

# Parallel gripper HEPP-42-56-EC

Part number: 8146658

**FESTO**



## Data sheet

| Feature                                     | Value  |
|---|--|
| Size  | 42   |
| Complete stroke                             | 56 mm  |
| Stroke per gripper jaw                      | 28 mm  |
| Max. gripper jaw backlash Sz                | 0.35 mm  |
| Pneumatic gripper repetition accuracy       | 0.02 mm  |
| Number of gripper jaws                      | 2  |
| Actuator system                             | Electrical   |
| Mounting position                           | Any  |
| Controller operating mode                   | Interpolating mode via fieldbus  |
| Gripper function                            | Parallel   |
| Structural design                           | Toothed belt<br>Electric gripper<br>with ball screw  |
| Guide                                       | Roller guide   |
| Position sensing                            | Motor encoder  |
| Configuration support                       | ESI file   |
| 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. |
| Rotor position sensor                       | Absolute encoder, single-turn  |
| Rotor position sensor measuring principle   | Magnetic   |
| Ready status indication                     | LED  |
| Positioning speed per gripper finger        | 50 mm/s  |
| Positioning acceleration per gripper finger | 1 m/s <sup>2</sup>   |
| Gripping speed per gripper finger           | 3 mm/s   |
| No. of MAC addresses                        | 4  |
| Max. current consumption                    | 4000 mA  |
| Max. load current consumption               | 3 A  |
| Logic max. current consumption              | 1 A  |
| Nominal operating voltage DC                | 24 V   |
| Nominal voltage, logic supply DC            | 24 V   |
| Nominal voltage, load supply DC             | 24 V   |

| Feature  | Value   |
|--|---|
| Motor nominal current                              | 5 A   |
| Load supply permissible range                      | ± 10 %  |
| Permissible range of logic voltage                 | ± 10 %  |
| KC characters                                      | KC EMC  |
| CE marking (see declaration of conformity)         | As per EU EMC directive<br>As per EU RoHS directive   |
| UKCA marking (see declaration of conformity)       | To UK instructions for EMC<br>To UK RoHS instructions   |
| Shock resistance                                   | Shock test with severity level 2 as per FN 942017-5 and EN 60068-2-27   |
| Corrosion resistance class (CRC)                   | 0 - No corrosion stress   |
| LABS (PWIS) conformity                             | VDMA24364 zone III  |
| Suitability for the production of Li-ion batteries | Product corresponds to Festo's internal product definition for use in battery production: Metals with more than 1% by mass of copper, zinc or nickel are excluded from use. The exceptions are nickel in steel, chemically nickel-plated surfaces, circuit boards, cables, electrical plug connectors and coils |
| Cleanroom class                                    | Class 6 according to ISO 14644-1  |
| Vibration resistance                               | Transport application test with severity level 2 as per FN 942017-4 and EN 60068-2-6  |
| Relative air humidity                              | 0 - 95 %<br>Non-condensing  |
| Noise level  | 60 dB(A)  |
| Degree of protection                               | IP40  |
| Ambient temperature                                | 0 °C...50 °C  |
| Total gripping force                               | 680 N   |
| Gripping force per gripper jaw                     | 340 N   |
| Mass moment of inertia                             | 85 kgcm <sup>2</sup>  |
| Maximum force on gripper jaw Fz, static            | 1100 N  |
| Maximum torque on gripper jaw, Mx static           | 13.9 Nm   |
| Maximum torque on gripper jaw, My static           | 38.5 Nm   |
| Maximum torque on gripper jaw, Mz static           | 13.9 Nm   |
| Rated load   | 3 kg  |
| Nominal torque                                     | 0.185 Nm  |
| Relubrication interval for guidance elements       | 1 MioCyc  |
| Product weight                                     | 2600 g  |
| Communication profile                              | CiA402<br>EoE (Ethernet over EtherCAT)<br>FoE (File over EtherCAT)  |
| Fieldbus interface, connection type                | Socket  |
| Fieldbus interface, connection technology          | M12x1, D-coded as per EN 61076-2-101  |
| Fieldbus interface, number of poles/wires          | 4   |
| Fieldbus interface, protocol                       | EtherCAT  |
| Electrical connection                              | 2x M12  |
| Fieldbus coupling                                  | EtherCAT  |
| Type of mounting                                   | With internal thread and centering sleeve   |
| Note on materials                                  | RoHS-compliant  |
| Housing material                                   | Aluminum, anodized  |
| Gripper jaw material                               | Steel   |