



**Sizes** 34.. 100



Weight 0.14 kg .. 3.5 kg



**Gripping moment** 2.1 Nm .. 127 Nm



Opening angle per finger 10° .. 90°



Workpiece weight 0.3 kg .. 6.0 kg

#### **Application example**



Rotating/gripping combination for handling small wheel spindles. The 180° opening angle of the gripper eliminates the linear unit that would otherwise be necessary.

2-Finger Angular Gripper GWB 64

Rotary Actuator SRU 35.2-180-3-4

## **GWB**

## **Universal Radial Gripper**

180° Angular gripper with gripping force safety device and powerful toggle drive system

#### **Area of application**

For areas of application which, in addition to a large gripping force, require the shortest possible motion sequences through the radial design of the jaw stroke.

#### Your advantages and benefits

**Opening angle adjustable from 20° to 180°** Enabling a wide range of applications

# Equipped with mechanical gripping force safety device

To keep the gripper fingers closed with the indicated spring force.

# Air supply via hose-free direct connection or via fittings

For flexible pressure supply in all automated systems

#### **Kinematics**

Toggle system for extremly high gripping force at the moment of workpiece contact





#### General information on the series

#### Working principle

Toggle drive system

#### **Housing material**

Aluminum alloy, hard-anodized

#### Base jaw material

Steel

#### Actuation

Pneumatic, with filtered compressed air (10  $\mu$ m): Dry, lubricated or non-lubricated Pressure medium: Requirements on quality of the compressed air according to DIN ISO 8573-1: 6 4 4.

#### Warranty

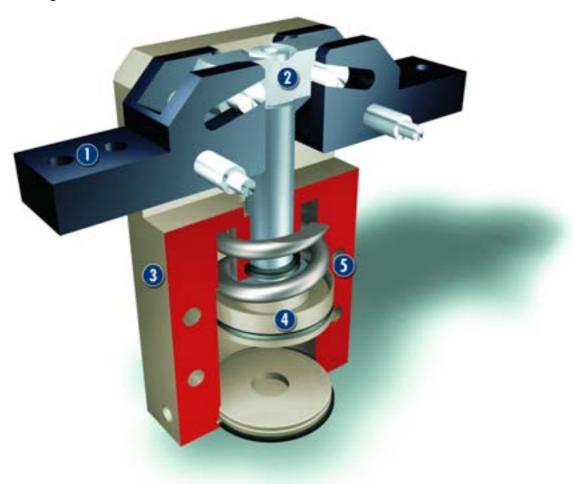
24 months

#### Scope of delivery

Brackets for proximity switches, dowel pins, O-rings for direct connection, assembly and operating manual with manufacturer's declaration



#### Sectional diagram



- Base jaws
  for the connection of workpiece-specific
  gripper fingers
- Kinematics
  Toggle system for extremly high gripping force at the moment of workpiece contact
- Housing
  weight-reduced thanks to the use of a hardanodized, high-strength aluminum alloy
- **Drive**pneumatic for a high power density
- Centering and mounting possibilities for universal gripper mounting

#### **Function description**

The round piston is pressed up or down by compressed air. In the process, the two pins of the crank system move in unison and relative to the groove in the top jaws. In the gripping moment, these two pins reach the largest lever arm.

#### **Options and special information**

 $180^{\circ}$  angular grippers (radial grippers) are advantageous in that they save an additional stroke movement. Since each jaw rotates away by  $90^{\circ}$ , they are mostly removed from the work area; a stroke movement to retract the entire gripper can be omitted.



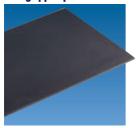
#### **Accessories**

Accessories from SCHUNK — the suitable supplement for maximum functionality, reliability and performance of all automation modules.

#### **Quentes plastic inserts**



**HKI** gripper pads



SDV-P pressure maintenance valves



#### **Fittings**





IN inductive proximity switches



**KV/KA** sensor cables



V sensor distributors



<mark>180°</mark>

① For the exact size of the required accessories, availability of this size and the designation and ID, please refer to the additional views at the end of the size in question.

You will find more detailed information on our accessory range in the "Accessories" catalog section.

#### General information on the series

#### **Gripping moment**

is the arithmetic total of gripping moments for each claw jaw.

#### Finger length

is measured from the upper edge of the gripper housing in the direction of the main axis. If the maximum permitted finger length is exceeded, as with heavy fingers, the speed of movement of the jaws must be throttled, as is the case for heavy fingers, and/or the opening angle must be reduced. The gripper's life may be shortened.

#### Repeat accuracy

is defined as the spread of the limit position after 100 consecutive strokes.

#### Workpiece weight

The recommended workpiece weight is calculated for a force-type connection with a coefficient of friction of 0.1 and a safety factor of 2 against slippage of the workpiece on acceleration due to gravity g. Considerably heavier workpiece weights are permitted with form-fit gripping.

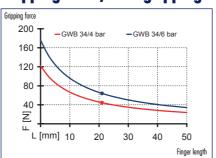
#### Closing and opening times

Closing and opening times are purely the times that the base jaws or fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.

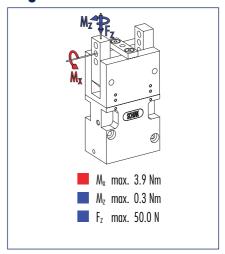




## Gripping force, O.D. gripping



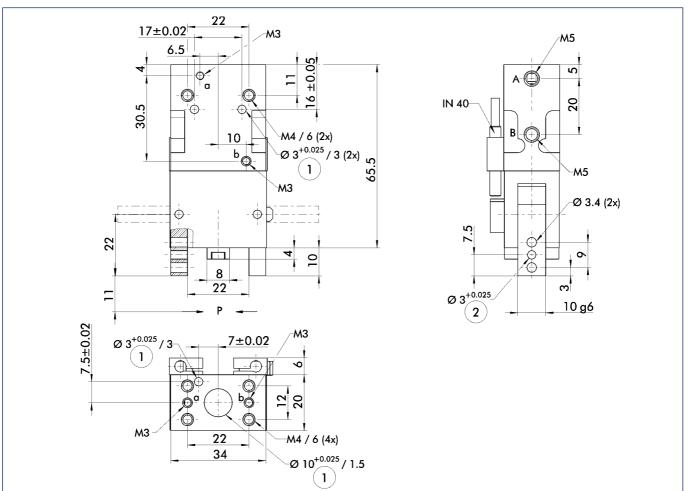
## Finger load

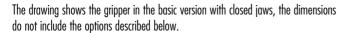


Moments and forces apply per base jaw and may occur simultaneously. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

## Technical data

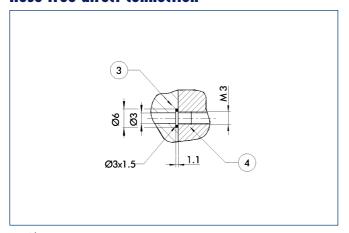
Description		GWB 34	
	ID	0307135	
Opening angle per jaw	[°]	90.0	
Opening angle per jaw up to	[°]	2.0	
Closing moment	[Nm]	2.112	
Closing moment ensured by spring	[Nm]	0.5	
Weight	[kg]	0.14	
Recommended workpiece weight	[kg]	0.3	
Air consumption per double stroke	[cm <sup>3</sup> ]	4.5	
Nominal pressure	[bar]	6.0	
Minimum pressure	[bar]	4.0	
Maximum pressure	[bar]	6.5	
Closing time	[s]	0.3	
Opening time	[s]	0.4	
Max. permitted finger length	[mm]	40.0	
Max. permitted weight per finger	[kg]	0.07	
IP class		20	
Min. ambient temperature	[°C]	-10.0	
Max. ambient temperature	[°C]	90.0	
Repeat accuracy	[mm]	0.1	





- (i) The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- 1 Gripper connection
- (2) Finger connection

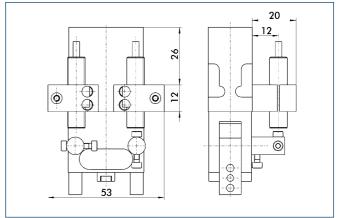
#### **Hose-free direct connection**



- 3 Adapter
- 4 Gripper

The direct connection is used for supplying compressed air to the gripper without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

### Mounting kit for M8/M12 proximity switches

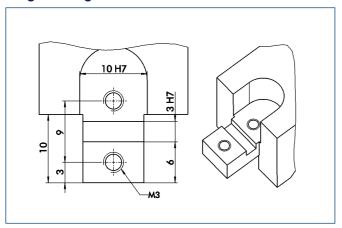


The mounting kit consists of 2 brackets, 2 intermediate sleeves and small components. The proximity switches must be ordered separately.

Description	ID	
HG-GWB 34	0300740	

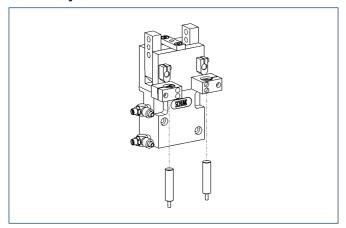






Suggested connection dimensions for gripper fingers

#### **Sensor system**

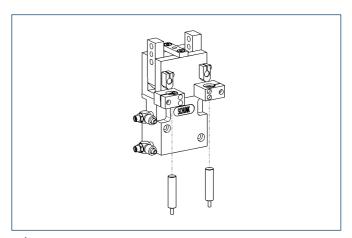


End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40-S-M12	0301574	
IN 40-S-M5-NPN	0301492	
IN 40-S-M5-PNP	0301491	
IN 40-S-M8	0301474	•
INK 40-S	0301555	

(1) Two sensors (NO contacts) are required for each gripper, plus extension cables as an ontion.



End position monitoring:

Inductive proximity switches, mounted with mounting kit

Description	ID	Recommended product	
HG-GWB 34	0300740		
IN 120-S-M12	0301592		
IN 80-S-M12	0301578		
IN 80-S-M8	0301478	•	
IN-C 80-S-M8	0301475		
INK 120-S	0301562		
INK 80-S	0301550		
INK 80-SL	0301579		



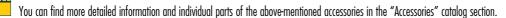
Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

Description	עו	
KA BG05-L 3P-0300	0301652	
KA BG08-L 3P-0300-PNP	0301622	
KA BW05-L 3P-0300	0301650	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	

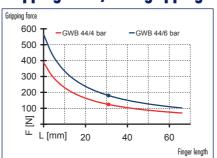
Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



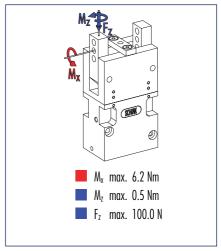




## Gripping force, O.D. gripping



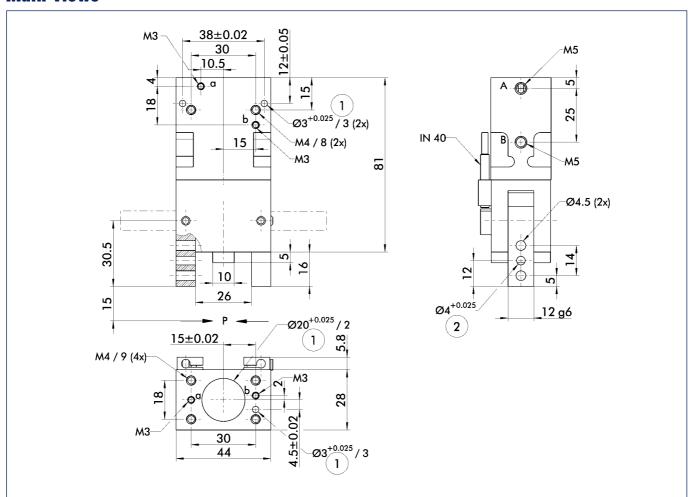
## Finger load

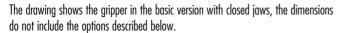


Moments and forces apply per base jaw and may occur simultaneously. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

## Technical data

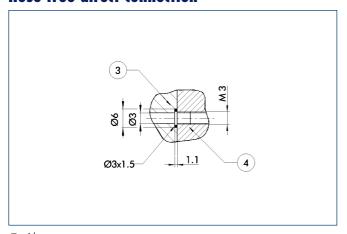
Description		GWB 44	
	ID	0307136	
Opening angle per jaw	[°]	90.0	
Opening angle per jaw up to	[°]	2.0	
Closing moment	[Nm]	8.19	
Closing moment ensured by spring	[Nm]	1.8	
Weight	[kg]	0.34	
Recommended workpiece weight	[kg]	0.9	
Air consumption per double stroke	[cm <sup>3</sup> ]	16.0	
Nominal pressure	[bar]	6.0	
Minimum pressure	[bar]	4.0	
Maximum pressure	[bar]	6.5	
Closing time	[s]	0.4	
Opening time	[s]	0.5	
Max. permitted finger length	[mm]	50.0	
Max. permitted weight per finger	[kg]	0.12	
IP class		20	
Min. ambient temperature	[°C]	-10.0	
Max. ambient temperature	[°C]	90.0	
Repeat accuracy	[mm]	0.1	





- (i) The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- 1 Gripper connection
- (2) Finger connection

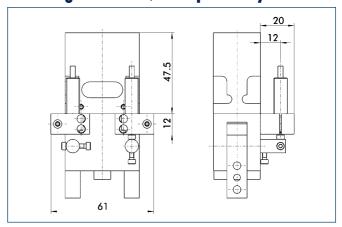
#### **Hose-free direct connection**



- 3 Adapter
- 4 Grippe

The direct connection is used for supplying compressed air to the gripper without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

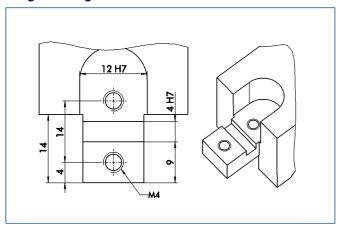
### Mounting kit for M8/M12 proximity switches



The mounting kit consists of 2 brackets, 2 intermediate sleeves and small components. The proximity switches must be ordered separately.

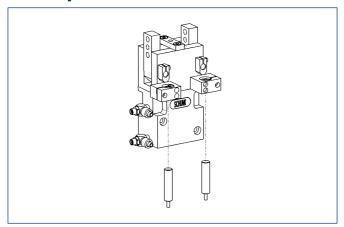
Description	ID	
HG-GWB 44	0300741	





Suggested connection dimensions for gripper fingers

#### **Sensor system**

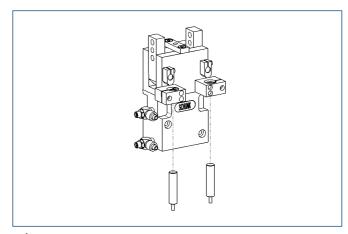


**End position monitoring:** 

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40-S-M12	0301574	
IN 40-S-M5-NPN	0301492	
IN 40-S-M5-PNP	0301491	
IN 40-S-M8	0301474	•
INK 40-S	0301555	

Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



End position monitoring:

Inductive proximity switches, mounted with mounting kit

Description	ID	Recommended product
HG-GWB 44	0300741	
IN 120-S-M12	0301592	
IN 80-S-M12	0301578	
IN 80-S-M8	0301478	•
IN-C 80-S-M8	0301475	
INK 120-S	0301562	
INK 80-S	0301550	
INK 80-SL	0301579	

**₽**180°

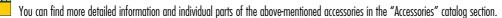
Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

Description	ID	
KA BG05-L 3P-0300	0301652	
KA BG08-L 3P-0300-PNP	0301622	
KA BW05-L 3P-0300	0301650	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	

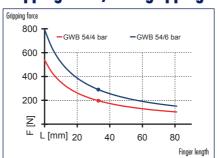
Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



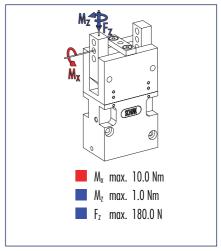




# Gripping force, O.D. gripping



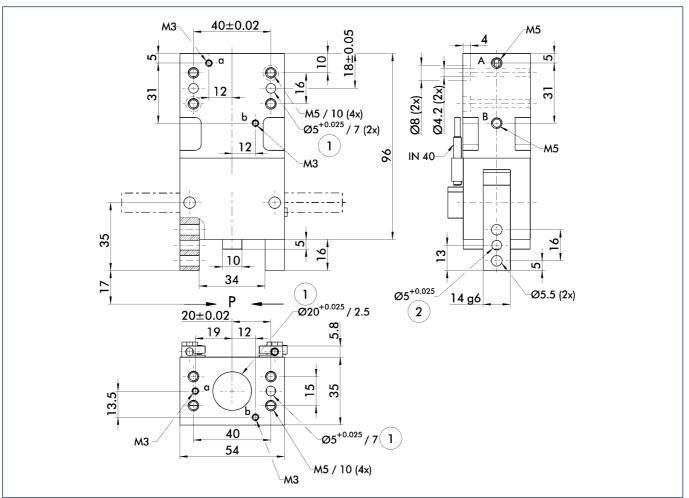
## Finger load



Moments and forces apply per base jaw and may occur simultaneously. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

## Technical data

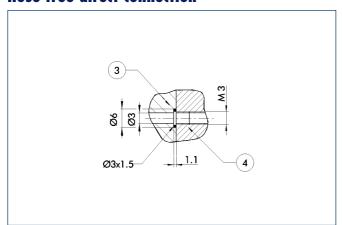
Description		GWB 54	
	ID	0307137	
Opening angle per jaw	[°]	90.0	
Opening angle per jaw up to	[°]	2.0	
Closing moment	[Nm]	15.08	
Closing moment ensured by spring	[Nm]	2.9	
Weight	[kg]	0.56	
Recommended workpiece weight	[kg]	1.4	
Air consumption per double stroke	[cm <sup>3</sup> ]	36.0	
Nominal pressure	[bar]	6.0	
Minimum pressure	[bar]	4.0	
Maximum pressure	[bar]	6.5	
Closing time	[s]	0.6	
Opening time	[s]	0.7	
Max. permitted finger length	[mm]	60.0	
Max. permitted weight per finger	[kg]	0.2	
IP class		20	
Min. ambient temperature	[°C]	-10.0	
Max. ambient temperature	[°C]	90.0	
Repeat accuracy	[mm]	0.1	



The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

- (i) The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- 1 Gripper connection
- (2) Finger connection

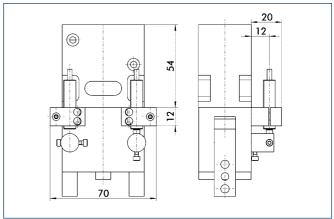
#### **Hose-free direct connection**



- 3 Adapter
- 4 Grippe

The direct connection is used for supplying compressed air to the gripper without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

### Mounting kit for M8/M12 proximity switches

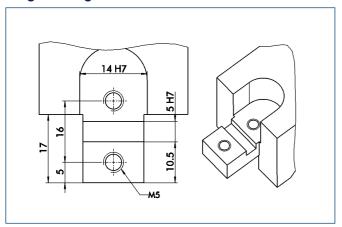


The mounting kit consists of 2 brackets, 2 intermediate sleeves and small components. The proximity switches must be ordered separately.

Description	ID	
HG-GWB 54-80	0300742	

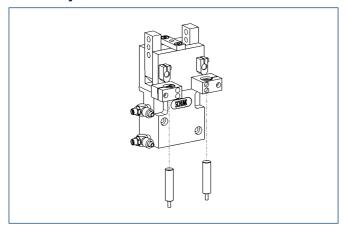






Suggested connection dimensions for gripper fingers

#### **Sensor system**

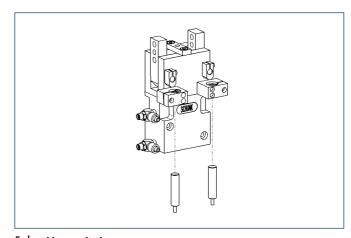


End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40-S-M12	0301574	
IN 40-S-M5-NPN	0301492	
IN 40-S-M5-PNP	0301491	
IN 40-S-M8	0301474	•
INK 40-S	0301555	

(1) Two sensors (NO contacts) are required for each gripper, plus extension cables as an ontion.



End position monitoring:

Inductive proximity switches, mounted with mounting kit

Description	· ID	Recommended product	
HG-GWB 54-80	0300742		
IN 120-S-M12	0301592		
IN 80-S-M12	0301578		
IN 80-S-M8	0301478	•	
IN-C 80-S-M8	0301475		
INK 120-S	0301562		
INK 80-S	0301550		
INK 80-SL	0301579		

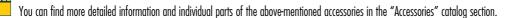
₽<mark>180°</mark>

Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

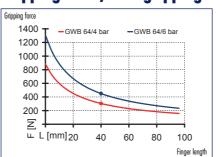
Description	1	ID	
KA BG05-	L 3P-0300	0301652	
KA BG08-	L 3P-0300-PNP	0301622	
KA BW05	-L 3P-0300	0301650	
KA BW08	L 3P-0300-PNP	0301594	
KA BW08	L 3P-0500-PNP	0301502	
KA BW12	L 3P-0300-PNP	0301503	
KA BW12	L 3P-0500-PNP	0301507	
KV BW08	-SG08 3P-0030-PNP	0301495	
KV BW08	-SG08 3P-0100-PNP	0301496	
KV BW08	-SG08 3P-0200-PNP	0301497	
KV BW12	-SG12 3P-0030-PNP	0301595	
KV BW12	-SG12 3P-0100-PNP	0301596	
KV BW12	-SG12 3P-0200-PNP	0301597	

Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

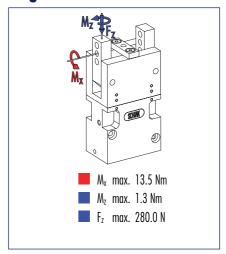




## Gripping force, O.D. gripping



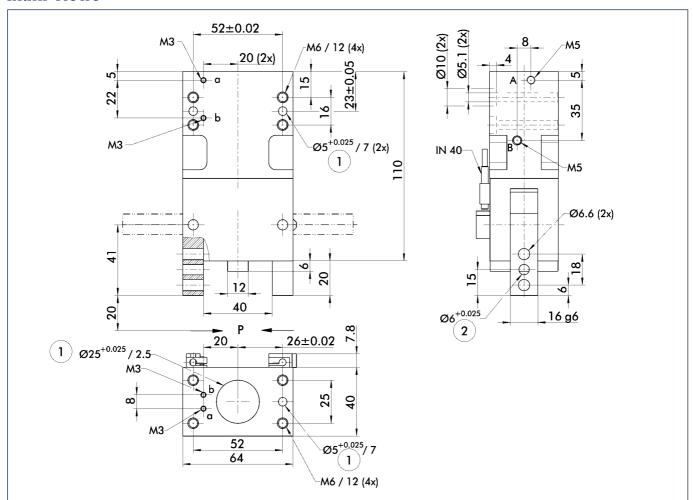
## Finger load



Moments and forces apply per base jaw and may occur simultaneously. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

## Technical data

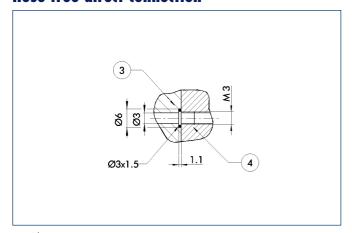
Description		GWB 64	
	ID	0307138	
Opening angle per jaw	[°]	90.0	
Opening angle per jaw up to	[°]	2.0	
Closing moment	[Nm]	27.45	
Closing moment ensured by spring	[Nm]	5.2	
Weight	[kg]	0.85	
Recommended workpiece weight	[kg]	2.2	
Air consumption per double stroke	[cm <sup>3</sup> ]	57.0	
Nominal pressure	[bar]	6.0	
Minimum pressure	[bar]	4.0	
Maximum pressure	[bar]	6.5	
Closing time	[s]	0.6	
Opening time	[s]	0.7	
Max. permitted finger length	[mm]	80.0	
Max. permitted weight per finger	[kg]	0.32	
IP class		20	
Min. ambient temperature	[°C]	-10.0	
Max. ambient temperature	[°C]	90.0	
Repeat accuracy	[mm]	0.1	



The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

- (i) The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- 1 Gripper connection
- (2) Finger connection

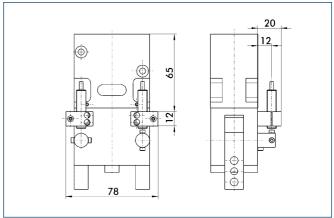
#### **Hose-free direct connection**



- 3 Adapter
- 4 Grippe

The direct connection is used for supplying compressed air to the gripper without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

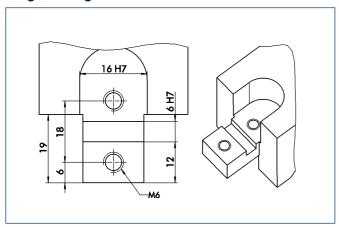
## Mounting kit for M8/M12 proximity switches



The mounting kit consists of 2 brackets, 2 intermediate sleeves and small components. The proximity switches must be ordered separately.

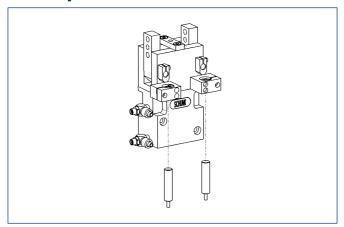
Description	ID	
HG-GWB 54-80	0300742	





Suggested connection dimensions for gripper fingers

#### **Sensor system**

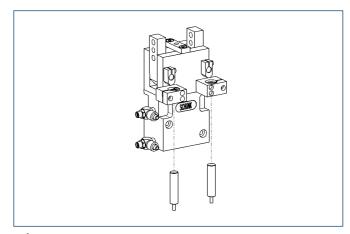


**End position monitoring:** 

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40-S-M12	0301574	
IN 40-S-M5-NPN	0301492	
IN 40-S-M5-PNP	0301491	
IN 40-S-M8	0301474	•
INK 40-S	0301555	

(1) Two sensors (NO contacts) are required for each gripper, plus extension cables as an ontion.



End position monitoring:

Inductive proximity switches, mounted with mounting kit

Description	ID	Recommended product	
HG-GWB 54-80	0300742		
IN 120-S-M12	0301592		
IN 80-S-M12	0301578		
IN 80-S-M8	0301478	•	
IN-C 80-S-M8	0301475		
INK 120-S	0301562		
INK 80-S	0301550		
INK 80-SL	0301579		

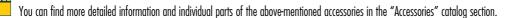
**180° ↑** 

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

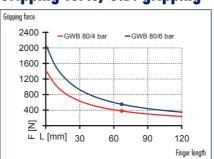
Description	עו	
KA BG05-L 3P-0300	0301652	
KA BG08-L 3P-0300-PNP	0301622	
KA BW05-L 3P-0300	0301650	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	
	KA BG05-L 3P-0300 KA BG08-L 3P-0300-PNP KA BW05-L 3P-0300 KA BW08-L 3P-0300-PNP KA BW08-L 3P-0500-PNP KA BW12-L 3P-0500-PNP KA BW12-L 3P-0500-PNP KV BW08-SG08 3P-0030-PNP KV BW08-SG08 3P-0100-PNP KV BW12-SG12 3P-0030-PNP KV BW12-SG12 3P-0100-PNP	KA BG05-L 3P-0300         0301652           KA BG08-L 3P-0300-PNP         0301622           KA BW05-L 3P-0300         0301650           KA BW08-L 3P-0300-PNP         0301594           KA BW08-L 3P-0500-PNP         0301502           KA BW12-L 3P-0300-PNP         0301503           KA BW12-L 3P-0500-PNP         0301507           KV BW08-SG08 3P-0030-PNP         0301495           KV BW08-SG08 3P-0100-PNP         0301497           KV BW12-SG12 3P-0030-PNP         0301595           KV BW12-SG12 3P-0100-PNP         0301596

 $\textcircled{\scriptsize{1}}$  Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

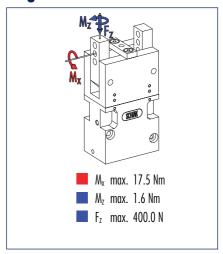




## Gripping force, O.D. gripping



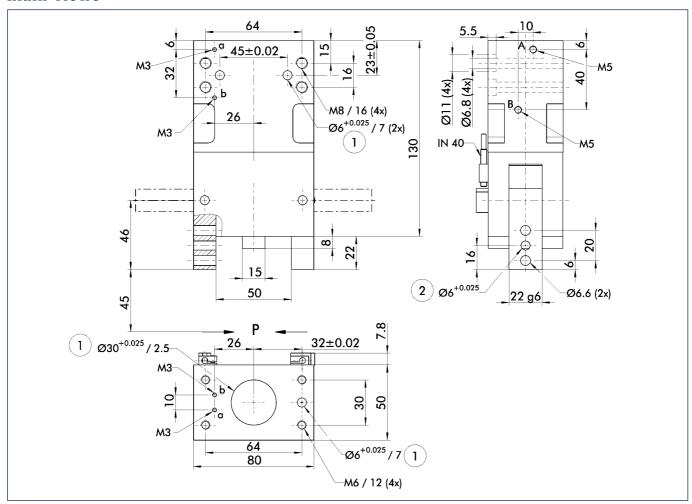
## Finger load



Moments and forces apply per base jaw and may occur simultaneously. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

## Technical data

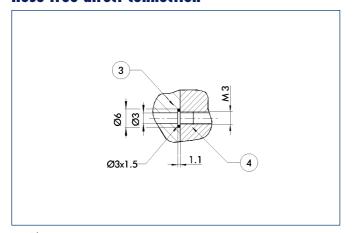
Description		GWB 80	
	ID	0307139	
Opening angle per jaw	[°]	90.0	
Opening angle per jaw up to	[°]	2.0	
Closing moment	[Nm]	50.0	
Closing moment ensured by spring	[Nm]	10.5	
Weight	[kg]	1.6	
Recommended workpiece weight	[kg]	2.7	
Air consumption per double stroke	[cm <sup>3</sup> ]	110.0	
Nominal pressure	[bar]	6.0	
Minimum pressure	[bar]	4.0	
Maximum pressure	[bar]	6.5	
Closing time	[s]	0.7	
Opening time	[s]	0.8	
Max. permitted finger length	[mm]	100.0	
Max. permitted weight per finger	[kg]	0.6	
IP class		20	
Min. ambient temperature	[°C]	-10.0	
Max. ambient temperature	[°C]	90.0	
Repeat accuracy	[mm]	0.1	



The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

- (i) The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- 1 Gripper connection
- (2) Finger connection

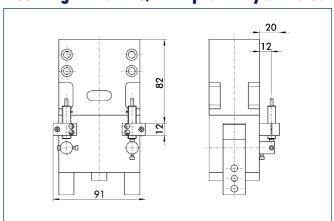
#### **Hose-free direct connection**



- 3 Adapter
- 4 Grippe

The direct connection is used for supplying compressed air to the gripper without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

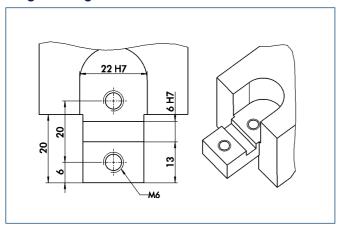
### Mounting kit for M8/M12 proximity switches



The mounting kit consists of 2 brackets, 2 intermediate sleeves and small components. The proximity switches must be ordered separately.

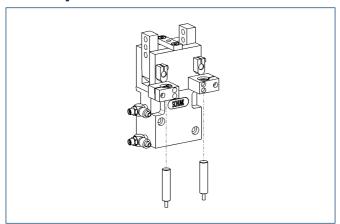
Description	ID	
HG-GWB 54-80	0300742	





Suggested connection dimensions for gripper fingers

#### **Sensor system**

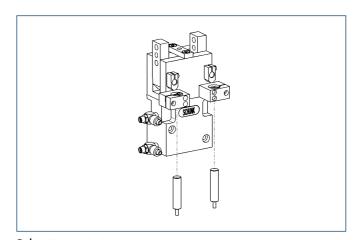


**End position monitoring:** 

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40-S-M12	0301574	
IN 40-S-M5-NPN	0301492	
IN 40-S-M5-PNP	0301491	
IN 40-S-M8	0301474	•
INK 40-S	0301555	

(1) Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



End position monitoring:

Inductive proximity switches, mounted with mounting kit

Description	, ID	Recommended product
HG-GWB 54-80	0300742	
IN 120-S-M12	0301592	
IN 80-S-M12	0301578	
IN 80-S-M8	0301478	•
IN-C 80-S-M8	0301475	
INK 120-S	0301562	
INK 80-S	0301550	
INK 80-SL	0301579	

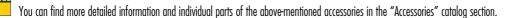
**180° ↑** 

Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

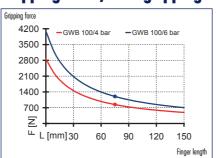
Description	ID	
KA BG05-L 3P-0300	0301652	
KA BG08-L 3P-0300-PNP	0301622	
KA BW05-L 3P-0300	0301650	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	

Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

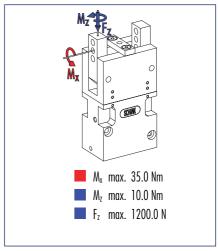




## Gripping force, O.D. gripping



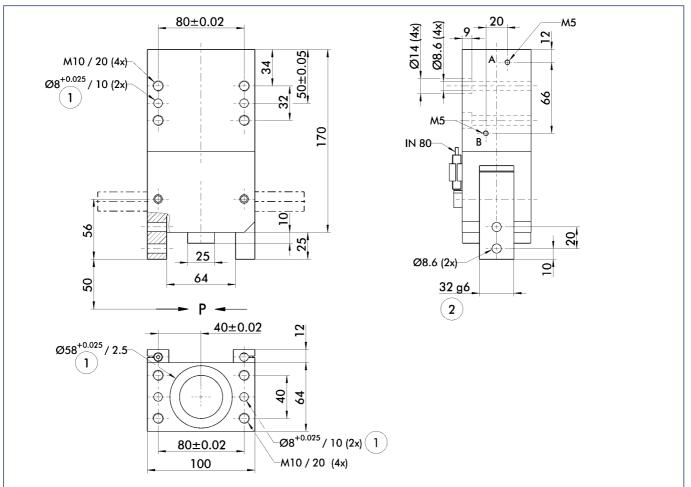
## Finger load

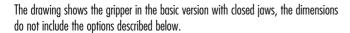


Moments and forces apply per base jaw and may occur simultaneously. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

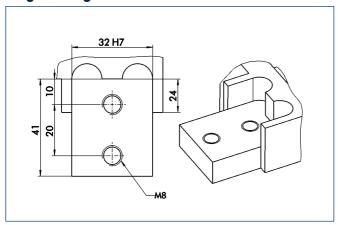
## Technical data

Description		GWB 100	
	ID	0307140	
Opening angle per jaw	[°]	90.0	
Opening angle per jaw up to	[°]	2.0	
Closing moment	[Nm]	127.0	
Closing moment ensured by spring	[Nm]	31.8	
Weight	[kg]	3.5	
Recommended workpiece weight	[kg]	6.0	
Air consumption per double stroke	[cm <sup>3</sup> ]	217.0	
Nominal pressure	[bar]	6.0	
Minimum pressure	[bar]	4.0	
Maximum pressure	[bar]	6.5	
Closing time	[s]	0.55	
Opening time	[s]	0.7	
Max. permitted finger length	[mm]	125.0	
Max. permitted weight per finger	[kg]	1.2	
IP class		20	
Min. ambient temperature	[°C]	-10.0	
Max. ambient temperature	[°(]	90.0	
Repeat accuracy	[mm]	0.1	





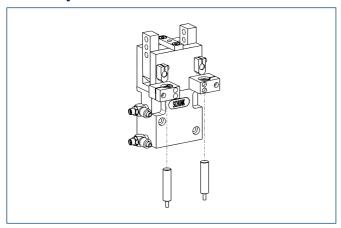
- (i) The SDV-P pressure maintenance valve can also be used (see "Accessories" catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- 1) Gripper connection
- (2) Finger connection



Suggested connection dimensions for gripper fingers



## **Sensor system**



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80-S-M12	0301578	
IN 80-S-M8	0301478	•
IN-C 80-S-M8	0301475	
INK 80-S	0301550	

Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

ID	
0301622	
0301594	
0301502	
0301503	
0301507	
0301495	
0301496	
0301497	
0301595	
0301596	
0301597	
	0301622 0301594 0301502 0301503 0301507 0301495 0301496 0301497 0301595 0301596

Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

