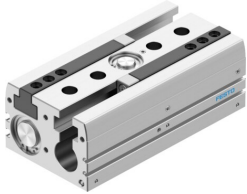


# Parallel gripper HPPL-32-120-A-F1A

Part number: 8200778

FESTO



## Data sheet

| Feature                                      | Value  |
|--|--|
| Size   | 32   |
| Total stroke                                 | 120 mm   |
| Stroke per gripper jaws                      | 60 mm  |
| Max. angular gripper jaw backlash ax, ay     | 0.2 deg  |
| Max. gripper jaw backlash Sz                 | 0.05 mm  |
| Repetition accuracy, gripper                 | 0.03 mm  |
| Number of gripper jaws                       | 2  |
| Drive system                                 | Pneumatic  |
| Mounting position                            | optional   |
| Mode of operation                            | Double-acting  |
| Cushioning                                   | Elastic cushioning rings/pads at both ends without metal fixed stop  |
| Gripper function                             | Parallel   |
| Gripper force back-up                        | None   |
| Design                                       | Twin piston<br>Guidance<br>Piston gate valve<br>T-shape<br>Rack and pinion   |
| Guide  | Heavy-duty guide   |
| Position detection                           | 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...0.8 MPa<br>2 bar...8 bar<br>29 psi...116 psi   |
| Min. opening time at 0.6 MPa (6 bar, 87 psi) | 270 ms   |
| Min. closing time at 0.6 MPa (6 bar, 87 psi) | 187 ms   |
| Max. mass per external gripper finger        | 330 g  |
| 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)   |
| Shock resistance                             | Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27  |

| Feature  | Value  |
|--|--|
| Corrosion resistance class CRC   | 1 - Low 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)               |
| Vibration resistance   | Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6 |
| Degree of protection   | IP40   |
| Ambient temperature  | -10 °C...80 °C   |
| Total gripping force, opening, 0.6MPa (6bar, 87 psi)                                 | 724 N  |
| Total gripping force, closing, 0.6MPa (6bar, 87 psi)                                 | 860 N  |
| Gripper force per gripper jaw, opening, 0.6 MPa (6 bar, 87 psi)                      | 362 N  |
| Gripper force per gripper jaw, closing, 0.6 MPa (6 bar, 87 psi)                      | 430 N  |
| Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi) open               | 754 N  |
| Theoretical total gripping force at 0 mm, 0.6 MPa (6 bar, 87 psi), closing           | 890 N  |
| Theoretical gripping force per gripper jaw at 0 mm, 0.6 MPa (6 bar, 87 psi), closing | 377 N<br>445 N   |
| Mass moment of inertia   | 66.77 kgcm <sup>2</sup>  |
| Max. force Fz  | 2200 N   |
| Max. torque at gripper Mx static   | 115 Nm   |
| Max. torque at gripper My static   | 70 Nm  |
| Max. torque at gripper Mz static   | 85 Nm  |
| Product weight   | 2307 g   |
| Type of mounting   | Via female thread and centring sleeve<br>Via through-hole and centring sleeve    |
| Pneumatic connection   | M5   |
| Note on materials  | RoHS-compliant<br>Free of copper   |
| Material cover cap   | Wrought aluminium alloy, anodised  |
| Material end plate   | Anodised wrought aluminium alloy   |
| Material housing   | Anodised wrought aluminium alloy   |
| Material gripper jaws  | High-alloy stainless steel   |
| Material piston  | Wrought aluminium alloy, anodised  |
| Material piston seal   | TPE-U(PU)  |
| Material piston rod  | High-alloy stainless steel   |
| Material o-ring  | NBR  |
| Material screws  | Steel, chemically nickel-plated  |
| Gear wheel material  | High-alloy steel   |
| Gripper finger material  | Wrought aluminium alloy, anodised  |