

## AIR FORCE ONE® HALL SENSORS NUMBERING SYSTEM

**A F H S -** □ □

**AFHS**  
Air  
Force  
Hall  
Switch

**Switch Type**  
N - Sinking (NPN)  
P - Sourcing (PNP)  
C - Mating Cable Only  
(No hall sensors, available with  
Q6 & Q16 options only)

**Connection**  
4 - 4' Wire Lead  
12 - 12' Wire Lead  
Q - 8 mm dia. 3-Pin Quick Connect  
Q6 - 8 mm dia. 3-Pin Quick Connect  
with 6' mating cable  
Q16 - 8 mm dia. 3-Pin Quick Connect  
with 16' mating cable

## MAGNETIC PISTONS

### Additional Length Required for Magnetic Piston

Add 0.875 to all bore sizes and mounting styles to accommodate the magnetic piston. Low friction U-Cup style piston seals are standard on all magnetic pistons. A minimum stroke of 3/8" is required for effective use of GMR sensors.

### Magnetic Piston

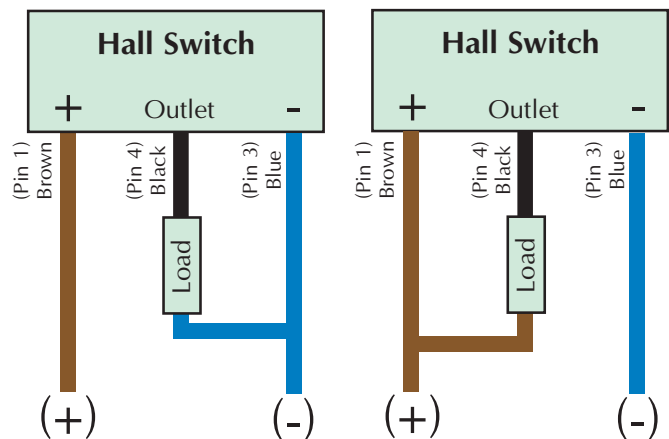
A specialized magnet is attached to the piston that will actuate the Clippard GMR sensors. This allows one or more of these dependable electronic sensor/switches to accurately determine the position of the cylinder rod. To order cylinders with magnetic pistons, specify model numbers that end with -M. GMR sensors must be ordered separately.

## ELECTRICAL SPECIFICATIONS

Output Type:	Sinking or Sourcing
Input Voltage:	6 to 28 VDC
Input Current:(no load)	15 mA maximum
Voltage Drop:	0.5 VDC maximum
Output Current:	300 mA maximum
Switching Power:	7.2 Watts maximum
Circuit Protection:	Reverse Polarity Protected Transient Voltage Protected
Temperature Range:	0 -175° F
LED Indicator	

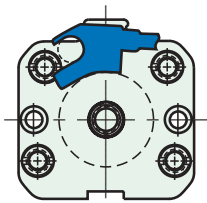
### Sourcing PNP

### Sinking NPN

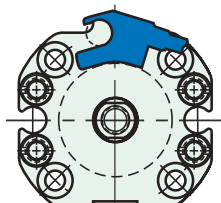


## MAGNETIC PISTON & GMR SENSORS

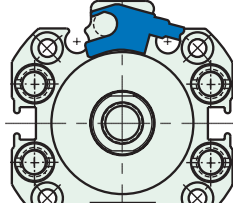
When ordered with the M option, an extra rod is added to the AFO for mounting and positioning the switch.



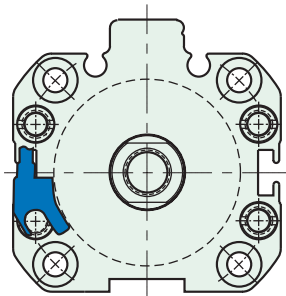
5/8" Bore



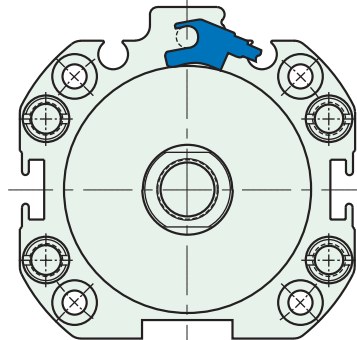
3/4" Bore



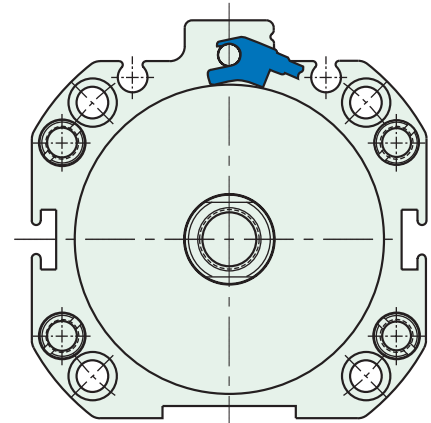
1 1/16" Bore



1 1/2" Bore



2" Bore



2 1/2" Bore

## GMR SENSORS

### Position Sensing Switch

Clippard offers the solid state circuitry of the GMR Switch to reliably detect the presence of a magnet attached to the piston. Clippard's GMR Switch incorporates an LED to visually show switch actuation. The GMR Switch is offered in sinking (NPN) and sourcing (PNP) and with a variety of cable configurations.

### Locating GMR Sensors on Cylinders

Cylinders ordered with magnetic pistons come with an additional attached rod\* on which the GMR Switch can be attached. The Switch snaps onto the rod and can be slid into the desired location. A set screw is used to lock the GMR Switch in place.

\* Additional rod is not used on 1 1/2" Bore Cyl. GMR Switch can mount directly to any tie rod.

