

Guided drive DFM-50-100-P-A-KF-F1A

Part number: 8118937

FESTO



Data sheet

| Feature | Value |
|---|--|
| Distance from centre of gravity of load to yoke plate xs | 50 mm |
| Stroke | 100 mm |
| Piston diameter | 50 mm |
| Operating mode, drive unit | Yoke |
| Cushioning | Elastic cushioning rings/plates at both ends |
| Mounting position | optional |
| Guide | Recirculating ball bearing guide |
| Design | Guidance |
| Position detection | Via proximity switch |
| 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 connectors and coils. |
| Operating pressure | 0.1 MPa...1 MPa 1 bar...10 bar |
| Max. speed | 0.6 m/s |
| Mode of operation | Double-acting |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Note on operating and pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) |
| Corrosion resistance class CRC | 0 - No corrosion stress |
| LABS (PWIS) conformity | VDMA24364-B1/B2-L |
| Suitability for the production of Li-ion batteries | Suitable for battery production with reduced Cu/Zn/Ni values (F1a) |
| Cleanroom suitability, measured according to ISO 14644-14 | Class 6 according to ISO 14644-1 |
| Ambient temperature | -5 °C...60 °C |
| Impact energy in end positions | 1 Nm |
| Max. force Fy | 1487 N |
| Max. force Fy static | 1600 N |
| Max. force Fz | 1487 N |
| Max. force Fz static | 1600 N |
| Max. moment Mx | 81.79 Nm |
| Max. torque Mx static | 88 Nm |
| Max. moment My | 47.58 Nm |

| Feature | Value |
|---|----------------------------|
| Max. torque M_y static | 51.2 Nm |
| Max. moment M_z | 47.58 Nm |
| Max. torque M_z static | 51.2 Nm |
| Max. permissible torque load M_x as a function of stroke | 14.76 Nm |
| Max. effective load dependent upon stroke at defined distance x_s | 214 N |
| Theoretical force at 0.6 MPa (6 bar, 87 psi), return stroke | 1057 N |
| Theoretical force at 0.6 MPa (6 bar, 87 psi), advance stroke | 1178 N |
| Moving mass | 2425 g |
| Product weight | 5068 g |
| Centre of gravity of moving mass as a function of stroke | 65.6 mm |
| alternative connections | See product drawing |
| Pneumatic connection | G1/4 |
| Note on materials | RoHS-compliant |
| Material cover | Wrought aluminium alloy |
| Material seals | NBR |
| Material housing | Wrought aluminium alloy |
| Material piston rod | High-alloy stainless steel |