numatics[®]

PG Series

Low Profile Grippers





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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

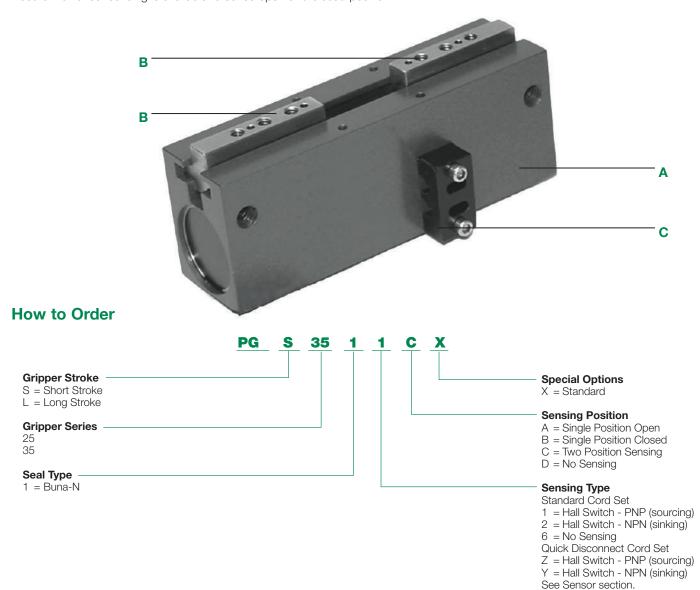
Hardcoat Anodized, PTFE impregnated inside and out. Two different strokes with the same size low profile body.

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.

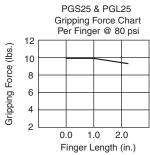


Parallel Gripper



Specifications

	PGS25	PGL25		
Grip Force @ 100 psi	27 lbs	27 lbs		
Stroke	0.25 0.50			
Repeatability	ability +/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

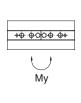
L-Finger Length	PGS25	PGL25
1	25 lbs.	25 lbs.
2	20 lbs.	20 lbs.
3	15 lbs.	15 lbs.
4	N/A	N/A
5	N/A	N/A

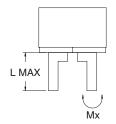
Static Condition

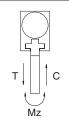
Load Capacity	PGS25	PGL25
C-compression	65 lbs.	65 lbs.
T-tension	65 lbs.	65 lbs.
Mx	45 lbs.	45 lbs.
My	60	60
Mz	40	45

Dynamic Condition

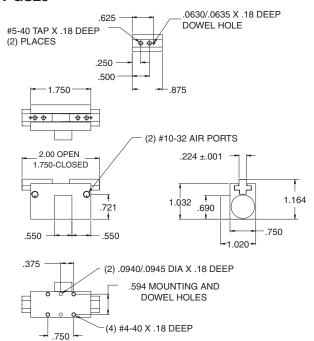
Load Capacity	PGS25	PGL25
C-compression	25 lbs.	25 lbs.
T-tension	25 lbs.	25 lbs.
Mx	20 inlbs.	20 inlbs.
My	25 inlbs.	25 inlbs.
Mz	20 inlbs.	20 inlbs.



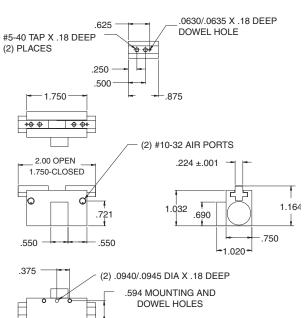




PGS25



PGL25



(4) #4-40 X .18 DEEP

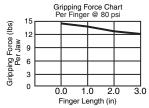
.750





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

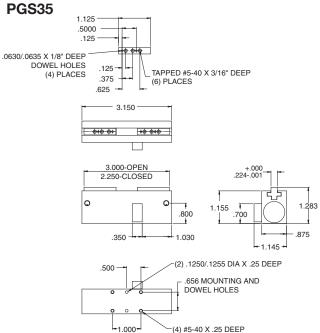
L-Finger Length	PGS35	PGL35
1	28 lbs.	28 lbs.
2	26 lbs.	26 lbs.
3	24 lbs.	24 lbs.
4	19 lbs.	19 lbs.
5	8 lbs.	8 lbs.

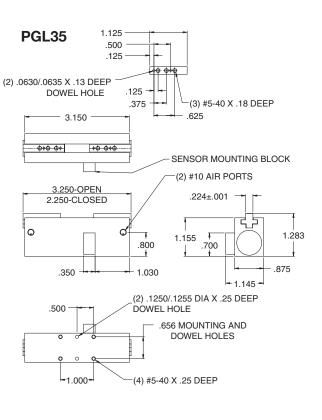
Static Condition

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

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

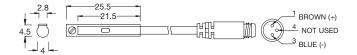
Series	Bracket P/N
PG	SB-PG



Sensor Description	Standard Cord Set	Quick Disconnect
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)

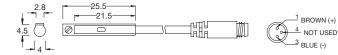
50G/9G

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



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)

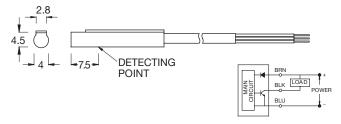
Reverse Polarity, Surge Suppression

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)

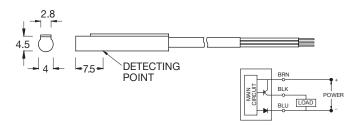
50G/9G

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



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

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 14 to 158°F (-10 to 70°C) Temperature Range

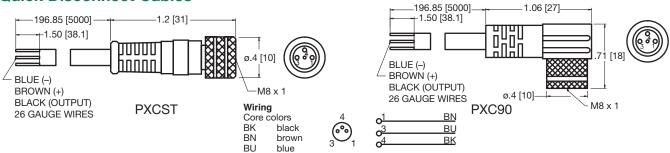
Shock / Vibration 50G/9G

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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