

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

Part number: 8218202

FESTO



[PDF](#) General operating condition

## Data sheet

| Feature                                                          | Value                                                                                      |
|------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Distance from centre of gravity of load to yoke plate xs         | 50 mm                                                                                      |
| Stroke                                                           | 50 mm                                                                                      |
| Piston diameter                                                  | 20 mm                                                                                      |
| Operating mode, drive unit                                       | Yoke                                                                                       |
| Cushioning                                                       | Elastic cushioning rings/plates at both ends                                               |
| Mounting position                                                | Any                                                                                        |
| Guide                                                            | Plain-bearing guide                                                                        |
| Design                                                           | Guidance                                                                                   |
| Position detection                                               | Via proximity switch                                                                       |
| Symbol                                                           | 00991737                                                                                   |
| Protection against torque/guide                                  | Guide rod with yoke                                                                        |
| 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)                         |
| Ambient temperature                                              | -10 °C ... 60 °C                                                                           |
| Impact energy in end positions                                   | 0.2 J                                                                                      |
| 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. moment Mx                                                   | 13.15 Nm                                                                                   |
| Max. torque Mx static                                            | 13.15 Nm                                                                                   |
| Max. moment My                                                   | 6.82 Nm                                                                                    |
| Max. torque My static                                            | 6.82 Nm                                                                                    |
| Max. moment Mz                                                   | 6.82 Nm                                                                                    |
| Max. torque Mz static                                            | 6.82 Nm                                                                                    |
| Max. permissible torque load Mx as a function of stroke          | 1.96 Nm                                                                                    |
| Max. effective load dependent upon stroke at defined distance xs | 47.1 N                                                                                     |
| Theoretical force at 0.6 MPa (6 bar, 87 psi), return stroke      | 141 N                                                                                      |

| Feature                                                      | Value                            |
|--------------------------------------------------------------|----------------------------------|
| Theoretical force at 0.6 MPa (6 bar, 87 psi), advance stroke | 188 N                            |
| Torsional backlash                                           | 0.055 deg                        |
| Moving mass                                                  | 254.2 g                          |
| Product weight                                               | 537.6 g                          |
| Basic weight for 0 mm stroke                                 | 283.4 g                          |
| Centre of gravity of moving mass as a function of stroke     | 38.4 mm                          |
| Pneumatic connection                                         | M5                               |
| Note on materials                                            | RoHS compliant                   |
| Material cover                                               | Wrought aluminium alloy          |
| Material seals                                               | NBR                              |
| Material dynamic seals                                       | TPE-U(PU)                        |
| Material end plate                                           | Anodised wrought aluminium alloy |
| Material guide rod                                           | High-alloy steel                 |
| Material housing                                             | Anodised wrought aluminium alloy |
| Material piston rod                                          | High-alloy steel                 |