numatics[®]

PG Series

Low Profile Grippers





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Table of Contents

PG Series Parallel Gripper

Features and Benefits	3
How To Order	3
PGS25 & PGL25 Dimensions	_ 4
Technical Specifications	4
PGS35 & PGL35 Dimensions	5
Technical Specifications	 5
Switch Information	6-7
Quick Disconnect Cables	7



Gripper summary of Operation

PG-Series has true parallel motion that is generated by a pinion mechanism powered by a double acting piston.

A. Body

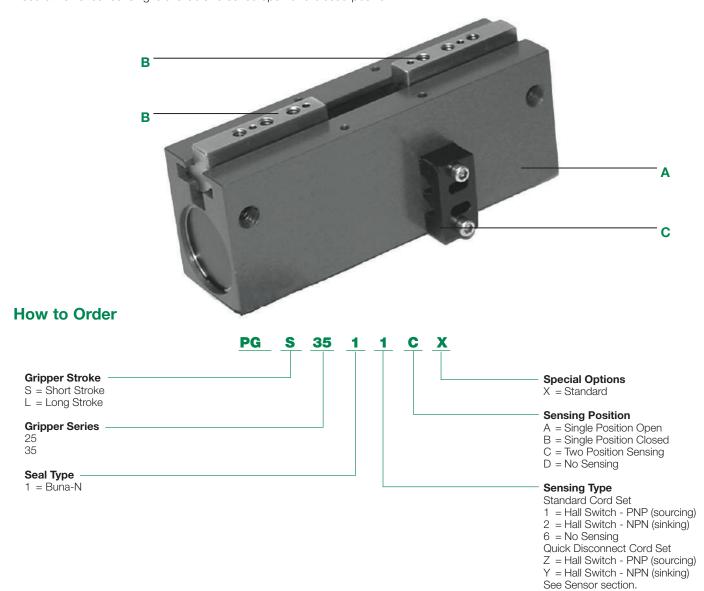
Hardcoat Anodized, PTFE impregnated inside and out. Two different strokes with the same size low profile body.

B. Jaws

Jaws are aluminum bronze alloy and T-Slot style to prevent jaw breakage and offers superior load bearing capabilities.

C. Sensing

Reed & Hall effect sensing is available to sense open and closed position.

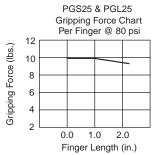


Parallel Gripper



Specifications

	PGS25	PGL25	
Grip Force @ 100 psi	27 lbs	27 lbs	
Stroke	0.25	0.50	
Repeatability	+/001	+/001	
Bore Dia.	0.625	0.625	
Operating Temperature			
Buna-N	-20° to 180°F	-20° to 180°F	
Max. Actuation Speed	0.12 sec	0.12 sec	
Displacement	0.3 cu in	0.3 cu in	
Maximum Pressure	120 psi	120 psi	
Unit Weight	2 oz 2 oz		



Grip Force vs. Finger Length

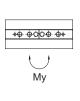
L-Finger Length	PGS25	PGL25
1	25 lbs.	25 lbs.
2	20 lbs.	20 lbs.
3	15 lbs.	15 lbs.
4	N/A	N/A
5	N/A	N/A

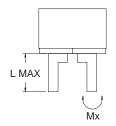
Static Condition

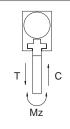
Load Capacity	PGS25	PGL25
C-compression	65 lbs.	65 lbs.
T-tension	65 lbs.	65 lbs.
Mx	45 lbs.	45 lbs.
My	60	60
Mz	40	45

Dynamic Condition

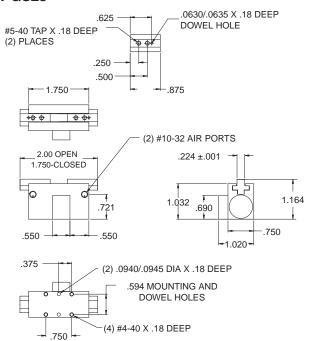
Load Capacity	PGS25	PGL25		
C-compression 25 lbs.		25 lbs.		
T-tension	T-tension 25 lbs.			
Mx	Mx 20 inlbs.			
My	25 inlbs.	25 inlbs.		
Mz	20 inlbs.	20 inlbs.		



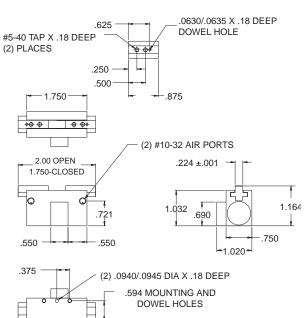




PGS25



PGL25



(4) #4-40 X .18 DEEP

.750



Specifications

	PGS35	PGL35
Grip Force @ 100 psi	35 lbs	35 lbs
Stroke	0.75	0.75
Repeatability	+/001	+/001
Bore Dia.	0.70	0.70
Operating Temperature		
Buna-N	-20° to 180°F	-20° to 180°F
Max. Actuation Speed	0.12 sec	0.12 sec
Displacement	0.38 cu in	0.38 cu in
Maximum Pressure	120 psi	120 psi
Unit Weight	5 oz	5 oz



Grip Force vs. Finger Length

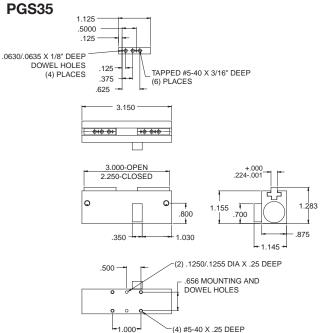
L-Finger Length	PGS35	PGL35
1	28 lbs.	28 lbs.
2	26 lbs.	26 lbs.
3	24 lbs.	24 lbs.
4	19 lbs.	19 lbs.
5	8 lbs.	8 lbs.

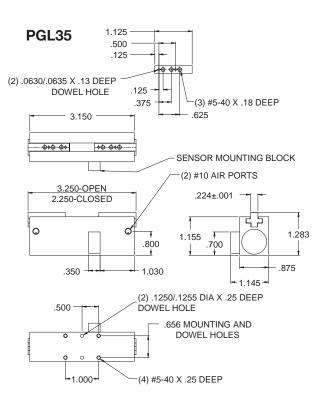
Static Condition

Load Capacity	PGS35	PGL35
C-compression	80 lbs.	80 lbs.
T-tension	80 lbs.	80 lbs.
Mx	80 inlbs.	80 inlbs.
Му	100 inlbs.	100 inlbs.
Mz	80 inlbs.	80 inlbs.

Dynamic Condition

Dynamic Condition						
Load Capacity	PGS35	PGL35				
C-compression	45 lbs.	45 lbs.				
T-tension	45 lbs.	45 lbs.				
Mx	30 inlbs.	30 inlbs.				
My	40 inlbs.	40 inlbs.				
Mz	3 <u>0 inlbs.</u>	30 inlbs.				
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Parallel Gripper



Grippers

PG Series Gripper

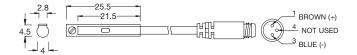
Series	Bracket P/N
PG	SB-PG



Sensor Description	Standard Cord Set Quick Discon	
Hall PNP	CS-18-TP	CS-18T-QD
Hall NPN	CS-20TN	CS-18N-QD

PG Series Switch Information

Electro Switch (PNP NO) 8 mm Connector - CS-18T-QD



Sensor Type Switching Logic

Output

Operating Voltage Switching Current Power Rating* Voltage Drop

Current Consumption Leakage Current LED Indicator

Cable

Operating Frequency Magnetic Requirement Temperature Range

Shock / Vibration Enclosure Classification

Protection Circuit Set Screw Max. Torque Solid State Output Normally Open PNP Current Sourcing

5-30 VDC 50mA max. 1.5 Watts

1.5 V @ 25 mA max. 15 mA @ 24 VDC max.

0.01 mA max.

Green

1000 Hz

40 Gauss parallel 14 to 158°F (-10 to 70°C)

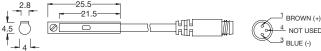
50G/9G

IEC 529 IP67 (NEMA 6)

Reverse Polarity, Surge Suppression

1.77 in-lbs (0.2 N-m)

Electro Switch (NPN NO) 8 mm Connector - CS-18N-QD



 $\frac{4}{}$ NOT USED 3 BLUE (-)

Sensor Type Switching Logic

Output

Operating Voltage Switching Current Power Rating*

Voltage Drop

Current Consumption Leakage Current

LED Indicator

Cable

Operating Frequency Magnetic Requirement

Temperature Range Shock / Vibration **Enclosure Classification**

Protection Circuit Set Screw Max. Torque Solid State Output Normally Open

NPN Current Sinking

5-30 VDC 50mA max. 1.5 Watts

0.5 V @ 25 mA max. 12 mA @ 24 VDC max.

0.01 mA max. Red

1000 Hz

40 Gauss parallel

14 to 158°F (-10 to 70°C)

50G/9G

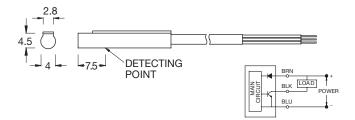
IEC 529 IP67 (NEMA 6)

Reverse Polarity, Surge Suppression

1.77 in-lbs (0.2 N-m)



Electro Switch (NPN NO) Flying Lead - CS-20TN



Sensor Type Switching Logic

Output

Operating Voltage Switching Current Power Rating* Voltage Drop

Current Consumption
Leakage Current

LED Indicator

Cable

Operating Frequency Magnetic Requirement Temperature Range

Shock / Vibration

Enclosure Classification Protection Circuit

Set Screw Max. Torque

Solid State Output Normally Open NPN Current Sourcing

5-30 VDC

50mA max. 1.5 Watts

0.5 V @ 25 mA max. 12 mA @ 24 VDC max.

0.01 mA max.

Red

1000 Hz

40 Gauss parallel 14 to 158°F (-10 to 70°C)

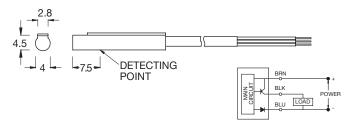
50G/9G

IEC 529 IP67 (NEMA 6)

Reverse Polarity, Surge Suppression

1.77 in-lbs (0.2 N-m)

Electro Switch (PNP NO) Flying Lead - CS-18-TP



Sensor Type Solid State Output
Switching Logic Normally Open
Output PNP Current Sinking

Operating Voltage 5-30 VDC
Switching Current 50mA max.
Power Rating* 1.5 Watts

Voltage Drop 1.5 V @ 25 mA max.
Current Consumption 12 mA @ 24 VDC max.
Leakage Current 0.01 mA max.

LED Indicator Green

Cable Abrasion resistant polyurethane

(PUR) jacket, PVC insulation

Operating Frequency 1000 Hz

Magnetic Requirement 40 Gauss parallel Temperature Range 14 to 158°F (-10 to 70°C)

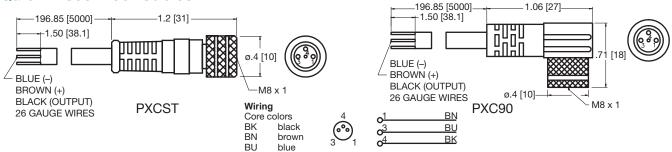
Shock / Vibration 50G/9G

Enclosure Classification IEC 529 IP67 (NEMA 6)

Protection Circuit Reverse Polarity, Surge Suppression

Set Screw Max. Torque 1.77 in-lbs (0.2 N-m)

Quick Disconnect Cables



Order Code	Туре	Operating Voltage	Current Rating	Cable Material	Protection	Connector
PXCST	Straight 5 m Cable (3 x 26 Gauge wire)	60 AC/75 DC	3 A	PUR	IP 68, III	M8
PXC90	90° 5 m Cable (3 x 26 Gauge wire)	60 AC/75 DC	3 A	PUR	IP 68, III	M8

^{*}Switches are not designed for wet environments. Please see your distributor for additional information.



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