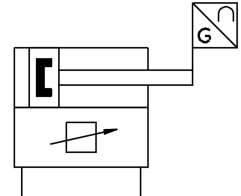
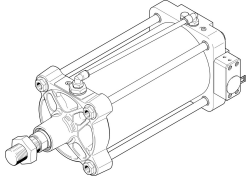


# Linear actuator DFPI-160- -ND2P-C1V-NB3P-A

Part number: 2201101

FESTO



## Data sheet

| Feature                                     | Value  |
|---|--|
| Size of valve actuator                      | 160  |
| Stroke                                      | 40 mm...990 mm   |
| Piston diameter                             | 160 mm   |
| Based on norm                               | ISO 15552  |
| Cushioning                                  | No cushioning  |
| Mounting position                           | Any  |
| Mode of operation                           | Double-acting  |
| Structural design                           | Piston<br>Piston rod<br>Tie rod<br>Cylinder barrel   |
| Position sensing                            | With integrated linear potentiometer   |
| Measuring principle of linear potentiometer | Potentiometer  |
| Reverse polarity protection                 | Initialization connection<br>for operating voltage<br>for setpoint value                               |
| Operating pressure                          | 0.3 MPa...0.8 MPa<br>3 bar...8 bar<br>43.5 psi...116 psi   |
| Nominal operating pressure                  | 0.6 MPa<br>6 bar<br>87 psi   |
| Analog output                               | 4 - 20 mA  |
| DC operating voltage range                  | 21.6 V...26.4 V  |
| Max. current consumption                    | 220 mA   |
| Nominal operating voltage DC                | 24 V   |
| Setpoint input                              | 4 mA...20 mA   |
| Certification                               | RCM compliance mark  |
| KC characters                               | KC EMC   |
| CE marking (see declaration of conformity)  | As per EU EMC directive<br>as per EU explosion protection directive (ATEX)<br>As per EU RoHS directive |

| Feature   | Value  |
|---|--|
| UKCA marking (see declaration of conformity)        | To UK instructions for EMC<br>acc. to UK EX instructions<br>To UK RoHS instructions                                    |
| Explosion protection certification outside the EU   | EPL Dc (GB)<br>EPL Gc (GB)   |
| Explosion prevention and protection                 | Zone 2 (ATEX)<br>Zone 2 (UKEX)<br>Zone 22 (ATEX)<br>Zone 22 (UKEX)   |
| ATEX category gas                                   | II 3G  |
| ATEX category for dust                              | II 3D  |
| Type of ignition protection for gas                 | Ex ec IIC T4 X Gc  |
| Type of (ignition) protection for dust              | Ex tc IIIC T120°C X Dc   |
| Explosive ambient temperature                       | -5°C ≤ Ta ≤ +50°C  |
| 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)   |
| Continuous shock resistance to DIN/IEC 68 Part 2-82 | Tested as per severity level 2   |
| LABS (PWIS) conformity                              | VDMA24364 zone III   |
| Storage temperature                                 | -5 °C...50 °C  |
| Temperature of medium                               | -5 °C...40 °C  |
| Relative air humidity                               | 5 - 100 %<br>Condensing  |
| Degree of protection                                | IP65<br>IP67<br>IP69K<br>NEMA 4  |
| Vibration resistance to DIN/IEC 68 Part 2-6         | Tested as per severity level 2   |
| Ambient temperature                                 | -5 °C...50 °C  |
| Theoretical force at 6 bar, retracting              | 11581 N  |
| Theoretical force at 6 bar, advancing               | 12064 N  |
| Air consumption, retracting, per 10 mm stroke       | 1.351 l  |
| Air consumption advancing per 10 mm stroke          | 1.407 l  |
| Moving mass at 0 mm stroke                          | 3700 g   |
| Additional moving mass per 10 mm stroke             | 89 g   |
| Basic weight with 0 mm stroke                       | 14330 g  |
| Additional weight per 10 mm stroke                  | 200 g  |
| Precision of analog output                          | 1 %FS  |
| Size of dead space                                  | 1 %FS  |
| Hysteresis in ± %FS                                 | 1 %FS  |
| Positioning accuracy                                | 1.0 %FS  |
| Repetition accuracy in ± %FS                        | 1 %FS  |
| Electrical connection                               | 5-pin<br>Straight plug/screw terminal<br>with specific accessories   |
| Pneumatic connection                                | For pneumatic tubing outside diameter 8 mm<br>For pneumatic tubing outside diameter 10 mm<br>with specific accessories |
| Note on materials                                   | RoHS-compliant   |
| Material of end caps                                | Wrought aluminum alloy, coated   |
| Lower cover material                                | Coated die-cast aluminum   |
| Piston rod material                                 | High-alloy stainless steel   |
| Piston rod wiper material                           | NBR  |
| Material of screws                                  | Steel, coated<br>High-alloy stainless steel  |
| Static seal material                                | NBR  |
| Tie rod material                                    | High-alloy stainless steel   |
| Material of cylinder barrel                         | Wrought aluminum alloy, smooth-anodized  |