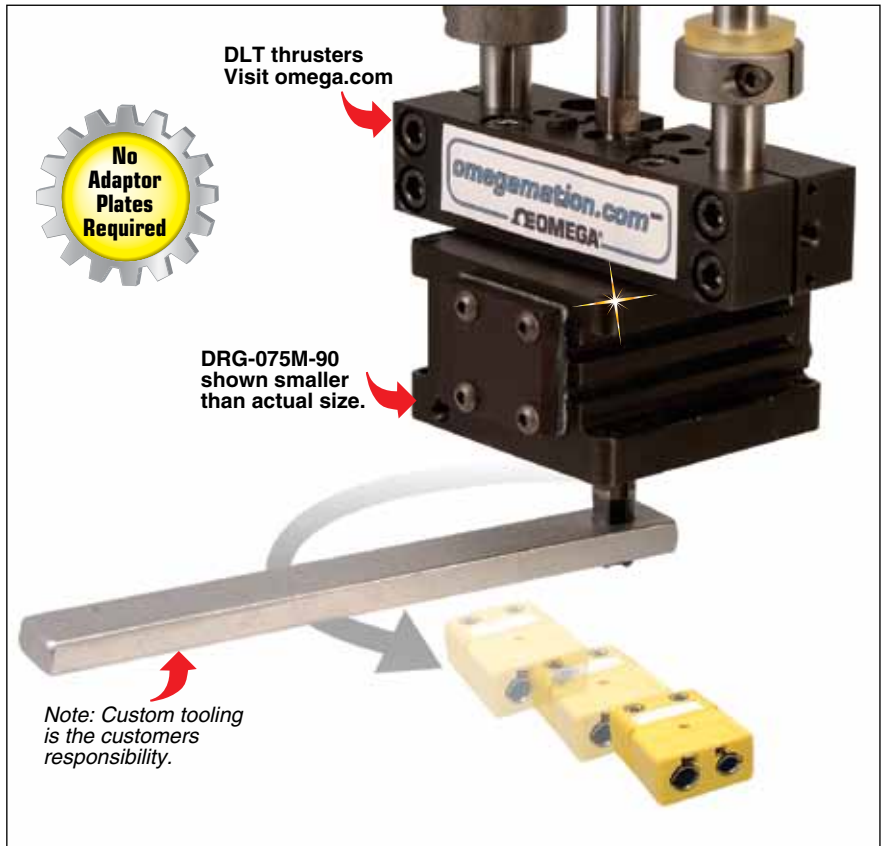


SHAFT MOUNT ROTARY ACTUATOR DIRECTCONNECT™

DRG Series

- 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: 9.0×10^{-5} Nm-sec² (0.0008 inch-lb-sec²)
Maximum Torque @ 7 bar (100 psi): 9.0×10^{-5} Nm-sec² (8.3 lb-inch 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 cm³ (0.31 inch³)
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 inch-lb)
Weight: 0.24 kg (0.54 lb)

SPECIFICATIONS DRG-094M

Maximum Payload: 0.68 kg (1.5 lb)
Maximum Payload Inertia: 6.3×10^{-4} Nm-sec² (0.0056 inch-lb-sec²)
Maximum Torque @ 7 bar (100 psi): 1.9 Nm (17.3 lb-inch)
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 cm³ (0.55 inch³)
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 inch-lb)
Weight: 0.45 kg (1.0 lb)

SPECIFICATIONS DRG-106M

Maximum Payload: 1.8 kg (4 lb)
Maximum Payload Inertia: 2.3×10^{-3} Nm-sec² (0.0207 inch-lb-sec²)
Maximum Torque @ 7 bar (100 psi): 3.8 Nm (33.2 lb-inch)
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 cm³ (1.16 inch³)
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")

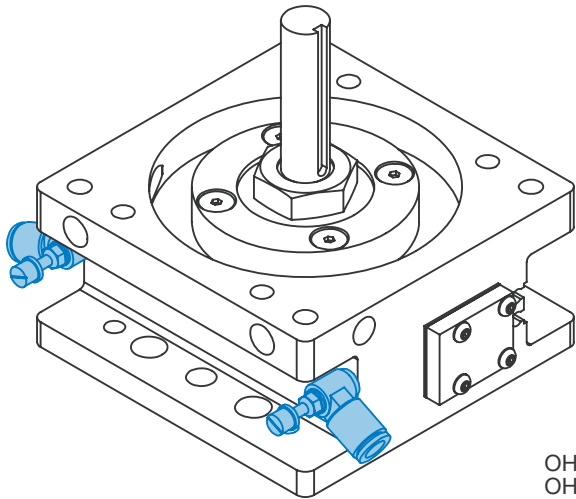


DRG-106M shown smaller than actual size.

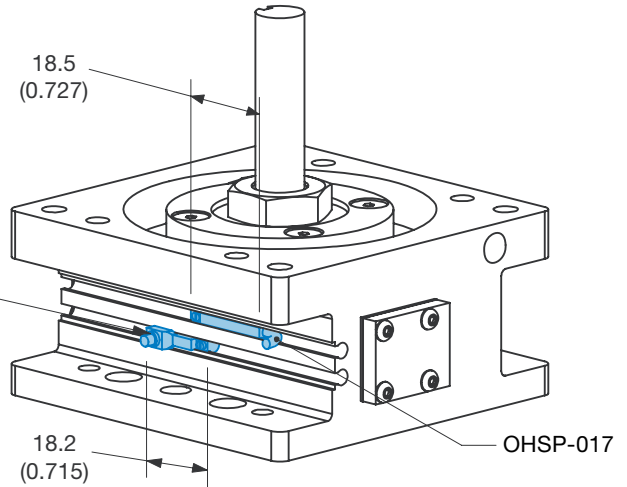
SIZE "-106M"

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

ACCESSORY MOUNTING EXAMPLE



Dimensions: mm (inch)



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 (6.6 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

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

* Sensors and cables sold separately.

ACCESSORIES

MODEL NO.	QUANTITY	DESCRIPTION
OHSP-011	1 or 2	PNP magneto resistive sensor (90°) with quick disconnect
OHSN-011	1 or 2	NPN magneto resistive sensor (90°) with quick disconnect
OHSP-017	1 or 2	PNP magneto resistive sensor with quick disconnect
OHSN-017	1 or 2	NPN magneto resistive sensor with quick disconnect
CABL-010	1 or 2	Quick disconnect cable, 2 m (6.6') long
CABL-013	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.