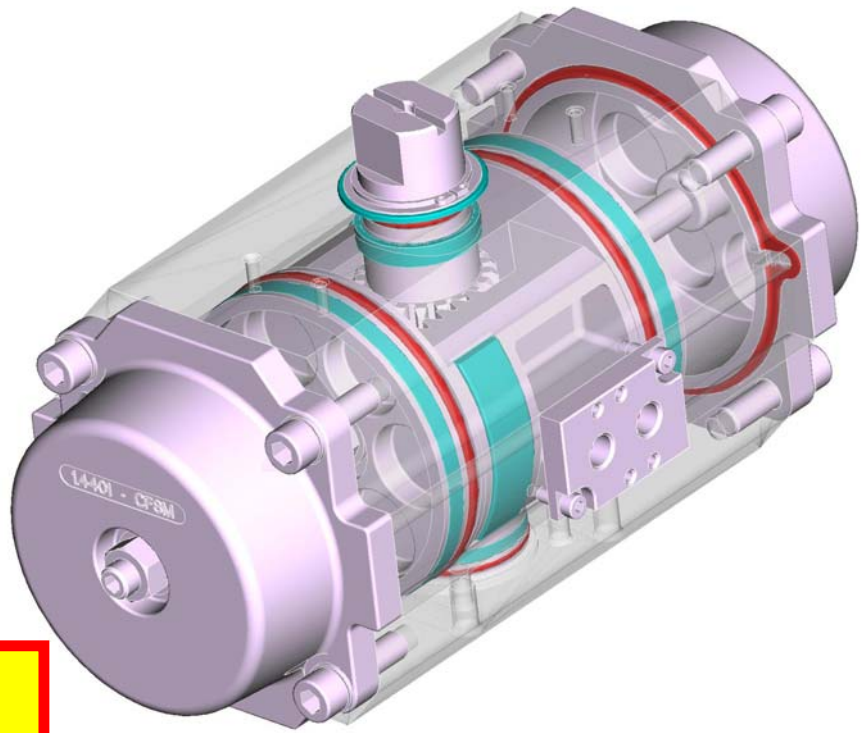
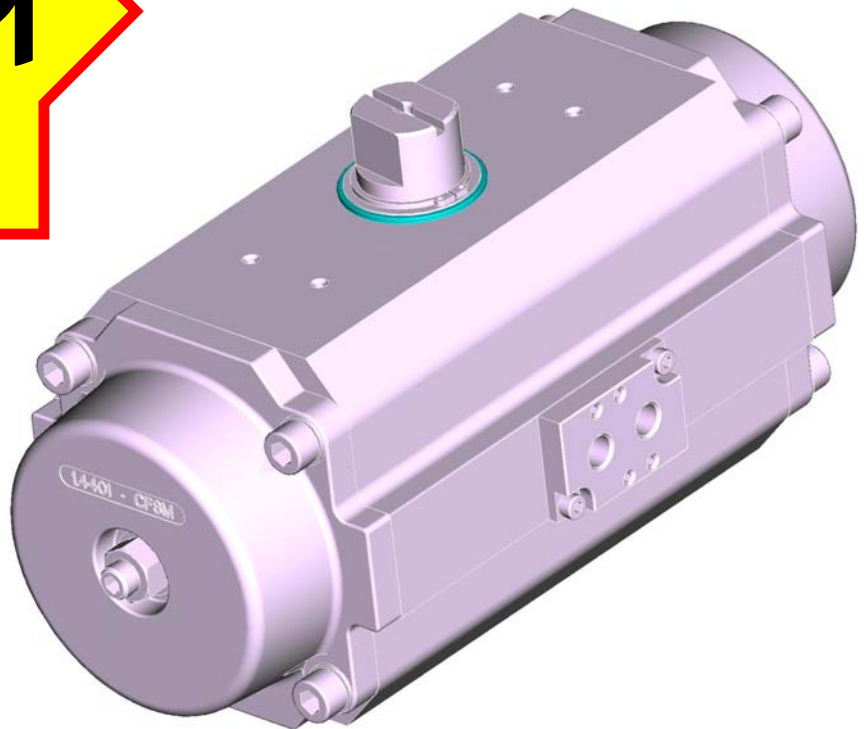


AP 115-A

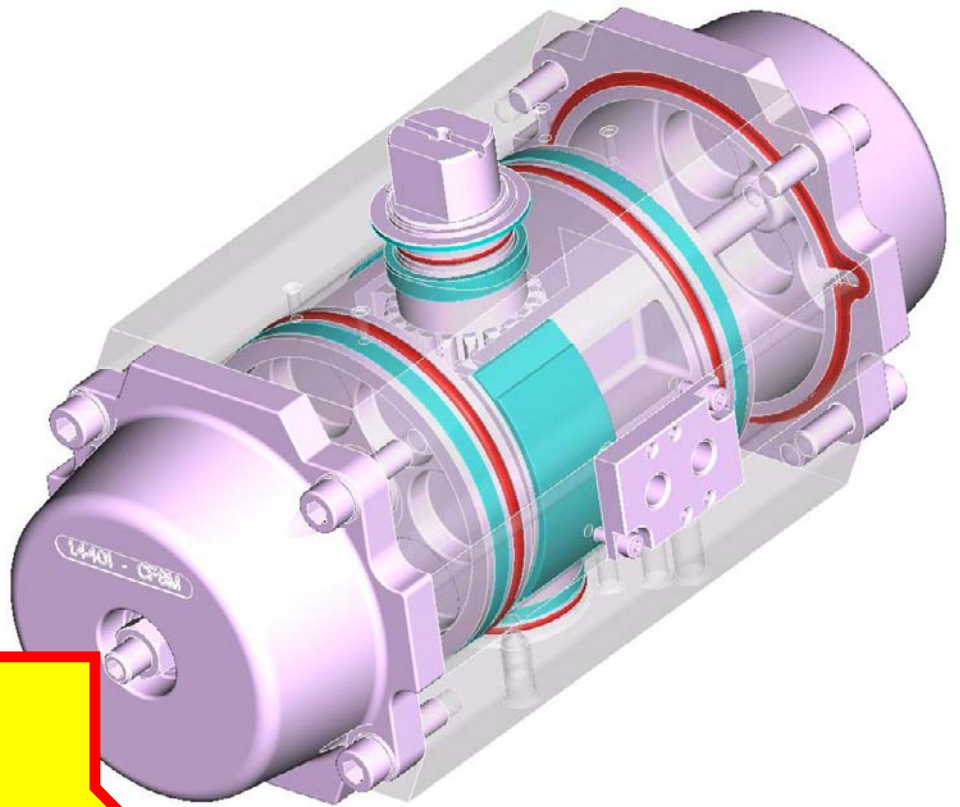


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Year 2011

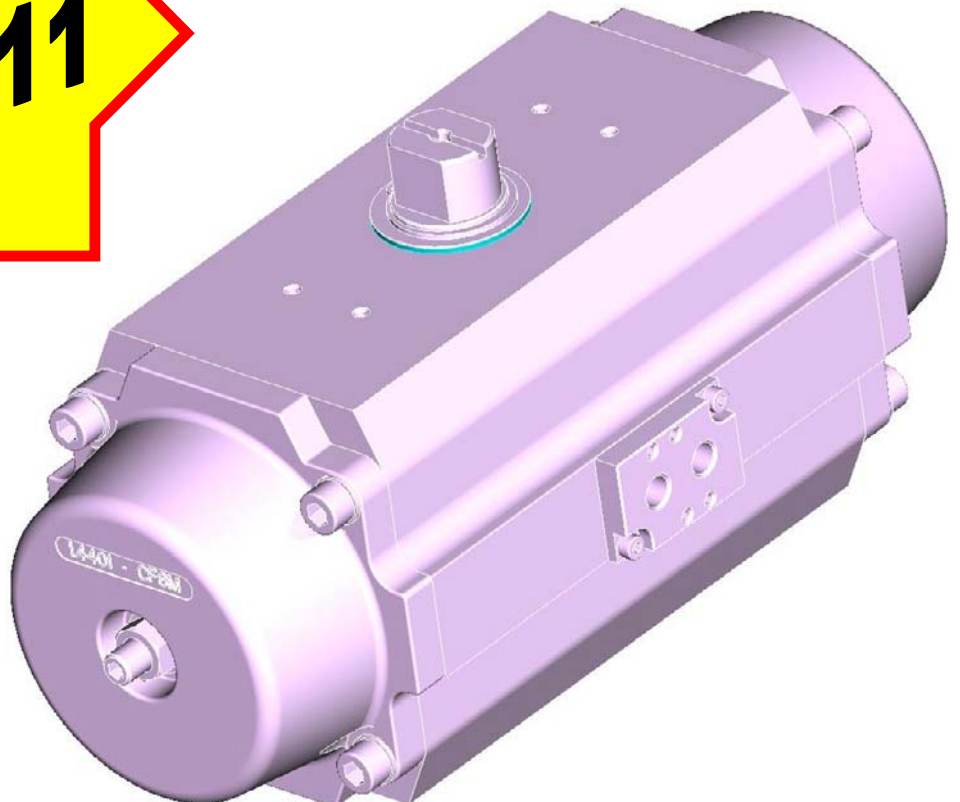


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AP 125-A

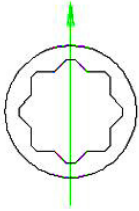
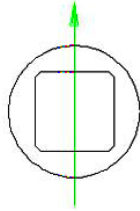
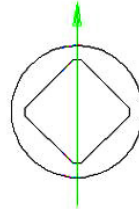
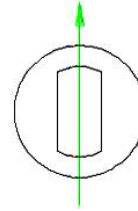
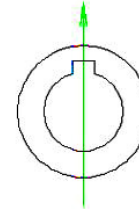
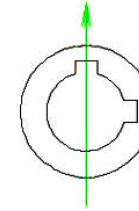


NEW!
Year 2011



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AISI 316 (A4) STAINLESS STEEL "AP-A" SERIES ACTUATORS ISO 5211 - DIN 3337 AVAILABLE FORCE INTAKES

| | | | | | |
|---|---|---|---|---|---|
| VDI\VDE 3845  | VDI\VDE 3845  | VDI\VDE 3845  | VDI\VDE 3845  | VDI\VDE 3845  | VDI\VDE 3845  |
| STANDARD ALPHAIR S= L\D | L | D | H | V | W |

| TYPE | A-I SERIES = 90° | | A-Y SERIES = 120° | |
|----------|------------------|--------|-------------------|--------|
| | | | A-X SERIES = 180° | |
| | FLANGE | FHAFT | FLANGE | SHAFT |
| AP 042-A | F03/05 F04 | S = 11 | F03/05 | S = 11 |
| AP 050-A | F03/05 F04 | S = 11 | F04 F03/05 | S = 11 |
| AP 063-A | F3/5/7 | S = 14 | F3/5/7 | S = 14 |
| AP 075-A | F05/07 | S = 17 | F05/07 | S = 17 |
| AP 085-A | F05/07 | S = 17 | F05/07 | S = 17 |
| AP 100-A | F5\7\10 | S = 22 | F5\7\10 | S = 22 |
| AP 115-A | F07\10 | S = 22 | F07\10 | S = 22 |
| AP 125-A | F7\10\12 | S = 27 | F7\10\12 | S = 27 |

All indicated shaft sizes are available in "S" TYPE (starlike), which is **ALPHAIR standard**, enabling direct assembly with both L (0°) and D (45°) drive square.

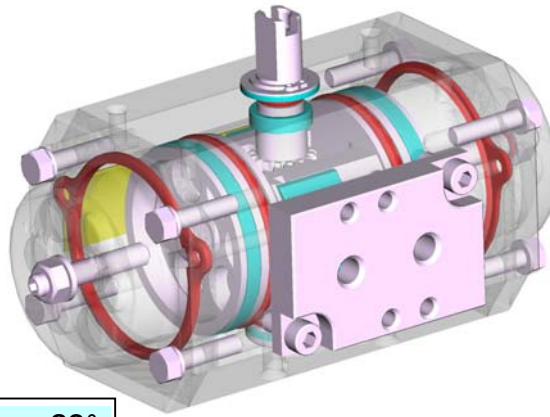
- "L" type (0° drive square)
- "D" type (45° drive square)
- "H" type (flat-head)
- "V" type (one key)
- "W" type (two Keys)

shaft force intakes could be available on request.

All dimensions and tolerances according to ISO 5211 and DIN 3337 standards.

Special shaft machining is also available on request, for particular applications.

AISI 316 (A4) STAINLESS STEEL "AP-A" SERIES ACTUATORS DOUBLE ACTING "DA" TORQUE RATINGS IN Nm

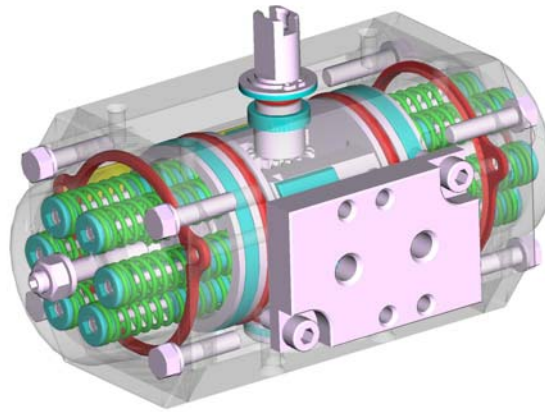


A-I Series = 90°
A-Y Series = 120°
A-X Series = 180°

| TYPE | AIR SUPPLY IN BAR | | | | | | | | | | | | A-I Series = 90° | |
|----------|-------------------|-------|-------|-------|-------|-------|---------------------------------------|-------|-------|-------|-------|-------|------------------|--|
| | ALUMINIUM PISTONS | | | | | | AISI 316 (A4) STAINLESS STEEL PISTONS | | | | | | | |
| | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | |
| AP 042-A | 6,5 | 8,7 | 10,9 | 13,0 | 15,2 | 17,3 | 19,5 | 21,7 | 23,9 | 26,0 | 28,2 | 30,4 | 32,6 | |
| AP 050-A | 9,2 | 12,3 | 15,4 | 18,5 | 21,5 | 24,6 | 27,7 | 30,8 | 33,8 | 36,9 | 40,0 | 43,1 | 46,2 | |
| AP 063-A | 16,5 | 22,0 | 27,5 | 33,0 | 38,5 | 44,0 | 49,5 | 55,0 | 60,5 | 66,0 | 71,5 | 77,0 | 82,5 | |
| AP 075-A | 35,1 | 46,8 | 58,5 | 70,2 | 81,9 | 93,6 | 105,3 | 117,0 | 128,7 | 140,4 | 152,1 | 163,8 | 175,5 | |
| AP 085-A | 53,4 | 71,2 | 89,0 | 106,9 | 124,7 | 142,4 | 160,3 | 178,1 | 195,9 | 213,7 | 231,5 | 249,3 | 267,1 | |
| AP 100-A | 83,2 | 110,9 | 138,6 | 166,4 | 194,1 | 221,8 | 249,5 | 277,3 | 305,0 | 332,8 | 360,5 | 388,2 | 416,0 | |
| AP 115-A | 137,2 | 183,0 | 228,7 | 274,5 | 320,2 | 366,0 | 411,7 | 457,5 | 503,2 | 549,0 | 594,8 | 640,5 | 686,3 | |
| AP 125-A | 180,5 | 240,7 | 300,9 | 361,1 | 421,2 | 481,4 | 541,6 | 601,8 | 662,0 | 722,2 | 782,3 | 842,5 | 902,7 | |

AISI 316 (A4) Stainless Steel pistons are not available on **A-Y Series=120°** and **A-X Series=180°**.

AISI 316 (A4) STAINLESS STEEL "AP-A" SERIES ACTUATORS SPRING RETURN "SR" TORQUE RATINGS IN Nm

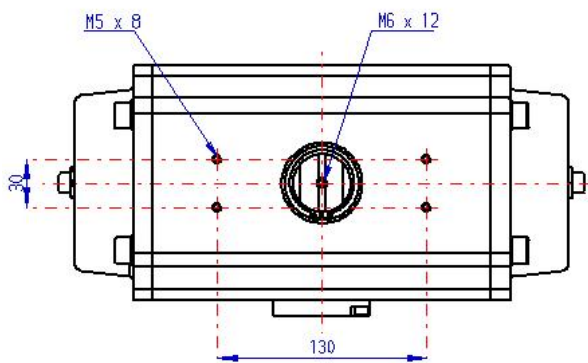
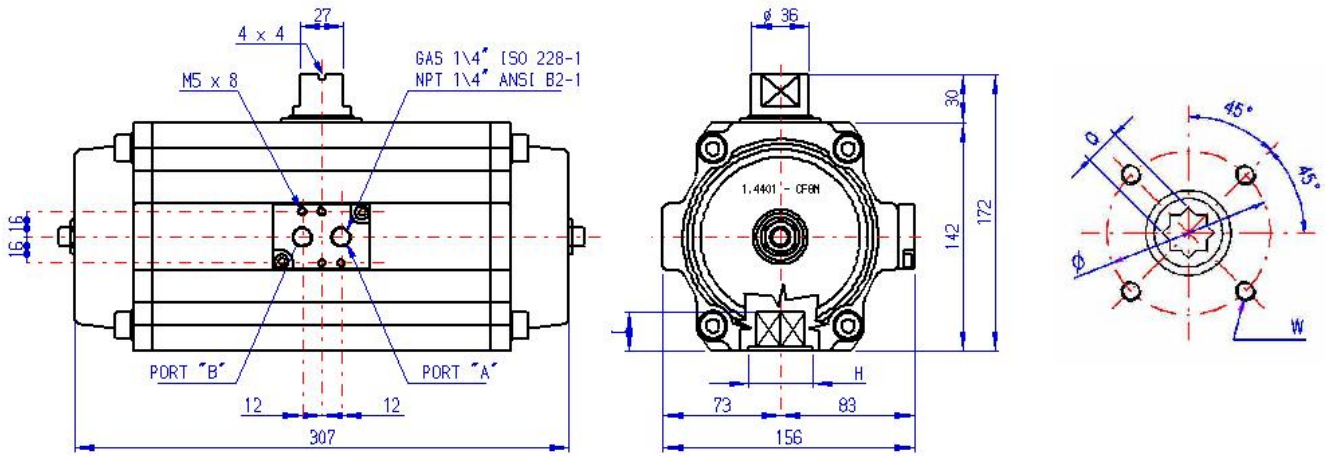


A-I Series = 90°

| TYPE | SPRINGS FOR EACH SIDE | AIR SUPPLY IN BAR | | | | | | | | | | | | SPRING TORQUE | |
|--|-----------------------|-------------------|------|-------|-------|-------|-------|---|-------|-------|-------|--|-------|--------------------------------|-------|
| | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 90° | |
| | | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 90° | 0° |
| AP 042-A | 3 | - | - | - | - | 7,1 | 4,1 | 9,3 | 6,3 | 11,5 | 8,5 | 13,7 | 10,7 | 6,8 | 3,8 |
| | 4 | | | | | | | 8,1 | 4,1 | 10,2 | 6,2 | 12,4 | 8,4 | 9,0 | 5,0 |
| AP 050-A | 3 | 5,7 | 3,5 | 8,9 | 6,6 | 12,0 | 9,6 | 15,1 | 12,7 | 18,1 | 15,7 | 21,2 | 18,8 | 5,7 | 3,5 |
| | 4 | | | 7,7 | 4,7 | 10,8 | 7,7 | 13,9 | 10,8 | 16,9 | 13,8 | 20,0 | 16,9 | 7,7 | 4,7 |
| | 5 | | | | | 9,6 | 5,8 | 12,7 | 8,9 | 15,7 | 11,9 | 18,8 | 15,0 | 9,6 | 5,8 |
| | 6 | | | | | 8,4 | 3,9 | 11,5 | 7,0 | 14,5 | 10,0 | 17,6 | 13,1 | 11,5 | 7,0 |
| AP 063-A | 3 | 9,4 | 6,3 | 14,9 | 11,7 | 20,4 | 17,2 | 25,9 | 22,7 | 31,4 | 28,2 | 36,9 | 33,7 | 10,2 | 7,2 |
| | 4 | | | 12,3 | 8,3 | 17,8 | 13,8 | 23,3 | 19,3 | 28,8 | 24,8 | 34,3 | 30,3 | 13,7 | 9,7 |
| | 5 | | | | | 15,4 | 10,4 | 20,9 | 15,9 | 26,4 | 21,4 | 31,9 | 26,9 | 17,1 | 12,1 |
| | 6 | | | | | 13,0 | 7,0 | 18,5 | 12,5 | 24,0 | 18,0 | 29,5 | 23,5 | 20,5 | 14,5 |
| AP 075-A | 3 | 22,5 | 12,6 | 34,2 | 24,4 | 46,0 | 36,1 | 57,7 | 47,8 | 69,4 | 59,5 | 81,1 | 71,2 | 22,5 | 12,6 |
| | 4 | | | 30,0 | 16,9 | 41,8 | 28,6 | 53,5 | 40,3 | 65,2 | 52,0 | 76,9 | 63,7 | 30,0 | 16,9 |
| | 5 | | | | | 37,6 | 21,1 | 49,3 | 32,8 | 61,0 | 44,5 | 72,7 | 56,2 | 37,6 | 21,1 |
| | 6 | | | | | 33,4 | 13,6 | 45,1 | 25,3 | 56,8 | 37,0 | 68,5 | 48,7 | 45,1 | 25,3 |
| AP 085-A | 3 | 34,5 | 18,9 | 52,4 | 36,7 | 70,2 | 54,5 | 88,0 | 72,3 | 105,8 | 90,1 | 123,6 | 107,9 | 34,5 | 18,9 |
| | 4 | | | 46,1 | 25,2 | 63,9 | 43,0 | 81,7 | 60,8 | 99,5 | 78,6 | 117,3 | 96,4 | 46,1 | 25,2 |
| | 5 | | | | | 57,6 | 31,5 | 75,4 | 49,3 | 93,2 | 67,1 | 111,0 | 84,9 | 57,6 | 31,5 |
| | 6 | | | | | 51,5 | 20,0 | 69,1 | 37,8 | 86,9 | 55,6 | 104,7 | 73,4 | 69,1 | 37,8 |
| AP 100-A | 3 | 53,2 | 30,0 | 80,9 | 57,7 | 108,7 | 85,4 | 136,4 | 113,1 | 164,1 | 140,8 | 191,8 | 168,5 | 53,2 | 30,0 |
| | 4 | | | 70,9 | 40,0 | 98,7 | 67,7 | 126,4 | 95,4 | 154,1 | 123,1 | 181,8 | 150,8 | 70,9 | 40,0 |
| | 5 | | | | | 88,7 | 50,0 | 116,4 | 77,7 | 144,1 | 105,4 | 171,8 | 133,1 | 88,7 | 50,0 |
| | 6 | | | | | 78,7 | 32,2 | 106,4 | 60,0 | 134,1 | 87,7 | 161,8 | 115,4 | 106,4 | 60,0 |
| AP 115-A | 3 | 84,3 | 53,0 | 130,0 | 98,8 | 175,8 | 144,5 | 221,6 | 190,3 | 267,3 | 236,0 | 313,0 | 281,7 | 84,3 | 53,0 |
| | 4 | | | 112,3 | 70,7 | 158,1 | 116,4 | 203,9 | 162,2 | 249,6 | 207,9 | 295,3 | 253,6 | 112,3 | 70,7 |
| | 5 | | | | | 140,4 | 88,3 | 186,2 | 134,1 | 231,9 | 179,8 | 277,6 | 225,5 | 140,4 | 88,3 |
| | 6 | | | | | 122,7 | 60,2 | 168,5 | 106,0 | 214,2 | 151,7 | 259,9 | 197,4 | 168,5 | 106,0 |
| AP 125-A | 3 | 116,8 | 63,7 | 177,0 | 123,9 | 237,3 | 184,1 | 297,5 | 244,2 | 357,6 | 304,3 | 417,7 | 364,4 | 116,8 | 63,7 |
| | 4 | | | 155,7 | 85,0 | 216,0 | 145,2 | 276,2 | 205,3 | 336,3 | 265,4 | 396,4 | 325,5 | 155,7 | 85,0 |
| | 5 | | | | | 194,7 | 106,3 | 254,9 | 166,4 | 315,0 | 226,5 | 375,1 | 286,6 | 194,7 | 106,3 |
| | 6 | | | | | 173,4 | 67,4 | 233,6 | 127,5 | 293,7 | 187,6 | 353,8 | 247,7 | 233,6 | 127,5 |
| Torques rated by air supply | | | | | | | | | | | | | | Torques rated by spring return | |
| 0° = closed pistons, extended springs | | | | | | | | | | | | 90° = opened pistons, compressed springs | | | |
| Air\springs balanced torques | | | | | | | | | | | | | | | |
| 0° - MAXIMUM OPENING BREAK TORQUE BY AIR | | | | | | | | 90° - MINIMUM CLOSING TORQUE BY SPRINGS | | | | | | | |

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AISI 316 (A4) STAINLESS STEEL "AP-A" SERIES ACTUATORS



| AVAILABLE FORCE INTAKES F07\10 | | |
|--------------------------------|--------|---------|
| ISO 5211 | F07 | F10 |
| Ø | 70 | 102 |
| W | M 8x12 | M 10x15 |
| Q | 22 | |
| I | 25 | |
| H | 55 | |

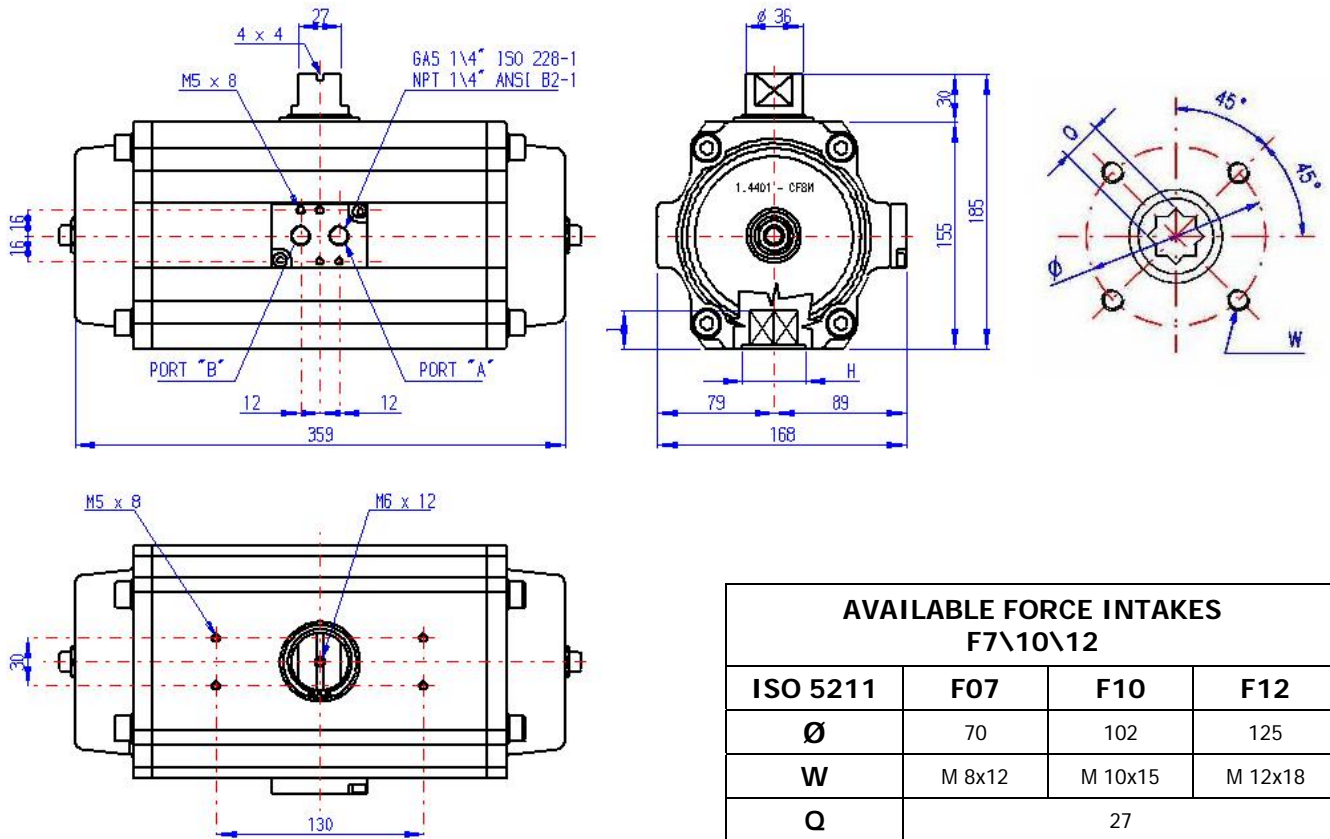
| DOUBLE ACTING TORQUE RATINGS IN NEWTONxMETRE (Nm) | | | | | | | | | | | | | | WEIGHT kg |
|---|-------------------|-------|-------|-------|-------|-------|---------------------------------------|-------|-------|-------|-------|-------|-------|--------------|
| AP 115-A DA | AIR SUPPLY IN BAR | | | | | | | | | | | | | |
| | ALUMINIUM PISTONS | | | | | | AISI 316 (A4) STAINLESS STEEL PISTONS | | | | | | | |
| | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | |
| | 137,2 | 183,0 | 228,7 | 274,5 | 320,2 | 366,0 | 411,7 | 457,5 | 137,2 | 183,0 | 228,7 | 274,5 | 320,2 | 18,660 |

| SPRING RETURN TORQUE RATINGS IN NEWTONxMETRE (Nm) | | | | | | | | | | | | | | | WEIGHT kg |
|---|-------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|--------------|
| AP 115-A SR | AIR SUPPLY IN BAR | | | | | | | | | | | | SPRINGS | | |
| | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | END | START | |
| | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 90° | 0° | |
| | SR 3\3 | 84,3 | 53,0 | 130,0 | 98,8 | 175,8 | 144,5 | 221,6 | 190,3 | 267,3 | 236,0 | 313,0 | 281,7 | 84,3 | 53,0 |
| SR 4\4 | | | 112,3 | 70,7 | 158,1 | 116,4 | 203,9 | 162,2 | 249,6 | 207,9 | 295,3 | 253,6 | 112,3 | 70,7 | 19,400 |
| SR 5\5 | | | | | 140,4 | 88,3 | 186,2 | 134,1 | 231,9 | 179,8 | 277,6 | 225,5 | 140,4 | 88,3 | 19,580 |
| SR 6\6 | | | | | 122,7 | 60,2 | 168,5 | 106,0 | 214,2 | 151,7 | 259,9 | 197,4 | 168,5 | 106,0 | 19,770 |

| ADDITIONAL DATA | | | | | | |
|-----------------|--------------|----------|------------|--------------|--------------|-------------|
| CHAMBER DIAM. | MAX.PRESSURE | ROTATION | VOLUME | CLOSING TIME | OPENING TIME | STD. GREASE |
| 115 mm | 8 -15 BAR | 90° ± 5° | 2,8 litres | 0,9 seconds | 1,1 seconds | SYNTETIC |

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AISI 316 (A4) STAINLESS STEEL "AP-A" SERIES ACTUATORS



| AVAILABLE FORCE INTAKES F7\10\12 | | | |
|-------------------------------------|--------|---------|---------|
| ISO 5211 | F07 | F10 | F12 |
| Ø | 70 | 102 | 125 |
| W | M 8x12 | M 10x15 | M 12x18 |
| Q | 27 | | |
| I | 30 | | |
| H | 55 | | |

| DOUBLE ACTING TORQUE RATINGS IN NEWTONxMETRE (Nm) | | | | | | | | | | | | | | WEIGHT kg |
|---|-------------------|-------|-------|-------|-------|-------|---------------------------------------|-------|-------|-------|-------|-------|-------|--------------|
| AP 100-A DA | AIR SUPPLY IN BAR | | | | | | | | | | | | | |
| | ALUMINIUM PISTONS | | | | | | AISI 316 (A4) STAINLESS STEEL PISTONS | | | | | | | |
| | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | |
| | 180,5 | 240,7 | 300,9 | 361,1 | 421,2 | 481,4 | 541,6 | 601,8 | 662,0 | 722,2 | 782,3 | 842,5 | 902,7 | 24,660 |

| SPRING RETURN TORQUE RATINGS IN NEWTONxMETRE (Nm) | | | | | | | | | | | | | | | WEIGHT kg |
|---|-------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|--------------|
| AP 100-A SR | AIR SUPPLY IN BAR | | | | | | | | | | | | SPRINGS | | |
| | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | END | START | |
| | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 0° | 90° | 90° | 0° | |
| | | | | | | | | | | | | | | | |
| SR 3\3 | 116,8 | 63,7 | 177,0 | 123,9 | 237,3 | 184,1 | 297,5 | 244,2 | 357,6 | 304,3 | 417,7 | 364,4 | 116,8 | 63,7 | 25,810 |
| SR 4\4 | | | 155,7 | 85,0 | 216,0 | 145,2 | 276,2 | 205,3 | 336,3 | 265,4 | 396,4 | 325,5 | 155,7 | 85,0 | 26,200 |
| SR 5\5 | | | | | 194,7 | 106,3 | 254,9 | 166,4 | 315,0 | 226,5 | 375,1 | 286,6 | 194,7 | 106,3 | 26,580 |
| SR 6\6 | | | | | 173,4 | 67,4 | 233,6 | 127,5 | 293,7 | 187,6 | 353,8 | 247,7 | 233,6 | 127,5 | 26,970 |

| ADDITIONAL DATA | | | | | | |
|-----------------|--------------|----------|------------|--------------|--------------|-------------|
| CHAMBER DIAM. | MAX.PRESSURE | ROTATION | VOLUME | CLOSING TIME | OPENING TIME | STD. GREASE |
| 125 mm | 8 -15 BAR | 90° ± 5° | 3,7 litres | 1,1 seconds | 1,1 seconds | SYNTETIC |

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