



# AGR-2 Rotary Actuator

## Low Profile, Zero Backlash



### FEATURES AND BENEFITS

- Built in adjustable hardstops on output flange stops against a dowel pin imbedded in the body to prevent pinion breakage, and give accurate specific rotation requirements.
- Two large bearings, one on either side of the pinion, provides for steady output flange with high loading capacity.
- Ultra high torque to weight ratio for faster cycle times.
- Compact body design to fit into tight space applications.
- Units are permanently lubricated for non-lube air operation, allowing compliance with OSHA regulations.
- All rotary units have zero backlash at either end of rotation, this keeps the output flange against the hard stop.
- Built in adjustable flow controls allow for maximum cycle times and smooth deceleration.
- Proximity switches are available to monitor end of rotation.
- The AGR unit is fully repairable for cost savings and minimum down time.

### SPECIFICATIONS

**Design:** Rack and Pinion with Flange Hard Stop

**Rotation Range:** 0°-180° (Adj. +/- 5°)

**Payload:** 3 lbs central to axis of rotation [1.4 Kg]

**Torque:**  
@80 psi [5.5 BAR] 17 in/lb [1.9 Nm]

**Bearing Load:**  
Dynamic 198 lbs [880 N]  
Static 385 lbs [1620 N]

**Rotation Time:** No load .2 second

**Pressure Range:**  
Low/High 30-120 PSI [2-8 BAR]

**Temperature Range:**  
Low/High -20°/180°F [-28°/80°C]

**Backlash:** Zero

**Accuracy:** .001 concentric and perpendicular to axis of rotation

**Material:** High Strength, Hard Coated Aluminum Alloys, Steel

**Weight:** 1.2 lb [1.2 kg]

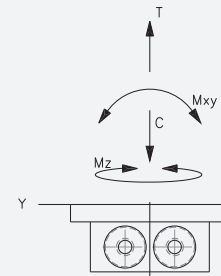
**Piston Diameter:** (2x) .75 in [19 mm]

January 2008 - PATENTED Made in the USA

### LOADING CAPACITY

	Static	Dynamic
Max Tensile T	75 lbs [333 N]	20 lbs [88 N]
Max Compressive C	350 lbs [1550 N]	75 lbs [333 N]
Max Moment $M_x$	200 in/lb [22.6 Nm]	50 in/lb [5.6 Nm]
Max Moment $M_y$	200 in/lb [22.6 Nm]	50 in/lb [5.6 Nm]

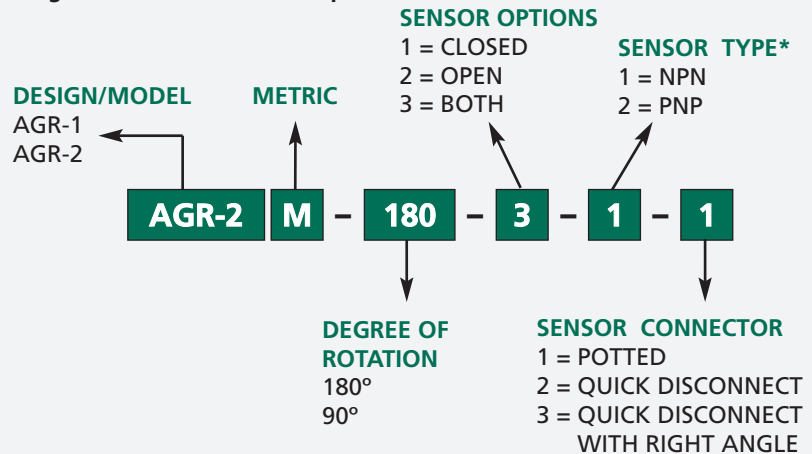
### LOADING INFORMATION



**LOOK!** More Technical specifications for sensors on "Sensors Accessories" page.

### HOW TO ORDER

When ordering, please specify:  
Design/Model Number and Options.

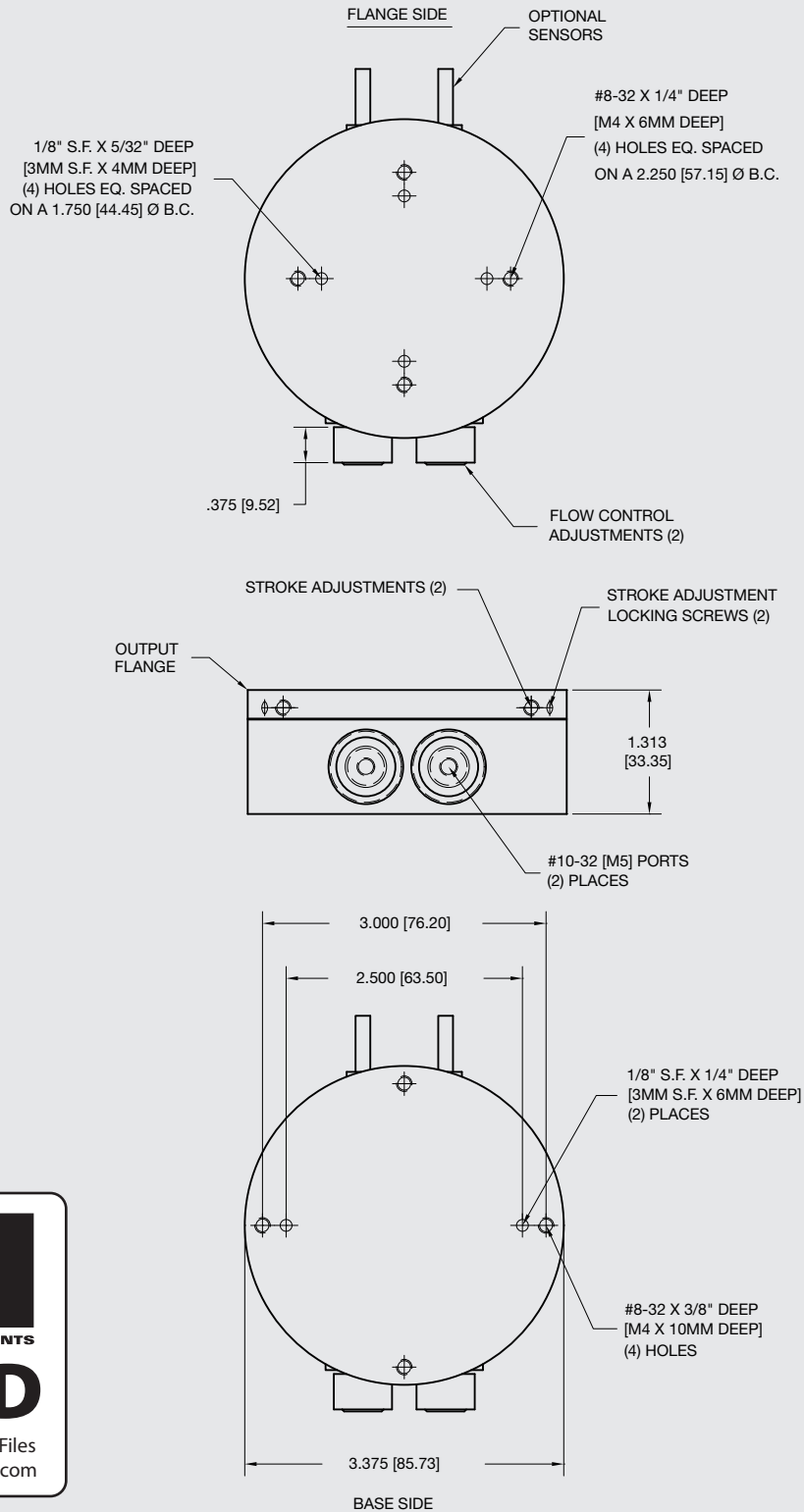


\* NOTE: Proximity 4mm dia., 5-24 VDC, 22 mA and comes with 2 meter cable.

Sensor Part # SPC05, SPQ05, SNC05, SNQ05

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**Unless noted, all tolerances are as indicated here:**



All Dowel Holes are SF (Slip Fit) Locational Tolerance  $\pm .0005"$  [0.13mm]



Metric Threads Course Pitch

**Imperial:** 0.00 =  $\pm 0.1$   
Inch 0.000 =  $\pm 0.005$   
0.0000 =  $\pm 0.0005$

**Metric:** [0.] =  $\pm 0.25$   
[mm] [0.0] =  $\pm 0.13$   
[0.00] =  $\pm 0.13$