

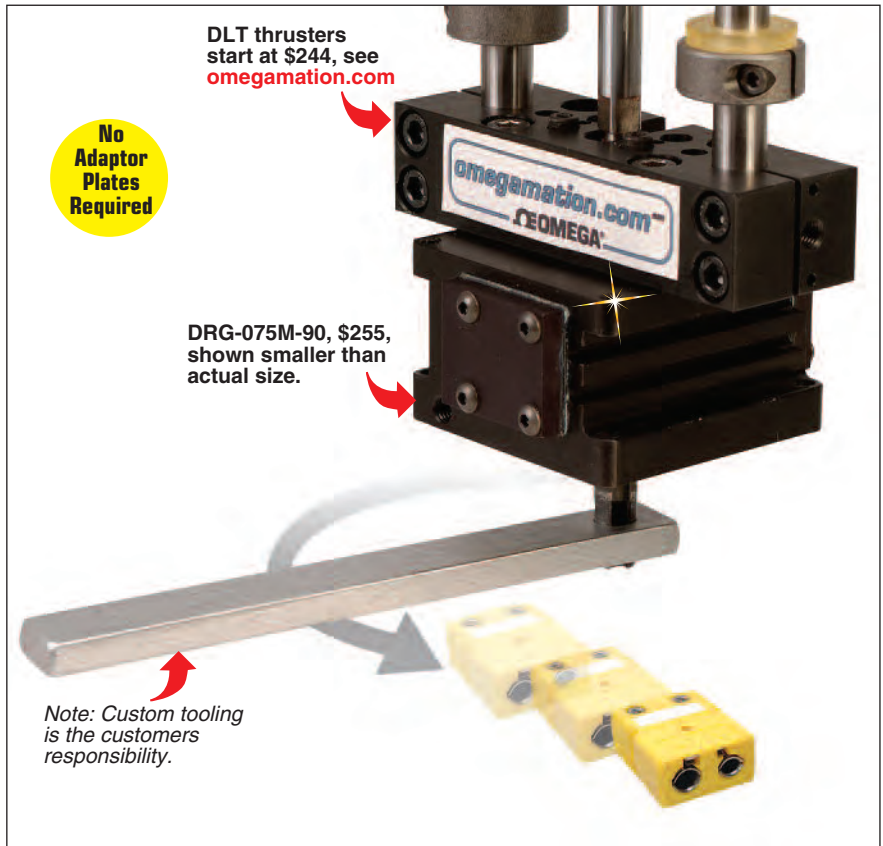
# SHAFT MOUNT ROTARY ACTUATOR DIRECTCONNECT™



DRG Series  
Starts at  
**\$255**



- Designed for Use in Applications Where Low Precision Positioning and Backlash Are Acceptable
- Excellent Choice for Diverter Gates, Escapements and Ejection Stations
- Multiple Body Mount Locations with Top and Bottom Mounting Using DIRECTCONNECT™ Technology
- Rotaries Can Be Mounted and Operated in Any Orientation
- Available in 90 or 180° Units
- Life Cycle of 5 Million Cycles Under Normal Use, Up to 10 Million Cycles with Proper Maintenance
- Requires Air Filtration of 40 Microns or Better
- Gripper Tooling is Customers Responsibility



## PRODUCT FEATURES

### Black Anodized

The body and all Aluminum parts have Black anodize, steel parts are Black oxide

### Sensor Mounting Slots

Standard mounting slots for Magneto Resistive Sensors. Magnet mounted in piston standard (sensors sold separately)

### One Piece Body

One piece lightweight aircraft quality aluminum body

### Dowel Holes

Slip fit dowel pin holes in bottom of body

### DIRECTCONNECT™ Mounting Patterns

Tapped and dowel mounting on bottom surface

### Keyways

Imperial and metric keyways for coupling payload

### Case Hardened

Rack and pinion are case hardened for wear and long life

### Extremely Rugged Design

Pinion is supported top and bottom with sealed bearings

### End Stop Cushioning

Urethane bumpers on piston to cushion and stop load standard

### Piston

Made of Delrin® for extended life

### Mounting

Tapped and thru hole mounting on top and bottom flanges for base or bulkhead mount

# PRODUCT SPECIFICATIONS

## SPECIFICATIONS DRG-075M

**Maximum Payload:** 0.23 kg (0.5 lb)  
**Maximum Payload Inertia:**  $9.0 \times 10^{-5}$  Nm-sec<sup>2</sup> (0.0008 in-lb-sec<sup>2</sup>)  
**Maximum Torque @ 7 bar (100 psi):**  $9.0 \times 10^{-5}$  Nm-sec<sup>2</sup> (8.3 lb-in 0.9 Nm)  
**Maximum Rotation:** 180°  
**Pitch Diameter of Pinion:** 9.5 mm (0.375")  
**Weight without Rotational Adjuster:** 0.24 kg (0.52 lb)  
**Weight without Rotational Adjuster (-R Option):** 0.33 kg (0.72 lb)  
**Pressure Range:** 3 to 7 bar (40 to 100 psi)  
**Bore:** 19.1 mm (0.750")  
**Displacement (180°):** 5.1 cm<sup>3</sup> (0.31 in<sup>3</sup>)  
**Actuation Time [180° @ 7 bar (100 psi)]:** 0.38 sec  
**Actuation Time [90° @ 7 bar (100 psi)]:** 0.29 sec  
**Temperature Range, Standard Seals:** -35 to 82°C (-30 to 180°F)  
**Shaft Diameter:** 7.9 mm +0/-0.05 (0.311" +0/-0.002)  
**Dimensions:** 68 W x 54 L x 33.4 mm H (2.69 x 2.13 x 1.313")



DRG-075M,  
shown smaller  
than actual size.

## SIZE "-075M"

**Style:** DRG-075M  
**Max Payload:** 0.2 kg (0.5 lb)  
**Torque:** 0.9 Nm (8 in-lb)  
**Weight:** 0.24 kg (0.54 lb)

## SPECIFICATIONS DRG-094M

**Maximum Payload:** 0.68 kg (1.5 lb)  
**Maximum Payload Inertia:**  $6.3 \times 10^{-4}$  Nm-sec<sup>2</sup> (0.0056 in-lb-sec<sup>2</sup>)  
**Maximum Torque @ 7 bar (100 psi):** 1.9 Nm (17.3 lb-in)  
**Maximum Rotation:** 180°  
**Pitch Diameter of Pinion:** 12.7 mm (0.500")  
**Weight without Rotational Adjuster:** 0.45 kg (1.0 lb)  
**Weight without Rotational Adjuster (-R Option):** 0.54 kg (1.2 lb)  
**Pressure Range:** 3 to 7 bar (40 to 100 psi)  
**Bore:** 23.8 mm (0.938")  
**Displacement (180°):** 9.0 cm<sup>3</sup> (0.55 in<sup>3</sup>)  
**Actuation Time [180° @ 7 bar (100 psi)]:** 0.38 sec  
**Actuation Time [90° @ 7 bar (100 psi)]:** 0.29 sec  
**Temperature Range, Standard Seals:** -35 to 82°C (-30 to 180°F)  
**Shaft Diameter:** 9.5 mm +0/-0.05 (0.374" +0/-0.002)  
**Dimensions:** 85 W x 71 L x 38.9 mm H (3.38 x 2.78 x 1.531")



DRG-094M,  
shown smaller  
than actual size.

## SIZE "-094M"

**Style:** DRG-094M  
**Max Payload:** 0.7 kg (1.5 lb)  
**Torque:** 2.0 Nm (17 in-lb)  
**Weight:** 0.45 kg (1.0 lb)

## SPECIFICATIONS DRG-106M

**Maximum Payload:** 1.8 kg (4 lb)  
**Maximum Payload Inertia:**  $2.3 \times 10^{-3}$  Nm-sec<sup>2</sup> (0.0207 in-lb-sec<sup>2</sup>)  
**Maximum Torque @ 7 bar (100 psi):** 3.8 Nm (33.2 lb-in)  
**Maximum Rotation:** 180°  
**Pitch Diameter of Pinion:** 19.1 mm (0.750")  
**Weight without Rotational Adjuster:** 1.1 kg (2.5 lb)  
**Weight without Rotational Adjuster (-R Option):** 1.2 kg (2.7 lb)  
**Pressure Range:** 3 to 7 bar (40 to 100 psi)  
**Bore:** 27.0 mm (1.063")  
**Displacement (180°):** 19.0 cm<sup>3</sup> (1.16 in<sup>3</sup>)  
**Actuation Time [180° @ 7 bar (100 psi)]:** 0.60 sec  
**Actuation Time [90° @ 7 bar (100 psi)]:** 0.45 sec  
**Temperature Range, Standard Seals:** -35 to 82°C (-30 to 180°F)  
**Shaft Diameter:** 12.7 mm +0/-0.05 (0.499" +0/-0.002")  
**Dimensions:** 102 W x 100 L x 49.2 mm H (4.54 x 3.94 x 1.938")

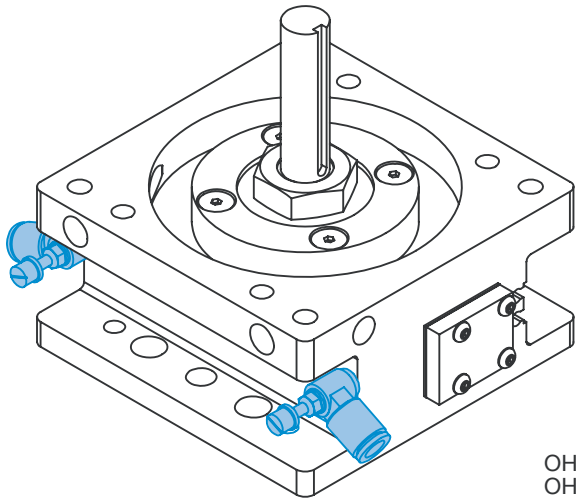


DRG-106M,  
shown smaller  
than actual size.

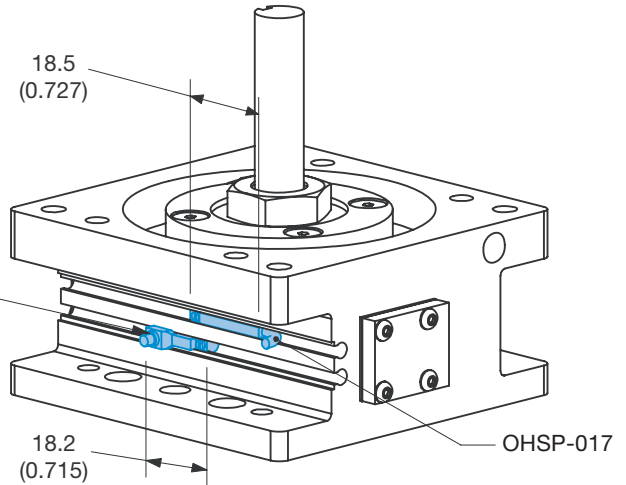
## SIZE "-106M"

**Style:** DRG-106M  
**Max Payload:** 1.8 kg (4 lb)  
**Torque:** 3.7 Nm (33 in-lb)  
**Weight:** 1.1 kg (2.5 lb)

# ACCESSORY MOUNTING EXAMPLE



Dimensions: mm (in)



## Flow Controls

- Flow Controls for Adjusting Rotational Speed

## Sensor and Pneumatic Accessories

- Magneto Resistive Sensors with Quick Disconnect (NPN or PNP Versions)
- Magneto Resistive Sensors with 90° Barrel (NPN or PNP Versions)
- Quick Disconnect Cables 2 or 5 m (6 or 16') Length
- Flow Control Valve for Speed Adjustment Sensors are Slot Mounted, No Mounting Kits Required
- Simple Adjustments with Slotted Screw Driver
- Built-In LED for Easy Positioning and Troubleshooting

## Sensors

- PNP and NPN Magneto Resistive Available
- Sensors Are Slot Mounted, No Mounting Kits Required
- Simple Adjustment with Slotted Screw Driver
- Built-In LED for Ease of Positioning and Troubleshooting
- Low Profile Underflush Sensor Version or 90° Wire Exit Sensor Version
- Sensor Magnet Standard

## To Order *(Specify Model Number)*

## MOST POPULAR MODELS HIGHLIGHTED!

MODEL NO.	PRICE	DESCRIPTION*	OVER TRAVEL (EACH END)	MAX PAYLOAD
DRG-075M-90	\$255	90° rotation	1 to 3°	0.23 kg (0.5 lbs)
DRG-075M-180	255	180° rotation	1 to 3°	0.23 kg (0.5 lbs)
DRG-094M-90	296	90° rotation	1 to 3°	0.68 kg (1.5 lbs)
DRG-094M-180	296	180° rotation	1 to 3°	0.68 kg (1.5 lbs)
DRG-106M-90	347	90° rotation	1 to 3°	1.8 kg (4 lbs)
DRG-106M-180	347	180° rotation	1 to 3°	1.8 kg (4 lbs)

\* Sensors and cables sold separately.

## ACCESSORIES

MODEL NO.	PRICE	QUANTITY	DESCRIPTION
OHSP-011	\$63	1 or 2	PNP magneto resistive sensor (90°) with quick disconnect
OHSN-011	63	1 or 2	NPN magneto resistive sensor (90°) with quick disconnect
OHSP-017	63	1 or 2	PNP magneto resistive sensor with quick disconnect
OHSN-017	63	1 or 2	NPN magneto resistive sensor with quick disconnect
CABL-010	23	1 or 2	Quick disconnect cable [2 m (6') long]
CABL-013	26	1 or 2	Quick disconnect cable [5 m (16') long]

Ordering Example: DRG-094M-180, DRG rotary actuator, size 23.8 mm (0.938"), 180° of rotation, 2 OHSP-017, PNP sensors with quick disconnect and 2 CABL-013, two quick disconnect cables, 5 m (16') long, \$296 + 63 x 2 + 26 x 2 = \$474.



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