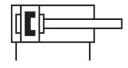
## Flat cylinder DZF-18-100-A-P-A Part number: 161242





## **Data sheet**

| Piston diameter   18 mm     Equivalent diameter     Piston rod thread   M8     Max. angle of rotation of the piston rod +/-   1.2 deg     Cushioning   Elastic cushioning rings/pads at both ends     Mounting position   Any     Mode of operation   Double-acting     Structural design   Piston rod     Position sensing   For proximity sensor     Protection against torsion/guide   Oval piston     Operating medium   Compressed aira spr ISO 8573-1:2010 [7:4:4]     Information on operating and pilot media   Operation goes stress     Corrosion resistance class (CRC)   2 - Moderate corrosion stress     Lass (PWIS) conformity   VDMA24364-81/B2-L     Ambient temperature   -20 °C80 °C     Impact energy in the end positions   0.1 J     Max. torque for protection against rotation   0.2 Nm     Theoretical force at 6 bar, advancing   123 N     Theoretical moving mass per 10 mm stroke   4 g     Additional weight per 10 mm stroke   13 g  | Feature                                      | Value  |
|---|--|--|
| Equivalent diameterPiston rod threadM8Max. angle of rotation of the piston rod +/-1.2 degCushioningElastic cushioning rings/pads at both endsMounting positionAnyMode of operationDouble-actingStructural designPiston<br>Piston rodPosition sensingFor proximity sensorProtection against torsion/guideOval pistonOperating mediumCompressed air as per ISO 8573-1:2010 [7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Corrosion resistance class (CRC)2 - Moderate corrosion stressLABS (PWIS) conformityVDMA24364-B1/B2-LAmbient temperature-20 °C80 °CImpact energy in the end positions0.1 JMax. torque for protection against rotation0.2 NmTheoretical force at 6 bar, retracting153 NMoving mass at 0 mm stroke4 gAdditional weign bars of Lag24 gAdditional weign bars of Lag13 gBasic weight with 0 mm stroke107 gType of mountingWith internal threadWith internal threadWith internal threadOperation with oil users of possible internal thread0.1 gProtection against rotation0.2 NmTheoretical force at 6 bar, retracting13 gBasic weight with 0 mm stroke107 gProtection rotage at 0 mm stroke107 gProtection against rotation0.2 NmType of mountingWith internal thread<br>With internal thread<br>Wit | Stroke                                       | 100 mm   |
| Max. angle of rotation of the piston rod +/-1.2 degCushioningElastic cushioning rings/pads at both endsMounting positionAnyMode of operationDouble-actingStructural designPiston<br>Piston rodPosition sensingFor proximity sensorProtection against torsion/guideOval pistonOperating mediumCompressed air as per ISO 8573-1:2010 [7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Corrosion resistance class (CRC)2 - Moderate corrosion stressLABS (PWIS) conformityVDMA24364-B1/B2-LAmbient temperature-20 °C80 °CImpact energy in the end positions0.1 JMax. arque for protection against toration0.2 NmTheoretical force at 6 bar, retracting123 NMoving mass at 0 mm stroke24 gAdditional moving mass per 10 mm stroke4 gAdditional weight per 10 mm stroke13 gBasic weight with 0 mm stroke107 gType of mountingWith internal thread<br>With accessories<br>Optionally:Pneumatic connectionM5   | Piston diameter                              |  |
| CushioningElastic cushioning rings/pads at both endsMounting positionAnyMode of operationDouble-actingStructural designPistonPiston rodPosition rodPosition sensingFor proximity sensorOperating pressure0.1 MPa1 MPa<br>1 bar10 barOperating mediumCompressed air as per ISO 8573-1:2010[7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Corrosion resistance class (CRC)2 - Moderate corrosion stressLABS (PWIS) conformityVDMA24364-B1/B2-LAmbient temperature-20 °C80 °CImpact energy in the end positions0.1 JMoving mass at 0 mm stroke24 gAdditional moving mass per 10 mm stroke4 gAdditional weight per 10 mm stroke13 gBasic weight with 0 mm stroke107 gType of mountingWith internal thread<br>With accessories<br>Optionally:Pneumatic connectionM5  | Piston rod thread                            | M8   |
| Mounting positionAnyMode of operationDouble-actingStructural designPistonPosition sensingFor proximity sensorProtection against torsion/guideOval pistonOperating pressure0.1 MPa1 MPa<br>1 bar10 barOperating mediumCompressed air as per ISO 8573-1:2010 [7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Corrosion resistance class (CRC)2 - Moderate corrosion stressLABS (PWIS) conformityVDMA24364-B1/B2-LAmbient temperature-20 °C80 °CImpact energy in the end positions0.1 JMax. torque for protection against rotation0.2 NmTheoretical force at 6 bar, retracting153 NMoving mass at 0 mm stroke4 gAdditional weight per 10 mm stroke4 gAdditional weight per 10 mm stroke107 gType of mountingWith internal thread<br>With accessories<br>Optionally:Pneumatic connectionM5   | Max. angle of rotation of the piston rod +/- | 1.2 deg  |
| Mode of operationDouble-actingStructural designPiston<br>Piston rodPosition sensingFor proximity sensorProtection against torsion/guideOval pistonOperating pressure0.1 MPa1 MPa<br>1 bar10 barOperating mediumCompressed air as per ISO 8573-1:2010 [7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Corrosion resistance class (CRC)2 - Moderate corrosion stressLABS (PWIS) conformityVDMA24364-B1/B2-LAmbient temperature-20 °C80 °CImpact energy in the end positions0.1 JMax. torque for protection against rotation0.2 NmTheoretical force at 6 bar, advancing153 NMoving mass at 0 mm stroke24 gAdditional weight per 10 mm stroke13 gBasic weight with 0 mm stroke107 gType of mountingWith internal thread<br>With accessories<br>Optionally:   | Cushioning                                   | Elastic cushioning rings/pads at both ends                         |
| Structural designPiston<br>Piston rodPosition sensingFor proximity sensorProtection against torsion/guideOval pistonOperating pressure0.1 MPa1 MPa<br>1 bar10 barOperating mediumCompressed air as per ISO 8573-1:2010[7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Corrosion resistance class (CRC)2 - Moderate corrosion stressLABS (PWIS) conformityVDMA24364-B1/B2-LAmbient temperature-20 °C80 °CImpact energy in the end positions0.1 JMax. torque for protection against rotation0.2 NmTheoretical force at 6 bar, retracting123 NTheoretical force at 6 bar, advancing153 NMoving mass at 0 mm stroke4 gAdditional moving mass per 10 mm stroke13 gBasic weight with 0 mm stroke107 gType of mountingWith internal thread<br>With accessories<br>Optionally:Pneumatic connectionM5   | Mounting position                            | Any  |
| Piston rodPosition sensingFor proximity sensorProtection against torsion/guideOval pistonOperating pressure0.1 MPa1 MPa<br>1 bar10 barOperating mediumCompressed air as per ISO 8573-1:2010 [7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Corrosion resistance class (CRC)2 · Moderate corrosion stressLABS (PWIS) conformityVDMA24364-B1/B2-LAmbient temperature-20 °C80 °CImpact energy in the end positions0.1 JMax. torque for protection against rotation0.2 NmTheoretical force at 6 bar, retracting123 NTheoretical force at 6 bar, advancing153 NMoving mass at 0 mm stroke4 gAdditional moving mass per 10 mm stroke13 gBasic weight with 0 mm stroke107 gType of mountingWith internal thread<br>With accessories<br>Optionally:Pneumatic connectionM5   | Mode of operation                            | Double-acting  |
| Protection against torsion/guideOval pistonOperating pressure0.1 MPa1 MPa<br>1 bar10 barOperating mediumCompressed air as per ISO 8573-1:2010 [7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Corrosion resistance class (CRC)2 - Moderate corrosion stressLABS (PWIS) conformityVDMA24364-B1/B2-LAmbient temperature-20 °C80 °CImpact energy in the end positions0.1 JMax. torque for protection against rotation0.2 NmTheoretical force at 6 bar, retracting123 NTheoretical force at 6 bar, advancing153 NMoving mass at 0 mm stroke4 gAdditional weight per 10 mm stroke13 gBasic weight with 0 mm stroke107 gType of mountingWith internal thread<br>With accessories<br>Optionally:Pneumatic connectionM5  | Structural design                            |  |
| Operating pressure0.1 MPa1 MPa<br>1 bar10 barOperating mediumCompressed air as per ISO 8573-1:2010 [7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Corrosion resistance class (CRC)2 - Moderate corrosion stressLABS (PWIS) conformityVDMA24364-B1/B2-LAmbient temperature-20 °C80 °CImpact energy in the end positions0.1 JMax. torque for protection against rotation0.2 NmTheoretical force at 6 bar, retracting123 NTheoretical force at 6 bar, advancing153 NMoving mass at 0 mm stroke4 gAdditional weight per 10 mm stroke13 gBasic weight with 0 mm stroke107 gType of mountingWith internal thread<br>With accessories<br>Optionally:Pneumatic connectionM5   | Position sensing                             | For proximity sensor   |
| 1 bar10 barOperating mediumCompressed air as per ISO 8573-1:2010 [7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Corrosion resistance class (CRC)2 · Moderate corrosion stressLABS (PWIS) conformityVDMA24364-B1/B2-LAmbient temperature-20 °C80 °CImpact energy in the end positions0.1 JMax. torque for protection against rotation0.2 NmTheoretical force at 6 bar, retracting153 NMoving mass at 0 mm stroke24 gAdditional moving mass per 10 mm stroke13 gBasic weight with 0 mm stroke107 gType of mountingWith internal thread<br>With accessories<br>Optionally:Pneumatic connectionM5   | Protection against torsion/guide             | Oval piston  |
| Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Corrosion resistance class (CRC)2 · Moderate corrosion stressLABS (PWIS) conformityVDMA24364-B1/B2-LAmbient temperature-20 °C80 °CImpact energy in the end positions0.1 JMax. torque for protection against rotation0.2 NmTheoretical force at 6 bar, retracting123 NTheoretical force at 6 bar, advancing153 NMoving mass at 0 mm stroke24 gAdditional moving mass per 10 mm stroke13 gBasic weight with 0 mm stroke107 gType of mountingWith internal thread<br>With accessories<br>Optionally:Pneumatic connectionM5   | Operating pressure                           |  |
| Corrosion resistance class (CRC)2 - Moderate corrosion stressLABS (PWIS) conformityVDMA24364-B1/B2-LAmbient temperature-20 °C80 °CImpact energy in the end positions0.1 JMax. torque for protection against rotation0.2 NmTheoretical force at 6 bar, retracting123 NTheoretical force at 6 bar, advancing153 NMoving mass at 0 mm stroke24 gAdditional moving mass per 10 mm stroke13 gBasic weight with 0 mm stroke107 gType of mountingWith internal thread<br>With accessories<br>Optionally:Pneumatic connectionM5   | Operating medium                             | Compressed air as per ISO 8573-1:2010 [7:4:4]                      |
| LABS (PWIS) conformityVDMA24364-B1/B2-LAmbient temperature-20 °C80 °CImpact energy in the end positions0.1 JMax. torque for protection against rotation0.2 NmTheoretical force at 6 bar, retracting123 NTheoretical force at 6 bar, advancing153 NMoving mass at 0 mm stroke24 gAdditional moving mass per 10 mm stroke4 gAdditional weight per 10 mm stroke107 gType of mountingWith internal thread<br>With accessories<br>Optionally:Pneumatic connectionM5  | Information on operating and pilot media     | Operation with oil lubrication possible (required for further use) |
| Ambient temperature-20 °C80 °CImpact energy in the end positions0.1 JMax. torque for protection against rotation0.2 NmTheoretical force at 6 bar, retracting123 NTheoretical force at 6 bar, advancing153 NMoving mass at 0 mm stroke24 gAdditional moving mass per 10 mm stroke4 gAdditional weight per 10 mm stroke13 gBasic weight with 0 mm stroke107 gType of mountingWith internal thread<br>With accessories<br>Optionally:Pneumatic connectionM5  | Corrosion resistance class (CRC)             | 2 - Moderate corrosion stress                                      |
| Impact energy in the end positions0.1 JMax. torque for protection against rotation0.2 NmTheoretical force at 6 bar, retracting123 NTheoretical force at 6 bar, advancing153 NMoving mass at 0 mm stroke24 gAdditional moving mass per 10 mm stroke4 gAdditional weight per 10 mm stroke13 gBasic weight with 0 mm stroke107 gType of mountingWith internal thread<br>With accessories<br>Optionally:Pneumatic connectionM5  | LABS (PWIS) conformity                       | VDMA24364-B1/B2-L  |
| Max. torque for protection against rotation0.2 NmTheoretical force at 6 bar, retracting123 NTheoretical force at 6 bar, advancing153 NMoving mass at 0 mm stroke24 gAdditional moving mass per 10 mm stroke4 gAdditional weight per 10 mm stroke13 gBasic weight with 0 mm stroke107 gType of mountingWith internal thread<br>With accessories<br>Optionally:Pneumatic connectionM5   | Ambient temperature                          | -20 °C80 °C  |
| Theoretical force at 6 bar, retracting123 NTheoretical force at 6 bar, advancing153 NMoving mass at 0 mm stroke24 gAdditional moving mass per 10 mm stroke4 gAdditional weight per 10 mm stroke13 gBasic weight with 0 mm stroke107 gType of mountingWith internal thread<br>With accessories<br>Optionally:Pneumatic connectionM5  | Impact energy in the end positions           | 0.1 J  |
| Theoretical force at 6 bar, advancing153 NMoving mass at 0 mm stroke24 gAdditional moving mass per 10 mm stroke4 gAdditional weight per 10 mm stroke13 gBasic weight with 0 mm stroke107 gType of mountingWith internal thread<br>With accessories<br>Optionally:Pneumatic connectionM5   | Max. torque for protection against rotation  | 0.2 Nm   |
| Moving mass at 0 mm stroke24 gAdditional moving mass per 10 mm stroke4 gAdditional weight per 10 mm stroke13 gBasic weight with 0 mm stroke107 gType of mountingWith internal thread<br>With accessories<br>Optionally:Pneumatic connectionM5   | Theoretical force at 6 bar, retracting       | 123 N  |
| Additional moving mass per 10 mm stroke   4 g     Additional weight per 10 mm stroke   13 g     Basic weight with 0 mm stroke   107 g     Type of mounting   With internal thread<br>With accessories<br>Optionally:     Pneumatic connection   M5  | Theoretical force at 6 bar, advancing        | 153 N  |
| Additional weight per 10 mm stroke   13 g     Basic weight with 0 mm stroke   107 g     Type of mounting   With internal thread<br>With accessories<br>Optionally:     Pneumatic connection   M5  | Moving mass at 0 mm stroke                   | 24 g   |
| Basic weight with 0 mm stroke 107 g   Type of mounting With internal thread<br>With accessories<br>Optionally:   Pneumatic connection M5  | Additional moving mass per 10 mm stroke      | 4 g  |
| Type of mounting With internal thread With accessories Optionally: Pneumatic connection M5  | Additional weight per 10 mm stroke           | 13 g   |
| With accessories   Optionally:  | Basic weight with 0 mm stroke                | 107 g  |
|   | Type of mounting                             | With accessories   |
| Cover material Wrought aluminum alloy   | Pneumatic connection                         | M5   |
|   | Cover material                               | Wrought aluminum alloy   |

## **FESTO**

| Feature              | Value                            |
|----------------------|----------------------------------|
|                      | NBR<br>TPE-U(PU)                 |
| Housing material     | Wrought aluminum alloy, anodized |
| Piston seal material | NBR                              |
| Piston rod material  | High-alloy stainless steel       |