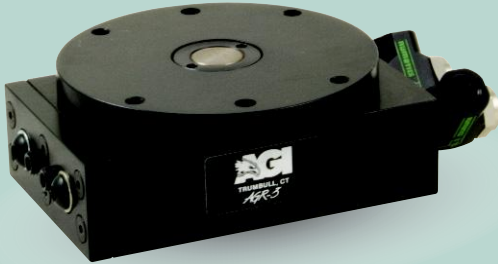


# AGR-3 Rotary Actuator

## Low Profile, Zero Backlash, Optional Rotary Manifold



### 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

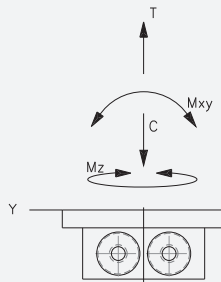
<b>Rotation Range:</b>	0°-180° (Adj. +/- 5°)	
<b>Payload:</b>	8 lbs central to axis of rotation [3.6 Kg]	
<b>Torque:</b> @80 psi [5.5 BAR]	50 in/lb	[5.6 Nm]
<b>Bearing Load:</b>		
Dynamic	360 lbs	[1600 N]
Static	940 lbs	[4180 N]
<b>Rotation Time:</b>	No load	.35 second
<b>Pressure Range:</b> Low/High	30-120 PSI [2-8 BAR]	
<b>Temperature Range:</b> Low/High	-20°/180°F [-28°/80°C]	
<b>Backlash:</b>	Zero	
<b>Accuracy:</b>	.001 concentric and perpendicular to axis of rotation	

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

<b>Weight:</b>	3.0 lb	[1.4 kg]
<b>Piston Diameter:</b> (2x)	1.0 in	[25.4 mm]

January 2009 - PATENTED Made in the USA

### LOADING INFORMATION

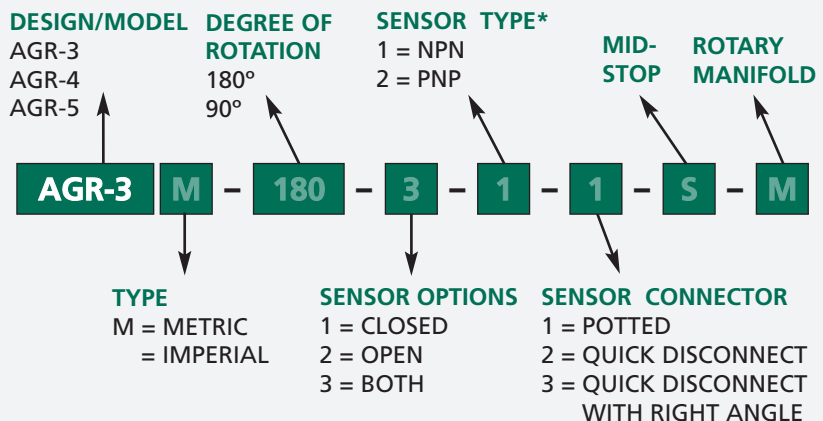


	Static	Dynamic
Max Tensile T	100 lbs [444 N]	20 lbs [89 N]
Max Compressive C	500 lbs [2224 N]	100 lbs [444 N]
Max Moment $M_x$	300 in/lb [33.8 Nm]	75 in/lb [8.5 Nm]
Max Moment $M_y$	300 in/lb [33.8 Nm]	75 in/lb [8.5 Nm]

**WARNING!** Do not exceed tooling jaw length.

### HOW TO ORDER

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

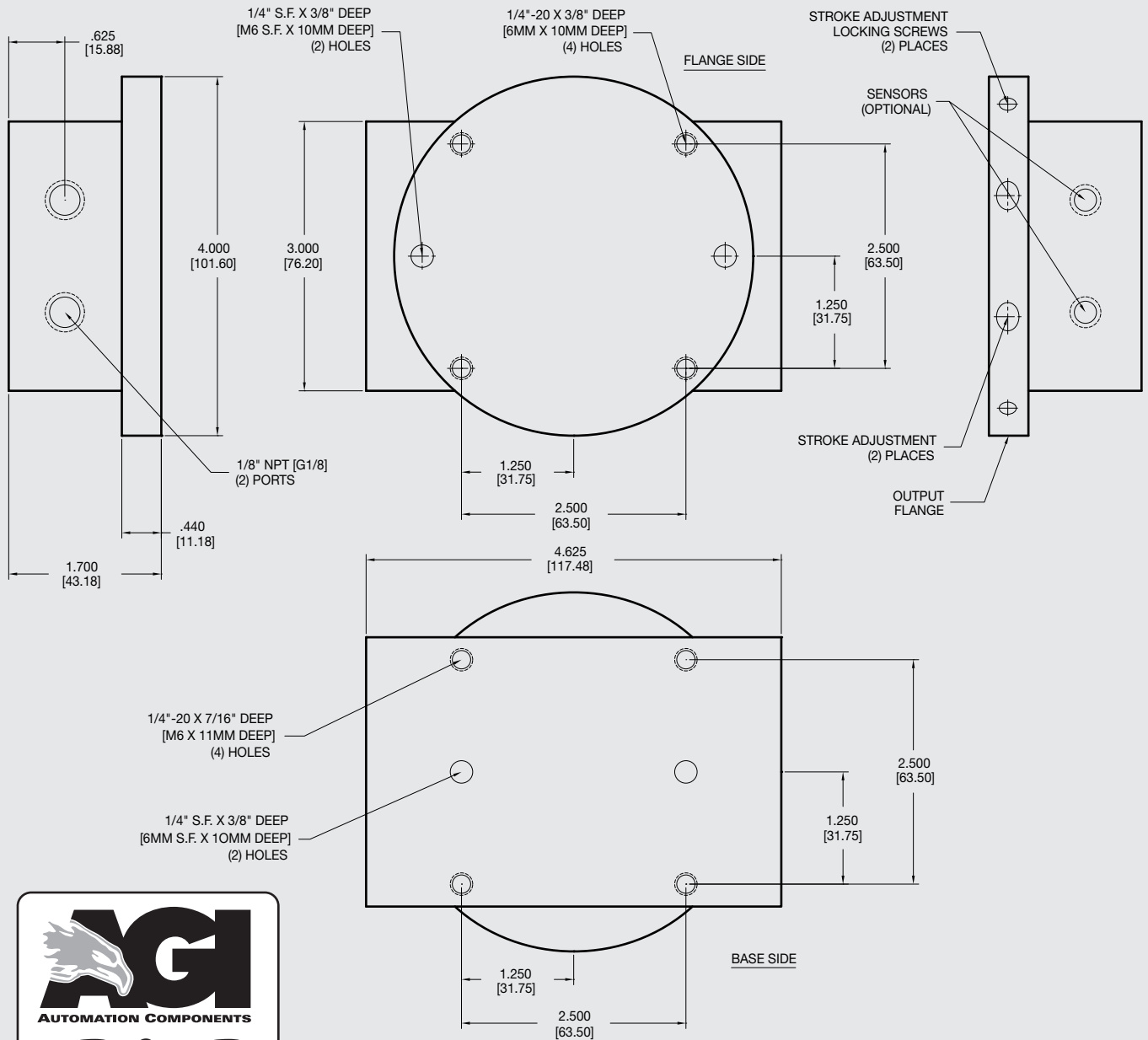


\* NOTE: Proximity 4mm dia., 5-24 VDC, 22 mA and comes with 2 meter cable.

Sensor Part # SPC05, SPQ05, SNC05, SNQ05

# AGR-3 Rotary Actuator

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



All Dowel Holes are SF (Slip Fit) Locational Tolerance  $\pm .0005"$  [.013mm]



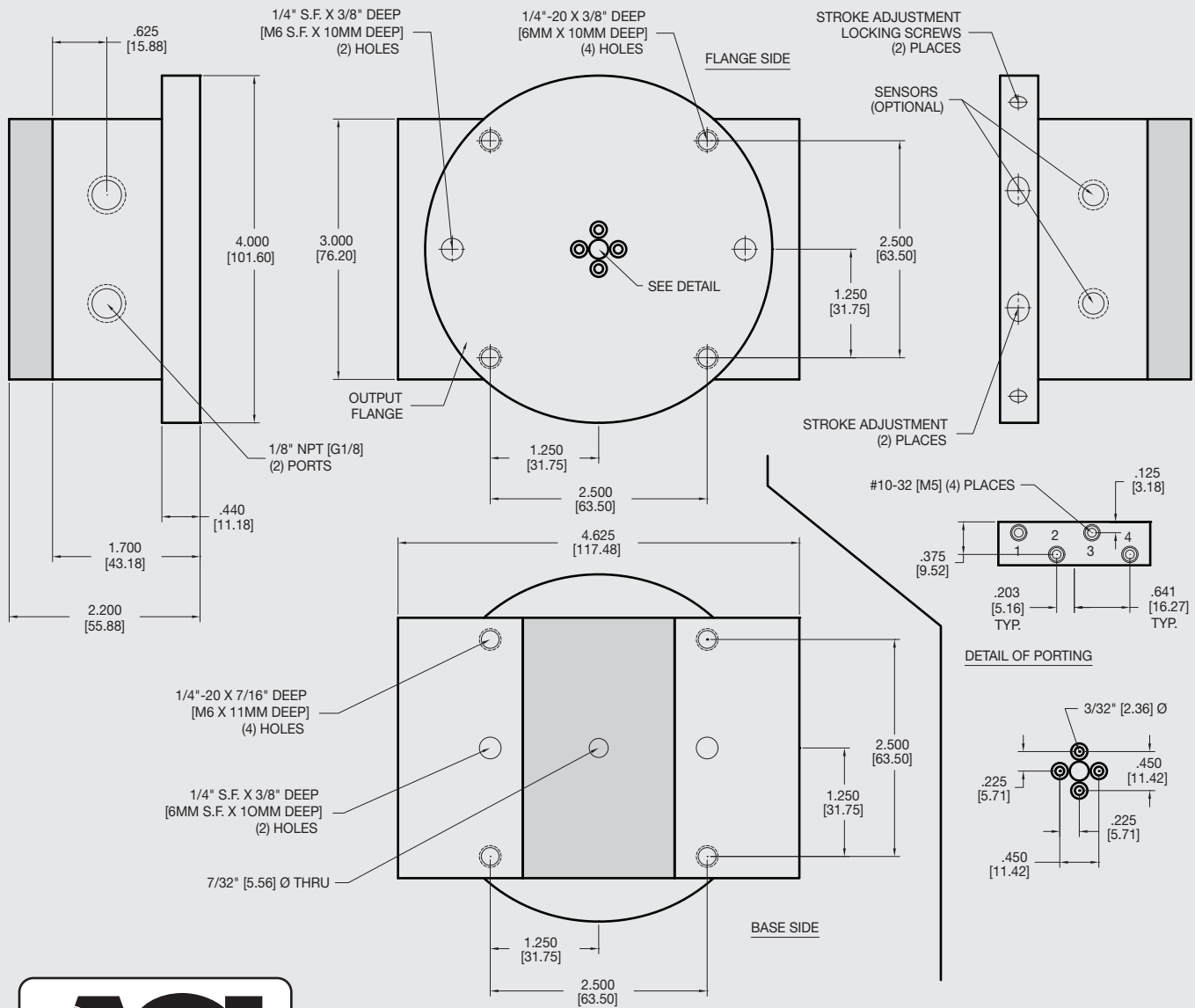
Metric Threads Course Pitch

**Imperial:**  
Inch 0.00 =  $\pm .01$   
0.000 =  $\pm .005$   
0.0000 =  $\pm .0005$

**Metric:** [0.] =  $\pm .25$   
[mm] [0.0] =  $\pm .13$   
[0.00] =  $\pm .013$

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**AGI**  
AUTOMATION COMPONENTS  
**2D & 3D**  
Download 2D & 3D CAD Files  
@ www.AGI-Automation.com

**-M option**  
Rotary Manifold shown shaded

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



All Dowel Holes are SF (Slip Fit) Locational Tolerance ± .0005" [.013mm]



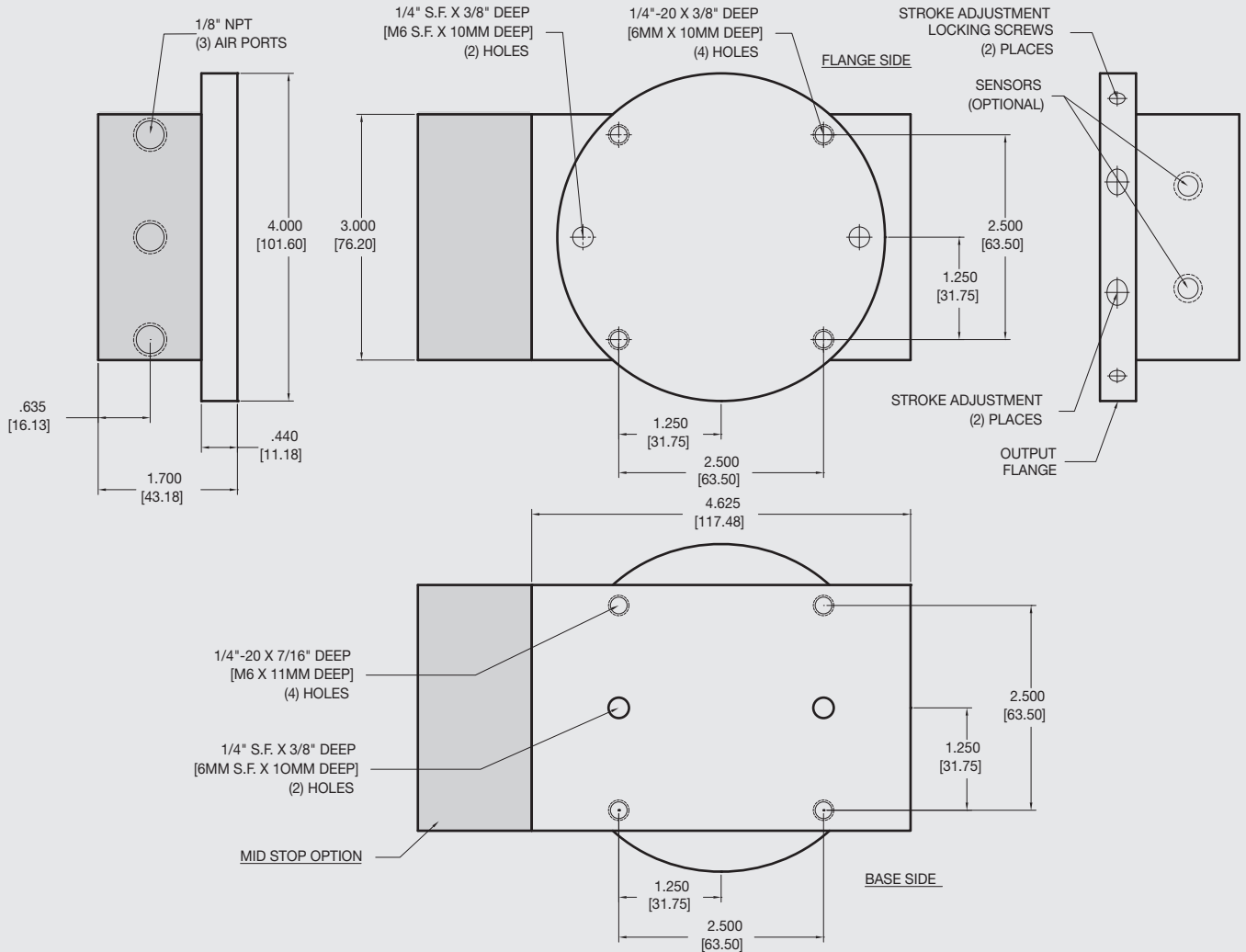
Metric Threads Course Pitch

**Imperial:** 0.00 = ±.01  
Inch 0.000 = ±.005  
0.0000 = ±.0005

**Metric:** [0.] = ±.25  
[mm] [0.0] = ±.13  
[0.00] = ±.013

# AGR-3 Rotary Actuator

Low Profile, Zero Backlash, Optional Rotary Manifold



**-S option**  
Mid-Stop shown shaded

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



All Dowel Holes are SF (Slip Fit) Locational Tolerance  $\pm .0005"$  [.013mm]



Metric Threads Course Pitch

**Imperial:**  
Inch 0.00 =  $\pm .01$   
0.000 =  $\pm .005$   
0.0000 =  $\pm .0005$

**Metric:** [0.] =  $\pm .25$   
[mm] [0.0] =  $\pm .13$   
[0.00] =  $\pm .013$