

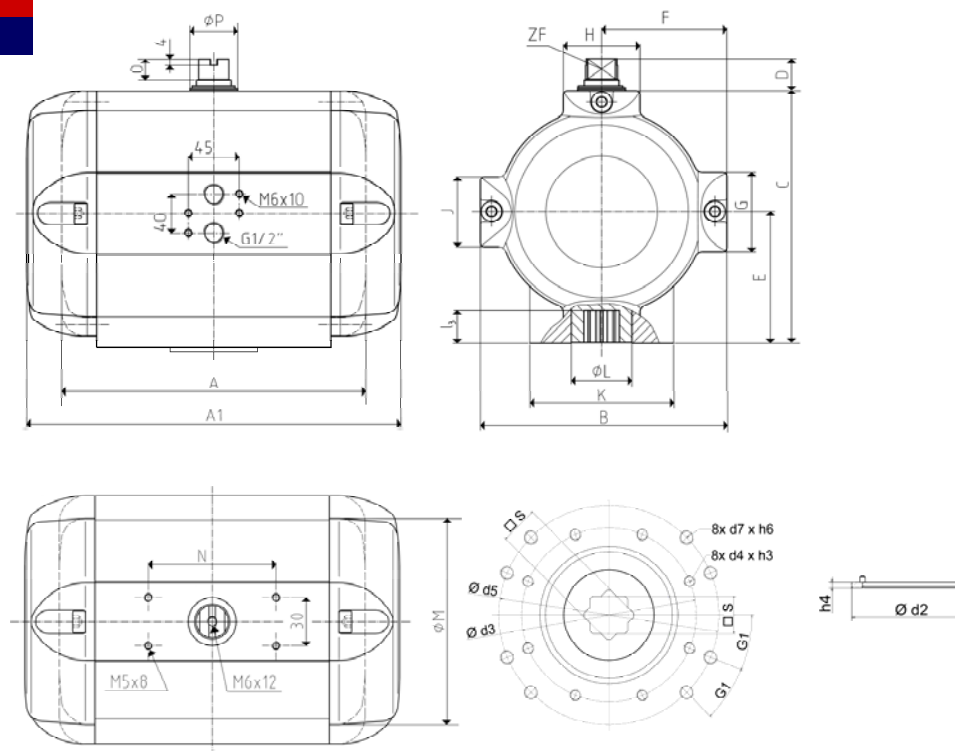
DOUBLE-PISTON QUARTER TURN ACTUATORS

TYPE SAD / SAF BR16 90°

| | |
|--------------------------------------|------|
| Size | 50 |
| Weight [kg] | |
| Type SAD | 126 |
| Type SAF | 170 |
| Stroke volume [dm³] | |
| Type SAD | 43,8 |
| Type SAF | 25,0 |
| Operating times [sec.] ¹⁾ | |
| Type SAD OPEN | 7,0 |
| Type SAD CLOSE | 7,0 |
| Type SAF ²⁾ OPEN | 11,0 |
| Type SAF ²⁾ CLOSE | 4,0 |

1) operating times at 4,5 bar air pressure supply without load (standard values)

2) Type SAF with 9 springs



| Type | number of springs n | spring-torque | | air torque Ma [Nm] at operating pressure pe [bar] | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|---------------------|---------------|------|---|-----|---------|------|-------|------|---------|------|-------|------|---------|------|-------|------|---------|------|-------|------|---------|------|-------|------|---------|------|-------|------|------|--|
| | | Ms [Nm] | | 2 bar | | 2,5 bar | | 3 bar | | 3,5 bar | | 4 bar | | 4,5 bar | | 5 bar | | 5,5 bar | | 6 bar | | 6,5 bar | | 7 bar | | 7,5 bar | | 8 bar | | | |
| | | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | | |
| SAD 50 | - | - | | 1576 | | 2039 | | 2503 | | 2952 | | 3411 | | 3879 | | 4333 | | 4792 | | 5256 | | 5724 | | 6164 | | 6604 | | 7045 | | | |
| SAF 50 | 4 | 622 | 1033 | 543 | 954 | 1006 | 1417 | 1470 | 1881 | 1919 | 2330 | 2378 | 2789 | 2846 | 3257 | 3300 | 3711 | 3759 | 4170 | 4223 | 4634 | 4691 | 5102 | 5131 | 5542 | 5571 | 5982 | 6012 | 6423 | | |
| | 5 | 777 | 1291 | 285 | 799 | 748 | 1262 | 1212 | 1726 | 1661 | 2175 | 2120 | 2634 | 2588 | 3102 | 3042 | 3556 | 3501 | 4015 | 3965 | 4479 | 4433 | 4947 | 4873 | 5387 | 5313 | 5827 | 5754 | 6268 | | |
| | 6 | 933 | 1550 | 26 | 643 | 489 | 1106 | 953 | 1570 | 1402 | 2019 | 1861 | 2478 | 2329 | 2946 | 2783 | 3400 | 3242 | 3859 | 3706 | 4323 | 4174 | 4791 | 4614 | 5231 | 5054 | 5671 | 5495 | 6112 | | |
| | 7 | 1088 | 1808 | | | 231 | 951 | 695 | 1415 | 1144 | 1864 | 1603 | 2323 | 2071 | 2791 | 2525 | 3245 | 2984 | 3704 | 3448 | 4168 | 3916 | 4636 | 4356 | 5076 | 4796 | 5516 | 5237 | 5957 | | |
| | 8 | 1244 | 2066 | | | | | 437 | 1259 | 886 | 1708 | 1345 | 2167 | 1813 | 2635 | 2267 | 3089 | 2726 | 3548 | 3190 | 4012 | 3658 | 4480 | 4098 | 4920 | 4538 | 5360 | 4979 | 5801 | | |
| | 9 | 1399 | 2324 | | | | | 179 | 1104 | 628 | 1553 | 1087 | 2012 | 1555 | 2480 | 2009 | 2934 | 2468 | 3393 | 2932 | 3857 | 3400 | 4325 | 3840 | 4765 | 4280 | 5205 | 4721 | 5646 | | |
| | 10 | 1555 | 2583 | | | | | | | 369 | 1397 | 828 | 1856 | 1296 | 2324 | 1750 | 2778 | 2209 | 3237 | 2673 | 3701 | 3141 | 4169 | 3581 | 4609 | 4021 | 5049 | 4462 | 5490 | | |
| | 11 | 1710 | 2841 | | | | | | | 111 | 1242 | 570 | 1701 | 1038 | 2169 | 1492 | 2623 | 1951 | 3082 | 2415 | 3546 | 2883 | 4014 | 3323 | 4454 | 3763 | 4894 | 4204 | 5335 | | |
| | 12 | 1866 | 3099 | | | | | | | | | 312 | 1545 | 780 | 2013 | 1234 | 2467 | 1693 | 2926 | 2157 | 3390 | 2625 | 3858 | 3065 | 4298 | 3505 | 4738 | 3946 | 5179 | | |
| | special version | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 13 | 2021 | 3368 | | | | | | | | | | 43 | 1390 | 511 | 1858 | 965 | 2312 | 1424 | 2771 | 1888 | 3235 | 2356 | 3703 | 2796 | 4143 | 3236 | 4583 | 3677 | 5024 | |
| | 14 | 2177 | 3616 | | | | | | | | | | | | 263 | 1702 | 717 | 2156 | 1176 | 2615 | 1640 | 3079 | 2108 | 3547 | 2548 | 3987 | 2988 | 4427 | 3429 | 4868 | |

| Design | SAD / SAF |
|---------------------|-----------|
| Size | 50 |
| A (double-acting) | 567 |
| A1 (single-acting) | 817 |
| B | 390 |
| C | 389 |
| D | 30 |
| E | 197 |
| F | 195 |
| G | 84 |
| H | 150 |
| K | 265 |
| Ø L | 132 |
| J | 84 |
| Ø M | 345 |
| N | 130 |
| O | 18 |
| Ø P | 110 |
| ZF | 46 |
| Connection ISO 5211 | F25 |
| Ø d2 | 200 |
| h4 | 5 |
| Ø d3 | 254 |
| 8x d4xh3 | 8x M16x25 |
| Ø d5 | 320 |
| l3 | 60 |
| s | 55 |
| 4x d6xh5 | - |
| 8x d7xh6 | 8x M20x31 |
| Y | - |
| Z | - |
| W1 | - |
| X1 | - |
| G1 | 8x 22,5° |