

# Guided drive DGRC-GF-20-50-PA

Part number: 8218202

**FESTO**



## Data sheet

| Feature                                                     | Value                                                              |
|-------------------------------------------------------------|--------------------------------------------------------------------|
| Distance of centre of gravity of payload to yoke plate xs   | 50 mm                                                              |
| Stroke                                                      | 50 mm                                                              |
| Piston diameter                                             | 20 mm                                                              |
| Drive unit operating mode                                   | Yoke                                                               |
| Cushioning                                                  | Elastic cushioning rings/pads at both ends                         |
| Mounting position                                           | Any                                                                |
| Guide                                                       | Plain-bearing guide                                                |
| Structural design                                           | Guide                                                              |
| Position sensing                                            | Via proximity switch                                               |
| Protection against torsion/guide                            | Guide rod with yoke                                                |
| 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) |
| Ambient temperature                                         | -10 °C...60 °C                                                     |
| Impact energy in the end positions                          | 0.2 Nm                                                             |
| Max. force Fy                                               | 487.2 N                                                            |
| Max. force Fy static                                        | 487.2 N                                                            |
| Max. force Fz                                               | 487.2 N                                                            |
| Max. force Fz static                                        | 487.2 N                                                            |
| Max. torque Mx                                              | 13.15 Nm                                                           |
| Max. static moment Mx                                       | 13.15 Nm                                                           |
| Max. torque My                                              | 6.82 Nm                                                            |
| Max. static moment My                                       | 6.82 Nm                                                            |
| Max. torque Mz                                              | 6.82 Nm                                                            |
| Max. static moment Mz                                       | 6.82 Nm                                                            |
| Max. permissible torque load Mx as a function of the stroke | 1.96 Nm                                                            |

| Feature                                                          | Value                            |
|------------------------------------------------------------------|----------------------------------|
| Max. payload as a function of the stroke at defined distance xs  | 47.1 N                           |
| Theoretical force at 6 bar, retracting                           | 141 N                            |
| Theoretical force at 6 bar, advancing                            | 188 N                            |
| Torsional backlash                                               | 0.055 deg                        |
| Moving mass                                                      | 254.2 g                          |
| Product weight                                                   | 537.6 g                          |
| Basic weight with 0 mm stroke                                    | 283.4 g                          |
| Center of gravity of the moving mass as a function of the stroke | 38.4 mm                          |
| Pneumatic connection                                             | M5                               |
| Note on materials                                                | RoHS compliant                   |
| Cover material                                                   | Wrought aluminum alloy           |
| Seals material                                                   | NBR                              |
| Material of dynamic seals                                        | TPE-U(PU)                        |
| End plate material                                               | Wrought aluminum alloy, anodized |
| Guide rod material                                               | High-alloy steel                 |
| Housing material                                                 | Wrought aluminum alloy, anodized |
| Piston rod material                                              | High-alloy steel                 |