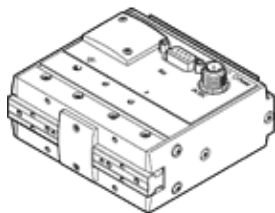


# Parallel gripper HGPI-12-10-PB

Part number: 539054

FESTO

precise and positionable.



## Data sheet

| Feature                                   | Value  |
|---|--|
| Size                                      | 12   |
| Smallest positioning stroke               | 0,2 mm   |
| Max. replacement accuracy                 | ≤ 0.2 mm   |
| Max. angular gripper jaw backlash ax,ay   | 0 deg  |
| Max. gripper jaw backlash Sz              | 0 mm   |
| Controllable stroke range per gripper jaw | 0 ... 10 mm  |
| Number of gripper fingers                 | 2  |
| Assembly position                         | Any  |
| Controller operating mode                 | PID position controller with subordinate, non-linear pressure/force regulation   |
| Mode of operation                         | double-acting  |
| Gripper function                          | Parallel   |
| Design structure                          | twin piston<br>Guide<br>With built-in, directly actuated poppet valves<br>With integrated sequence control<br>With integrated displacement encoder<br>With built-in pressure sensors<br>With integrated regulation |
| Guide                                     | Ball bearing cage guide  |
| Position detection                        | For Hall sensors   |
| Configuration support                     | Device database file   |
| Control elements                          | DIL switch for setting the operating modes and diagnostic scope  |
| Ready status display                      | Green LED  |
| Bus error display                         | Red LED  |
| Error status                              | Red LED  |
| Working pressure                          | 5 ... 6 bar  |
| Min. positioning speed                    | 1 mm/s   |
| Typical positioning time                  | 150 ... 250 ms   |
| Repetition accuracy                       | +/-0,1 mm  |
| Bus terminating resistor                  | 120 Ohm, external  |
| Duty cycle                                | 100%   |
| Max. current consumption, load            | 0.07 A   |
| Max. current consumption, logic           | 0.2 A  |
| Nominal DC voltage, logic power supply    | 24 V   |
| Nominal voltage, load supply DC           | 24 V   |
| Residual ripple                           | 5 %  |
| Permissible range, load supply            | ± 10 %   |
| Permissible range, logic voltage          | ± 10 %   |
| Operating medium                          | Dried compressed air, lubricated or unlubricated   |
| CE symbol (see declaration of conformity) | according to EU-EMV guideline  |
| Corrosion resistance classification CRC   | 2  |
| Relative air humidity                     | 0 - 95 %<br>non-condensing   |

| <b>Feature</b>  | <b>Value</b>   |
|---|--|
| Protection class  | IP40   |
| Ambient temperature   | 5 ... 40 °C  |
| Mass moment of inertia  | 7.8 kgcm <sup>2</sup>  |
| Max. deviation from the set point gripping force for each jaw | -6 N   |
| Max. force on gripper jaw Fz static                           | 70 N   |
| Max. torque at gripper Mx static                              | 3 Nm   |
| Max. torque at gripper My static                              | 3 Nm   |
| Max. torque at gripper Mz static                              | 3 Nm   |
| Open controllable total gripping force range at 6 bar         | 20 ... 120 N   |
| Close controllable total gripping force range at 6 bar        | 20 ... 120 N   |
| Open controllable gripping force range at 6 bar for each jaw  | 10 ... 60 N  |
| Close controllable gripping force range at 6 bar for each jaw | 10 ... 60 N  |
| Max. ground per external gripper finger                       | 150 g  |
| Product weight  | 650 g  |
| Communications profile  | Step 7 functional modules  |
| Electrical connection   | 4-pin<br>M12x1<br>Plug   |
| Fieldbus interface address range                              | 125  |
| Fieldbus interface design                                     | Electrical isolation<br>RS 485   |
| Electrical connection, fieldbus interface                     | Plug socket<br>SUB-D<br>9-pin  |
| Fieldbus coupling   | Profibus DP  |
| Mounting type   | Optional<br>Internal thread and centering sleeve<br>With dovetail slot |
| Pneumatic connection  | M3   |
| Materials note  | Contains PWIS substances   |
| Materials information for cover cap                           | Wrought Aluminum alloy<br>Anodized                                     |
| Materials information, housing                                | Aluminum<br>Smooth anodized  |
| Materials information for gripper jaws                        | High-strength wrought aluminum alloy<br>Smooth anodized                |