

# Guided drive DFM-12-25-P-A-KF-F1A

Part number: 8118633

**FESTO**



## Data sheet

| Feature                                                   | Value                                                                                                                                                                                                                          |
|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Distance of centre of gravity of payload to yoke plate xs | 25 mm                                                                                                                                                                                                                          |
| Stroke                                                    | 25 mm                                                                                                                                                                                                                          |
| Piston diameter                                           | 12 mm                                                                                                                                                                                                                          |
| Drive unit operating mode                                 | Yoke                                                                                                                                                                                                                           |
| Cushioning                                                | Elastic cushioning rings/pads at both ends                                                                                                                                                                                     |
| Mounting position                                         | Any                                                                                                                                                                                                                            |
| Guide                                                     | Recirculating ball bearing                                                                                                                                                                                                     |
| Structural design                                         | Guide                                                                                                                                                                                                                          |
| Position sensing                                          | 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                                        | 0.2 MPa...1 MPa<br>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                                       | -5 °C...60 °C                                                                                                                                                                                                                  |
| Impact energy in the end positions                        | 0.07 Nm                                                                                                                                                                                                                        |
| Max. force Fy                                             | 270 N                                                                                                                                                                                                                          |
| Max. force Fy static                                      | 355 N                                                                                                                                                                                                                          |
| Max. force Fz                                             | 270 N                                                                                                                                                                                                                          |
| Max. force Fz static                                      | 355 N                                                                                                                                                                                                                          |
| Max. torque Mx                                            | 5.53 Nm                                                                                                                                                                                                                        |
| Max. static moment Mx                                     | 7.28 Nm                                                                                                                                                                                                                        |
| Max. torque My                                            | 2.43 Nm                                                                                                                                                                                                                        |

| Feature                                                            | Value                      |
|--------------------------------------------------------------------|----------------------------|
| Max. static moment $M_y$                                           | 3.2 Nm                     |
| Max. torque $M_z$                                                  | 2.43 Nm                    |
| Max. static moment $M_z$                                           | 3.2 Nm                     |
| Max. permissible torque load $M_x$ as a function of the stroke     | 0.9 Nm                     |
| Max. payload as a function of the stroke at defined distance $x_s$ | 31 N                       |
| Theoretical force at 6 bar, retracting                             | 51 N                       |
| Theoretical force at 6 bar, advancing                              | 68 N                       |
| Moving mass                                                        | 170 g                      |
| Product weight                                                     | 375 g                      |
| Center of gravity of the moving mass as a function of the stroke   | 16.7 mm                    |
| 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 |