

# Guided drive DFM-20-40-P-A-KF-F1A

Part number: 8118853

FESTO



 [General operating condition](#)

## Data sheet

| Feature   | Value  |
|---|--|
| Distance from centre of gravity of load to yoke plate xs  | 50 mm  |
| Stroke  | 40 mm  |
| Piston diameter   | 20 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   |
| 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 connectors and coils. |
| Operating pressure  | 0.2 MPa ... 1 MPa  |
| Operating pressure  | 2 bar ... 10 bar   |
| Max. speed  | 0.8 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                            | 0.2 J  |
| Max. force Fy   | 817 N  |
| Max. force Fy static                                      | 1020 N   |
| Max. force Fz   | 817 N  |
| Max. force Fz static                                      | 1020 N   |
| Max. moment Mx  | 23.69 Nm   |
| Max. torque Mx static                                     | 29.58 Nm   |
| Max. moment My  | 15.11 Nm   |
| Max. torque My static                                     | 18.87 Nm   |
| Max. moment Mz  | 15.11 Nm   |
| Max. torque Mz static                                     | 18.87 Nm   |

| <b>Feature</b>   | <b>Value</b>               |
|--|----------------------------|
| Max. permissible torque load Mx as a function of stroke          | 4.64 Nm                    |
| Max. effective load dependent upon stroke at defined distance xs | 108 N                      |
| Theoretical force at 0.6 MPa (6 bar, 87 psi), return stroke      | 141 N                      |
| Theoretical force at 0.6 MPa (6 bar, 87 psi), advance stroke     | 188 N                      |
| Moving mass  | 488 g                      |
| Product weight   | 981 g                      |
| Centre of gravity of moving mass as a function of stroke         | 34.6 mm                    |
| alternative connections  | See product drawing        |
| Pneumatic connection   | M5                         |
| 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 |