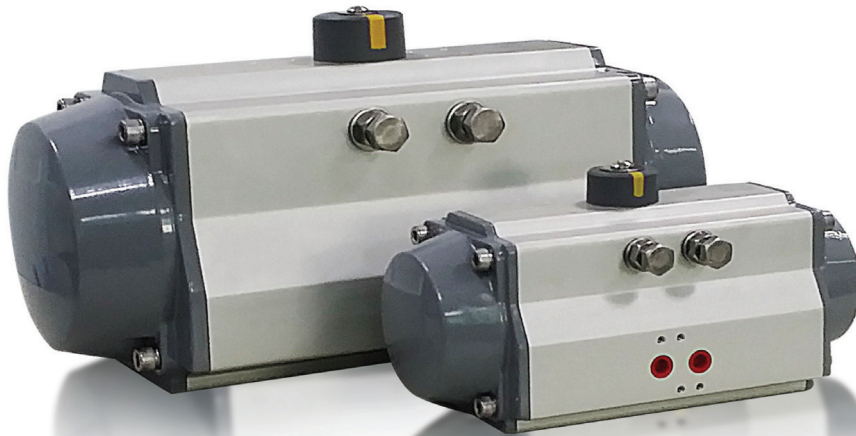




# PNEUMATIC ACTUATOR

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- Higher performance and reliability
- Fully compliance with all the latest international standards
- Wide range options in technical specification and highly cost-effective
- Compact housing design, suitable for any application and working environment

# DESIGN AND CONSTRUCTION

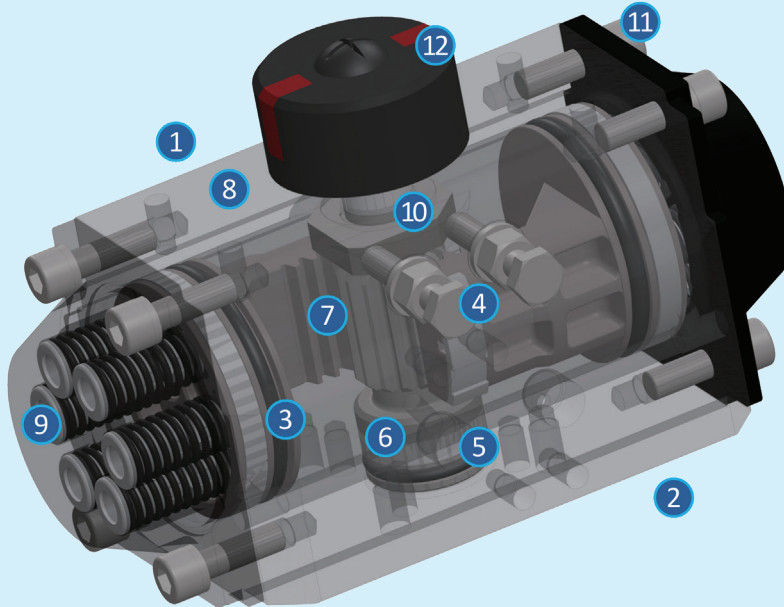
## ► DESIGN

UG control series pneumatic actuators have introduced improvement design for rack and pinion. It is always UG's mission to offer initiative products by combining the long field experiences in products application and the latest production and materials technology available in the market today. The benefit of new design has long been verified in practice. With new technical features equipped, UG series pneumatic actuators have advantageous characteristic in:

- Reliability
- High performance
- Fully compliance with all the latest international standards
- Extensive products range allows best versatility at lower price
- Innovations and patented solutions for a universal drive shaft
- Multifunction position indicator
- Compact and light

## ► CONSTRUCTION

- 1 A single compact design utilizing identical body and end caps for both double acting and spring return models. This feature reduces inventory and allows field conversion, by adding or removing modular spring cartridges.
- 2 Full conformance to following latest specifications: ISO 5211, DIN 3337 and VDI/VDE 3845 for product interchangeability and easy mounting of solenoids, limit switches and other accessories.
- 3 Dual piston rack and pinion design for compact construction, symmetric mounting position, high-cycle life and fast operation. Reverse rotation can be accomplished in the field by simply inverting the pistons.
- 4 Two independent external travel stop adjustments permit easy and precise adjustment of  $\pm 4^\circ$  in both directions. This adjustment may be made in either the open or closed position and provides for accurate valve alignment.
- 5 Multiple bearings and guides on pistons and racks for precise operation, low friction, high cycle life and a blowout proof pinion shaft.
- 6 Electroless nickel-plated blowout resistant, bearing guided, one-piece pinion shaft for improved safety and maximum cycle life.
- 7 High precision teeth on piston racks and pinion shaft for accurate positioning, low backlash, and maximum engagement resulting in overall efficient operation.
- 8 Extruded aluminum body with both internal and external corrosion protections having a honed cylinder surface for longer life and a lower coefficient of friction.
- 9 Modular preloaded spring cartridges designed with coated springs for simple range versatility, greater safety and corrosion resistance.
- 10 Selected high quality bearings and seals that provide a wide operating temperature range, low friction, and high cycle life.
- 11 Internal and external stainless steel fasteners for long term corrosion resistance.
- 12 Multifunctional position indicator for visual position indication, and a direct, easy, economical way to mount popular sensors.



## ► RANGE OF OPTIONS, QUALITY MANUFACTURING, AND ACCESSORIES

### RANGE OF OPTIONS

- A. Stainless steel 304 or 316 drive shafts are available on request for all sizes no matter the type of corrosion protection selected.
- B. For extremely high or low temperature applications, all models may be equipped with FPM or Silicon O rings along with an Duria tested and certified suitable lubricant.
- C. Other than the standard double square bottom drive shaft connection, we can supply a keyed drive connection, a flat headconnection or a special personalized drive connection.

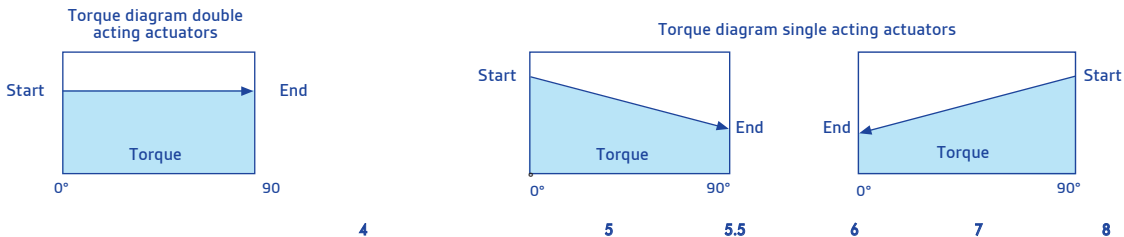
### QUALITY MANAGEMENT

- Production conforms to ISO9001.
- Each individual actuator has been factory inspected and tested and given a serial number for full traceability.
- Each individual actuator is individually packed in a special cardboard carton for protection, with a product description label for easy identification and includes installation, operation and maintenance instructions.

### ACCESSORIES AVAILABLE

- Different Square reductions suitable for drive shaft
- Centering rings for all sizes
- Brackets
- Couplings
- Solenoid valves
- Switch boxes
- Proximity switches
- Gear boxes
- Positioners.

# METRIC TORQUE RATINGS



DOUBLE ACTING TORQUE RATINGS IN Nm

| Model  | Supply Pressure (Unit:bar) |        |        |        |        |        |        |        |         |         |
|--------|----------------------------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
|        | 2.5                        | 3      | 3.5    | 4      | 4.5    | 5      | 5.5    | 6      | 7       | 8       |
| UG050D | 8.6                        | 10.4   | 12.3   | 14.2   | 16.0   | 17.9   | 19.8   | 21.6   | 25.4    | 29.1    |
| UG065D | 17.4                       | 21.2   | 25.0   | 28.7   | 32.5   | 36.3   | 40.1   | 43.9   | 51.4    | 59.0    |
| UG075D | 27.0                       | 32.9   | 38.8   | 44.7   | 50.5   | 56.4   | 62.3   | 68.2   | 79.9    | 91.7    |
| UG085D | 39.7                       | 48.3   | 56.9   | 65.6   | 74.2   | 82.8   | 91.4   | 100.1  | 117.3   | 134.6   |
| UG095D | 55.7                       | 67.9   | 80.0   | 92.1   | 104.2  | 116.4  | 128.5  | 140.6  | 164.8   | 189.1   |
| UG110D | 72.0                       | 89.3   | 105.0  | 120.6  | 136.3  | 152.0  | 167.6  | 183.3  | 214.6   | 245.9   |
| UG125D | 128.7                      | 159.5  | 187.5  | 215.4  | 243.4  | 271.4  | 299.4  | 327.4  | 383.3   | 439.3   |
| UG140D | 196                        | 237    | 278    | 319    | 360    | 401    | 442    | 483    | 565     | 647     |
| UG160D | 263.5                      | 326.6  | 383.9  | 441.2  | 498.5  | 555.8  | 613.1  | 670.4  | 785.0   | 899.7   |
| UG190D | 428.5                      | 518.0  | 607.3  | 696.6  | 785.9  | 875.3  | 964.6  | 1053.9 | 1232.5  | 1411.1  |
| UG210D | 598.2                      | 723.2  | 847.9  | 972.6  | 1097.3 | 1222.0 | 1346.6 | 1471.3 | 1720.7  | 1970.1  |
| UG240D | 928.3                      | 1122.0 | 1315.0 | 1508.0 | 1702.0 | 1895.0 | 2089.0 | 2282.0 | 2669.0  | 3056.0  |
| UG270D | 1305.0                     | 1577.0 | 1849.0 | 2121.0 | 2393.0 | 2665.0 | 2937.0 | 3209.0 | 3753.0  | 4297.0  |
| UG300D | 1678.6                     | 2029.4 | 2379.3 | 2729.2 | 3079.1 | 3429.0 | 3778.9 | 4128.8 | 4828.5  | 5528.3  |
| UG350D | 2492.5                     | 3011.8 | 3531.1 | 4050.4 | 4569.6 | 5088.9 | 5608.2 | 6127.5 | 7166.0  | 8204.6  |
| UG400D | 3798.1                     | 4589.4 | 5380.7 | 6172.0 | 6963.3 | 7754.5 | 8545.8 | 9337.1 | 10919.7 | 12502.2 |

SINGLE ACTING TORQUE RATINGS IN Nm

| Model     | Supply Pressure (Unit:bar) |      |      |      |      |      |      |      |       |      |       |       |       |       |       |       |       |       |       |       | Spring stroke |      |
|-----------|----------------------------|------|------|------|------|------|------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|------|
|           | 2.5                        |      | 3    |      | 3.5  |      | 4    |      | 4.5   |      | 5     |       | 5.5   |       | 6     |       | 7     |       | 8     |       |               |      |
|           | 0°                         | 90°  | 0°   | 90°  | 0°   | 90°  | 0°   | 90°  | 0°    | 90°  | 0°    | 90°   | 0°    | 90°   | 0°    | 90°   | 0°    | 90°   | 0°    | 90°   |               |      |
| UG050 S05 | 5.1                        | 3.4  | 6.9  | 5.3  | 8.8  | 7.2  | 10.7 | 9.0  | 12.5  | 10.9 | 14.4  | 12.8  | 16.3  | 14.6  | 18.1  | 16.5  | 21.9  | 20.2  | 25.6  | 23.9  | 5.2           | 3.5  |
| UG050 S06 | 4.4                        | 2.4  | 6.2  | 4.3  | 8.1  | 6.1  | 10.0 | 8.0  | 11.8  | 9.9  | 13.7  | 11.7  | 15.6  | 13.6  | 17.4  | 15.5  | 21.2  | 19.2  | 24.9  | 22.9  | 6.2           | 4.2  |
| UG050 S07 |                            |      | 5.5  | 3.2  | 7.4  | 5.1  | 9.3  | 7.0  | 11.1  | 8.8  | 13.0  | 10.7  | 14.9  | 12.6  | 16.7  | 14.4  | 20.5  | 18.2  | 24.2  | 21.9  | 7.2           | 4.9  |
| UG050 S08 |                            |      |      |      | 6.7  | 4.1  | 8.6  | 5.9  | 10.4  | 7.8  | 12.3  | 9.7   | 14.2  | 11.5  | 16.0  | 13.4  | 19.8  | 17.1  | 23.5  | 20.9  | 8.2           | 5.6  |
| UG050 S09 |                            |      |      |      |      |      | 7.9  | 4.9  | 9.7   | 6.8  | 11.6  | 8.6   | 13.5  | 10.5  | 15.3  | 12.4  | 19.1  | 16.1  | 22.8  | 19.8  | 9.3           | 6.3  |
| UG050 S10 |                            |      |      |      |      |      |      |      | 9.0   | 5.7  | 10.9  | 7.6   | 12.8  | 9.5   | 14.6  | 11.3  | 18.4  | 15.1  | 22.1  | 18.8  | 10.3          | 7.0  |
| UG050 S11 |                            |      |      |      |      |      |      |      |       |      | 10.2  | 6.6   | 12.1  | 8.4   | 13.9  | 10.3  | 17.7  | 14.0  | 21.4  | 17.8  | 11.3          | 7.7  |
| UG050 S12 |                            |      |      |      |      |      |      |      |       |      |       |       | 11.4  | 7.4   | 13.2  |       | 17.0  | 13.0  | 20.7  | 16.7  | 12.4          | 8.4  |
| UG065 S05 | 8.7                        | 4.3  | 12.5 | 8.1  | 16.3 | 11.9 | 20.0 | 15.6 | 23.8  | 19.4 | 27.6  | 23.2  | 31.4  | 27.0  | 35.2  | 30.8  | 42.7  | 38.3  | 50.3  | 45.9  | 13.1          | 8.7  |
| UG065 S06 | 7.0                        | 1.7  | 10.7 | 5.5  | 14.5 | 9.2  | 18.3 | 13.0 | 22.1  | 16.8 | 25.9  | 20.6  | 29.7  | 24.4  | 33.4  | 28.2  | 41.0  | 35.7  | 48.6  | 43.3  | 15.7          | 10.4 |
| UG065 S07 |                            |      | 9.0  | 2.8  | 12.8 |      | 16.6 | 10.4 | 20.4  | 14.2 | 24.1  | 18.0  | 27.9  | 21.8  | 31.7  | 25.5  | 39.3  | 33.1  | 46.8  | 40.7  | 18.3          | 12.2 |
| UG065 S08 |                            |      |      |      | 11.0 | 4.0  | 14.8 | 7.8  | 18.6  | 11.6 | 22.4  | 15.4  | 26.2  | 19.1  | 30.0  | 22.9  | 37.5  | 30.5  | 45.1  | 38.1  | 21.0          | 13.9 |
| UG065 S09 |                            |      |      |      |      |      | 13.1 | 5.2  | 16.9  | 9.0  | 20.7  | 12.7  | 24.4  | 16.5  | 28.2  | 20.3  | 35.8  | 27.9  | 43.4  | 35.4  | 23.6          | 15.7 |
| UG065 S10 |                            |      |      |      |      |      |      |      | 15.1  | 6.3  | 18.9  | 10.1  | 22.7  | 13.9  | 26.5  | 17.7  | 34.0  | 25.2  | 41.6  | 32.8  | 26.2          | 17.4 |
| UG065 S11 |                            |      |      |      |      |      |      |      |       |      | 17.2  | 7.5   | 21.0  | 11.3  | 24.7  | 15.1  | 32.3  | 22.6  | 39.9  | 30.2  | 28.8          | 19.1 |
| UG065 S12 |                            |      |      |      |      |      |      |      |       |      |       |       | 19.2  | 8.7   | 23.0  | 12.4  | 30.6  | 20.0  | 38.1  | 27.6  | 31.4          | 20.9 |
| UG075 S05 | 16.3                       | 10.2 | 22.2 | 16.0 | 28.1 | 21.9 | 34.0 | 27.8 | 39.8  | 33.7 | 45.7  | 39.6  | 51.6  | 45.4  | 57.5  | 51.3  | 69.2  | 63.1  | 81.0  | 74.8  | 16.9          | 10.7 |
| UG075 S06 | 14.2                       | 6.8  | 20.1 | 12.7 | 25.9 | 18.6 | 31.8 | 24.4 | 37.7  | 30.3 | 43.6  | 36.2  | 49.4  | 42.1  | 55.3  | 47.9  | 67.1  | 59.7  | 78.8  | 71.4  | 20.2          | 12.8 |
| UG075 S07 |                            |      | 17.9 | 9.3  | 23.8 | 15.2 | 29.7 | 21.1 | 35.6  | 26.9 | 41.4  | 32.8  | 47.3  | 38.7  | 53.2  | 44.6  | 64.9  | 56.3  | 76.7  | 68.1  | 23.6          | 15.0 |
| UG075 S08 |                            |      |      |      | 21.7 | 11.8 | 27.5 | 17.7 | 33.4  | 23.6 | 39.3  | 29.4  | 45.2  | 35.3  | 51.0  | 41.2  | 62.8  | 53.0  | 74.5  | 64.7  | 27.0          | 17.1 |
| UG075 S09 |                            |      |      |      |      |      | 25.4 | 14.3 | 31.3  | 20.2 | 37.1  | 26.1  | 43.0  | 32.0  | 48.9  | 37.8  | 60.7  | 49.6  | 72.4  | 61.3  | 30.3          | 19.3 |
| UG075 S10 |                            |      |      |      |      |      |      |      | 29.1  | 16.8 | 35.0  | 22.7  | 40.9  | 28.6  | 46.8  | 34.5  | 58.5  | 46.2  | 70.3  | 58.0  | 33.7          | 21.4 |
| UG075 S11 |                            |      |      |      |      |      |      |      |       |      | 32.9  | 19.3  | 38.7  | 25.2  | 44.6  | 31.1  | 56.4  | 42.8  | 68.1  | 54.6  | 37.1          | 23.5 |
| UG075 S12 |                            |      |      |      |      |      |      |      |       |      |       |       | 36.6  | 21.8  | 42.5  | 27.7  | 54.2  | 39.5  | 66.0  | 51.2  | 40.4          | 25.7 |
| UG085 S05 | 23.2                       | 13.7 | 31.8 | 22.3 | 40.4 | 30.9 | 49.0 | 39.5 | 57.6  | 48.1 | 66.3  | 56.8  | 74.9  | 65.4  | 83.5  | 74.0  | 100.8 | 91.3  | 118.0 | 108.5 | 26.1          | 16.6 |
| UG085 S06 | 19.8                       | 8.4  | 28.4 | 17.0 | 37.1 | 25.7 | 45.7 | 34.3 | 54.3  | 42.9 | 62.9  | 51.5  | 71.6  | 60.2  | 80.2  | 68.8  | 97.4  | 86.0  | 114.7 | 103.3 | 31.3          | 19.9 |
| UG085 S07 |                            |      | 25.1 | 11.8 | 33.8 |      | 42.4 | 29.1 | 51.0  | 37.7 | 59.6  | 46.3  | 68.3  | 55.0  | 76.9  | 63.6  | 94.1  | 80.8  | 111.4 | 98.1  | 36.5          | 23.2 |
| UG085 S08 |                            |      |      |      | 30.4 | 15.2 | 39.1 | 23.9 | 47.7  | 32.5 | 56.3  | 41.1  | 64.9  | 49.7  | 73.6  | 58.4  | 90.8  | 75.6  | 108.1 | 92.9  | 41.7          | 26.5 |
| UG085 S09 |                            |      |      |      |      |      | 35.8 | 18.7 | 44.4  | 27.3 | 53.0  | 35.9  | 61.6  | 44.5  | 70.3  | 53.2  | 87.5  | 70.4  | 104.8 | 87.7  | 46.9          | 29.8 |
| UG085 S10 |                            |      |      |      |      |      |      |      | 41.1  | 22.1 | 49.7  | 30.7  | 58.3  | 39.3  | 67.0  | 48.0  | 84.2  | 65.2  | 101.5 | 82.5  | 52.1          | 33.1 |
| UG085 S11 |                            |      |      |      |      |      |      |      |       |      | 46.4  | 25.5  | 55.0  | 34.1  | 63.6  | 42.7  | 80.9  | 60.0  | 98.1  | 77.2  | 57.3          | 36.4 |
| UG085 S12 |                            |      |      |      |      |      |      |      |       |      |       |       | 51.7  | 28.9  | 60.3  | 37.5  | 77.6  | 54.8  | 94.8  | 72.0  | 62.5          | 39.7 |
| UG095 S05 | 33.6                       | 20.9 | 45.8 | 33.0 | 57.9 | 45.1 | 70.0 | 57.3 | 82.1  | 69.4 | 94.3  | 81.5  | 106.4 | 93.6  | 118.5 | 105.8 | 142.7 | 130.0 | 167.0 | 154.2 | 34.9          | 22.1 |
| UG095 S06 | 29.2                       | 13.9 | 41.4 | 26.1 | 53.5 | 38.2 | 65.6 | 50.3 | 77.7  | 62.4 | 89.8  | 74.5  | 102.0 | 86.7  | 114.1 | 98.8  | 138.3 | 123.0 | 162.6 | 147.3 | 41.8          | 26.5 |
| UG095 S07 |                            |      | 36.9 | 19.1 | 49.1 | 31.2 | 61.2 | 43.3 | 73.3  | 55.4 | 85.4  | 67.6  | 97.5  | 79.7  | 109.7 | 91.8  | 133.9 | 116.1 | 158.1 | 140.3 | 48.8          | 30.9 |
| UG095 S08 |                            |      |      |      | 44.6 | 24.2 | 56.8 | 36.4 | 68.9  | 48.5 | 81.0  | 60.6  | 93.1  | 72.7  | 105.2 | 84.8  | 129.5 | 109.1 | 153.7 | 133.3 | 55.8          | 35.4 |
| UG095 S09 |                            |      |      |      |      |      | 52.3 | 29.4 | 64.5  | 41.5 | 76.6  | 53.6  | 88.7  | 65.8  | 100.8 | 77.9  | 125.1 | 102.1 | 149.3 | 126.4 | 62.7          | 39.8 |
| UG095 S10 |                            |      |      |      |      |      |      |      | 60.0  | 34.5 | 72.2  | 46.7  | 84.3  | 58.8  | 96.4  | 70.9  | 120.6 | 95.1  | 144.9 | 119.4 | 69.7          | 44.2 |
| UG095 S11 |                            |      |      |      |      |      |      |      |       |      | 67.7  | 39.7  | 79.9  | 51.8  | 92.0  | 63.9  | 116.2 | 88.2  | 140.5 | 112.4 | 76.7          | 48.6 |
| UG095 S12 |                            |      |      |      |      |      |      |      |       |      |       |       | 75.4  | 44.8  | 87.6  | 57.0  | 111.8 | 81.2  | 136.0 | 105.4 | 83.6          | 53.0 |
| UG110 S05 | 43.4                       | 26.2 | 60.7 | 43.4 | 76.4 | 59.1 | 92.0 | 74.8 | 107.7 | 90.4 | 123.4 | 106.1 | 139.0 | 121.8 | 154.7 | 137.4 | 186.0 | 168.8 | 217.3 | 200.1 | 45.9          | 28.6 |
| UG110 S06 | 37.7                       | 17.0 | 55.0 | 34.3 | 70.6 | 49.9 | 86.3 | 65.6 | 102.0 | 81.3 | 117.6 | 96.9  | 133.3 | 112.6 | 149.0 | 128.3 | 180.3 | 159.6 | 211.6 | 190.9 | 55.0          | 34.3 |
| UG110 S07 |                            |      | 49.3 | 25.1 | 64.9 | 40.8 | 80.6 | 56.4 | 96.2  | 72.1 | 111.9 | 87.8  | 127.6 | 103.4 | 143.2 | 119.1 | 174.6 | 150.4 | 205.9 | 181.8 | 64.2          | 40.0 |
| UG110 S08 |                            |      |      |      | 59.2 | 31.6 | 74.9 | 47.3 | 90.5  | 62.9 | 106.2 | 78.6  | 121.9 | 94.3  | 137.5 | 109.9 | 168.9 | 141.3 | 200.2 | 172.6 | 73.4          | 45.8 |
| UG110 S09 |                            |      |      |      |      |      | 69.1 | 38.1 | 84.8  | 53.8 | 100.5 | 69.4  | 116.1 | 85.1  | 131.8 | 100.8 | 163.1 | 132.1 | 194.5 | 163.4 | 82.5          | 51.5 |
| UG110 S10 |                            |      |      |      |      |      |      |      | 79.1  | 44.6 | 94.8  |       | 110.4 | 75.9  | 126.1 | 91.6  | 157.4 | 122.9 | 188.7 | 154.2 | 91.7          | 57.2 |
| UG110 S11 |                            |      |      |      |      |      |      |      |       |      | 89.0  | 51.1  | 104.7 | 66.7  | 120.4 | 82.4  | 151.7 | 113.7 | 183.0 | 145.1 | 100.9         | 62.9 |
| UG110 S12 |                            |      |      |      |      |      |      |      |       |      |       |       | 99.0  | 57.6  | 114.6 | 73.2  | 146.0 | 104.6 | 177.3 | 135.9 | 110.0         | 68.6 |

# METRIC TORQUE RATINGS

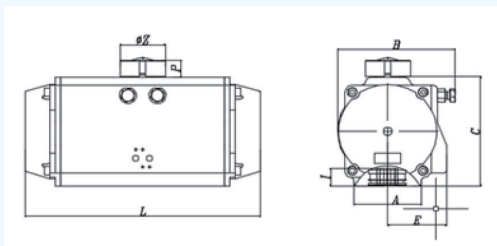
| SINGLE ACTING TORQUE RATINGS IN Nm |                             |       |        |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |               |        |       |
|------------------------------------|-----------------------------|-------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------|--------|-------|
| Model                              | Supply Pressure (Unit: bar) |       |        |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | Spring stroke |        |       |
|                                    | 2.5                         |       | 3      |       | 3.5    |        | 4      |        | 4.5    |        | 5      |        | 5.5    |        | 6      |        | 7      |        | 8      |               |        |       |
|                                    | 0°                          | 90°   | 0°     | 90°   | 0°     | 90°    | 0°     | 90°    | 0°     | 90°    | 0°     | 90°    | 0°     | 90°    | 0°     | 90°    | 0°     | 90°    | 0°     | 90°           | 90°    | 0°    |
| UG125 S05                          | 77.7                        | 48.2  | 108.5  | 78.9  | 136.5  | 106.9  | 164.4  | 134.9  | 192.4  | 162.9  | 220.4  | 190.9  | 248.4  | 218.8  | 276.4  | 246.8  | 332.3  | 302.8  | 388.3  | 358.7         | 80.6   | 51.0  |
| UG125 S06                          | 67.5                        | 32.   | 98.3   | 62.8  | 126.3  | 90.8   | 154.2  | 118.8  | 182.2  | 146.8  | 210.2  | 174.7  | 238.2  | 202.7  | 266.2  | 230.7  | 322.1  | 286.7  | 378.1  | 342.6         | 96.7   | 61.2  |
| UG125 S07                          |                             |       | 88.1   | 46.7  | 116.1  | 74.7   | 144.0  | 102.7  | 172.0  | 130.7  | 200.0  | 158.6  | 228.0  | 186.6  | 256.0  | 214.6  | 311.9  | 270.6  | 367.9  | 326.5         | 112.8  | 71.4  |
| UG125 S08                          |                             |       |        |       | 105.9  | 58.6   | 133.8  | 86.6   | 161.8  | 114.5  | 189.8  | 142.5  | 217.8  | 170.5  | 245.8  | 198.5  | 301.7  | 254.4  | 357.7  | 310.4         | 128.9  | 81.6  |
| UG125 S09                          |                             |       |        |       |        |        | 123.6  | 70.5   | 151.6  |        | 179.6  | 126.4  | 207.6  | 154.4  | 235.6  | 182.4  | 291.5  | 238.3  | 347.5  | 294.3         | 145.0  | 91.8  |
| UG125 S10                          |                             |       |        |       |        |        |        |        | 141.4  | 82.3   | 169.4  | 110.3  | 197.4  | 138.3  | 225.4  | 166.3  | 281.3  | 222.2  | 337.3  | 278.2         | 161.1  | 102.0 |
| UG125 S11                          |                             |       |        |       |        |        |        |        |        |        | 159.2  | 94.2   | 187.2  | 122.2  | 215.2  | 150.2  | 271.1  | 206.1  | 327.1  | 262.1         | 177.2  | 112.2 |
| UG125 S12                          |                             |       |        |       |        |        |        |        |        |        |        |        | 177.0  | 106.1  | 205.2  | 134.0  | 260.9  | 190.0  | 316.9  | 246.0         | 193.3  | 122.4 |
| UG140 S05                          | 114.2                       | 74.1  | 155.1  | 115   | 196.1  | 156    | 237.0  | 196.9  | 277.9  | 237.8  | 318.8  | 278.7  |        |        |        |        |        |        |        |               | 122.4  | 82.3  |
| UG140 S06                          | 97.7                        | 49.6  | 138.7  | 90.6  | 179.6  | 131.5  | 220.5  | 172.4  | 261.5  | 213.3  | 302.4  | 254.3  | 343.3  | 295.2  |        |        |        |        |        |               | 146.8  | 98.7  |
| UG140 S07                          |                             |       | 122.2  | 66.1  | 163.2  | 107.0  | 204.1  | 147.9  | 245.0  | 188.9  | 285.9  | 229.8  | 326.9  | 270.7  | 367.8  | 311.6  |        |        |        |               | 171.3  | 115.2 |
| UG140 S08                          |                             |       |        |       | 146.7  | 82.5   | 187.6  |        | 228.6  | 164.4  | 269.5  | 205.3  | 310.4  | 246.2  | 351.3  | 287.2  | 433.2  | 369.0  |        |               | 195.8  | 131.6 |
| UG140 S09                          |                             |       |        |       |        |        | 171.2  | 99.0   | 212.1  | 139.9  | 253.0  | 180.9  | 294.0  | 221.8  | 334.9  | 262.7  | 416.7  | 344.6  | 498.6  | 426.4         | 220.2  | 148.1 |
| UG140 S10                          |                             |       |        |       |        |        |        |        | 195.7  | 115.5  | 236.6  | 156.4  | 277.5  | 197.3  | 318.4  | 238.2  | 400.3  | 320.1  | 482.1  | 401.9         | 244.7  | 164.5 |
| UG140 S11                          |                             |       |        |       |        |        |        |        |        |        | 220.1  | 131.9  | 261.1  | 172.8  | 302.0  | 213.8  | 383.8  | 295.6  | 465.7  | 377.5         | 269.2  | 181.0 |
| UG140 S12                          |                             |       |        |       |        |        |        |        |        |        |        |        | 244.6  | 148.4  | 285.5  | 189.3  | 367.4  | 271.1  | 449.2  | 353.0         | 293.6  | 197.4 |
| UG160 S05                          | 153.5                       | 101.3 | 216.6  | 164.4 | 273.9  | 221.7  | 331.2  | 279.0  | 388.5  | 336.3  | 445.8  | 393.6  | 503.1  | 450.9  | 560.4  | 508.2  | 675.0  | 622.8  | 789.7  | 737.4         | 162.3  | 110.0 |
| UG160 S06                          | 131.5                       | 68.8  | 194.6  | 131.9 | 251.9  | 189.2  | 309.2  | 246.5  | 366.5  | 303.8  | 423.8  | 361.1  | 481.1  | 418.4  | 538.4  | 475.7  | 653.0  | 590.3  | 767.7  | 705.0         | 194.7  | 132.0 |
| UG160 S07                          |                             |       | 172.6  | 99.5  | 229.9  | 156.8  | 287.2  | 214.1  | 344.5  | 271.4  | 401.8  | 328.7  | 459.1  | 386.0  | 516.4  | 443.3  | 631.0  | 557.9  | 745.7  | 672.5         | 227.2  | 154.0 |
| UG160 S08                          |                             |       |        |       | 207.9  | 124.3  | 265.2  | 181.6  | 322.5  | 238.9  | 379.8  | 296.2  | 437.1  | 353.5  | 494.4  | 410.8  | 609.0  | 525.4  | 723.7  | 640.1         | 259.6  | 176.0 |
| UG160 S09                          |                             |       |        |       |        |        | 243.2  | 149.2  | 300.5  |        | 357.8  | 263.8  | 415.1  | 321.1  | 472.4  | 378.4  | 587.0  | 493.0  | 701.7  | 607.6         | 292.1  | 198.0 |
| UG160 S10                          |                             |       |        |       |        |        |        |        | 278.5  | 174.0  | 335.8  |        | 393.1  | 288.6  | 450.4  | 345.9  | 565.0  | 460.5  | 679.7  | 575.2         | 324.5  | 220.0 |
| UG160 S11                          |                             |       |        |       |        |        |        |        |        |        | 313.8  | 198.9  | 371.1  |        | 428.4  | 313.5  | 543.0  | 428.1  | 657.7  | 542.7         | 357.0  | 242.0 |
| UG160 S12                          |                             |       |        |       |        |        |        |        |        |        |        |        | 349.1  | 223.7  | 406.4  | 281.0  | 521.0  | 395.6  | 635.7  | 510.3         | 389.4  | 264.0 |
| UG190 S05                          | 246.8                       | 167.4 | 336.3  | 256.9 | 425.6  | 346.2  | 514.9  | 435.5  | 604.2  | 524.8  | 693.5  | 614.1  |        |        |        |        |        |        |        |               | 261.2  | 181.8 |
| UG190 S06                          | 210.4                       | 115.1 | 299.9  | 204.6 | 389.2  | 293.9  | 478.5  | 383.3  | 567.8  | 472.6  | 657.2  | 561.9  | 746.5  | 651.2  |        |        |        |        |        |               | 313.4  | 218.1 |
| UG190 S07                          |                             |       | 263.6  | 152.4 | 352.9  | 241.7  | 442.2  | 331.0  | 531.5  | 420.3  | 620.8  | 509.6  | 710.1  | 599.0  | 799.4  | 688.3  |        |        |        |               | 365.6  | 254.5 |
| UG190 S08                          |                             |       |        |       | 316.5  | 189.5  | 405.8  | 287.7  | 495.1  | 368.1  | 584.5  | 457.4  | 673.8  | 546.7  | 779.5  | 636.0  | 941.7  | 814.7  |        |               | 417.8  | 290.8 |
| UG190 S09                          |                             |       |        |       |        |        | 369.5  | 226.6  | 458.8  |        | 548.1  | 405.2  | 637.4  | 494.5  | 745.2  | 583.8  | 905.3  | 762.4  | 1084.0 | 941.1         | 470.1  | 327.2 |
| UG190 S10                          |                             |       |        |       |        |        |        |        | 422.4  | 263.6  | 511.8  | 353.0  | 601.1  | 442.3  | 710.9  | 531.6  | 869.0  | 710.2  | 1047.6 | 888.8         | 522.3  | 363.5 |
| UG190 S11                          |                             |       |        |       |        |        |        |        |        |        | 475.4  | 300.7  | 564.7  | 390.0  | 676.6  | 479.3  | 832.6  | 658.0  | 1011.3 | 836.6         | 574.5  | 399.9 |
| UG190 S12                          |                             |       |        |       |        |        |        |        |        |        |        |        | 528.4  | 337.8  | 642.3  | 427.1  | 796.3  | 605.7  | 974.9  | 784.4         | 628.8  | 436.8 |
| UG210 S05                          | 352.8                       | 239.1 | 477.8  | 364.1 | 602.5  | 488.8  | 727.2  | 613.5  | 851.9  | 738.2  | 976.6  | 862.9  | 1101.2 | 987.5  | 1225.9 | 1112.2 | 1475.3 | 1361.6 | 1724.7 | 1611.0        | 359.1  | 245.4 |
| UG210 S06                          | 303.7                       | 167.3 | 428.7  | 292.3 | 553.4  | 417.0  | 678.1  | 541.7  | 802.8  | 666.4  | 927.5  | 791.0  | 1052.2 | 915.7  | 1176.9 | 1040.4 | 1426.2 | 1289.8 | 1675.6 | 1539.2        | 430.9  | 294.5 |
| UG210 S07                          |                             |       | 379.6  | 220.5 | 504.3  | 345.2  | 629.0  | 469.8  | 753.7  | 594.5  | 878.4  | 719.2  | 1003.1 | 843.9  | 1127.8 | 968.6  | 1377.2 | 1218.0 | 1626.5 | 1467.4        | 502.7  | 343.6 |
| UG210 S08                          |                             |       |        |       | 455.3  | 273.3  | 579.9  | 398.0  | 704.6  | 522.7  | 829.3  | 647.4  | 954.0  | 772.1  | 1078.7 | 896.8  | 1328.1 | 1146.2 | 1577.5 | 1395.5        | 574.6  | 392.6 |
| UG210 S09                          |                             |       |        |       |        |        | 530.9  | 326.2  | 655.6  | 450.9  | 780.2  | 575.6  | 904.9  | 700.3  | 1029.6 | 825.0  | 1279.0 | 1074.3 | 1528.4 | 1323.7        | 646.4  | 441.7 |
| UG210 S10                          |                             |       |        |       |        |        |        |        | 606.5  | 379.1  | 731.2  | 503.8  | 855.8  | 628.4  | 980.5  | 753.1  | 1229.9 | 1002.5 | 1479.3 | 1251.9        | 718.2  | 490.8 |
| UG210 S11                          |                             |       |        |       |        |        |        |        |        |        | 682.1  | 431.9  | 806.8  |        | 931.5  | 681.3  | 1180.8 | 930.7  | 1430.2 | 1180.1        | 790.0  | 539.9 |
| UG210 S12                          |                             |       |        |       |        |        |        |        |        |        |        |        | 757.7  | 484.8  | 882.4  | 609.5  | 1131.8 | 858.9  | 1381.1 | 1108.3        | 861.8  | 589.0 |
| UG240 S05                          | 517.8                       | 374.3 | 711.2  | 567.7 | 904.6  | 761.1  | 1098.0 | 954.5  | 1291.4 | 1147.9 | 1484.8 | 1341.3 |        |        |        |        |        |        |        |               | 554.0  | 410.5 |
| UG240 S06                          | 435.7                       | 263.5 | 629.1  | 456.9 | 822.5  | 650.3  | 1015.9 | 843.7  | 1209.3 | 1037.1 | 1402.7 | 1230.5 | 1596.1 | 1423.9 |        |        |        |        |        |               | 664.8  | 492.6 |
| UG240 S07                          |                             |       | 547.0  | 346.1 | 740.4  | 539.5  | 933.8  | 732.9  | 1127.2 | 926.3  | 1320.6 | 1119.7 | 1514.0 | 1313.1 | 1707.4 | 1506.5 |        |        |        |               | 775.6  | 574.7 |
| UG240 S08                          |                             |       |        |       | 658.3  | 428.7  | 851.7  | 622.1  | 1045.1 | 815.5  | 1238.5 | 1008.9 | 1431.9 | 1202.3 | 1625.3 | 1395.7 | 2012.1 | 1782.5 |        |               | 886.4  | 656.8 |
| UG240 S09                          |                             |       |        |       |        |        | 769.6  | 511.3  | 963.0  | 704.7  | 1156.4 | 898.1  | 1349.8 | 1091.5 | 1543.2 | 1284.9 | 1930.0 | 1671.7 | 2316.8 | 2058.5        | 997.2  | 738.9 |
| UG240 S10                          |                             |       |        |       |        |        |        |        | 880.9  | 593.9  | 1074.3 | 787.3  | 1267.7 | 980.7  | 1461.1 | 1174.1 | 1847.9 | 1560.9 | 2234.7 | 1947.7        | 1108.0 | 821.0 |
| UG240 S11                          |                             |       |        |       |        |        |        |        |        |        | 992.2  | 676.5  | 1185.6 | 869.9  | 1379.0 | 1063.3 | 1765.8 | 1450.1 | 2152.6 | 1836.9        | 1218.8 | 903.1 |
| UG240 S12                          |                             |       |        |       |        |        |        |        |        |        |        |        | 1103.5 | 759.1  | 1296.9 | 952.5  | 1683.7 | 1339.3 | 2070.5 | 1726.1        | 1329.6 | 985.2 |
| UG270 S05                          | 745.9                       | 519.4 | 1017.9 | 791.4 | 1289.9 | 1063.4 | 1561.8 | 1335.3 | 1833.8 | 1607.3 | 2105.7 | 1879.2 |        |        |        |        |        |        |        |               | 786.0  | 559.5 |
| UG270 S06                          | 634.0                       | 362.2 | 906.0  | 634.2 | 1178.0 | 906.2  | 1449.9 | 1178.1 | 1721.9 | 1450.1 | 1993.8 | 1722.0 | 2265.8 | 1994.0 |        |        |        |        |        |               | 943.2  | 671.4 |

# INSTALLATION

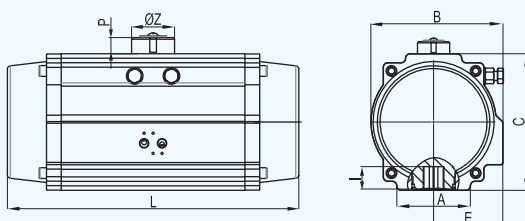
FRONT VIEW

SIDE VIEW

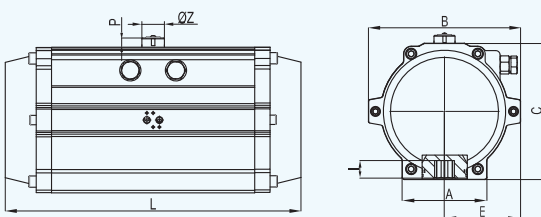
UG050-UG160



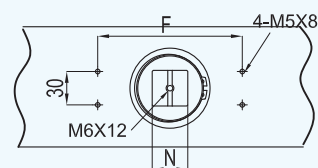
UG190-UG350



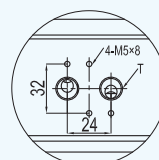
UG400



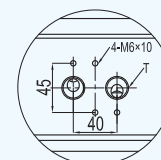
TOP



AIR CONNECTION

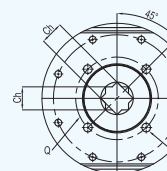


G1/4 NAMUR  
UG050-UG210

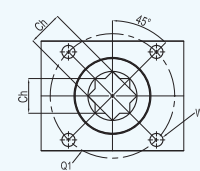


G1/2 NAMUR  
UG240-UG400

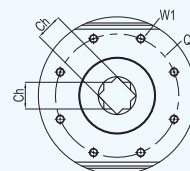
BOTTOM



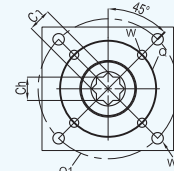
UG350



UG032, UG210-UG300



UG400



UG50-UG190

| MODEL | A   | B     | C   | L   | E     | F   |    | ØZ | N  | I  | FLANGE  | Q   | Q1  | W      | W1     | Ch    | T     |
|-------|-----|-------|-----|-----|-------|-----|----|----|----|----|---------|-----|-----|--------|--------|-------|-------|
| UG050 | 45  | 70.5  | 70  | 154 | 41.5  | 80  | 20 | 40 | 10 | 12 | F03/05  | 36  | 50  | M5×7.5 | M6×9   | 11×11 | G1/4" |
| UG065 | 62  | 89.5  | 89  | 189 | 51.5  | 80  | 20 | 40 | 10 | 16 | F05/07  | 50  | 70  | M6×9   | M8×12  | 14×14 | G1/4" |
| UG075 | 68  | 102.5 | 100 | 210 | 59    | 80  | 20 | 40 | 14 | 16 | F05/07  | 50  | 70  | M6×9   | M8×12  | 14×14 | G1/4" |
| UG085 | 68  | 112.5 | 113 | 229 | 63.5  | 80  | 20 | 40 | 14 | 19 | F05/07  | 50  | 70  | M6×9   | M8×12  | 17×17 | G1/4" |
| UG095 | 92  | 126   | 123 | 264 | 71    | 80  | 20 | 40 | 14 | 19 | F05/07  | 50  | 70  | M6×9   | M8×12  | 17×17 | G1/4" |
| UG110 | 93  | 138.5 | 136 | 266 | 76.5  | 80  | 20 | 40 | 14 | 19 | F07/10  | 70  | 102 | M8×12  | M10×15 | 17×17 | G1/4" |
| UG125 | 96  | 157   | 161 | 337 | 85    | 80  | 30 | 56 | 22 | 25 | F07/10  | 70  | 102 | M8×12  | M10×15 | 22×22 | G1/4" |
| UG140 | 110 | 178   | 178 | 377 | 97    | 80  | 30 | 56 | 22 | 31 | F10/12  | 102 | 125 | M10×15 | M12×18 | 27×27 | G1/4" |
| UG160 | 112 | 196   | 200 | 412 | 106   | 130 | 30 | 56 | 22 | 31 | F10/12  | 102 | 125 | M10×15 | M12×18 | 27×27 | G1/4" |
| UG190 | 136 | 216.5 | 232 | 488 | 112   | 130 | 30 | 56 | 22 | 41 | F10/14  | 102 | 140 | M10×15 | M16×24 | 36×36 | G1/4" |
| UG210 | 140 | 235.5 | 255 | 550 | 120   | 130 | 30 | 80 | 32 | 40 | F14     | —   | 140 | —      | M16×24 | 36×36 | G1/4" |
| UG240 | 159 | 262   | 292 | 602 | 131   | 130 | 30 | 80 | 32 | 50 | F16     | —   | 165 | —      | M20×2  | 46×46 | G1/2" |
| UG270 | 159 | 295   | 331 | 672 | 147.5 | 130 | 30 | 80 | 32 | 50 | F16     | —   | 165 | —      | M20×2  | 46×46 | G1/2" |
| UG300 | 180 | 335   | 354 | 784 | 173   | 130 | 30 | 80 | 32 | 50 | F16     | —   | 165 | —      | M20×2  | 46×46 | G1/2" |
| UG350 | 270 | 385   | 410 | 845 | 195   | 130 | 30 | 80 | 32 | 50 | F16/F25 | 165 | 254 | M20×2  | M16×   | 46×46 | G1/2" |
| UG400 | 290 | 520   | 466 | 956 | 260   | 130 | 30 | 80 | 32 | 60 | F25     | —   | 254 | —      | M16×   | 55×55 | G1/2" |

# MODEL SELECTION

| MODEL | TYPE                                   | SPRING QTY           | FLANGE | SQURE  | OPTION                                                                                   | SEALING PART                                                                                                                  |                                                                                          |
|-------|----------------------------------------|----------------------|--------|--------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| UG050 | D=DOUBLE ACTING<br><br>S=SPRING RETURN |                      | F03/05 | 11×11  | CAP COLOR                                                                                | STANDARD<br>NITRILE RUBBER<br><br>HT<br>FLUORORUBBER<br>(FOR HIGH TEMPERATURE)<br><br>LT<br>SILASTIC<br>(FOR LOW TEMPERATURE) |                                                                                          |
| UG065 |                                        | ONLY FOR SPRING REST | F05/07 | 14×14  |                                                                                          |                                                                                                                               |                                                                                          |
| UG075 |                                        |                      | F05/07 | 14×14  |                                                                                          |                                                                                                                               |  7046 |
| UG085 |                                        |                      | F05/07 | 17×17  |  9004 |                                                                                                                               |                                                                                          |
| UG095 |                                        |                      | 4      | F05/07 |                                                                                          |                                                                                                                               | 17×17                                                                                    |
| UG110 |                                        |                      | 5      | F07/10 |                                                                                          |                                                                                                                               | 17×17                                                                                    |
| UG125 |                                        |                      | 6      | F07/10 | 22×22                                                                                    |                                                                                                                               |  5021 |
| UG140 |                                        |                      | 7      | F10/12 | 27×27                                                                                    |                                                                                                                               |                                                                                          |
| UG160 |                                        |                      | 8      | F10/12 | 27×27                                                                                    |                                                                                                                               |                                                                                          |
| UG190 |                                        |                      | 9      | F10/14 | 36×36                                                                                    |                                                                                                                               |                                                                                          |
| UG210 |                                        |                      | 10     | F14    | 36×36                                                                                    |                                                                                                                               |  6002 |
| UG240 |                                        |                      | 11     | F16    | 46×46                                                                                    |                                                                                                                               |                                                                                          |
| UG270 |                                        |                      | 12     | F16    | 46×46                                                                                    |                                                                                                                               |                                                                                          |
| UG300 |                                        |                      | F16    | 46×46  | TYPE OF BODY<br><br>P Smooth surface                                                     |                                                                                                                               |                                                                                          |
| UG350 |                                        |                      | F16/25 | 46×46  |                                                                                          |                                                                                                                               |                                                                                          |
| UG400 |                                        |                      | F25    | 55×55  |                                                                                          |                                                                                                                               | hard Anodized                                                                            |

## ► Note:

1. The standard rotation of double acting and spring return is clockwise to close(for double acting when port 4 is pressurised).
2. The standard temperature of sealing part is -15°Cto 80°C,if high temperature or low temperature required,relevant sealing parts can be used.
3. All technical parameters of products please refer to this catalog.Customization for special requirement is available. Please contact the sales.
4. Customization including but not limited to the items below:
  - 1) Color combination.
  - 2) Flange and Square custom made.
  - 3) Higher protection level.

### Example 1: UG095D F07/10 17 P7046

**Description:** Actuator model UG095, double acting, ISO flange F07&F10, 17 mm bottom square with standard indicator, cap color grey (No.7046), nitrile rubber sealing.

### Example 2: UG190S12 F10/14 36 P5021 HT

**Description:** Actuator model UG190, single acting spring return, with 12 springs, ISO flange F10&F14,36 mm bottom square, cap color green (No.5021), nitrile rubber sealing.