



• NAMUR

The shaft driven accessory interface conforms to the NAMUR standard and is identical on all G-Series actuators, allowing for standardization of accessory mounting hardware and installation practices

- Pneumatic and hydraulic scotch-yoke actuators
- Automates ball, butterfly, plug valves and any other 90° rotating mechanisms
- Salt Spray Testing per ASTM B117 criteria. Construction features prevent water ingress, allowing G-Series actuators to meet IP 66 and IP 67M specifications and severe high pressure water deluge test

• Operating Ranges

G-Series double acting actuators produce guaranteed minimum torque outputs from 10,000 lb-in. up to 6,000,000 lb-in. The spring return units produce spring torques from 2,500 lb-in. to 3,000,000 lb-in.

- Standard operating pressures:
Pneumatic — to 200 psig (14 BAR)
- Standard operating temperature is -20°F to +200°F (-29°C to +93°C)
Optional trims available:
0°F to +350°F (-18°C to +177°C)
-50°F to +180°F (-46°C to +82°C)
- Mechanical and hydraulic manual overrides are available
- MSS and ISO Valve Mounting
The G-Series valve interface meets the dimensional requirements of MSS SP-101 or ISO 5211 defined for each torque range

Double Acting G1 Pneumatic Actuator Torque Chart

| Part No. | Actuator Model | Stroke Position | Operating Pressure (psig) | | | | | | | | | | | |
|-----------|----------------|-----------------|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 150 | 175 | 200 |
| | | | Output Torque (in-lbs) | | | | | | | | | | | |
| 3TG100800 | G01008 | Start/End | 12465 | 14543 | 16620 | 18698 | 20775 | 22853 | 24930 | 31163 | 36356 | 41550 | | |
| | | Minimum | | | 6579 | 7675 | 8772 | 9868 | 10965 | 12061 | 13158 | 16447 | 19188 | 21929 |
| 3TG100900 | G01009 | Start/End | 10593 | 13241 | 15890 | 18538 | 21186 | 23835 | 26483 | 29131 | 31779 | 39724 | | |
| | | Minimum | 5591 | 6989 | 8386 | 9784 | 11182 | 12579 | 13977 | 15375 | 16772 | 20966 | | |
| 3TG101000 | G01010 | Start/End | 14046 | 17557 | 21069 | 24580 | 28092 | 31603 | 35115 | 38626 | | | | |
| | | Minimum | 7413 | 9266 | 11120 | 1973 | 14826 | 16680 | 18533 | 20386 | | | | |
| 3TG101200 | G01012 | Start/End | 20133 | 25166 | 30199 | 35232 | | | | | | | | |
| | | Minimum | 10626 | 13282 | 15938 | 18595 | | | | | | | | |
| 3TG101400 | G01014 | Start/End | 24482 | 30603 | 36723 | | | | | | | | | |
| | | Minimum | 12921 | 16152 | 19382 | | | | | | | | | |

Actuators and Controls

Torque Ratings G Series

All published torques are guaranteed minimum values.

G Series Pneumatic Double-Acting Actuator Torque Chart

| Part No. | Actuator Model | Stroke Position | Operating Pressure (psig) | | | | | | | | | | | |
|-----------|----------------|-------------------|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| | | | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 150 | 175 | 200 |
| | | | Output Torque (in-lbs) | | | | | | | | | | | |
| 3TG200900 | G2009 | Start/End Minimum | | | 11844 | 22441 | 25647 | 28852 | 32058 | 35264 | 38470 | 48087 | 56102 | |
| 3TG201000 | G2010 | Start/End Minimum | | 21254 | 25504 | 29755 | 34006 | 38257 | 42507 | 46758 | 51009 | | | |
| 3TG201200 | G2012 | Start/End Minimum | 24371 | 30464 | 36556 | 42649 | 48742 | 54835 | 60927 | | | | | |
| 3TG201400 | G2014 | Start/End Minimum | 29636 | 37046 | 44455 | 51864 | 59273 | | | | | | | |
| 3TG201600 | G2016 | Start/End Minimum | 39118 | 48897 | 58677 | | | | | | | | | |
| 3TG301000 | G3010 | Start/End Minimum | | | | 35888 | 41015 | 46142 | 51269 | 56396 | 61523 | 76903 | 89721 | 102538 |
| 3TG301200 | G3012 | Start/End Minimum | | 36847 | 44216 | 51585 | 58955 | 66324 | 73693 | 81063 | 88432 | | | |
| 3TG301400 | G3014 | Start/End Minimum | 35887 | 44859 | 53831 | 62803 | 71775 | 80747 | 89719 | 98690 | | | | |
| 3TG301600 | G3016 | Start/End Minimum | 47430 | 59288 | 71145 | 83003 | 94860 | | | | | | | |
| 3TG302000 | G3020 | Start/End Minimum | 75266 | 94082 | | | | | | | | | | |

Spring Return G1 Pneumatic Actuator Torque Chart

| Part No. | Actuator Model | Spring Torque (in-lbs) Start/Min/End | Operating Pressure (psig) | | | | | | | | | | | | |
|-----------|----------------|--------------------------------------|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 150 | 175 | 200 | |
| | | | Torque Output Start/Min/End (in-lbs) | | | | | | | | | | | | |
| 3TG100804 | G01008-SR4 | 11614 | | | | | | 5551 | 7628 | 9706 | 11783 | 13861 | 20093 | 25287 | 30481 |
| | | 5708 | | | | | | 2439 | 3543 | 4648 | 5752 | 6849 | 10138 | 12880 | 15621 |
| | | 10015 | | | | | | 3783 | 5861 | 7938 | 10016 | 12093 | 18326 | 23520 | 28713 |
| 3TG100904 | G01009-SR4 | 11614 | | | 4820 | 7469 | 10117 | 12765 | 15414 | 18062 | 20710 | 28655 | | | |
| | | 5708 | | | 2051 | 3459 | 4866 | 6271 | 7669 | 9066 | 10464 | 14657 | | | |
| | | 10015 | | | 3053 | 5701 | 8350 | 10998 | 13646 | 16295 | 18943 | 26888 | | | |
| 3TG101004 | G1010-SR4 | 11614 | | 6488 | 10000 | 13511 | 17023 | 20534 | 24046 | 27557 | | | | | |
| | | 5708 | | 2938 | 4804 | 6664 | 8518 | 10371 | 12224 | 14078 | | | | | |
| | | 10015 | | 4721 | 4232 | 11744 | 15255 | 18767 | 22278 | 25790 | | | | | |
| 3TG101204 | G01012-SR4 | 11614 | 9063 | 14096 | 19130 | 24163 | | | | | | | | | |
| | | 5708 | 4306 | 6973 | 9630 | 12286 | | | | | | | | | |
| | | 10015 | 7296 | 12329 | 17362 | 22395 | | | | | | | | | |
| 3TG101404 | G01014-SR4 | 11614 | 13413 | 19534 | 25654 | | | | | | | | | | |
| | | 5708 | 6613 | 9843 | 13073 | | | | | | | | | | |
| | | 10015 | 11646 | 17766 | 23887 | | | | | | | | | | |
| 3TG100803 | G01008-SR3 | 13598 | | | | | | | 6048 | 8126 | 10203 | 12281 | 18513 | 23707 | 28901 |
| | | 6605 | | | | | | | 2523 | 3631 | 4735 | 5839 | 9143 | 11884 | 14625 |
| | | 11445 | | | | | | | 3669 | 5746 | 7824 | 9901 | 16434 | 21327 | 26521 |
| 3TG100903 | G01009-SR3 | 13598 | | | | 5889 | 8537 | 11185 | 13834 | 16482 | 19130 | 27075 | | | |
| | | 6605 | | | | 2437 | 3850 | 5257 | 6665 | 8071 | 9469 | 13662 | | | |
| | | 11445 | | | | 3509 | 6157 | 8806 | 11454 | 14102 | 16751 | 24695 | | | |
| 3TG101003 | G01010-SR3 | 13598 | | 4908 | 8420 | 11931 | 15443 | 18954 | 22466 | 25977 | | | | | |
| | | 6605 | | 1904 | 3787 | 5653 | 7520 | 9376 | 11229 | 13082 | | | | | |
| | | 11445 | | 2529 | 6040 | 9552 | 13063 | 16574 | 20086 | 23597 | | | | | |
| 3TG101203 | G01012-SR3 | 13598 | 7483 | 12516 | 17550 | 22583 | | | | | | | | | |
| | | 6605 | 3289 | 5964 | 8634 | 11291 | | | | | | | | | |
| | | 11445 | 5104 | 10137 | 15170 | 20203 | | | | | | | | | |
| 3TG101403 | G01014-SR3 | 13598 | 11833 | 17954 | 24074 | | | | | | | | | | |
| | | 6605 | 5601 | 8848 | 12078 | | | | | | | | | | |
| | | 11445 | 9453 | 15574 | 21695 | | | | | | | | | | |

Spring Return G1 Pneumatic Actuator Torque Chart

| Part No. | Actuator Model | Spring Torque (in-lbs) Start/Min/End | Operating Pressure (psig) | | | | | | | | | | | | |
|-----------|----------------|---|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 150 | 175 | 200 | |
| | | | Torque Output Start/Min/End (in-lbs) | | | | | | | | | | | | |
| 3TG100802 | G01008-SR2 | 15526 | | | | | | | | | 8443 | 10521 | 16753 | 21947 | 27141 |
| | | 7352 | | | | | | | | | 3692 | 4796 | 8109 | 10857 | 13598 |
| | | 13037 | | | | | | | | | 5692 | 7770 | 14002 | 19196 | 24390 |
| 3TG100902 | G01009-SR2 | 15526 | | | | | 6777 | 9425 | 12074 | 14722 | 17370 | 25315 | | | |
| | | 7352 | | | | | 2800 | 4214 | 5622 | 7029 | 8437 | 12635 | | | |
| | | 13037 | | | | | 4026 | 6674 | 3923 | 11971 | 14619 | 22564 | | | |
| 3TG101002 | G01010-SR2 | 15526 | | | 6660 | 10171 | 13683 | 17194 | 20706 | 24217 | | | | | |
| | | 7352 | | | 2736 | 4611 | 6477 | 8348 | 10202 | 12055 | | | | | |
| | | 13037 | | | 3909 | 7420 | 10932 | 14443 | 17955 | 21466 | | | | | |
| 3TG101202 | G01012-SR2 | 15526 | 5723 | 10756 | 15789 | 20823 | | | | | | | | | |
| | | 7352 | 2228 | 4922 | 7597 | 10264 | | | | | | | | | |
| | | 13037 | 2972 | 8005 | 13039 | 18072 | | | | | | | | | |
| 3TG101402 | G01014-SR2 | 15526 | 10073 | 16194 | 22314 | | | | | | | | | | |
| | | 7352 | 4559 | 7811 | 11051 | | | | | | | | | | |
| | | 13037 | 7322 | 13443 | 19563 | | | | | | | | | | |
| 3TG100801 | G01008-SR1 | 18470 | | | | | | | | | 8599 | 14831 | 20025 | 25219 | |
| | | 8749 | | | | | | | | | 3364 | 6703 | 9463 | 12223 | |
| | | 14776 | | | | | | | | | 4516 | 10748 | 15942 | 21136 | |
| 3TG100901 | G01009-SR1 | 18470 | | | | | | 7503 | 1152 | 12800 | 15448 | 23393 | | | |
| | | 8749 | | | | | | 2764 | 4207 | 5623 | 7030 | 11253 | | | |
| | | 14776 | | | | | | 3420 | 6069 | 8717 | 11365 | 19310 | | | |
| 3TG101001 | G01010-SR1 | 18470 | | | | 8249 | 11761 | 15272 | 18784 | 22295 | | | | | |
| | | 8749 | | | | 3174 | 5071 | 6937 | 8803 | 10669 | | | | | |
| | | 14776 | | | | 4166 | 7678 | 11189 | 14701 | 18212 | | | | | |
| 3TG101201 | G01012-SR1 | 18470 | | 8834 | 13868 | 18901 | | | | | | | | | |
| | | 8749 | | 3492 | 6190 | 8865 | | | | | | | | | |
| | | 14776 | | 4752 | 9785 | 14818 | | | | | | | | | |
| 3TG101401 | G01014-SR1 | 18470 | 8151 | 14272 | 20392 | | | | | | | | | | |
| | | 8749 | 3121 | 6405 | 9658 | | | | | | | | | | |
| | | 14776 | 4068 | 10189 | 16309 | | | | | | | | | | |

Actuators and Controls

Torque Ratings - G Series

All published torques are guaranteed minimum values.

Spring-Return Actuator

| Part No. | Actuator Model | Spring Torque (in-lbs) Start/Min/End | Operating Pressure (psig) | | | | | | | | | |
|-----------|----------------|---|--------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----------------------|
| | | | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | |
| | | | Torque Output Start/Min/End (in-lbs) | | | | | | | | | |
| 3TG200902 | G2009-SR2 | 26818 12882 22074 | | | | | | | | | | 14072 5964 8829 |
| 3TG201002 | G2010-SR2 | 26818 12882 22074 | | | | | | 13859 5848 8616 | 18810 8110 12866 | 22361 10369 17117 | 26611 12628 21368 | |
| 3TG201202 | G2012-SR2 | 26818 12882 22074 | | | 12159 4926 6915 | 18252 8185 13008 | 24344 11423 19101 | 30437 14661 25194 | 36530 17896 31286 | | | |
| 3TG201402 | G2014-SR2 | 26818 12882 22071 | | 12648 5191 7404 | 20057 9145 14814 | 27466 13082 22223 | 34875 17020 29632 | | | | | |
| 3TG201602 | G2016-SR2 | 26818 12882 22074 | 14720 6308 9477 | 24500 11506 19256 | 34279 16703 29036 | | | | | | | |
| 3TG200901 | G2009-SR1 | 30997 14742 25004 | | | | | | | | | | |
| 3TG201001 | G2010-SR1 | 30997 14742 25004 | | | | | | | 14871 5957 8248 | 19122 8249 12498 | 23373 10508 16749 | |
| 3TG201201 | G2012-SR1 | 30997 14742 25004 | | | | | 21106 9303 14482 | 27199 12541 20575 | 33291 15779 26668 | | | |
| 3TG201401 | G2014-SR1 | 30997 14742 25004 | | | 16819 7014 10195 | 24228 10962 17604 | 31637 14900 25013 | | | | | |
| 3TG201601 | G2016-SR1 | 30997 14742 25004 | | 21261 9386 14638 | 31041 14583 24417 | | | | | | | |
| 3TG200904 | G2009-SR4 | 20678 9903 16917 | | | | | | 10155 4185 5998 | 13361 5900 9204 | 16567 7603 12410 | 19772 9307 15616 | |
| 3TG201004 | G2010-SR4 | 20678 9903 16917 | | | | 11058 4675 6901 | 15308 6935 11152 | 19559 9194 15402 | 23810 11453 19653 | 28061 13712 23904 | 32311 15956 28155 | |
| 3TG201204 | G2012-SR4 | 20678 9903 16917 | | 11766 5052 7609 | 17859 8290 13702 | 23952 11528 19795 | 30044 14760 25888 | 36137 17975 31980 | 42230 21191 38073 | | | |
| 3TG201404 | G2014-SR4 | 20678 9903 16917 | 10939 4610 6782 | 18348 8550 14191 | 25757 12488 21600 | 33166 16407 29009 | 40575 20318 36419 | | | | | |
| 3TG201604 | G2016-SR4 | 20678 9903 16917 | 20420 9652 16264 | 30200 14842 26043 | 39979 20003 35823 | | | | | | | |
| 3TG200903 | G2009-SR3 | 24139 11457 19390 | | | | | | | | 13833 5833 8584 | 17039 7539 11790 | |
| 3TG201003 | G2010-SR3 | 24139 11457 19390 | | | | | 12575 5150 7326 | 16826 7426 11577 | 21077 9685 15828 | 25327 11944 20078 | 29578 14203 24329 | |
| 3TG201203 | G2012-SR3 | 24139 11457 19390 | | | 15126 6522 9877 | 21219 9760 15970 | 27311 12998 22062 | 33404 16236 28155 | 39497 19460 34248 | | | |

Spring-Return Actuator (cont.)

| Part No. | Actuator Model | Spring Torque (in-lbs) Start/Min/End | Operating Pressure (psig) | | | | | | | | |
|-----------|----------------|---|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 |
| | | | Torque Output Start/Min/End (in-lbs) | | | | | | | | |
| 3TG201403 | G2014-SR3 | 24139 | | 15615 | 23024 | 30433 | 37842 | | | | |
| | | 11457 | | 6782 | 10720 | 14657 | 18587 | | | | |
| | | 19390 | | 10366 | 17775 | 25184 | 32593 | | | | |
| 3TG201603 | G2016-SR3 | 24139 | 17687 | 27467 | 37246 | | | | | | |
| | | 11457 | 7883 | 13081 | 18273 | | | | | | |
| | | 19390 | 12438 | 22218 | 31997 | | | | | | |
| 3TG301002 | G3010-SR2 | 49017 | | | | | | | | | 20655 |
| | | 22571 | | | | | | | | | 6848 |
| | | 36975 | | | | | | | | | 7346 |
| 3TG301202 | G3012-SR2 | 49017 | | | | | | 25456 | 32826 | 40195 | 47564 |
| | | 22571 | | | | | | 9568 | 13568 | 17516 | 21433 |
| | | 36975 | | | | | | 12147 | 19516 | 26886 | 34255 |
| 3TG301402 | G3014-SR2 | 49017 | | | | 21936 | 30907 | 39879 | 48851 | 57823 | |
| | | 22571 | | | | 7591 | 12527 | 17349 | 22117 | 26885 | |
| | | 36975 | | | | 8626 | 17598 | 26570 | 35542 | 44514 | |
| 3TG301602 | G3016-SR2 | 49017 | | | 30278 | 42135 | 53993 | | | | |
| | | 22571 | | | 12185 | 18548 | 24849 | | | | |
| | | 36975 | | | 16968 | 28826 | 40683 | | | | |
| 3TG302002 | G3020-SR2 | 49017 | 34398 | 53215 | | | | | | | |
| | | 22571 | 14422 | 24436 | | | | | | | |
| | | 36975 | 21089 | 39905 | | | | | | | |
| 3TG301001 | G3010-SR1 | 54045 | | | | | | | | | |
| | | 25307 | | | | | | | | | |
| | | 42224 | | | | | | | | | |
| 3TG301201 | G3012-SR1 | 54045 | | | | | | | 27024 | 34394 | 41763 |
| | | 25307 | | | | | | | 10497 | 14497 | 18420 |
| | | 42224 | | | | | | | 13960 | 21329 | 28698 |
| 3TG301401 | G3014-SR1 | 54045 | | | | | 25106 | 34078 | 43050 | 52022 | |
| | | 25307 | | | | | 9456 | 14326 | 19104 | 23873 | |
| | | 42224 | | | | | 12041 | 21013 | 29985 | 38957 | |
| 3TG301601 | G3016-SR1 | 54045 | | | 24476 | 36334 | 48191 | | | | |
| | | 25307 | | | 9107 | 15535 | 21837 | | | | |
| | | 42224 | | | 11412 | 23269 | 35127 | | | | |
| 3TG302001 | G3020-SR1 | 54045 | 28597 | 47413 | | | | | | | |
| | | 25307 | 11351 | 21423 | | | | | | | |
| | | 42224 | 15532 | 34349 | | | | | | | |
| 3TG301004 | G3010-SR4 | 36568 | | | | | | | 19695 | 24822 | 29949 |
| | | 17123 | | | | | | | 7867 | 10637 | 13361 |
| | | 28566 | | | | | | | 10851 | 15978 | 21105 |
| 3TG301204 | G3012-SR4 | 36568 | | | | 20012 | 27381 | 34751 | 42120 | 49489 | 56858 |
| | | 17123 | | | | 8038 | 11996 | 15913 | 19830 | 23746 | 27663 |
| | | 28566 | | | | 11168 | 18537 | 25906 | 33276 | 40676 | 48014 |
| 3TG301404 | G3014-SR4 | 36568 | | | 22258 | 31239 | 40201 | 49173 | 58145 | 67117 | |
| | | 17123 | | | 9257 | 14042 | 18810 | 23578 | 28347 | 33089 | |
| | | 28566 | | | 13414 | 22385 | 31357 | 40329 | 49301 | 58273 | |
| 3TG301604 | G3016-SR4 | 36568 | 15857 | 27714 | 39572 | 51429 | 63287 | | | | |
| | | 17123 | 5764 | 12174 | 18475 | 24777 | 31068 | | | | |
| | | 28566 | 7013 | 18870 | 30728 | 42585 | 54443 | | | | |
| 3TG301003 | G3010-SR3 | 42128 | | | | | | | | 20609 | 25735 |
| | | 19573 | | | | | | | | 7746 | 10528 |
| | | 32379 | | | | | | | | 9833 | 14960 |
| 3TG301203 | G3012-SR3 | 42128 | | | | | 23167 | 30537 | 37906 | 45275 | 52645 |
| | | 19573 | | | | | 9135 | 13115 | 17032 | 20949 | 24865 |
| | | 32379 | | | | | 12392 | 19761 | 27130 | 34500 | 41869 |
| 3TG301403 | G3014-SR3 | 42128 | | | 18044 | 27016 | 35988 | 44960 | 53931 | 62903 | |
| | | 19573 | | | 6305 | 11223 | 16012 | 20781 | 25549 | 30317 | |
| | | 32379 | | | 7268 | 15240 | 25212 | 34184 | 43156 | 52127 | |
| 3TG301603 | G3016-SR3 | 42128 | | 23501 | 35358 | 47216 | 59073 | | | | |
| | | 19573 | | 9315 | 15678 | 21980 | 28282 | | | | |
| | | 32379 | | 12725 | 24582 | 36440 | 48297 | | | | |
| 3TG302003 | G3020-SR3 | 42128 | 39479 | 58295 | | | | | | | |
| | | 19573 | 17868 | 27868 | | | | | | | |
| | | 32379 | 28703 | 47519 | | | | | | | |