

CATALOG  
grippers

**RPG** Series  
Parallel Grippers



**NUMATICS**

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Air-Oil Systems, Inc. [www.airoil.com](http://www.airoil.com)



### Gripper Summary of Operation

RPG-Series Has true parallel motion that is generated by a double acting piston attached to the pinion mechanism with a linkage that is guided in the body for precise centering.

#### A. Body

Hardcoat Anodized, Teflon impregnated inside & out  
High force to weight ratio.

#### B. Jaws

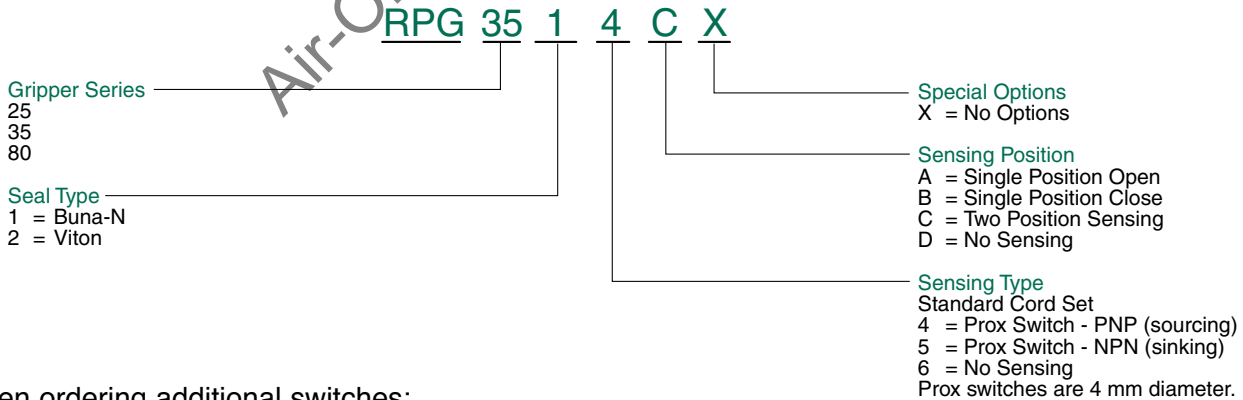
Jaws are aluminum bronze alloy to prevent Jaw breakage. T-Slot style Jaws offers superior load bearing capabilities.

#### C. Sensing

Proximity switches available for sensing open and Closed positions.



### How to Order



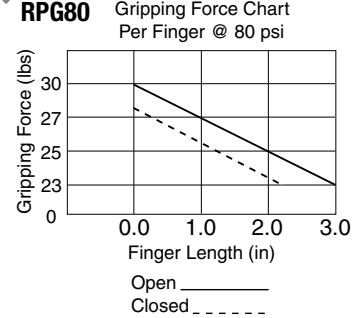
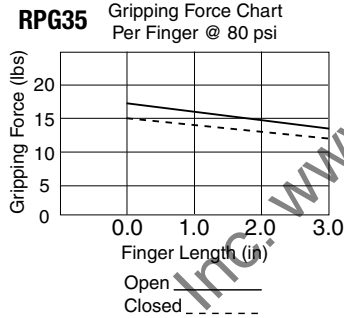
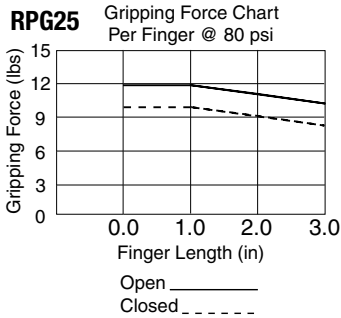
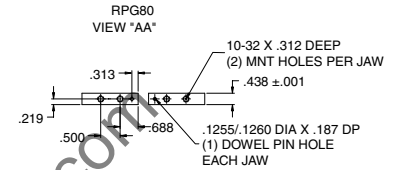
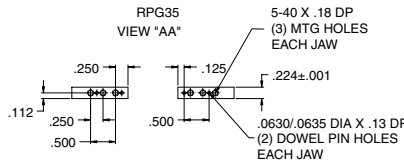
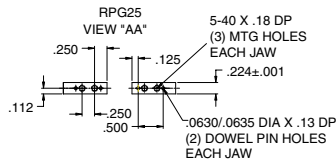
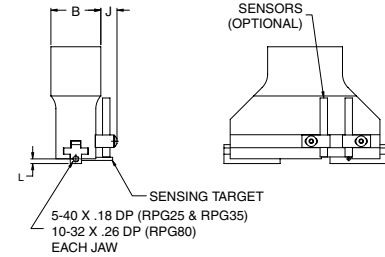
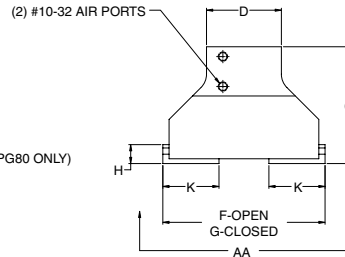
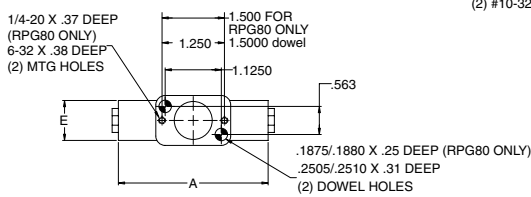
#### When ordering additional switches:

SWITCH DESCRIPTION	STANDARD PART NO.
Hall Effect-PNP (Sourcing)	PX04PS
Hall Effect-NPN (Sinking)	PX04NS



## RPG Series

### RPG Series Dimensions and Technical Specifications



### RPG Series Dimensions

	RPG25	RPG35	RPG80
A	2.000	2.750	3.000
B	1.000	1.000	1.250
C	1.840	2.340	3.192
D	1.500	1.500	2.000
E	0.800	0.800	1.062
F	2.250	3.250	4.250
G	1.750	2.250	3.125
H	0.400	0.470	0.741
J	0.390	0.390	0.390
K	0.870	1.120	1.563
L	0.094	0.094	0.210

### Specifications

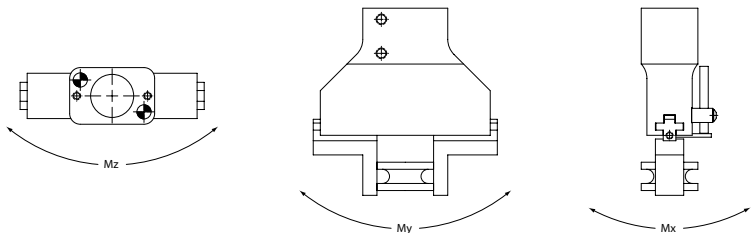
	RPG25	RPG35	RPG80
Grip Force @ 100 psi	25 lbs	36 lbs	80 lbs.
Stroke	0.5	1.0	1.125
Repeatability	+/- .001	+/- .001	+/- .001
Bore Dia.	0.625	.750	1.000
Operating Temp.			
Buna-N	-30° to 180°F	-30° to 180°F	-30° to 180°F
Viton	-20° to 350°F	-20° to 350°F	-20° to 350°F
Max. Actuation Speed	0.12 sec	0.15 sec	.21
Displacement	0.10 cu in	0.22 cu in	.5 cu in
Maximum Pressure	120 psi	120 psi	120 psi
Unit Weight	5 oz	8 oz	1.0 lbs.

### Static Condition

LOAD CAPACITY	RPG25	RPG35	RPG80
C-compression	50 lbs.	60 lbs.	100 lbs.
T-tension	50 lbs.	60 lbs.	100 lbs.
Mx	50 in.-lbs.	100 in.-lbs.	200 in.-lbs.
My	60 in.-lbs.	120 in.-lbs.	250 in.-lbs.
Mz	50 in.-lbs.	100 in.-lbs.	200 in.-lbs.

### Dynamic Condition

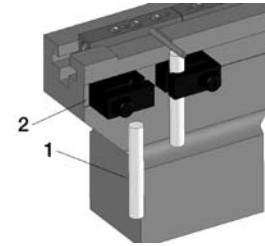
LOAD CAPACITY	RPG25	RPG35	RPG80
C-compression	15 lbs.	20 lbs.	30 lbs
T-tension	15 lbs.	20 lbs.	30 lbs
Mx	12 in.-lbs.	25 in.-lbs.	50 in.-lbs
My	15 in.-lbs.	30 in.-lbs.	60 in.-lbs
Mz	12 in.-lbs.	25 in.-lbs.	50 in.-lbs





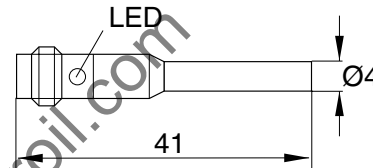
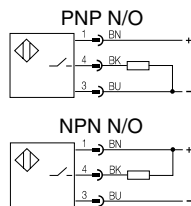
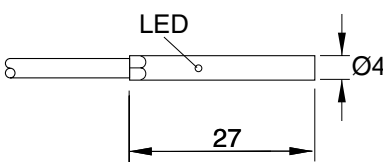
### RPG Series Switch Information

SWITCH OR BRACKET DESCRIPTION	STANDARD PART NO.	QUICK DISCONNECT PART NO.
1 Prox Switch PNP	PX04PS	N/A
1 Prox Switch NPN	PX04NS	N/A
2 Switch Bracket	CT-500	CT-500



Prox Switch (NPN NO) Flying Lead - PX04NS  
(PNP NO) Flying Lead - PX04PS

Prox Switch (NPN NO), 8 mm connector - PX04NQ  
(PNP NO), 8 mm connector - PX04PQ



#### Sensing Data

Repeat accuracy R		≤5%
Ambient temperature range $t_d$	(°C)	-25...+70°C
Operating frequency f	(Hz)	1800
Utilization categories	(DC)	13
Function indication		YES

#### Electrical Data

Rated operational voltage $U_e$	(V)	24 DC
Supply voltage $U_B$	(V)	10...30 DC
Voltage drop $U_G$ at $I_e$ Stat./dyn.	(V)	≤3:0
Rated insulation voltage $U_i$	(V)	75 VDC
Load current capacity	(mA)	100
Current consumption	(mA)	≤10 / ≤3
Off-State Current $I_r$	(uA)	≤80
Protected against polarity reversal		YES
Short circuit protected		YES
Load Capacitance	(uF)	≤1.00

#### Mechanical Data

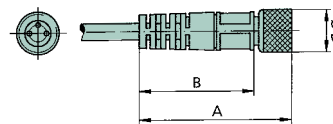
Degree of protection per IEC 529	IP 67
Housing material	stainless steel
Material of sensing face	POM
Connection	cable
No. of wires x gauge	3 x 26 AWG

### Female Connectors for Reed Switches and Hall Effect Sensors

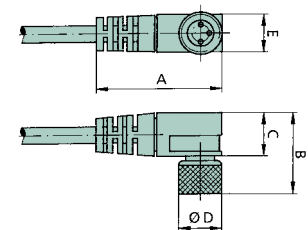
Dimensions (mm)

TYPE	ORDER CODE
Straight, 5 m Cable	PXCST
Elbow, 5 m Calbe	PXC90

#### Straight Type

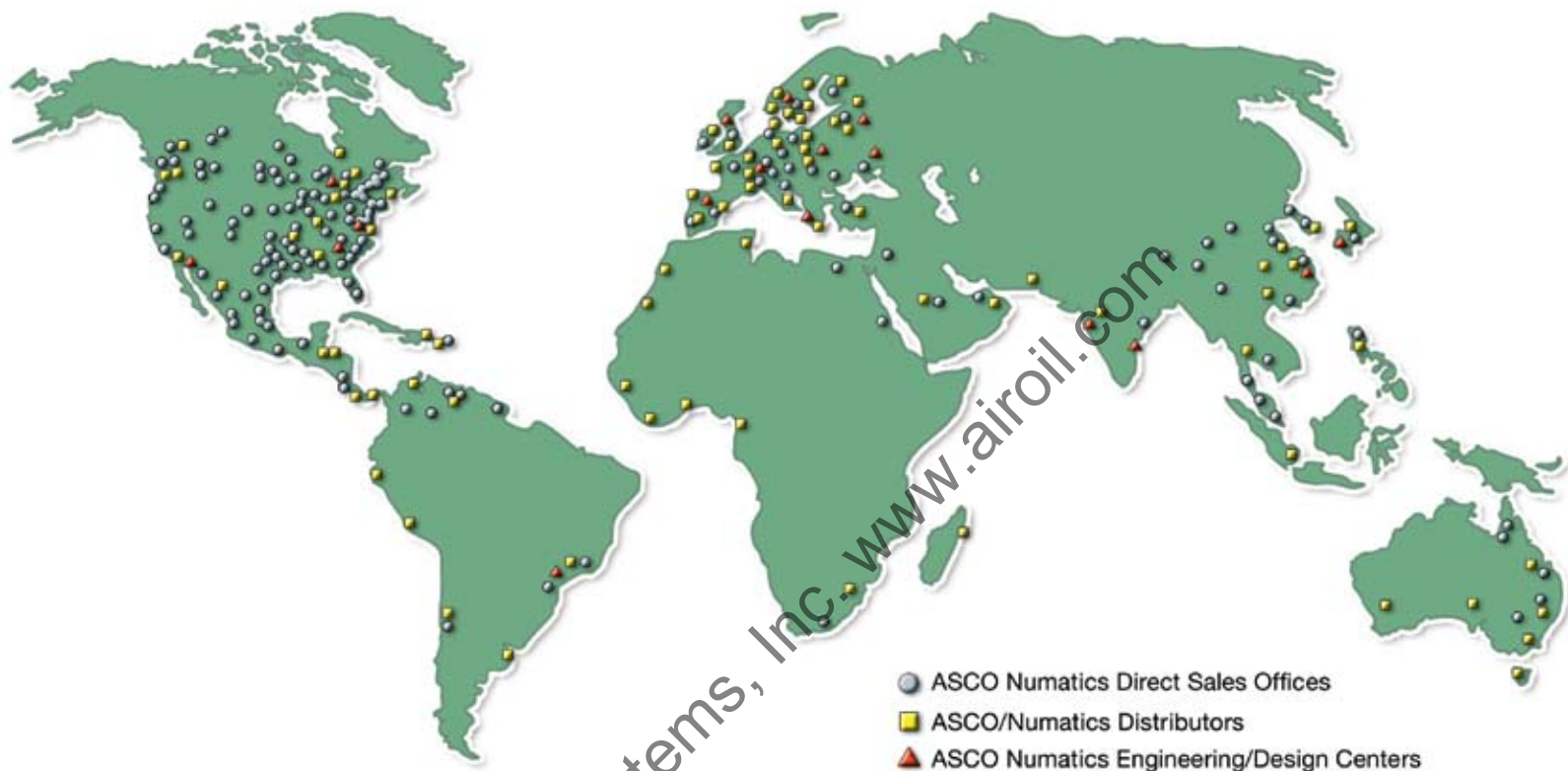


#### Elbow Type



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