

# Guided drive DFM-16-20-P-A-GF-F1A

Part number: 8118823

FESTO



 [General operating condition](#)

## Data sheet

| Feature   | Value  |
|---|--|
| Distance of centre of gravity of payload to yoke plate xs | 50 mm  |
| Stroke  | 20 mm  |
| Piston diameter   | 16 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 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 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        | 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                                       | -20 °C ... 80 °C   |
| Impact energy in the end positions                        | 0.15 J   |
| Max. force Fy   | 304 N  |
| Max. force Fy static                                      | 304 N  |
| Max. force Fz   | 304 N  |
| Max. force Fz static                                      | 304 N  |
| Max. torque Mx  | 6.99 Nm  |
| Max. static moment Mx                                     | 6.99 Nm  |
| Max. torque My  | 2.89 Nm  |
| Max. static moment My                                     | 2.89 Nm  |
| Max. torque Mz  | 2.89 Nm  |
| Max. static moment Mz                                     | 2.89 Nm  |

| <b>Feature</b>  | <b>Value</b>               |
|---|----------------------------|
| Max. permissible torque load Mx as a function of the stroke     | 1.17 Nm                    |
| Max. payload as a function of the stroke at defined distance xs | 27 N                       |
| Theoretical force at 6 bar, retracting                          | 90 N                       |
| Theoretical force at 6 bar, advancing                           | 121 N                      |
| Moving mass   | 242 g                      |
| Product weight  | 507 g                      |
| Alternative connections   | See product drawing        |
| Pneumatic connection  | M5                         |
| 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 |