

NUMATICS®

RPG Series

Parallel Grippers



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RPG Series

Features and Benefits	3
How To Order	3
Dimensions and Technical Specifications	4
Switch Information	5
Quick Disconnect Cables	6

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, PTFE impregnated inside and out. High force to weight ratio.

B. Jaws

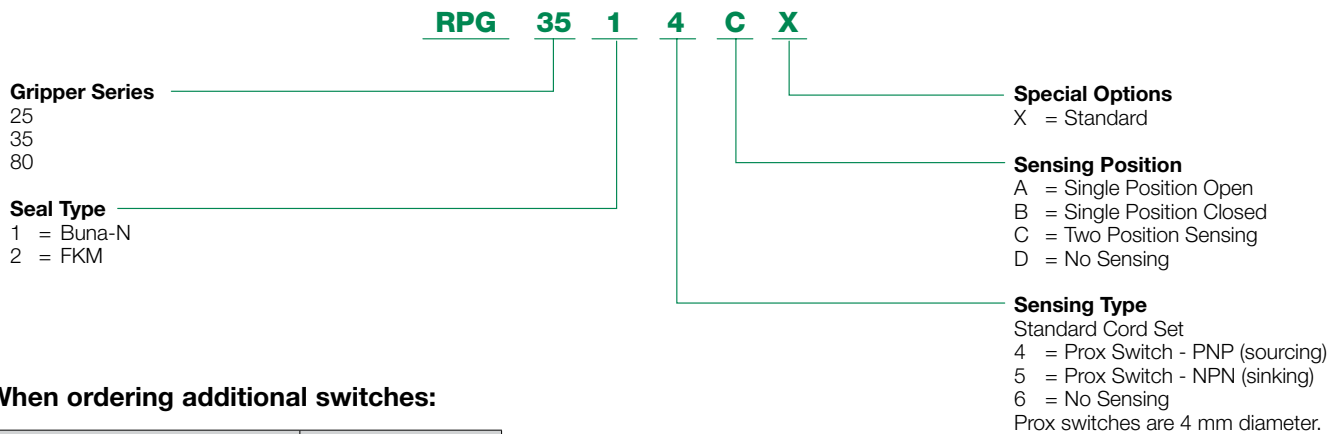
Jaws are aluminum bronze alloy to prevent jaw breakage. T-Slot style jaws offers superior load bearing capabilities.

C. Sensing

Proximity switches available for sensing open and closed positions.



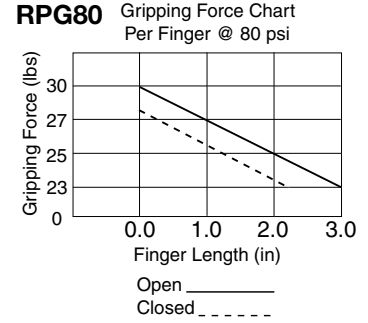
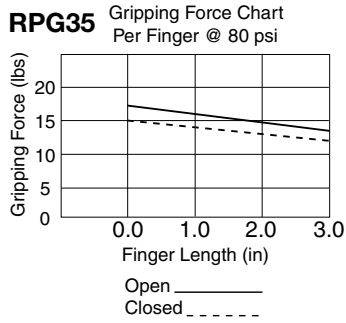
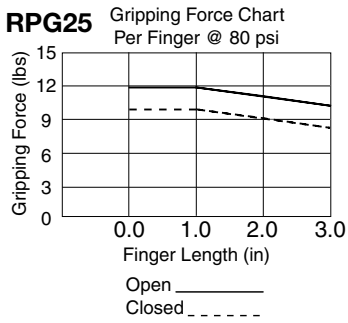
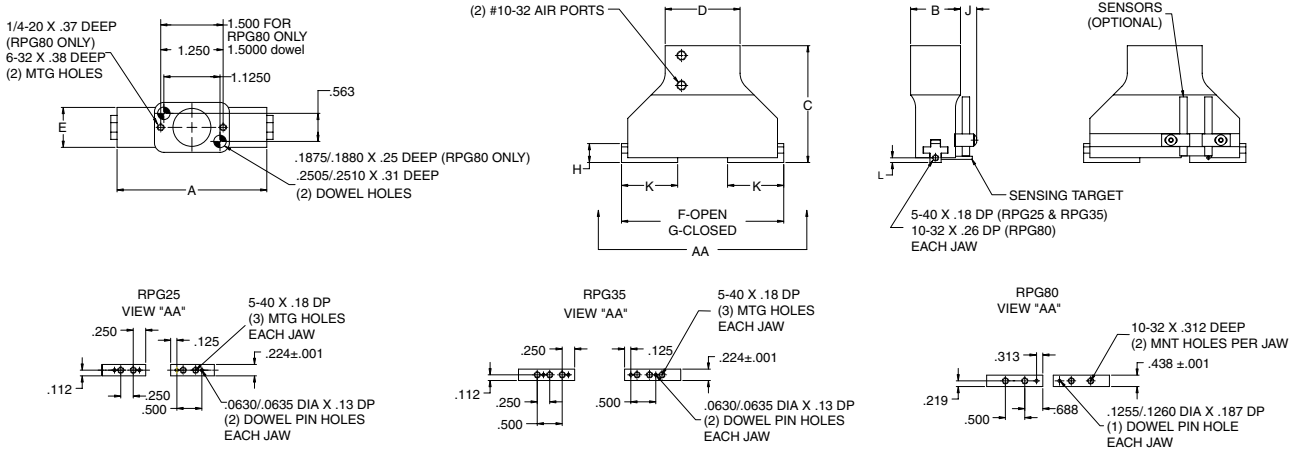
How to Order



When ordering additional switches:

Switch Description	Standard Part No.
Hall Effect - PNP (Sourcing)	PROX-4FL2-P
Hall Effect - NPN (Sinking)	PROX-4FL2-N

RPG Series Dimensions and Technical Specifications



RPG Series Dimensions

Load Capacity	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	0.004	0.210

Specifications

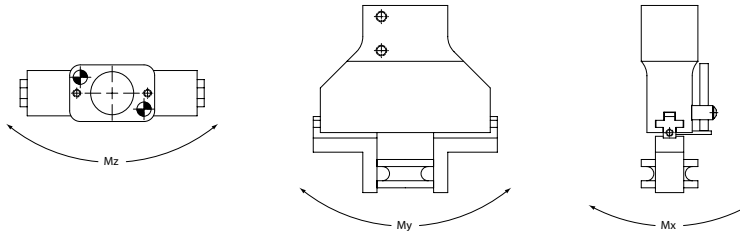
Load Capacity	RPG25	RPG35	RPG80
Grip Force @ 100 psi	25 lbs	36 lbs	80 lbs
Stroke	0.5	1.0	1.125
Repeatability	+/- .001	+/- .001	+/- .001
Bore Dia.	0.625	0.750	1.000
Operating Temp.			
Buna-N	-30° to 180°F	-30° to 180°F	-30° to 180°F
FKM	-20° to 350°F	-20° to 350°F	-20° to 350°F
Max. Actuation Speed	0.12 sec	0.15 sec	0.21 sec
Displacement	0.10 cu in	0.22 cu in	0.5 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.

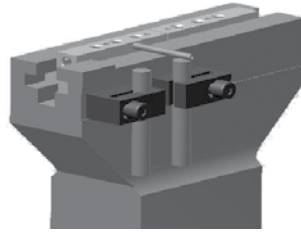
Dynamic Condition

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 Gripper

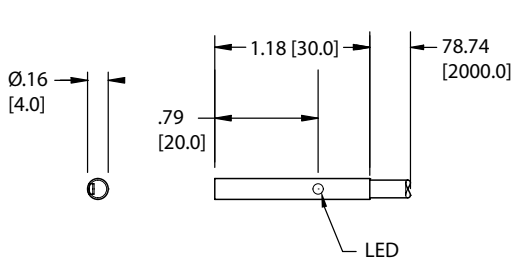
Series	Bracket P/N
RPG	N5103-1018



Sensor Description	Standard Cord Set	Quick Disconnect
Prox PNP	PROX-4FL2-P	PROX-4QDS-P
Prox NPN	PROX-4FL2-N	Not Available

See page 19 for sensor specifications

Prox Switch (NPN NO) Flying Lead - PROX-4FL2-N Prox Switch (PNP NO) Flying Lead - PROX-4FL2-P

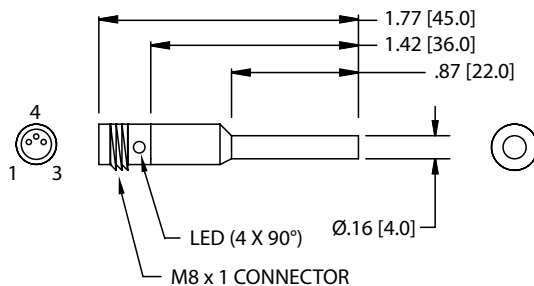


PNP N/O
 1 → BN
 4 → BK
 3 → BU
NPN N/O
 1 → BN
 4 → BK
 3 → BU

Electrical Design
 Output
 Operating Voltage
 Current Rating
 Short Circuit Protection
 Overload Protection
 Reverse Polarity Protection
 Voltage Drop
 Current Consumption
 Real Sensing Range
 Switching Frequency
 Ambient Temperature
 Protection
 Switch-Point Drift
 Hysteresis
 Operating Distance
 Correction Factor
 Housing Material
 Function Display
 Switching Status
 Connection

3-Wire DC PNP/NPN
 Normally Open
 10-36 VDC
 100 mA
 Yes (Non-Latching)
 Yes
 Yes
 < 2.5V
 < 15 mA @ 24V
 .8mm ± 10%
 > 2000 Hz
 -25°C to 70°C
 IP 65, III
 -10 - 10% OF Sr
 1 - 15% OF Sr
 0 - .65mm
 Mild Steel=1, Stainless Steel=.7,
 Brass=.5, Alum.=.4, Copper=.3
 Housing; Stainless Steel: POM
 Yellow LED
 PVC Cable, 2m, 3 x .14mm2

Prox Switch (PNP NO), 8 mm connector - PROX-4QDS-P

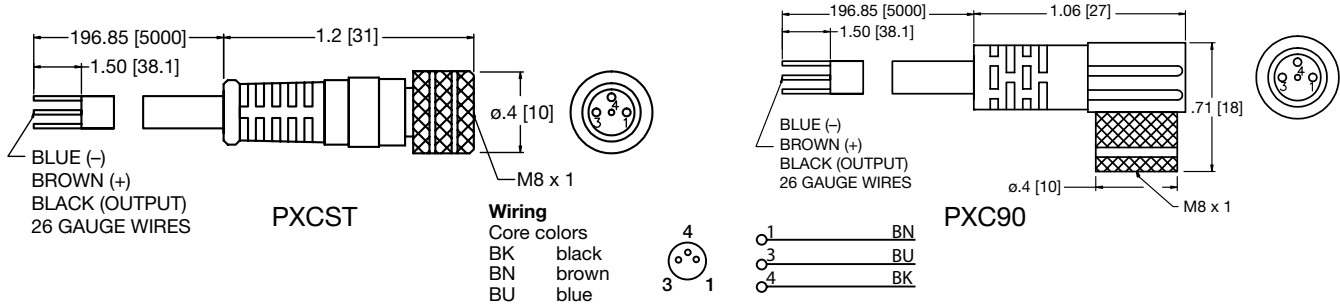


Electrical Design
 Output
 Operating Voltage
 Current Rating
 Short Circuit Protection
 Overload Protection
 Reverse Polarity Protection
 Voltage Drop
 Current Consumption
 Real Sensing Range
 Switching Frequency
 Ambient Temperature
 Protection
 Switch-Point Drift
 Hysteresis
 Operating Distance
 Correction Factor
 Housing Material
 Function Display
 Switching Status
 Connection
 Remarks
 Accessories
 Agency Approvals

3-Wire DC PNP
 Normally Open
 10-36 VDC
 100 mA
 Yes (Non-Latching)
 Yes
 Yes
 < 2.5V
 < 15 mA @ 24V
 .8mm ± 10%
 > 2000 Hz
 -25°C to 70°C
 IP 65, III
 -10 - 10% OF Sr
 1 - 15% OF Sr
 0 - .65mm
 Mild Steel=1, Stainless Steel=.7,
 Brass=.5, Alum.=.4, Copper=.3
 Housing; Stainless Steel: POM
 Red LED (4 x 90°)
 M8 Connector
 cULus-Class 2 Source Required
 Mounting Clamp



Quick Disconnect Cables



Order Code	Type	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

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