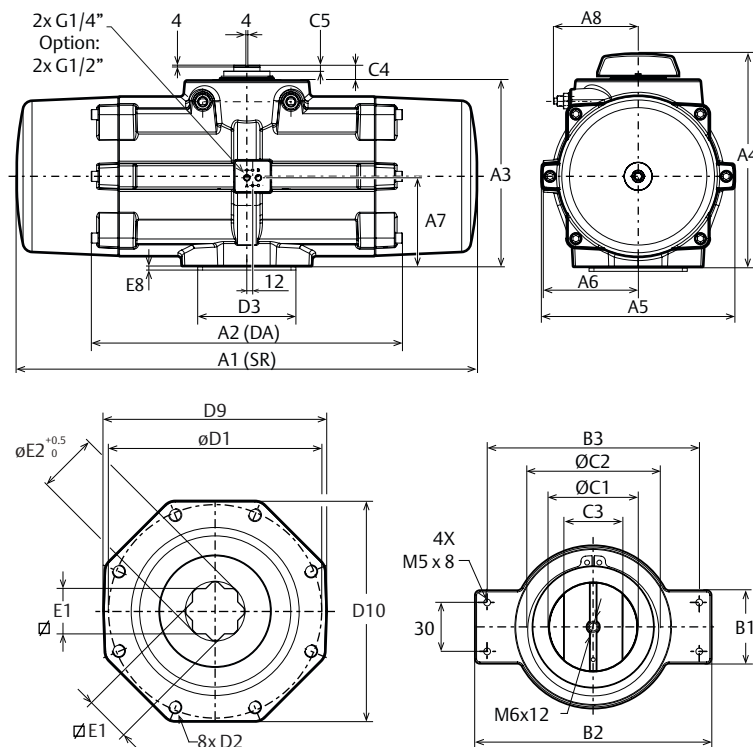


Produktdatenblatt F 4000

Metrisch - DIN3337



| Abm. in mm | | Größe 4000 | | | | | | | |
|------------|--------|------------|-----|-----|-----|-----|-----|-------|------|
| A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | E1 | Max. |
| 959 | 649 | 389 | 427 | 400 | 196 | 184 | 175 | 55,24 | |
| B1 | B2 | B3 | C1 | C2 | C3 | C4 | C5 | E1 | Min. |
| 45 | 145 | 130 | 96 | 115 | 36 | 30 | 10 | 55,00 | |
| D1 | D2 | D3 | D1' | D2' | D3' | D9 | D10 | E2 | |
| 254 | M16x25 | 200 | -/- | -/- | -/- | 273 | 269 | 72,2 | |

| Drehmoment | | | | | | | | | | | | | | | | | | | | |
|-----------------------|------------------------|------|-------------------------|------|----------|------|----------|------|----------|------|----------|------|----------|------|----------|------|----------|------|----------|------|
| Einfachwirkend | | | | | | | | | | | | | | | | | | | | |
| Feder- satz | Drehmoment Federhub | | Drehmoment Lufthub (Nm) | | | | | | | | | | | | | | | | | |
| | Start | Ende | 2.0 barg | | 3.0 barg | | 4.0 barg | | 4.5 barg | | 5.0 barg | | 5.5 barg | | 6.0 barg | | 7.0 barg | | 8.0 barg | |
| 10 | 473 | 299 | 1237 | 1020 | 2063 | 1846 | 2889 | 2672 | 3302 | 3085 | 3715 | 3498 | 4128 | 3911 | 4541 | 4324 | 5367 | 5150 | 6193 | 5976 |
| 20 | 945 | 598 | 864 | 429 | 1690 | 1255 | 2516 | 2081 | 2929 | 2494 | 3342 | 2907 | 3755 | 3320 | 4168 | 3733 | 4994 | 4559 | 5820 | 5385 |
| 30 | 1418 | 896 | - | - | 1316 | 664 | 2142 | 1490 | 2555 | 1903 | 2968 | 2316 | 3381 | 2729 | 3794 | 3142 | 4620 | 3968 | 5446 | 4794 |
| 40 | 1891 | 1195 | - | - | 943 | 73 | 1769 | 899 | 2182 | 1312 | 2595 | 1725 | 3008 | 2138 | 3421 | 2551 | 4247 | 3377 | 5073 | 4203 |
| 50 | 2363 | 1494 | - | - | - | - | 1395 | 309 | 1808 | 722 | 2221 | 1135 | 2634 | 1548 | 3047 | 1961 | 3873 | 2787 | 4699 | 3613 |
| 60 | 2836 | 1793 | - | - | - | - | - | - | 1435 | 131 | 1848 | 544 | 2261 | 957 | 2674 | 1370 | 3500 | 2196 | 4326 | 3022 |
| Doppeltwirkend | | | 1552 | | 2348 | | 3144 | | 3542 | | 3940 | | 4338 | | 4736 | | 5532 | | 6327 | |

Hinweise:

- Volumen ist das eigentliche Luftvolumen bei 1 atm.
- Flansch und Vierkantantrieb gemäß ISO 5211 (DIN3337)
- Befestigungsschnittstelle des Magnetventils gemäß VDI/VDE3845 (NAMUR).
- Weitere Informationen zu Optionen, Material, Zertifizierungen und zur weiteren Vorgehensweise erhalten Sie in Ihrem nächstgelegenen Vertriebsbüro.

Europäische Richtlinien:

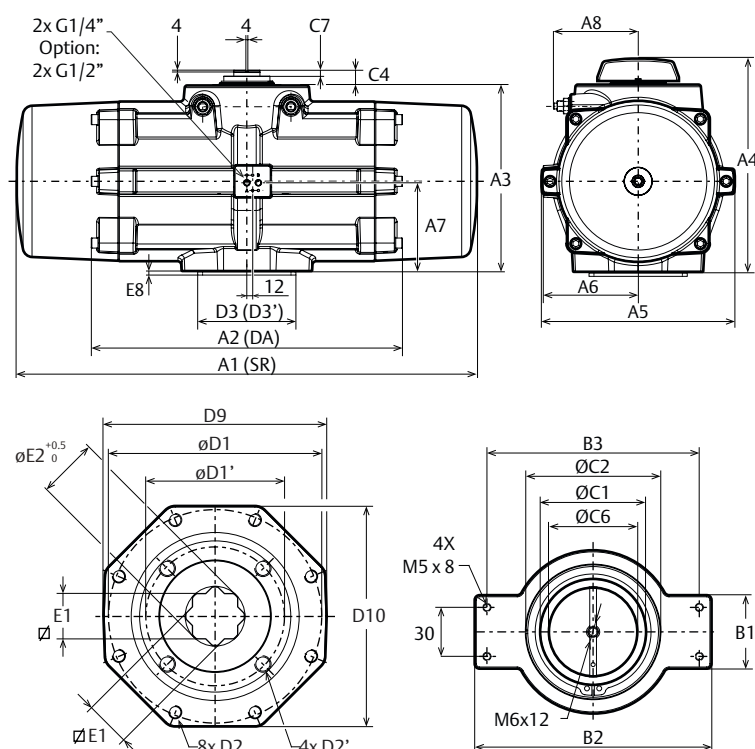
- PED: geeignet für Verwendung mit Gasen der Gruppe 2 unter Einhaltung der Pressure Equipment Directive 2014/68/EU
- ATEX: geeignet für Verwendung in Gefahrenbereichen, die gemäß II 2 GD als Zone 1 oder 2 (Gase) und Zone 21 oder 22 (Staub) klassifiziert sind
- Konfiguration nach Datenblatt EFG.02.01.DE

| Prinzip | | |
|---|---|----------------|
| Pneumatische Zahnstangenstellantriebe | | |
| Allgemeines | | |
| Bohrung | | 306.0 mm |
| Hub | | 91.9 mm |
| Gewicht | Doppeltwirkend | 103 kg |
| | Einfachwirkend | 147 kg |
| Luftvolumen | Anschluss A | 21.7 L |
| | Anschluss B | 19.0 L |
| Luftanschluss | | 2x G1/4" (BSP) |
| Druckbereich | Max. Betriebsdruck | 8.3 barg |
| | Einfachwirkend | 2 - 8.3 barg |
| | Doppeltwirkend | 0.2 - 8.3 barg |
| Druckmedien | Saubere, trockene, bzw. geschmierte Luft oder Edelgas | |
| Schaltgeschwindigkeit Doppeltwirkend ⁽²⁾ | Offen | 9.2 Sek. |
| | Zu | 9.0 Sek. |
| Schaltgeschwindigkeit Einfachwirkend ⁽²⁾ | Offen | 29.1 Sek. |
| | Zu | 9.2 Sek. |
| Temperaturbereich | -20°C bis +80°C | |
| Schmierung | Lebensdauer geschmiert ⁽¹⁾ | |
| Rotation | 90° | |
| Hubbegrenzung | +3° / -3° an jedem Hubende | |
| Beschichtung | Polyurethan-Pulverbeschichtung | |

1. Gemäß EN 15714-3
2. Testbedingungen:
Ventil mit Durchflusskapazität: 0,6 m³/h Rohrdurchmesser: 6 mm; Medium: saubere Luft; Zufuhrdruck: 5,5 bar (g) ~ 80 psig; Last: durchschnittliche Last; Hub: 90°; Temperatur: Raumtemperatur.
3. Abmessungen D1, D2 und D3 sind Standard.
4. DA = Doppeltwirkend, SR = Einfachwirkend (Federrücklauf).

Data sheet F 4000

Metric - DIN3337



| Dim. in mm | | Size 4000 | | | | | | | |
|------------|--------|-----------|-----|-----|-----|-----|-----|---------|--|
| A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | E1 Max. | |
| 959 | 649 | 389 | 427 | 400 | 196 | 184 | 175 | 55,24 | |
| B1 | B2 | B3 | C1 | C2 | C3 | C4 | C5 | E1 Min. | |
| 45 | 145 | 130 | 96 | 115 | 36 | 30 | 10 | 55,00 | |
| D1 | D2 | D3 | D1' | D2' | D3' | D9 | D10 | E2 | |
| 254 | M16x25 | 200 | -/- | -/- | -/- | 273 | 269 | 72,2 | |

| Torque Output (N.m) | | | | | | | | | | | | | | | | | | | | |
|----------------------|----------------------|------|-------------------------|------|----------|------|----------|------|----------|------|----------|------|----------|------|----------|------|----------|------|----------|------|
| Spring Return | | | | | | | | | | | | | | | | | | | | |
| Spring set | Spring Stroke Torque | | Air Stroke Torque (N.m) | | | | | | | | | | | | | | | | | |
| | Start | End | 2.0 barg | | 3.0 barg | | 4.0 barg | | 4.5 barg | | 5.0 barg | | 5.5 barg | | 6.0 barg | | 7.0 barg | | 8.0 barg | |
| | | | Start | End | Start | End | Start | End | Start | End | Start | End | Start | End | Start | End | Start | End | Start | End |
| 10 | 473 | 299 | 1237 | 1020 | 2063 | 1846 | 2889 | 2672 | 3302 | 3085 | 3715 | 3498 | 4128 | 3911 | 4541 | 4324 | 5367 | 5150 | 6193 | 5976 |
| 20 | 945 | 598 | 864 | 429 | 1690 | 1255 | 2516 | 2081 | 2929 | 2494 | 3342 | 2907 | 3755 | 3320 | 4168 | 3733 | 4994 | 4559 | 5820 | 5385 |
| 30 | 1418 | 896 | - | - | 1316 | 664 | 2142 | 1490 | 2555 | 1903 | 2968 | 2316 | 3381 | 2729 | 3794 | 3142 | 4620 | 3968 | 5446 | 4794 |
| 40 | 1891 | 1195 | - | - | 943 | 73 | 1769 | 899 | 2182 | 1312 | 2595 | 1725 | 3008 | 2138 | 3421 | 2551 | 4247 | 3377 | 5073 | 4203 |
| 50 | 2363 | 1494 | - | - | - | - | 1395 | 309 | 1808 | 722 | 2221 | 1135 | 2634 | 1548 | 3047 | 1961 | 3873 | 2787 | 4699 | 3613 |
| 60 | 2836 | 1793 | - | - | - | - | - | - | 1435 | 131 | 1848 | 544 | 2261 | 957 | 2674 | 1370 | 3500 | 2196 | 4326 | 3022 |
| Double acting | | | 1552 | | 2348 | | 3144 | | 3542 | | 3940 | | 4338 | | 4736 | | 5532 | | 6327 | |

Notes:

- Volume is the actual free air volume at 1 atm
- Flange and square drive to ISO 5211
- Solenoid mounting interface according to VDI/VDE 3845 (NAMUR)
- For further information regarding options, materials, certifications and additional execution please contact your regional sales office

European Directives:

- Suitable for use with group 2 gases according to Pressure Equipment Directive (PED) 2014/68/EU
- Suitable for use in hazardous areas classified II 2 GD, zones 1 or 2 (gases) and 21 or 22 (dust) according to ATEX Directive 2014/34/EU
- For the configuration code please consult EFG.02.01.EN

| Principle | | | |
|----------------------------------|--------|--|------|
| Pneumatic rack & pinion actuator | | | |
| General data | | | |
| Bore | | 306.0 | mm |
| Stroke | | 91.9 | mm |
| Weight | DA | 103.0 | kg |
| | SR | 147.0 | kg |
| Volume | Port A | 21.7 | L |
| | Port B | 19.0 | L |
| Air connection | | 2x 1/4" | BSP |
| Pressure range | MOP | 8.3 | barg |
| | SR | 3-8.3 | barg |
| | DA | 0.2 - 8.3 | barg |
| Pressure media | | Clean, dry or lubricated air or inert gas. | |
| Cycle speed DA ⁽²⁾ | Open | 9.2 | Sec. |
| | Close | 9.0 | Sec. |
| Cycle speed SR ⁽²⁾ | Open | 29.1 | Sec. |
| | Close | 9.2 | Sec. |
| Temperature range | | -20°C to +80°C | |
| Lubrication | | Lubricated for life ⁽¹⁾ | |
| Stroke | | 90° | |
| Over / Under travel | | +3° / -3° at each end | |
| Finish | | Polyurethane powder coat | |

- According to EN 15714-3.
- Test conditions:
Solenoid with flow capacity: 0.6 m³/hr; Pipe diameter: 6mm; Medium: clean air, Supply pressure: 5.5 barg ~ 80psig; Load: with average load; Stroke: 90°; Temperature: Room temperature
- Dimensions D1, D2 und D3 are standard. Dimensions D1', D2' und D3' are optional. Only Drilling pattern F25 is available with center ring.
- DA = Double Acting, SR = Spring Return