

# MHP

## MINIATURE HIGH-SPEED PARALLEL GRIPPER



Dear Customer,

Congratulations on choosing a SCHUNK product. By choosing SCHUNK, you have opted for the highest precision, top quality and best service.

**You are going to increase the process reliability of your production and achieve best machining results – to the customer's complete satisfaction.**

**SCHUNK products are inspiring.**

Our detailed assembly and operation manual will support you.

Do you have further questions? You may contact us at any time – even after purchase. You can reach us directly at the mentioned addresses in the last chapter of these instructions.

Kindest Regards,

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## 1. Safety

### 1.1. Symbol Key



You will find this symbol wherever hazards for persons or damage to the product are possible.



This symbol indicates **important information** on the product or its handling.

### 1.2. Appropriate Use

The gripper was designed for gripping and temporary secure holding of workpieces or other objects. The unit is intended for installation / mounting for machinery and equipment. The requirements of the applicable directives must be observed and complied with.

The gripper may only ever be employed within the restrictions of its technical specifications. Using the system with disregard to even a minor specification will be deemed inappropriate use. The manufacturer assumes no liability for any injury or damage resulting from inappropriate use.

## 2. Warranty

The warranty period is 24 months from the date of delivery when utilized as intended in single-shift operations and in compliance with the specified maintenance and lubrication intervals. Parts that come into contact with the workpiece and wearing parts are not covered by the warranty. See also our General Terms and Conditions in this regard.

**The warranty is voided by any of the following circumstances:**

- if the gripper is opened
- if the gripper is operated at a higher voltage
- if the gripper is exposed to temperatures above 80°C
- in case of mechanical damage from outside
- in case of contamination of the gripper interior
- in case of any other improper handling

## 3. Scope of Delivery

The scope of delivery comprises:

- Miniature high-speed parallel gripper Type MHP

## 4. Technical Data

The airborne sound emitted by the unit is  $\leq 70\text{dB(A)}$

Further technical data can be found in our catalog. The most recent version applies (according to Chapter 2.3 of the General Terms and Conditions).

## 5. Assembly and installation

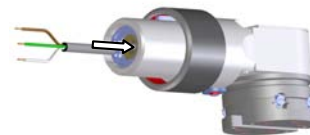
### 5.1. Adjustment of the gripper head angle

#### Tools needed

- Adjusting device
- Allen wrench: SW 1.5 mm
- Allen wrench: SW 2.5 mm
- Screwdriver

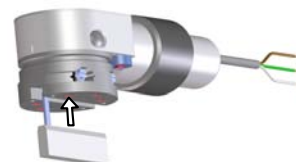
#### Step 1

Move the gripper to clamping position by applying power or pressure to the push rod and hold in place.



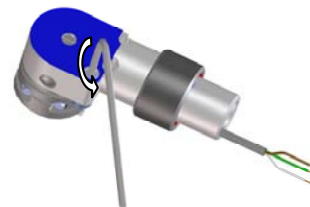
#### Step 2

Position the adjusting device and insert the locating pin into the 2mm hole.



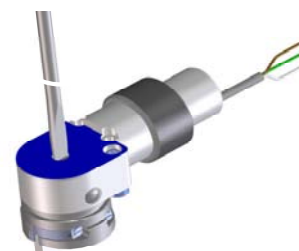
#### Step 3

Loosen the clamping screw.



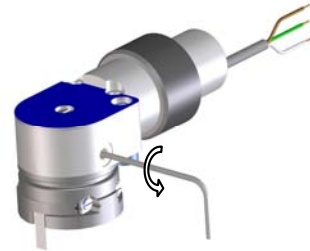
#### Step 4

Loosen the centric mounting screw.



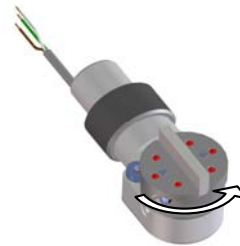
**Step 5**

Remove the cap and loosen the set screw  
- **Do NOT screw all the way out!**



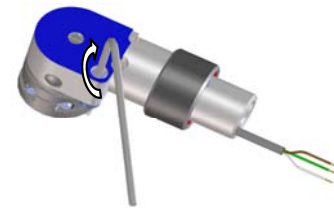
**Step 6**

Adjust the angle by turning the gripper head. The gripper head can be turned steplessly for infinite adjustment.



**Step 7**

Tighten the clamping screw.



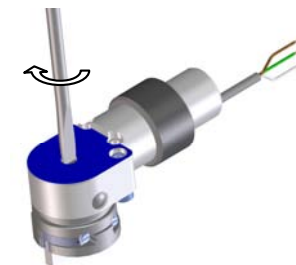
**Step 8**

Tighten the set screw and press the cap back in.



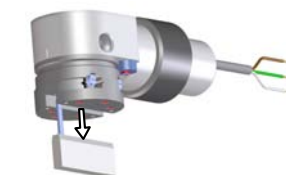
**Step 9**

Tighten the centric screw.



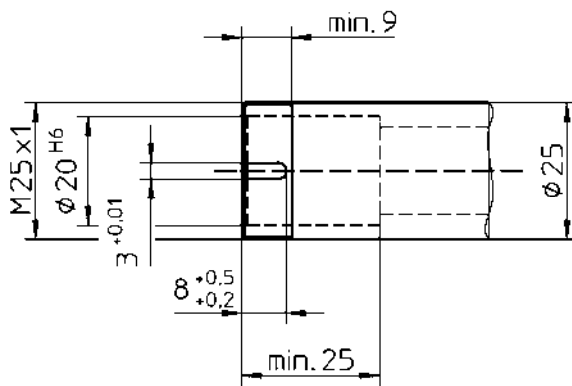
**Step 10**

Remove the adjusting device.



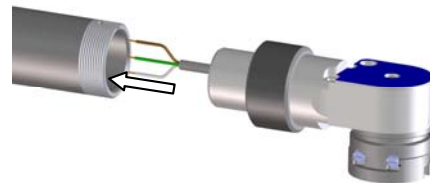
## 5.2. Installation of the gripper

Geometry for the connecting arm of the gripper:



### Step 1

Insert the cable into the connecting arm.



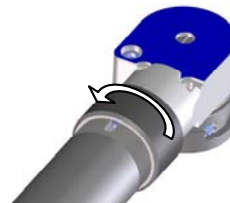
### Step 2

Push the gripper connection into the arm; pay attention to the position of the keyway.



### Step 3

Screw the gripper on with the knurled nut and tighten.



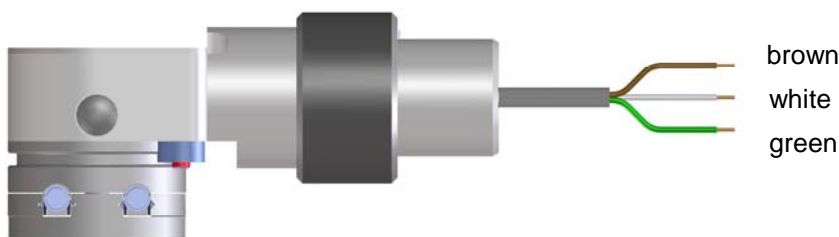
### 5.3. Electrical connection



Prior to connecting the gripper, the machine must be de-energized!  
The electrical connection must be performed by a qualified electrician!

#### Cable connections:

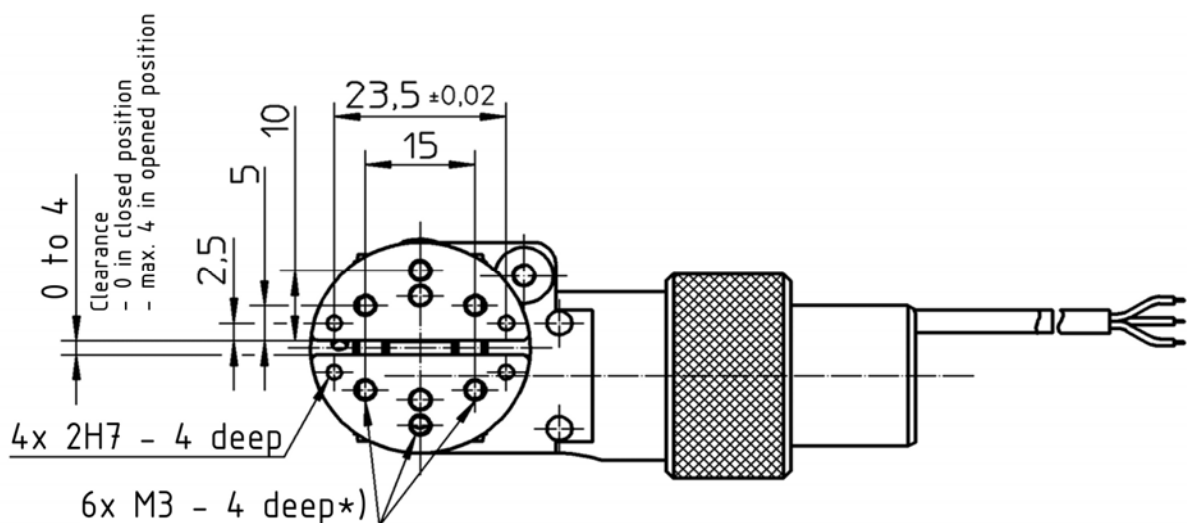
brown: +24V for clamping position  
white: ground  
green: +24V for released position



### 5.4. Adaptation of the attachment elements

Two fixing holes 2 H7 (see dimension  $23.5 \pm 0.02$ ) are used to position the two attachment elements. Three M3 screws are used for fastening in the gripper base jaws. The clearance between the base jaws of the gripper is 0 in closed position and the maximum clearance in open position is 4 mm.

#### Connection geometry for the gripper attachments



#### \*)Note

The maximum depth of engagement for the M3 mounting screws for the attachment elements is 4mm!

## 6. Environmental and operating conditions



### Note

Therefore, great care must be taken to prevent impact loads to the movable guide elements (e.g. from dropping the gripper or during mounting of the attachment elements).

- The gripper may be operated only at an ambient temperature between +5°C (+41F) and +55°C (+131F)!
- If the gripper is operated for an extended period - especially without a connection arm - the surfaces can become very hot! In the event of overheating, the internal electronic circuitry shuts down the gripper automatically. The gripper is ready for operation only after a cooling-down period.
- The base jaws of the gripper are equipped with very smooth running rolling-contact guides. However, these guides are very sensitive to external mechanical forces!

## 7. Maintenance and Care

The gripper is maintenance-free, because:

- all moving parts inside the gripper are permanently lubricated. Therefore, no lubrication of these parts is necessary and use of an incompatible lubricant can result in damage.



## 8. Contact



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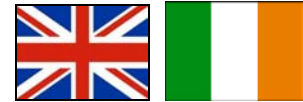
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