

# Linear actuator DFPC-250- -

Part number: 8141420

**FESTO**



## Data sheet

| Feature   | Value   |
|---|---|
| Size of valve actuator                            | 250   |
| Flange hole pattern                               | F10<br>F14  |
| Stroke  | 10 mm...1600 mm   |
| Piston diameter                                   | 250 mm  |
| Standard connection for valve                     | ISO 5210  |
| Cushioning  | Elastic cushioning rings/pads at both ends  |
| Mounting position                                 | Any   |
| Mode of operation                                 | Double-acting   |
| Structural design                                 | Piston<br>Piston rod<br>Tie rod<br>Cylinder barrel  |
| Position sensing                                  | For proximity sensor  |
| Variants  | EX protection approval (ATEX)   |
| Operating pressure                                | 0.25 MPa...0.8 MPa<br>2.5 bar...8 bar<br>36.25 psi...116 psi  |
| Nominal operating pressure                        | 0.6 MPa<br>6 bar  |
| CE marking (see declaration of conformity)        | as per EU explosion protection directive (ATEX)   |
| UKCA marking (see declaration of conformity)      | acc. to UK EX instructions  |
| Explosion protection certification outside the EU | EPL Db (GB)<br>EPL Gb (GB)  |
| Explosion prevention and protection               | Zone 1 (ATEX)<br>Zone 1 (UKEX)<br>Zone 2 (ATEX)<br>Zone 21 (ATEX)<br>Zone 21 (UKEX)<br>Zone 22 (ATEX) |
| ATEX category gas                                 | II 2G   |
| ATEX category for dust                            | II 2D   |
| Type of ignition protection for gas               | Ex h IIC T4 Gb  |
| Type of (ignition) protection for dust            | Ex h IIIC T120°C Db   |
| Explosive ambient temperature                     | -20°C ≤ Ta ≤ +80°C  |

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|---|--|
| Operating medium                              | Compressed air as per ISO 8573-1:2010 [7:4:4]  |
| Information on operating and pilot media      | Operation with oil lubrication possible (required for further use)                   |
| Vibration resistance                          | Transport application test with severity level 1 as per FN 942017-4 and EN 60068-2-6 |
| Shock resistance                              | Shock test with severity level 1 as per FN 942017-5 and EN 60068-2-27                |
| LABS (PWIS) conformity                        | VDMA24364 zone III   |
| Ambient temperature                           | -20 °C...80 °C   |
| Impact energy in the end positions            | 6 J  |
| Theoretical force at 6 bar, retracting        | 28698 N  |
| Theoretical force at 6 bar, advancing         | 29452 N  |
| Air consumption, retracting, per 10 mm stroke | 3.348 l  |
| Air consumption advancing per 10 mm stroke    | 3.436 l  |
| Moving mass at 0 mm stroke                    | 5600.4 g   |
| Additional moving mass per 10 mm stroke       | 105.31 g   |
| Product weight                                | 19630 g...72980 g  |
| Basic weight with 0 mm stroke                 | 19296.54 g   |
| Additional weight per 10 mm stroke            | 335.51 g   |
| Type of mounting                              | On flange as per ISO 5210<br>With spacer bolt<br>Optionally:                         |
| Pneumatic connection                          | G1/4   |
| Note on materials                             | RoHS-compliant   |
| Cover material                                | Gravity die-cast aluminum<br>Aluminum  |
| Piston rod material                           | High-alloy stainless steel   |
| Piston rod wiper material                     | TPE-U(PU)  |
| Nut material                                  | High-alloy stainless steel   |
| Static seal material                          | NBR  |
| Tie rod material                              | High-alloy stainless steel   |
| Material of cylinder barrel                   | Wrought aluminum alloy, smooth-anodized  |