
Dimensions in mm.

Jaw Style Option (K, C)

Two jaw styles are available, Long (K) and Short (C). The long style is standard and allows for mounting on the edge of the jaw. The short fingers allow for mounting on the face of the jaw. See dimensional information below for short fingers.



Short Jaw (C)



Short Jaw Dimensions (mm)

Model	A	B	C	D	E	F	G	H	J	K	L	ØM	N	P
P5G-RC1	7	17.5	12	9	4.5	2.5	19	27.5	40	10	M3 x 5 dp	2	6	1.6°
P5G-RC2	9.5	23.5	16	12	6	3.5	27	29	45.5	13.5	M4 x 6.5 dp	2.5	8	2°
P5G-RC3	12	29.5	21	14	7	4	34	37	54	22	M5 x 8 dp	3	11	2.6°
P5G-RC4	13	32.5	23	16	8	5	40	44	68	24	M6 x 12 dp	4	13	6.4°
P5G-RC5	15.5	40	28	21	10.5	6	45	52	81	31	M8 x 15 dp	5	16	6.6°

Spring Assist Option (F)

The spring assist option allows for an automatic reset and jaw return. Selecting the spring assist option creates a single-acting gripper which may reduce the number of directional control valves needed to operate automated machinery. The spring assist option also allows the fingers to return to the closed position when pressure is lost during a power failure.

Size	Spring Force	
	lbs	N
1	2.2	10
2	5.6	25
3	17.9	80
4	24.7	110
5	40.4	180

Dust Cover (A)

A dust cover can be added to prevent machining chip contaminants from entering the working mechanism of the gripper. This dust cover is also ideal for dusty and dirty environments

Model Code and Ordering Information

P5G - R K 1 B 0 C 00 033

Type

P5G – Pneumatic Gripper

Series

R – Robotic

Jaw Style

K – Long Jaws (Standard)
 C – Short Jaws

Size

1 – 16 mm Bore
 2 – 25 mm Bore
 3 – 40 mm Bore
 4 – 50 mm Bore
 5 – 63 mm Bore

Port Size

B – M5 holes for sizes 1, 2 and 3
 C – G1/8 holes for sizes 4 and 5

Spring

0 – No Spring (Standard)
 F – Spring Assist

Dust Cover

C – No Dust Cover (Standard)
 A – Dust Cover

Function

00 – Standard

Angle

033 – Size 1
 034 – Size 2
 035 – Size 3
 043 – Size 4
 043 – Size 5

Seal Kits

Size	Nitrile Seal Kit
P5G-RK1	PSK-RK1
P5G-RK2	PSK-RK2
P5G-RK3	PSK-RK3
P5G-RK4	PSK-RK4
P5G-RK5	PSK-RK5