



## Pneumatic parallel gripper/valve combination HPPH



### Highlights

- For safe human-robot collaboration up to 0.5 MPa
- Gripper/valve combination with integrated sensors and low overall height
- Reduces cycle times and saves up to 75 % on compressed air compared to using individual components
- TÜV certification for grippers with fingers to ISO 15066
- Can be used with many different cobots and robots thanks to the mechanical robot interface to ISO 9409-1-50-4-M6
- Gripping force backup for safe handling, even in emergency off mode
- Versatile control via digital I/O (PNP/NPN) or IO-Link®

**The parallel gripper/valve combination HPPH has been specially developed for human-robot collaboration and can be combined with many cobots or robots thanks to its universal robot interface. The low overall height and the low mass moment of inertia ensures a high dynamic response.**

#### For all-round and safe use

The HPPH can be used for human-robot collaboration (HRC) and other handling or robotic applications. In addition to classic application areas, the HPPH can also be flexibly used in many environments without a safety fence.

#### Compact system solution

The pre-assembled gripper unit makes commissioning quick and easy. The TÜV-certified gripping unit saves time and effort when analysing the safety of the overall application. In addition, since the

valves are directly integrated in the gripper, cycle times can be reduced and savings of up to 75 % on compressed air can be achieved.

#### Plug & work via robot interface

Thanks to the mechanical robot interface, it can also be quickly and easily integrated in many different cobots. The control is then carried out via digital I/O or IO-Link®.

#### Low height and weight

The flat design and low weight of the gripping unit means that mass moments of inertia are low, thus achieving a high dynamic response in the application.



#### Additional information:

Product page

> [www.festo.com/catalogue/hpph](http://www.festo.com/catalogue/hpph)

**Technical data**

| General technical data                                                  |                          | HPPH               |
|-------------------------------------------------------------------------|--------------------------|--------------------|
| Size                                                                    |                          | 16                 |
| Total stroke                                                            | [mm]                     | 16                 |
| Operating pressure                                                      | [MPa]                    | 0.25 ... 0.7       |
| Total gripping force at 0.6 MPa, closing with spring (stroke-dependent) | [N]                      | 278 ... 302        |
| Total gripping force backup (stroke-dependent)                          | [N]                      | 46.6 ... 69.8      |
| Nominal operating pressure HRC                                          | [MPa]                    | 0.5                |
| Gripping force per gripper jaw HRC closing (depending on stroke)        | [N]                      | 116 ... 128        |
| HRC design to ISO/TS 15066                                              |                          | Yes                |
| Closing time at 0.6 MPa                                                 | [ms]                     | 90                 |
| Opening time at 0.6 MPa                                                 | [ms]                     | 180                |
| Integrated valve technology, sensors and gripper fingers                |                          | Yes                |
| Guide                                                                   |                          | Ball guide         |
| Repetition accuracy                                                     | [mm]                     | ≤0.06              |
| Max. operating frequency                                                | [Hz]                     | 1                  |
| Type of mounting                                                        |                          | ISO 9409-1-50-4-M6 |
| Weight with gripper fingers                                             | [g]                      | 680                |
| Mounting position                                                       |                          | Any                |
| Ambient temperature                                                     | [°C]                     | −5 ... 50          |
| Max. permissible static force F <sub>z</sub> at the gripper jaws        | F <sub>z max.</sub> [N]  | 176                |
| Max. permissible static torque at the gripper jaws                      | M <sub>x max.</sub> [Nm] | 2.8                |
|                                                                         | M <sub>y max.</sub> [Nm] | 1.4                |
|                                                                         | M <sub>z max.</sub> [Nm] | 1.4                |

| Electrical data          |        | HPPH                                                      |
|--------------------------|--------|-----------------------------------------------------------|
| Communication            |        | DIO (PNP/NPN): plug / socket M8x1, 8-pin, A-coded, angled |
|                          |        | IO-Link®: plug M12x1, 5-pin, A-coded, straight            |
| Nominal voltage          | [V DC] | 24 ± 10 V                                                 |
| Max. current consumption | [A]    | DIO (PNP/NPN): 0.1                                        |
|                          |        | IO-Link®: tbd                                             |
| Degree of protection     |        | IP40                                                      |
| Status indicator         |        | DIO (PNP/NPN): LED blue, controllable via signal input    |
|                          |        | IO-Link®: LED RGB                                         |