BULLETIN JANUARY 2024 73.00-1

DeZURIK G-SERIES ROTARY CYLINDER ACTUATORS



Design and Construction

DeZURIK offers G-Series cylinder actuators for use on eccentric plug valves (PEC), full port eccentric plug valves (PEF), 3-Way & 4-Way plug valves (PTW/PFW), AWWA butterfly valves (BAW), and High Performance butterfly valves (BHP). Available in double-acting or spring-return pneumatic supply or double acting hydraulic supply.

G-Series cylinder actuators feature a rack-and-gear design for larger size rotary valves, where constant high torque capability throughout the stroke is required. It is engineered for high-flow, high-cycle applications. The G-Series line of actuators provides long service life and features a rugged, heavy cast gear sector.

Enclosed Actuator Housing

The cast iron actuator housing on G-Series actuators is sealed to prevent the entry of dirt, moisture and corrosive contaminants.

Adjustable Position Stops

G-Series actuators feature adjustable position stops in both the open and closed positions.

Rugged Cylinder Construction

Cylinder construction includes a rugged cast piston with combination seal and guide ring of PTFE.

Corrosion-Resistant Bearings

G-Series actuators feature multiple bronze and stainless steel bearings that provide support and minimize friction to assure smooth operation and throttling action.

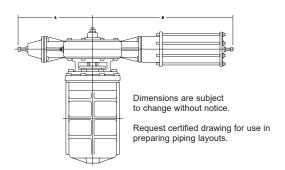
Accessories

Cylinder actuators are available with a variety of accessories including positioners, manual overrides and solenoid valves.

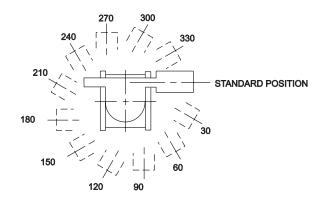
Actuator Weights

| Actuator Size | Weight Lbs. (Kgs) | |
|------------------|----------------------|-------|
| GS-6-PC4 | 95 | (43) |
| GS-6-PC6 | 103 | (47) |
| GS-6-PC8 | 130 | (59) |
| GS-12-PC6 | 240 | (109) |
| GS-12-PC8 | 260 | (118) |
| GS-12-PC10 | 320 | (145) |

Dimensions



Actuator Mounting

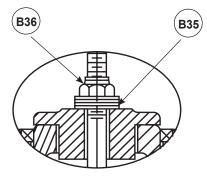


Actuator

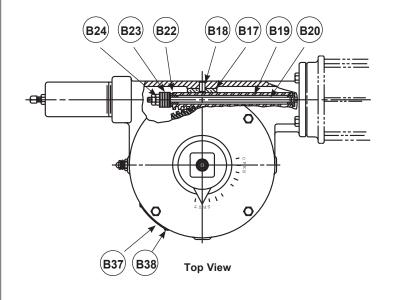
| Actuator Model | Dimensions | |
|----------------|---------------------|---------------------|
| | Α | В |
| GS-6-PC4 | <u>18.88</u> 480 | <u>11.00</u> 279 |
| GS-6-PC6 | <u>19.12</u> 486 | <u>11.00</u> 279 |
| GS-6-PC8 | <u>19.38</u> 492 | <u>11.00</u> 279 |
| GS-12-PC6 | <u>30.56</u> 776 | <u>17.50</u> 445 |
| GS-12-PC8 | <u>30.88</u> 784 | <u>17.50</u> 445 |
| GS-12-PC10 | 31.00 787 | <u>17.50</u> 445 |

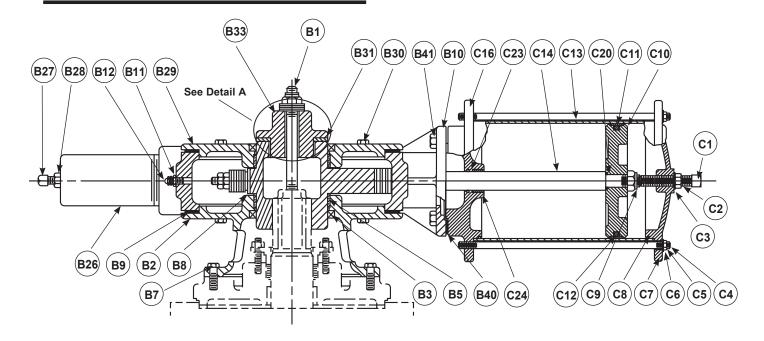
Materials of Construction

| Item | Description | Material |
|------|--------------------|---------------------------------|
| B1 | Stud | Steel Zinc Plated |
| B2 | Adapter | Cast Iron ASTM A126 Class B |
| B3 | Seal (Gear Sector) | Steel with Nitrile |
| B5 | Bearing | Bronze Oil Impregnated |
| B7 | Screw | Steel Zinc Plated |
| B8 | Gear Sector | Ductile Iron ASTM A536 80-55-06 |
| B9 | Gasket (Housing) | Nonasbestos Compressed |
| B10 | Housing | Cast Iron ASTM A126 Class B |
| B11 | Bushing | Brass |
| B12 | Vent Plug | Steel Zinc Plated |
| B17 | Rack Bearing | Bronze ASTM B427 |
| B18 | Pin | Steel Zinc Plated |
| B19 | Rack | Steel AISI 1018 |
| B20 | Rack Rod | Steel |
| B22 | Bearing | Bronze Oil Impregnated |
| B23 | Spring Washer | Steel |
| B24 | Jam Nut | Steel Zinc Plated |
| B26 | Extension Cap | Steel AISI 1018 |
| B27 | Set Screw | Steel Zinc Plated |
| B28 | Jam Nut | Steel Zinc Plated |
| B29 | Cover | Cast Iron ASTM A126 Class B |
| B30 | Screw | Steel Zinc Plated |
| B31 | Pointer | 12 Gauge SAE 1010 Zinc Plated |
| B33 | Wrenching Square | Cast Iron ASTM A126 Class B |
| B35 | Spring Washer | Steel Zinc Plated |
| B36 | Lock Nut | Steel Zinc Plated |
| B37 | Data Plate | Stainless Steel Type 302 |
| B38 | Drive Screw | Steel Cadmium Plated |
| B40 | Gasket | Nonasbestos Compressed |
| B41 | Screw | Steel Zinc Plated |
| C1 | Set Screw | Steel Zinc Plated |
| C2 | Jam Nut | Steel Zinc Plated |
| C3 | Seal Thread | Steel with Nitrile |
| C4 | Tie Rod | Steel AISI C1018 Zinc Plated |
| C5 | Nut | Steel Zinc Plated |
| C6 | Lock Washer | Steel Zinc Plated |
| C7 | Cylinder Cap | Ductile Iron ASTM A536 65-45-12 |
| C8 | O-Ring | Nitrile (NBR) |
| C9 | Lock Nut | Steel Zinc Plated |
| C10 | Piston | Cast Iron ASTM A126 Class B |
| C11 | Piston Seal | Virgin Teflon |
| C12 | O-Ring | Nitrile (NBR) |
| C13 | Cylinder Tube | Fiberglass |
| C14 | Piston Rod | Steel AISI C-1141 Chrome Plated |
| C16 | Cylinder Head | Cast Iron ASTM A126 Class B |
| C20 | O-Ring | Nitrile (NBR) |
| C23 | Rod Seal | Teflon with Nitrile |
| C24 | Bearing | Bronze Oil Impregnated |



Detail A





Ordering

To order a G-Series rotary cylinder actuator, select the actuator model from the appropriate valve style sizing charts. Specify mounting position other than standard as second line information. As a reference, the actuator code is defined as follows:

Double-Acting

Cylinder Type

GS = G-series Actuator

Gear Size

= 6" (150mm)

12 = 12" (300mm)

Cylinder Size

PC4 = 4" (100mm) Diameter pneumatic cylinder

PC6 = 6" (150mm) Diameter pneumatic cylinder

PC8 = 8" (200mm) Diameter pneumatic cylinder

PC10 = 10" (250mm) Diameter pneumatic cylinder

HC8 = 8" (200mm) Diameter hydraulic cylinder

HC10 = 10" (250mm) Diameter hydraulic cylinder

SC8 = 8" (200mm) Diameter spring-return cylinder

SC10 = 10" (250mm) Diameter spring-return cylinder

Ordering Example:

PEC,20,F1,CI,NBR,CR*GS-12-PC8 Actuator mounted 90° from standard.

Sales and Service

For information about our worldwide locations, approvals, certifications and local representative:

Web Site: <u>DeZURIK.com</u> E-Mail: <u>info@dezurik.com</u>



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