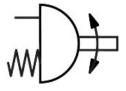
## Semi-rotary drive DFPD-N-240-RP-90-RS60-F0710 Part number: 8066451

**FESTO** 





## **Data sheet**

| Feature  | Value   |
|--|---|
| Size of valve actuator   | 240   |
| Flange hole pattern  | F0710   |
| Swivel angle   | 90 deg  |
| End-position adjustment range at 0°                                      | -5 deg5 deg   |
| End-position adjustment range at nominal swivel angle                    | -5 deg5 deg   |
| Shaft connection depth   | 24 mm   |
| Fitting connection conforms to standard                                  | ISO 5211  |
| Mounting position  | optional  |
| Mode of operation  | Single-acting   |
| Design   | Rack and pinion   |
| Closing direction  | Closes to the right   |
| Valve connection conforms to standard                                    | VDI/VDE 3845 (NAMUR)  |
| Connection point for positioner and position sensor conforms to standard | VDI/VDE 3845 size AA 2  |
| Device type according to VDMA 66413                                      | Safety device   |
| Safety function  | The safety function consists of the drive switching to the defined safety switching position when the compressed air is switched off and the spring chamber is exhausted. This switching movement is realised by the spring force of the spring assembly. |
| Safety Integrity Level (SIL)   | To SIL 2 Low Demand mode Up to SIL 3 in a redundant architecture Up to SIL 1 high demand mode   |
| Certified for safety function to ISO 13849 and IEC 61508 (SIL)           | Product can be used in SRP/CS up to SIL 2 (Low Demand) Product can be used in SRP/CS up to SIL 1 (High Demand) Up to SIL 3 in a redundant architecture  |
| Burst pressure   | 24 bar  |
| Operating pressure   | 0.2 MPa0.8 MPa<br>2 bar8 bar<br>29 psi116 psi   |
| Nominal operating pressure   | 0.6 MPa<br>6 bar<br>87 psi  |
| Maritime classification  | See certificate   |
| CE mark (see declaration of conformity)                                  | To EU Explosion Protection Directive (ATEX)   |
| UKCA marking (see declaration of conformity)                             | To UK EX instructions   |

| Explosion protection  Explosion grows (LKEX)  Zone 2 ( | Feature   | Value   |
|--|---|---|
| Zone 1 (UKEX) Zone 21 (ATEX) Zone 21 (ATEX) Zone 22 (ATEX) Zone 24 INTER 24 (ATEX) Zone 24 INTER 24 (ATEX) Zone | Explosion protection certification outside the EU                               |   |
| German Technical Control Board (TÜV) Rheinland 968/V 1106.01/2023 ATEX category gas II 2G ATEX category dust II 2G Explosion ignition protection type for gas Ex h IIC T4 Gb X Explosion ignition protection type for dust Exh IIC T105°C Db X Explosion ignition protection type for dust Exh IIC T105°C Db X Explosion ignition protection type for dust Exh IIC T105°C Db X Explosion ambient temperature 2.0°C <= Ta <= +80°C Operating medium Compressed air to ISO 8573-1:2010 [7:4:4] Note on operating and pilot medium Duhricated operation possible (in which case lubricated operation will always be required) Note on operating and pilot medium Universated operation possible (in which case lubricated operation will always be required) Note on operating pressure and 0° swivel angle 20°C60°C Ambient temperature 20°C60°C Ambient temperature 20°C60°C Torque at nominal operating pressure and 90° swivel angle 89.5 Nm Note on torque more an operating pressure and 90° swivel angle 89.5 Nm Note on torque Managerous pressure and 90° swivel angle 89.5 Nm Note on torque at nominal operating pressure and 90° swivel angle 84.4 Nm Spring return torque at 0° swivel angle 84.4 Nm Spring return torque at 0° swivel angle 84.4 Nm Mean time to dangerous failure (MTTFd) 1126 years Probability of Failure per Hour (PFH) 1.01E-07 Probability of Failure on Demand (PFD) 1.000078 Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel 8.6 I negle 0° Product weight 1.000078 Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel 8.6 I negle 0° Product weight 1.000078 Material sub-base Anotised wrought aluminium alloy Material spring Material spring Spring steel Material sub-base Anotised wrought aluminium alloy Material spring Spring steel Material spring Anotised wrought aluminium alloy Material piston Material spring POM Material piston Material spring POM   | Explosion protection  | Zone 1 (UKEX) Zone 2 (ATEX) Zone 21 (ATEX) Zone 21 (UKEX)   |
| ATEX category dust Explosion ignition protection type for gas Explosion ignition protection type for dust Explosion ignition ignition  | Certificate issuing authority   |   |
| Explosion ignition protection type for gas Explosion ignition protection type for dust Explosion ignition protection type for dust Explosion ignition protection type for dust Explosion ambient temperature -20 °C <= Ta <= +80 °C Operating medium Compressed air to ISO 8573-1:2010 [7:4:4] Note on operating and pilot medium Unbricated operation possible (in which case lubricated operation will always be required)  LABS (PWIS) conformity VDMA24364-B1/B2-L Storage temperature -20 °C80 °C -20 °C80 °C -20 °C80 °C -20 °C80 °C Torque at nominal operating pressure and 0° swivel angle Note on torque The operating torque of the actuator must not be higher than the maximum permissible torque listed in ISO 5211, with reference to the size of the mounting flange and of the coupling.  Spring return torque at 0° swivel angle 84 Nm Spring return torque at 0° swivel angle 166.1 Nm Mean time to dangerous failure (MTTFd) 1126 years Probability of Failure per Hour (PFH) 1.016-07 Probability of Failure per Hour (PFH) 1.016-07 Probability of Failure on Demand (PFD) Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0° Product weight Note on materials Material sub-base Anodised wrought aluminium alloy Material cover Material seals Material spring Material found Material sping Material found Material piston Material piston Material bousing Material piston Material serves Material screws High-alloy stainless steel  | ATEX category gas   | II 2G   |
| Explosion ignition protection type for dust Explosion ignition protection type for dust Explosion ambient temperature  -20 °C <= Ta <= +80 °C Operating medium Compressed air to ISO 8573-1:2010 [7:4:4] Note on operating and pilot medium Unbricated operation possible (in which case lubricated operation will always be required)  LABS (PWIS) conformity VDMA24364-81/B-2-L Storage temperature -20 °C60 °C Ambient temperature -20 °C80 °C Torque at nominal operating pressure and 0° swivel angle Torque at nominal operating pressure and 90° swivel angle Note on torque The operating torque of the actuator must not be higher than the maximum permissible torque listed in ISO 5211, with reference to the size of the mounting flange and of the coupling.  Spring return torque at 0° swivel angle Spring return torque at 0° swivel angle 166.1 Nm Mean time to dangerous failure (MTTFd) 1126 years Probability of Failure per Hour (PH) 1.016-07 Probability of Failure on Demand (PFD) Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0° Product weight 1036 g Shaft connection 1/4 NPT Note on materials Material sub-base Anodised wrought aluminium alloy Material source Material seats Material source Material seats NBR Material source Material seats Material piston Die-cast aluminium Material piston Material piston Material piston Material screws High-alloy stainless steel   | ATEX category dust  | II 2D   |
| Explosion ambient temperature  -20 °C <= Ta <= +80 °C  Operating medium  Compressed air to ISO 8573-1:2010 [7:4:4]  Dew point at least 10 °C below the ambient temperature and temperature of the medium lubricated operation possible (in which case lubricated operation will always be required)  LABS (PWIS) conformity  VDMA24364-B1/B2-L  Storage temperature  -20 °C60 °C  Ambient temperature  -20 °C60 °C  Ambient temperature  Torque at nominal operating pressure and 0° swivel angle  Torque at nominal operating pressure and 90° swivel angle  Note on torque  The operating torque of the actuator must not be higher than the maximum permissible torque listed in ISO 5211, with reference to the size of the mounting flange and of the coupling.  Spring return torque at 90° swivel angle  166.1 Nm  Mean time to dangerous failure (MTTFd)  1126 years  Probability of Failure per Hour (PFH)  1.01E-07  Probability of Failure on Demand (PFD)  0.00078  Alt consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle or 0°-nominal swivel angle one-connection  122  Preduct weight  Note on materials  RoHS-compliant  Material sub-base  Anodised wrought aluminium alloy  Material sub-base  Material sub-base  Material sub-base  Material sub-base  Material sub-base  Material spring  Spring steel  Material basing  Material piston  Die-cast aluminium  Material bearing  Material bearing  Material bearing  Material bearing  Material bearing  Material bearing  Material seares  Material seares  High-alloy stainless steel  | Explosion ignition protection type for gas                                      | Ex h IIC T4 Gb X  |
| Operating medium  Compressed air to ISO 8573-1:2010 [7:4:4]  Note on operating and pilot medium  Dew point at least 10 °C below the ambient temperature and temperature of the medium Lubricated operation possible (in which case lubricated operation will always be required)  LABS (PWIS) conformity  VDMA2;464-B3 / B2-L  Storage temperature  -20 °C60 °C  Ambient temperature  -20 °C60 °C  Torque at nominal operating pressure and 0° swivel angle  171.6 Nm  Torque at nominal operating pressure and 90° swivel angle  89.5 Nm  Note on torque  The operating torque of the actuator must not be higher than the maximum permissible torque listed in ISO 5211, with reference to the size of the mounting flange and of the coupling.  Spring return torque at 0° swivel angle  84 Nm  Spring return torque at 90° swivel angle  166.1 Nm  Mean time to dangerous failure (MTTFd)  1126 years  Probability of Failure per Hour (PFH)  1.01E-07  Probability of Failure on Demand (PFD)  Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle  95.61  Note on materials  Rolfs-compliant  Material sub-base  Anodised wrought aluminium alloy  Material sub-base  Material sub-base  Material sub-base  Material spring  Material spring  Material spring  Material bousing  Anodised wrought aluminium alloy  Material piston  Material borning  Material sears  Material spring  Material borning  Material borning  Material borning  Material borning  Material borning  Material borning  Material screws  High-alloy stainless steel  | Explosion ignition protection type for dust                                     | Ex h IIIC T105°C Db X   |
| Note on operating and pilot medium  Dew point at least 10 °C below the ambient temperature and temperature of the medium ubricated operation possible (in which case lubricated operation will always be required)  LABS (PWIS) conformity  VDMA24364-B1/B2-L  Storage temperature  -20 °C60 °C  Ambient temperature  -20 °C80 °C  Torque at nominal operating pressure and 0° swivel angle  Torque at nominal operating pressure and 90° swivel angle  89.5 Nm  Note on torque  The operating torque of the actuator must not be higher than the maximum permissible torque listed in ISO 5211, with reference to the size of the mounting flange and of the coupling.  Spring return torque at 0° swivel angle  Spring return torque at 90° swivel angle  166.1 Nm  Mean time to dangerous failure (MTTFd)  1126 years  Probability of Failure per Hour (PFH)  1.01E-07  Probability of Failure on Demand (PFD)  Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle  Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle  Product weight  10036 g  Shaft connection  T22  Preumatic connection  1/4 NPT  Note on materials  RoHS-compliant  Material sub-base  Anodised wrought aluminium alloy  Material sub-base  Material spring  Material spring  Material spring  Material spring  Material spring  Material bousing  Material bousing  Material bousing  Material bearing  Material bearing  Material bearing  Material screws  High-alloy stainless steel  | Explosion ambient temperature   | -20 °C <= Ta <= +80 °C  |
| temperature of the medium Lubricated operation possible (in which case lubricated operation will always be required)  LABS (PWIS) conformity  VDMA24364-B1/B2-L  Storage temperature  -20 °C60 °C  Ambient temperature  -20 °C60 °C  Torque at nominal operating pressure and 0° swivel angle  Torque at nominal operating pressure and 90° swivel angle  Torque at nominal operating pressure and 90° swivel angle  Note on torque  The operating torque of the actuator must not be higher than the maximum permissible torque listed in ISO 5211, with reference to the size of the mounting flange and of the coupling.  Spring return torque at 0° swivel angle  As Nm  Spring return torque at 9° swivel angle  166.1 Nm  Mean time to dangerous failure (MTTFd)  1126 years  Probability of Failure per Hour (PFH)  1.01E-07  Probability of Failure per Hour (PFH)  1.01E-07  Probability of Failure on Demand (PFD)  Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0°  Product weight  10036 g  Shaft connection  1/4 NPT  Note on materials  RoHS-compliant  Material sub-base  Anodised wrought aluminium alloy  Material seals  NBR  Material spring  Apolice ast aluminium, coated  Material spring  Material spring  Material housing  Anodised wrought aluminium alloy  Material spring  Material bousing  Anodised wrought aluminium alloy  Die-cast aluminium  Material spring  Material bousing  Material bousing  Material bousing  Material spring  Material sprin       | Operating medium  | Compressed air to ISO 8573-1:2010 [7:4:4]   |
| Storage temperature -20 °C60 °C Ambient temperature -20 °C80 °C Torque at nominal operating pressure and 0° swivel angle Torque at nominal operating pressure and 90° swivel angle Note on torque The operating torque of the actuator must not be higher than the maximum permissible torque listed in ISO 5211, with reference to the size of the mounting flange and of the coupling.  Spring return torque at 90° swivel angle 84 Nm Spring return torque at 90° swivel angle 166.1 Nm Mean time to dangerous failure (MTTFd) 1126 years Probability of Failure per Hour (PFH) 1.01E-07 Probability of Failure on Demand (PFD) 0.00078 Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0° Product weight 10036 g Shaft connection 12 Pheumatic connection 1/4 NPT Note on materials ROHS-compliant Material sub-base Anodised wrought aluminium alloy Material seals MBR Material spring Spring steel Material spring Anodised wrought aluminium alloy Material piston Die-cast aluminium Material piston Die-cast aluminium Material core Material posting Material core Material posting Material piston Material cam Material screws High-alloy stainless steel  | Note on operating and pilot medium  | temperature of the medium<br>Lubricated operation possible (in which case lubricated operation will |
| Ambient temperature -20 °C80 °C Torque at nominal operating pressure and 0° swivel angle Torque at nominal operating pressure and 90° swivel angle Note on torque The operating torque of the actuator must not be higher than the maximum permissible torque listed in ISO 5211, with reference to the size of the mounting flange and of the coupling.  Spring return torque at 0° swivel angle 84 Nm Spring return torque at 90° swivel angle 166.1 Nm Mean time to dangerous failure (MTTFd) 1126 years Probability of Failure per Hour (PFH) 1.01E-07 Probability of Failure on Demand (PFD) 0.00078 Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle=0° Product weight 10036 g Shaft connection T22 Pheumatic connection 1/4 NPT Note on materials RoHS-compliant Material sub-base Anodised wrought aluminium alloy Material seals NBR Material spring Spring steel Material spring Anodised wrought aluminium alloy Material psiton Die-cast aluminium Material bearing POM Material bearing POM Material bearing POM Material carm Material carm Material carm Material carm High-alloy stainless steel   | LABS (PWIS) conformity  | VDMA24364-B1/B2-L   |
| Torque at nominal operating pressure and 0° swivel angle Torque at nominal operating pressure and 90° swivel angle Note on torque Note on torque The operating torque of the actuator must not be higher than the maximum permissible torque listed in ISO 5211, with reference to the size of the mounting flange and of the coupling.  Spring return torque at 0° swivel angle Spring return torque at 90° swivel angle 166.1 Nm Mean time to dangerous failure (MTTFd) 1126 years Probability of Failure per Hour (PFH) 1.01E-07 Probability of Failure on Demand (PFD) 0.00078 Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0° Product weight 10036 g Shaft connection T22 Pneumatic connection 1/4 NPT Note on materials RoHS-compliant Material sub-base Anodised wrought aluminium alloy Material seals NBR Material spring Spring steel Material housing Anodised wrought aluminium alloy Material piston Die-cast aluminium Material bearing POM Material bearing POM Material cam Material cam High-alloy stainless steel  | Storage temperature   | -20 °C60 °C   |
| Torque at nominal operating pressure and 90° swivel angle  Note on torque  The operating torque of the actuator must not be higher than the maximum permissible torque listed in ISO 5211, with reference to the size of the mounting flange and of the coupling.  Spring return torque at 90° swivel angle  Spring return torque at 90° swivel angle  Mean time to dangerous failure (MTTFd)  1126 years  Probability of Failure per Hour (PFH)  1.01E-07  Probability of Failure on Demand (PFD)  Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0°  Product weight  10036 g  Shaft connection  722  Pneumatic connection  1/4 NPT  Note on materials  RoHS-compliant  Material sub-base  Anodised wrought aluminium alloy  Material seals  NBR  Material spring  Anodised wrought aluminium alloy  Material piston  Die-cast aluminium, coated  Material piston  Die-cast aluminium  Material bearing  POM  Material cam  Material screws  High-alloy stainless steel   | Ambient temperature   | -20 °C80 °C   |
| The operating torque of the actuator must not be higher than the maximum permissible torque listed in ISO 5211, with reference to the size of the mounting flange and of the coupling.  Spring return torque at 9° swivel angle  Spring return torque at 9°° swivel angle  Mean time to dangerous failure (MTFd)  1126 years  Probability of Failure per Hour (PFH)  1.01E-07  Probability of Failure on Demand (PFD)  Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0°  Product weight  10036 g  Shaft connection  1/4 NPT  Note on materials  RoHS-compliant  Material sub-base  Anodised wrought aluminium alloy  Material seals  NBR  Material spring  Spring steel  Material piston  Material piston  Material bearing  POM  Material cam  Material cam  Material screws  High-alloy stainless steel   | Torque at nominal operating pressure and 0° swivel angle                        | 171.6 Nm  |
| maximum permissible torque listed in ISO 5211, with reference to the size of the mounting flange and of the coupling.  Spring return torque at 9° swivel angle  Spring return torque at 90° swivel angle  Mean time to dangerous failure (MTTFd)  1126 years  Probability of Failure per Hour (PFH)  1.01E-07  Probability of Failure on Demand (PFD)  Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0°  Product weight  10036 g  Shaft connection  722  Pneumatic connection  1/4 NPT  Note on materials  Material sub-base  Anodised wrought aluminium alloy  Material cover  Material seals  NBR  Material spring  Spring steel  Material housing  Material piston  Material piston  Material piston  Material cam  Material screws  High-alloy stainless steel  | Torque at nominal operating pressure and 90° swivel angle                       | 89.5 Nm   |
| Spring return torque at 90° swivel angle  Mean time to dangerous failure (MTTFd)  1126 years  Probability of Failure per Hour (PFH)  1.01E-07  Probability of Failure on Demand (PFD)  Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0°  Product weight  10036 g  Shaft connection  T22  Pneumatic connection  1/4 NPT  Note on materials  RoHS-compliant  Material sub-base  Anodised wrought aluminium alloy  Material seals  Material spring  Material spring  Material housing  Material piston  Material bearing  Material com  Material com  Material com  Material bearing  Material com  Material com  Material piston  Material searing  Material searing  Material com  Material searing  Material com  Material bearing  Material searing  Material com  Material searing  Material searing  Material series   | Note on torque  | maximum permissible torque listed in ISO 5211, with reference to the                                |
| Mean time to dangerous failure (MTFd)  1126 years  Probability of Failure per Hour (PFH)  1.01E-07  Probability of Failure on Demand (PFD)  Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0°  Product weight  10036 g  Shaft connection  T22  Pneumatic connection  Note on materials  RoHS-compliant  Material sub-base  Anodised wrought aluminium alloy  Material seals  NBR  Material spring  Material spring  Material housing  Material piston  Material bearing  Material cam  Material cam  Material screws  High-alloy stainless steel  Material screws  | Spring return torque at 0° swivel angle   | 84 Nm   |
| Probability of Failure per Hour (PFH)  1.01E-07  Probability of Failure on Demand (PFD)  Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0°  Product weight  10036 g  Shaft connection  T22  Pneumatic connection  Note on materials  Material sub-base  Anodised wrought aluminium alloy  Material seals  Material spring  Material spring  Material housing  Material piston  Material bearing  Material cam  Material cam  Material screws  High-alloy stainless steel  Mindows Anoless Steel  Mindows Anoless Steel  Migh-alloy stainless steel   | Spring return torque at 90° swivel angle  | 166.1 Nm  |
| Probability of Failure on Demand (PFD)  Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0°  Product weight  Shaft connection  T22  Pneumatic connection  1/4 NPT  Note on materials  RoHS-compliant  Material sub-base  Anodised wrought aluminium alloy  Material seals  NBR  Material seals  NBR  Material spring  Spring steel  Material housing  Material piston  Material bearing  Material cam  Material cam  Material screws  High-alloy stainless steel   | Mean time to dangerous failure (MTTFd)  | 1126 years  |
| Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0°  Product weight 10036 g  Shaft connection T22  Pneumatic connection 1/4 NPT  Note on materials RoHS-compliant  Material sub-base Anodised wrought aluminium alloy  Material cover Die-cast aluminium, coated  Material spring Spring steel  Material housing Anodised wrought aluminium alloy  Material piston Die-cast aluminium  Material piston Die-cast aluminium  Material bearing POM  Material cam Steel  Material screws High-alloy stainless steel  | Probability of Failure per Hour (PFH)   | 1.01E-07  |
| angle-0°  Product weight  Shaft connection  T22  Pneumatic connection  1/4 NPT  Note on materials  Material sub-base  Anodised wrought aluminium alloy  Material seals  NBR  Material spring  Material spring  Spring steel  Material housing  Anodised wrought aluminium alloy  Die-cast aluminium, coated  Material spring  Spring steel  Material bearing  Material bearing  Material bearing  POM  Material cam  Material screws  High-alloy stainless steel   | Probability of Failure on Demand (PFD)  | 0.00078   |
| Shaft connection T22 Pneumatic connection 1/4 NPT Note on materials RoHS-compliant Material sub-base Anodised wrought aluminium alloy Material cover Die-cast aluminium, coated Material seals NBR Material spring Spring steel Material housing Anodised wrought aluminium alloy Die-cast aluminium soated Material bearing POM Material bearing POM Material cam Steel Material screws High-alloy stainless steel  | Air consumption at 0.6 MPa (6 bar, 87 psi) per cycle 0°-nominal swivel angle-0° | 8.61  |
| Shaft connection T22 Pneumatic connection 1/4 NPT Note on materials RoHS-compliant Material sub-base Anodised wrought aluminium alloy Material cover Die-cast aluminium, coated Material seals NBR Material spring Spring steel Material housing Anodised wrought aluminium alloy Die-cast aluminium alloy Material piston Die-cast aluminium Material bearing POM Material cam Steel Material screws High-alloy stainless steel   | Product weight  | 10036 g   |
| Note on materials  Material sub-base  Anodised wrought aluminium alloy  Material cover  Die-cast aluminium, coated  Material seals  NBR  Material spring  Spring steel  Material housing  Anodised wrought aluminium alloy  Die-cast aluminium  Material piston  Die-cast aluminium  Material bearing  POM  Material cam  Steel  Material screws  High-alloy stainless steel   | Shaft connection  |   |
| Material sub-base Anodised wrought aluminium alloy  Material cover Die-cast aluminium, coated  Material seals NBR  Material spring Spring steel  Material housing Anodised wrought aluminium alloy  Material piston Die-cast aluminium  Material bearing POM  Material cam Steel  Material screws High-alloy stainless steel   | Pneumatic connection  | 1/4 NPT   |
| Material cover  Material seals  Material spring  Material spring  Material housing  Material housing  Material piston  Material bearing  Material bearing  Material cam  Material screws  Die-cast aluminium, coated  Anodised wrought aluminium alloy  Die-cast aluminium  POM  Steel  High-alloy stainless steel   | Note on materials   | RoHS-compliant  |
| Material seals  Material spring  Spring steel  Material housing  Anodised wrought aluminium alloy  Die-cast aluminium  Material bearing  POM  Material cam  Steel  Material screws  High-alloy stainless steel   | Material sub-base   | Anodised wrought aluminium alloy  |
| Material spring Spring steel Material housing Anodised wrought aluminium alloy Material piston Die-cast aluminium Material bearing POM Material cam Steel Material screws High-alloy stainless steel   | Material cover  | Die-cast aluminium, coated  |
| Material housing Anodised wrought aluminium alloy Material piston Die-cast aluminium Material bearing POM Material cam Steel Material screws High-alloy stainless steel  | Material seals  | NBR   |
| Material housing Anodised wrought aluminium alloy Material piston Die-cast aluminium Material bearing POM Material cam Steel Material screws High-alloy stainless steel  | Material spring   | Spring steel  |
| Material piston Die-cast aluminium  Material bearing POM  Material cam Steel  Material screws High-alloy stainless steel   | Material housing  | Anodised wrought aluminium alloy  |
| Material cam Steel Material screws High-alloy stainless steel  | Material piston   | Die-cast aluminium  |
| Material screws High-alloy stainless steel   | Material bearing  | РОМ   |
|  | Material cam  | Steel   |
| Material shaft Nickel-plated steel   | Material screws   | High-alloy stainless steel  |
|  | Material shaft  | Nickel-plated steel   |