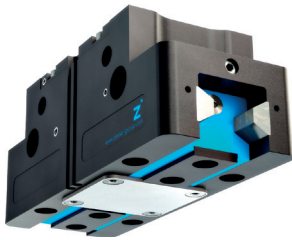


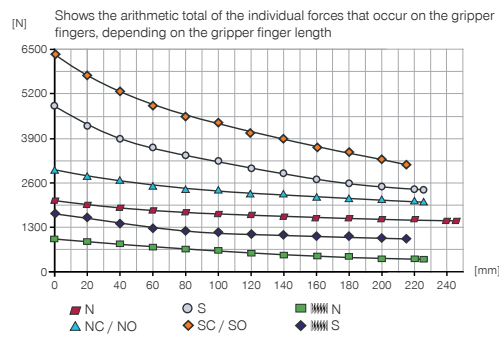
# 2-JAW PARALLEL GRIPPERS

## INSTALLATION SIZE GPP5016

### 1 PRODUCT SPECIFICATIONS

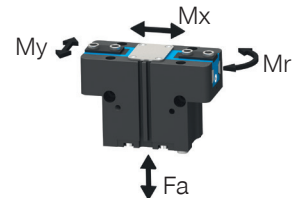


#### Gripping force diagram



#### Forces and moments

Displays static forces and moments that can also have an effect, besides the gripping force.



|         |      |
|---------|------|
| Mr [Nm] | 145  |
| Mx [Nm] | 195  |
| My [Nm] | 185  |
| Fa [N]  | 5200 |

### TECHNICAL DATA

#### Technical data

| Order no.                                 | GPP5016N-00-A | GPP5016NC-00-A | GPP5016NO-00-A | GPP5016S-00-A | GPP5016SC-00-A | GPP5016SO-00-A |
|---|---------------|----------------|----------------|---------------|----------------|----------------|
| Stroke per jaw [mm]                       | 16            | 16             | 16             | 8             | 8              | 8              |
| Gripping force in closing [N]             | 2090          | 2860           |                | 4610          | 6310           |                |
| Gripping force in opening [N]             | 2220          |                | 2990           | 4900          |                | 6600           |
| Gripping force secured by spring min. [N] |               | 770            | 770            |               | 1700           | 1700           |
| Closing time [s]                          | 0.13          | 0.11           | 0.24           | 0.13          | 0.11           | 0.24           |
| Opening time [s]                          | 0.13          | 0.24           | 0.11           | 0.13          | 0.24           | 0.11           |
| Permissible weight per jaw max [kg]       | 3.8           | 3.8            | 3.8            | 3.8           | 3.8            | 3.8            |
| Length of the gripper fingers max. [mm]   | 245           | 225            | 225            | 225           | 215            | 215            |
| Repetition accuracy +/- [mm]              | 0.01          | 0.01           | 0.01           | 0.01          | 0.01           | 0.01           |
| Operating pressure min. [bar]             | 3             | 4              | 4              | 3             | 4              | 4              |
| Operating pressure max. [bar]             | 8             | 7              | 7              | 8             | 7              | 7              |
| Nominal operating pressure [bar]          | 6             | 6              | 6              | 6             | 6              | 6              |
| Operating temperature [°C]                | -10 ... +90   | -10 ... +90    | -10 ... +90    | -10 ... +90   | -10 ... +90    | -10 ... +90    |
| Air volume per cycle [cm³]                | 166           | 332            | 332            | 166           | 332            | 332            |
| Protection to IEC 60529                   | IP64          | IP64           | IP64           | IP64          | IP64           | IP64           |
| Weight [kg]                               | 2.9           | 3.7            | 3.7            | 2.9           | 3.7            | 3.7            |

#### Technical Data - High Temperature Version

| Order no.                  | GPP5016N-20-A | GPP5016NC-20-A | GPP5016NO-20-A | GPP5016S-20-A | GPP5016SC-20-A | GPP5016SO-20-A |
|----------------------------|---------------|----------------|----------------|---------------|----------------|----------------|
| Operating temperature [°C] | -10 ... +130  | -10 ... +130   | -10 ... +130   | -10 ... +130  | -10 ... +130   | -10 ... +130   |

#### Technical Data - Protector Version

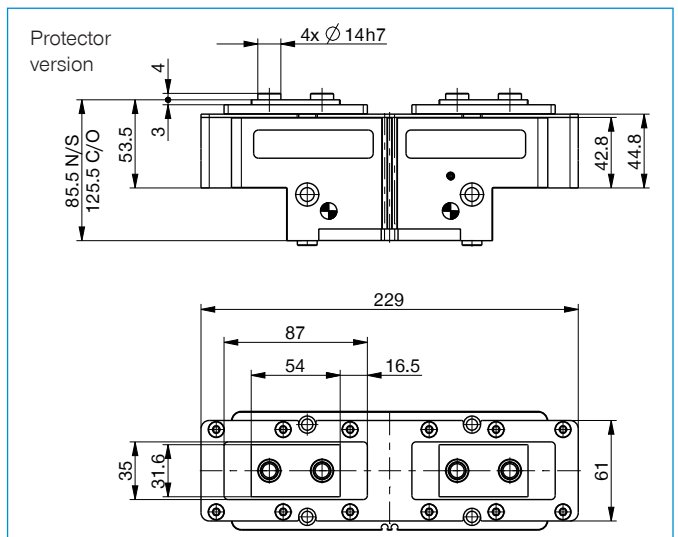
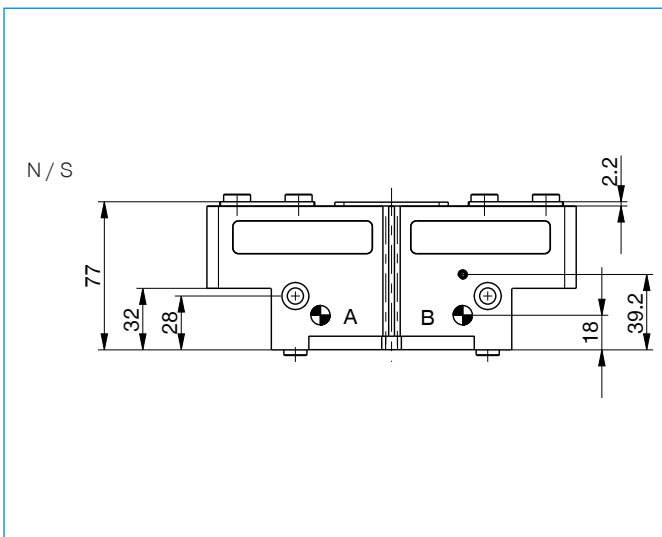
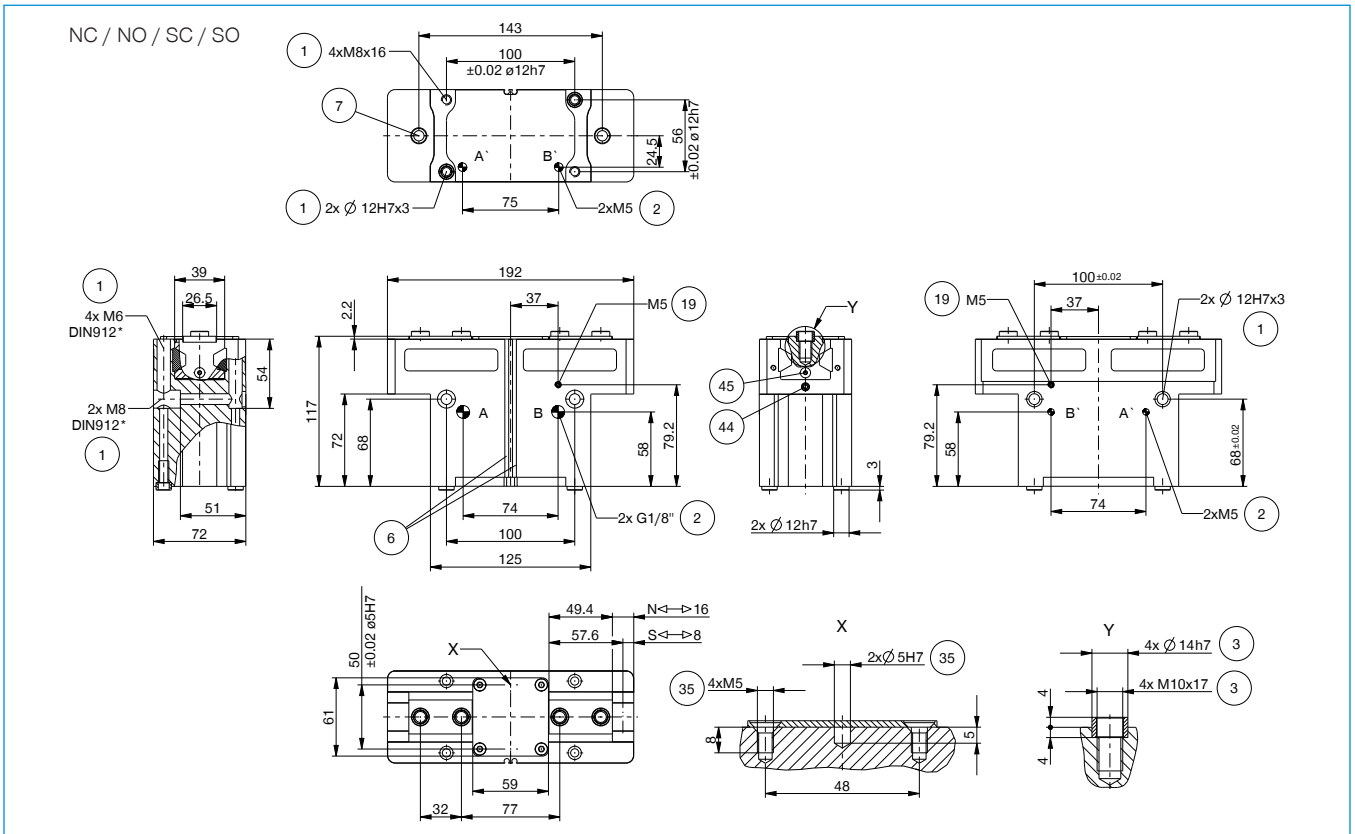
| Order no.               | GPP5016N-21-A | GPP5016NC-21-A | GPP5016NO-21-A | GPP5016S-21-A | GPP5016SC-21-A | GPP5016SO-21-A |
|-------------------------|---------------|----------------|----------------|---------------|----------------|----------------|
| Protection to IEC 60529 | IP67 *        | IP67 *         | IP67 *         | IP67 *        | IP67 *         | IP67 *         |
| Weight [kg]             | 3.6           | 4.4            | 4.4            | 3.6           | 4.4            | 4.4            |

#### Technical Data - High Temperature Protector Version

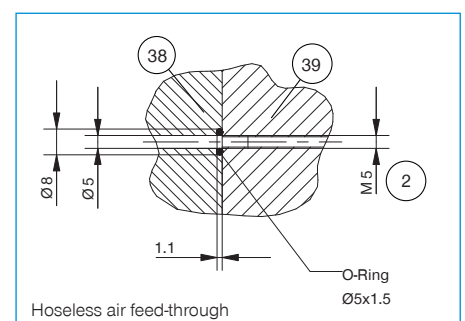
| Order no.                  | GPP5016N-24-A | GPP5016NC-24-A | GPP5016NO-24-A | GPP5016S-24-A | GPP5016SC-24-A | GPP5016SO-24-A |
|----------------------------|---------------|----------------|----------------|---------------|----------------|----------------|
| Operating temperature [°C] | -10 ... +130  | -10 ... +130   | -10 ... +130   | -10 ... +130  | -10 ... +130   | -10 ... +130   |
| Protection to IEC 60529    | IP67 *        | IP67 *         | IP67 *         | IP67 *        | IP67 *         | IP67 *         |
| Weight [kg]                | 3.6           | 4.4            | 4.4            | 3.6           | 4.4            | 4.4            |

\*with purged air (max. 0,5 bar)

## ▶ TECHNICAL DRAWINGS



- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Mounting block
- ⑱ Air purge connection option
- ⑳ Attachment option for customer-specific fittings
- ㉓ Adapter
- ㉔ Gripper
- ㉕ Clamp for sensor
- ㉖ Switch cam adjustment
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓒ Air connection, alternative (close)
- Ⓓ Air connection, alternative (open)

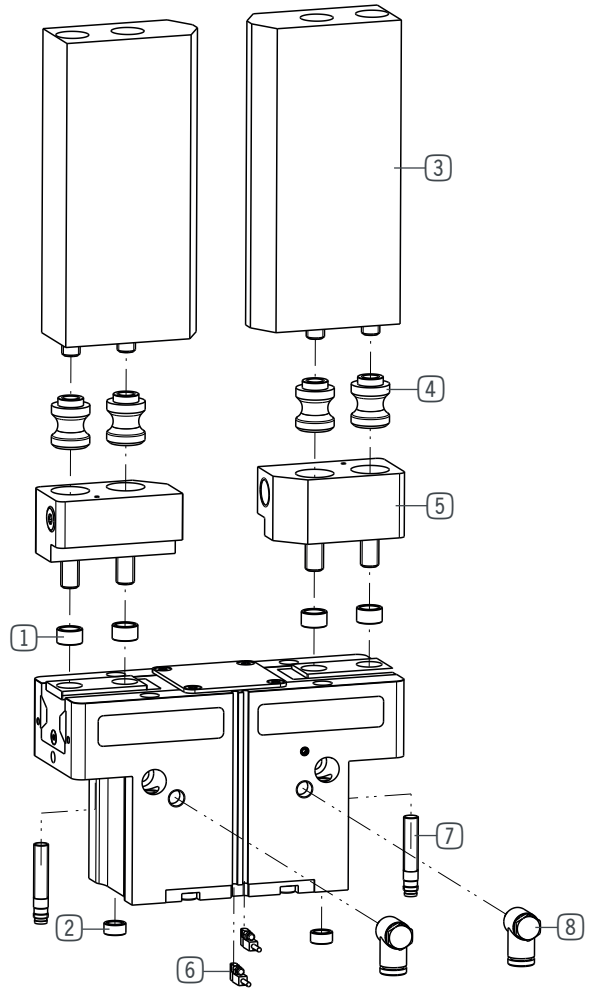


# 2-JAW PARALLEL GRIPPERS

## INSTALLATION SIZE GPP5016

1

Installation size GPP5016 / 2-Jaw Parallel Grippers / pneumatic / Grippers



### ▶ INCLUDED IN DELIVERY



Centering Disc

019387



Centering Disc

019280

**▶ RECOMMENDED ACCESSORIES**



Universal jaw aluminium

**UB5016AL**



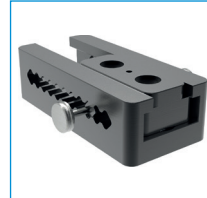
Universal jaw steel

**UB5016ST**



Aluminum adjustment jaw

**EB5016AL**



Steel adjustment jaw

**EB5016ST**



Changeable jaw, loose-part-set

**WB5016L**



Changeable jaw, fix-part

**WB5016F**



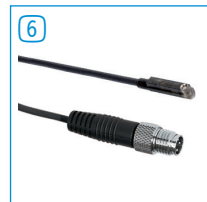
Inductive proximity switch - Connector M8

**NJ8-E2S**



Magnetic field sensor Angled Cable 0,3 m - Connector M8

**MFS103SKHC**



Magnetic field sensor Straight Cable 0,3 m - Connector M8

**MFS204SKHC**



2-Position-Sensor Cable 0,3 m - Connector M8

**MFSP2SKHC-02**



Plug-in connector Straight Cable 5m - Socket M8 (female)

**KAG500**



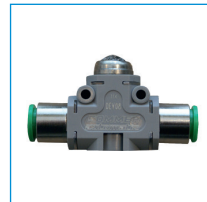
Plug-in connector customizable Straight - Connector M8

**S8-G-3**



Angled Fittings - Quick Connect Style

**WV1-8X8**



Quick Exhaust Valve

**DEV08**

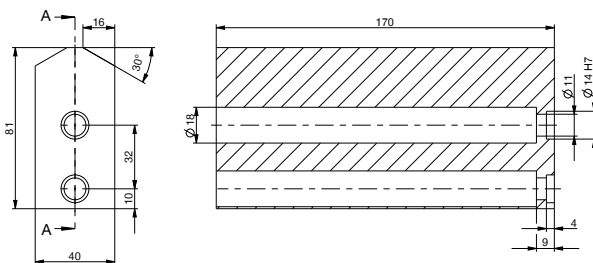


Pressure Safety Valve

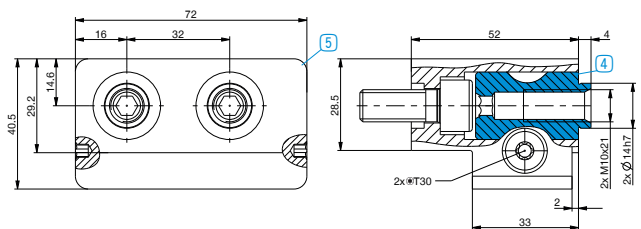
**DSV1-8**

**▶ TECHNICAL DRAWINGS ACCESSORIES**

One universal jaw is required for each gripper jaw **3**



For each gripper jaw, one interchangeable jaw loose part set **4** and one interchangeable jaw fixed part **5** are needed

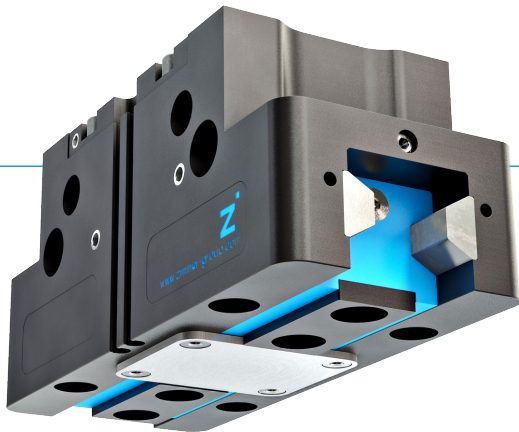


# 2-JAW PARALLEL GRIPPERS

## SERIES GPP5000

1

### ▶ PRODUCT ADVANTAGES



#### “The Universal One”

- ▶ Up to 30% more gripping force than the benchmark
- ▶ 10% more static forces and moments than the benchmark
- ▶ Gripper fingers up to 10% longer than the benchmark
- ▶ Gripper fingers weight up to 15% higher than the benchmark
- ▶ Sealed guide IP64 / Protector version IP67 (with purged air)
- ▶ Protected against corrosion
- ▶ Up to 30 million cycles without maintenance

### ▶ THE BEST PRODUCT FOR YOUR APPLICATION



#### ▶ Our products love the challenge!

Extreme conditions, all over the world—our tried and tested components and systems give you limitless possibilities:  
Find the best product for your specific use:  
[www.zimmer-group.com](http://www.zimmer-group.com)

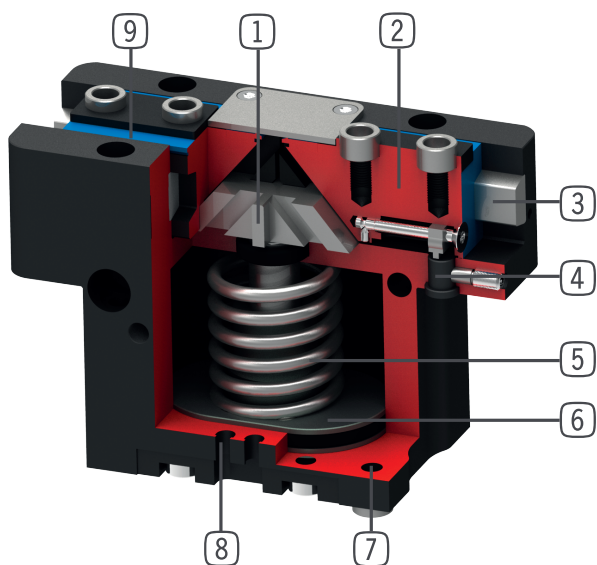
#### HOW TO ORDER CORRECTLY

- ▶ The product order numbers are arranged according to this diagram:

| Order no.  | GPP5010 | <input type="checkbox"/> | <input type="checkbox"/> | - <input type="checkbox"/> | -A |
|--|---------|--------------------------|--------------------------|----------------------------|----|
| Basis version  | N       |                          |                          |                            |    |
| High force   | S       |                          |                          |                            |    |
| For external gripping, self-locking, spring closing  |         |                          | C                        |                            |    |
| For internal gripping, self-locking, spring opening  |         |                          | O                        |                            |    |
| temperature-resistant version to 130 °C  |         |                          |                          | 20                         |    |
| Protector version IP67 for use in adverse environments (with purged air)                                 |         |                          |                          | 21                         |    |
| temperature-resistant protector version IP67 for use in adverse environments (with purged air) to 130 °C |         |                          |                          | 24                         |    |



## ► BENEFITS IN DETAIL



- ① **Wedge hook mechanism**
  - Supports to absorb high forces and moments
  - Synchronized gripper jaw movement
- ② **Gripper jaw**
  - Gripper fingers mounted using removable centring sleeves
  - Lubricated for life via incorporated lubrication slots
- ③ **Steel Linear Guide**
  - Steel in steel guide
  - Enables use of extremely long gripper fingers
- ④ **Mounting block**
  - mounting for inductive proximity switch
- ⑤ **Integrated gripping force safety device**
  - Spring built into cylinder chamber as an energy store
- ⑥ **Drive**
  - Double-acting pneumatic rotor cylinder
- ⑦ **Mounting and positioning**
  - Alternatively, on several sides for customized mounting
  - Pneumatic and electrical versions identical apart from height
- ⑧ **Sensing slot**
  - mounting and positioning of magnetic field sensors
- ⑨ **Dual lip seal**
  - IP64 and up to IP67 (with purged air) for Protector version
  - Prevents grease from being squeezed out, increasing service life

## ► SERIES CHARACTERISTICS



|                              |                   |
|------------------------------|-------------------|
| Number of installation sizes | 11                |
| Stroke per jaw               | 2,5 mm - 45 mm    |
| Gripping force               | 140 N - 26950 N   |
| Weight                       | 0,08 kg - 41,5 kg |
| AP class                     | 5                 |



30 million maintenance-free cycles (max.)



High-strength S



IP67



Temperature-resistant



Spring closing C



Inductive sensor



Corrosion resistance



Purged air



Spring opening O



IP64



Magnetic field sensor