## Guided actuators DFM-63-25-P-A-GF-F1A Part number: 8118947



## **Data sheet**

General operating condition

Stroke     25 mm       Piston diameter     63 mm       Drive unit operating mode     Yoke       Cushioning     Elastic cushioning rings/pads at both ends       Mounting position     Any       Guide     Silding guide       Structural design     Guide       Position sensing     For proximity sensor       Symbol     00991737       Variants     Metals with copper, zinc or nickel by mass as main constituent are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connecto and coils.       Operating pressure     0.1 MPa 1 0 Dar       Max. speed     0.6 m/s       Mode of operation     Double-acting       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)       Oarrosion resistance class (CRC)     0 - No corrosion stress       LaSS (PWIS) Conformity     VDMA24364-B1/B2-L       Suitability for the production of Li-ion batteries     Metals with more than 1% by mass of copper, zinc or nickel by mass are accluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connecto and coils       Suitability for the productio	Feature	Value
Piston diameter     63 mm       Drive unit operating mode     Yoke       Cushioning     Elastic cushioning rings/pads at both ends       Mounting position     Any       Guide     Silding guide       Structural design     Guide       Symbol     00991737       Variants     Metals with copper, zinc or nickel by mass as main constituent are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connecto and coils.       Operating pressure     0.1 MPa 1 MPa       Operating pressure     0.6 m/s       Mode of operation     Double-acting       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)       Corrosion resistance class (CRC)     0 - No corrosion stress       LABS (PWIS) conformity     VDMA24364-B1/B2-L       Suitability for the production of Li-on batteries     Metals with more than 1% by mass of copper, zinc or nickel by mass are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connecto and coils.       Ambient temperature     -20 °C 80 °C       Information of Li-on batteries     Metals with more than 1% by mass of copper, zinc or nickel by mass are nic	Distance of centre of gravity of payload to yoke plate xs	50 mm
Drive unit operating mode       Yoke         Cushioning       Elastic cushioning rings/pads at both ends         Mounting position       Any         Guide       Sliding guide         Structural design       Guide         Position sensing       For proximity sensor         Symbol       00991737         Variants       Metals with copper, zinc or nickel by mass as main constituent are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connecto and coils.         Operating pressure       0.1 MPa 1 MPa         Operating pressure       0.6 m/s         Mode of operation       Double-acting         Operating and pilot media       Operation with oil lubrication possible (required for further use)         Corrosion resistance class (CRC)       0 - No corrosion stress         LABS (PWIS) conformity       VDMA24364-B1/B2-L         Suitability for the production of Li-ion batteries       are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connecto and coils         Ambient temperature       20 °C 80 °C         Impact energy in the end positions       1.3 J         Max. force Fy static       1533 N         Max. force Fy static	Stroke	25 mm
LushioningElastic cushioning rings/pads at both endsMounting positionAnyGuideSliding guideStructural designGuidePosition sensingFor proximity sensorSymbol00991737VariantsMetals with copper, zinc or nickel by mass as main constituent are excluded from use. Exceptions are nickel in steel, chemically nickel- plated surfaces, printed circuit boards, cables, electrical plug connecto and coils.Operating pressure0.1 MPa 1 MPaOperating metsure1 bar 10 barMax. speed0.6 m/sMode of operationDouble-actingOperating mediumCompressed ir 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)0 - No corrosion stressLABS (PWIS) conformityVDMA24364-81/82-1Suitability for the production of Li-ion batteriesare excluded from use. Exceptions are nickel in steel, chemically nickel- plated surfaces, printed circuit boards, cables, electrical plug connecto and coilsAmbient temperature20 °C 80 °CImpact Fy static1533 NMax. force Fy static1533 NMax. force Fz1533 NMax. storce Fy static1533 NMax. static moment Mx95.83 NmMax. torque Mx95.83 NmMax. torque My38.33 NmMax. static moment My38.33 Nm	Piston diameter	63 mm
Mounting position     Any       Guide     Sliding guide       Structural design     Guide       Position sensing     For proximity sensor       Symbol     00991737       Variants     Metals with copper, zinc or nickel by mass as main constituent are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connecto and coils.       Operating pressure     0.1 MPa 1 MPa       Operating pressure     0.6 m/s       Max. speed     0.6 m/s       Mode of operation     Double-acting       Operating and pilot media     Operating nessure       LABS (PWIS) conformity     VDMA24364-B1/B2-L       Suitability for the production of Li-ion batteries     Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connecto and coils       Ambient temperature     -20 °C	Drive unit operating mode	Yoke
Guide     Silding guide       Structural design     Guide       Position sensing     For proximity sensor       Symbol     00991737       Variants     Metals with copper, zinc or nickel by mass as main constituent are excluded from use. Exceptions are nickel in steel, chemically nickel- plated surfaces, printed circuit boards, cables, electrical plug connecto and coils.       Operating pressure     0.1 MPa 1 MPa       Operating pressure     0.6 m/s       Mode of operation     Double-acting       Operation modify media     Operation with oil lubrication possible (required for further use)       Corrosion resistance class (CRC)     0 - No corrosion stress       LABS (PWIS) conformity     VDMA24364-B1/B2-L       Suitability for the production of Li-ion batteries     Metals with more than 1% by mass of copper, zinc or nickel by mass excluded form use. Exceptions are nickel in steel, chemically nickel- plated surfaces, printed circuit boards, cables, electrical plug connecto and coils       Ambient temperature     20 °C 80 °C       Impact energy in the end positions     1.3 J       Max. force Fy     1533 N       Max. force Fy     1533 N       Max. force Fz     1533 N       Max. force Fz     1533 N       Max. force Fz     55.83 Nm       Max. torque Mx<	Cushioning	Elastic cushioning rings/pads at both ends
Structural design     Guide       Position sensing     For proximity sensor       Symbol     00991737       Variants     Metals with copper, zinc or nickel by mass as main constituent are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connecto and coils.       Operating pressure     0.1 MPa 1 MPa       Operating pressure     0.6 m/s       Max. speed     0.6 m/s       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)       Corrosion resistance class (CRC)     0 - No corrosion stress       LABS (PWIS) conformity     VDMA24364-B1/B2-L       Suitability for the production of Li-ion batteries     Metals with more than 1% by mass of copper, zinc or nickel by mass are exclued from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connecto and coils       Ambient temperature     20 °C 80 °C       Impact energy in the end positions     1.3 J       Max. force Fy     1533 N       Max. force Fz     1533 N       Max. force Fz     1533 N       Max. force Fz static     1533 N       Max. force Fz static	Mounting position	Any
Position sensing       For proximity sensor         Symbol       00991737         Variants       Metals with copper, zinc or nickel by mass as main constituent are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connecto and coils.         Operating pressure       0.1 MPa 1 MPa         Operating pressure       0.6 m/s         Max. speed       0.6 m/s         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)         Corrosion resistance class (CRC)       0 - No corrosion stress         LABS (PWIS) conformity       VDMA24364-B1/82-L         Suitability for the production of Li-ion batteries       Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connecto and coils         Ambient temperature       -20 °C 80 °C         Impact energy in the end positions       1.3 J         Max. force Fy       1533 N         Max. force Fy       1533 N         Max. force Fy static       1533 N         Max. force Fz static       95.83 Nm         Max. torque Mx       95	Guide	Sliding guide
Symbol     00991737       Variants     Metals with copper, zinc or nickel by mass as main constituent are excluded from use. Exceptions are nickel in steet, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connecto and coils.       Operating pressure     0.1 MPa 1 MPa       Operating pressure     0.6 m/s       Mode of operation     Double-acting       Operating and pilot media     Operation with oil lubrication possible (required for further use)       Corrosion resistance class (CRC)     0 - No corrosion stress       LABS (PWIS) conformity     VDMA24364-B1R2-1       Suitability for the production of Li-ion batteries     Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connecto and coils       Ambient temperature     -20 °C 80 °C       Impact energy in the end positions     1.3 J       Max, force Fy     1533 N       Max, force Fy static     1533 N       Max, force Fz     1533 N       Max, force Fz     1533 N       Max, force Fz     1533 N       Max, force Fx	Structural design	Guide
Variants     Metals with copper, zinc or nickel by mass as main constituent are excluded from use, Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connecto and coils.       Operating pressure     0.1 MPa 1 MPa       Operating pressure     1 bar 10 bar       Max, speed     0.6 m/s       Operating medium     Compressed air as per ISO 8573-1:2010 [7:4:4]       Operating and pilot media     Operation possible (required for further use)       Corrosion resistance class (CRC)     0 - No corrosion stress       CABS (PWIS) conformity     VDMA24364-B1/B2-L       Suitability for the production of Li-ion batteries     Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connecto and coils       Ambient temperature     20 °C 80 °C       Impact energy in the end positions     1.3 J       Max, force Fy     1533 N       Max, force Fy static     1533 N       Max, force Fz     1533 N       Max, force Fz     1533 N       Max, force Fz Max     95.83 Nm       Max, torque Mx     95.83 Nm       Max, torque Mx     95.83 Nm       Max, torque My     38.33 Nm <td>Position sensing</td> <td>For proximity sensor</td>	Position sensing	For proximity sensor
excluded from use. Exceptions are nickel in steel, chemically nickel- plated surfaces, printed circuit boards, cables, electrical plug connecto and coils.Operating pressure0.1 MPa 1 MPaOperating pressure1 bar 10 barMax. speed0.6 m/sMode of operationDouble-actingOperating mediumCompressed air as per ISO 8573-11:2010 [7:4:4]Information on operating and pilot mediaOperation with oil lubrication possible (required for further use)Corrosion resistance class (CRC)0 - No corrosion stressLABS (PWIS) conformityVDMA24364-B1/B2-LSuitability for the production of Li-ion batteriesMetals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel- plated surfaces, printed circuit boards, cables, electrical plug connecto and coilsAmbient temperature-20 °C 80 °CImpact energy in the end positions1.3 JMax. force Fy1533 NMax. force Fy1533 NMax. force Fy static1533 NMax. force Fz1533 NMax. force Fz1533 NMax. torce Fx1533 NMax. torce Fx1533 NMax. torque Mx95.83 NmMax. torque Mx95.83 NmMax. torque Mx95.83 NmMax. static moment Mx95.83 NmMax. static moment My88.33 Nm	Symbol	00991737
Determining pressure1 bar 10 barMax. speed0.6 m/sMode of operationDouble-actingOperating 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)0 - No corrosion stressLABS (PWIS) conformityVDMA24364-B1/B2-LSuitability for the production of Li-ion batteriesMetals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel- plated surfaces, printed circuit boards, cables, electrical plug connecto and coilsAmbient temperature-20 °C 80 °CImpact energy in the end positions1.3 JMax. force Fy1533 NMax. force Fz1533 NMax. force Fz1533 NMax. force Fz1533 NMax. torque Mx95.83 NmMax. static moment Mx95.83 NmMax. static moment Mx38.33 NmMax. static moment My38.33 Nm	Variants	excluded from use. Exceptions are nickel in steel, chemically nickel- plated surfaces, printed circuit boards, cables, electrical plug connectors
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Corrosion resistance class (CRC)0 - No corrosion stressLABS (PWIS) conformityVDMA24364-B1/B2-LSuitability for the production of Li-ion batteriesMetals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel- plated surfaces, printed circuit boards, cables, electrical plug connecto and coilsAmbient temperature-20 °C 80 °CImpact energy in the end positions1.3 JMax. force Fy1533 NMax. force Fy1533 NMax. force Fz1533 NMax. force Fz1533 NMax. torque Mx95.83 NmMax. torque My38.33 NmMax. static moment My38.33 Nm	Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]
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Impact energy in the end positions1.3 JMax. force Fy1533 NMax. force Fy static1533 NMax. force Fz1533 NMax. force Fz static1533 NMax. forque Mx95.83 NmMax. torque My38.33 NmMax. torque My38.33 Nm	Suitability for the production of Li-ion batteries	are excluded from use. Exceptions are nickel in steel, chemically nickel- plated surfaces, printed circuit boards, cables, electrical plug connectors
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Max. force Fy static1533 NMax. force Fz1533 NMax. force Fz static1533 NMax. torque Mx95.83 NmMax. static moment Mx95.83 NmMax. torque My38.33 NmMax. static moment My95.83 Nm	Impact energy in the end positions	1.3 J
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Max. static moment Mx   95.83 Nm     Max. torque My   38.33 Nm     Max. static moment My   38.33 Nm	Max. force Fz static	1533 N
Max. torque My   38.33 Nm     Max. static moment My   38.33 Nm	Max. torque Mx	95.83 Nm
Max. static moment My 38.33 Nm	Max. static moment Mx	95.83 Nm
	Max. torque My	38.33 Nm
	Max. static moment My	38.33 Nm
Max. torque Mz 38.33 Nm	Max. torque Mz	38.33 Nm

## **FESTO**

Feature	Value
Max. static moment Mz	38.33 Nm
Max. permissible torque load Mx as a function of the stroke	21.81 Nm
Max. payload as a function of the stroke at defined distance xs	257 N
Theoretical force at 6 bar, retracting	1750 N
Theoretical force at 6 bar, advancing	1870 N
Moving mass	2471 g
Product weight	4470 g
Alternative connections	See product drawing
Pneumatic connection	G1/4
Note on materials	RoHS-compliant
Cover material	Wrought aluminum alloy
Seals material	NBR
Housing material	Wrought aluminum alloy
Piston rod material	High-alloy stainless steel