

Handling
technology 1

THE KNOW-HOW FACTORY

ZIMMER GROUP COMMITTED TO OUR CUSTOMERS

WE HAVE SUCCEEDED FOR YEARS BY OFFERING OUR CUSTOMERS INNOVATIVE AND INDIVIDUALIZED SOLUTIONS. ZIMMER HAS GROWN CONTINUOUSLY AND TODAY WE HAVE REACHED A NEW MILESTONE: THE ESTABLISHMENT OF THE KNOW-HOW FACTORY. IS THERE A SECRET TO OUR SUCCESS?

Foundation. Excellent products and services have always been the foundation of our company's growth. Zimmer is a source of ingenious solutions and important technical innovations. This is why customers with high expectations for technology frequently find their way to us. When things get tricky, Zimmer Group is in its best form.

Style. We have an interdisciplinary approach to everything we do, resulting in refined process solutions in six technology fields. This applies not just to development but to production. Zimmer Group serves all industries and stands ready to resolve even the most unique and highly individualized problems. Worldwide.

Motivation. Customer orientation is perhaps the most important factor of our success. We are a service provider in the complete sense of the word. With Zimmer Group, our customers have a single, centralized contact for all of their needs. We approach each customer's situation with a high level of competence and a broad range of possible solutions.



TECHNOLOGIES



HANDLING TECHNOLOGY

MORE THAN 30 YEARS OF EXPERIENCE AND INDUSTRY KNOWLEDGE: OUR PNEUMATIC, HYDRAULIC AND ELECTRICAL HANDLING COMPONENTS AND SYSTEMS ARE GLOBAL LEADERS.

Components. More than 2,000 standardized grippers, swivel units, robotic accessories and much more. We offer a complete selection of technologically superior products that are ready for rapid delivery.

Semi-standard. Our modular approach to design enables custom configurations and high rates of innovation for process automation.



DAMPING TECHNOLOGY

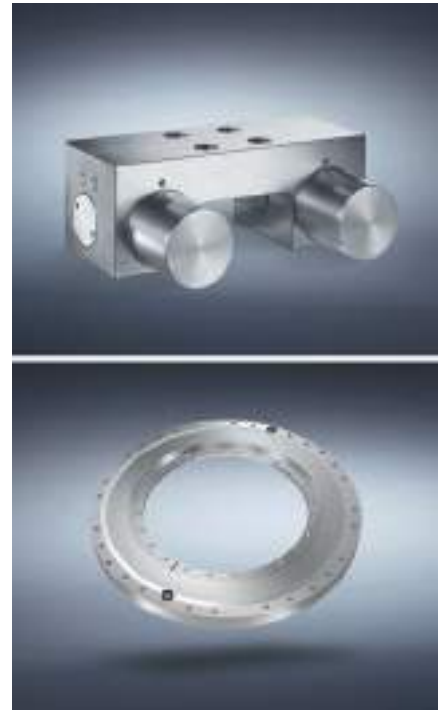
INDUSTRIAL DAMPING TECHNOLOGY AND SOFT CLOSE PRODUCTS EXEMPLIFY THE INNOVATION AND PIONEERING SPIRIT OF THE KNOW-HOW FACTORY.

Industrial damping technology.

Whether standard or customized solutions, our products stand for the highest cycle rates and maximum energy absorption with minimal space requirements.

Soft Close. Development and mass production of pneumatic and fluid dampers with extraordinary quality and rapid delivery.

OEM and direct. Whether they need components, returning mechanisms or complete production lines – we are the trusted partner of many prestigious customers.



LINEAR TECHNOLOGY

WE DEVELOP LINEAR COMPONENTS AND SYSTEMS THAT ARE INDIVIDUALLY ADAPTED TO OUR CUSTOMERS' NEEDS.

Clamping and braking elements.

We offer you more than 4,000 types for profiled and round rails as well as for a variety of guide systems from all manufacturers. It makes no difference whether you prefer manual, pneumatic, electric or hydraulic drive.

Flexibility. Our clamping and braking elements ensure that movable components such as Z-axes or machining tables maintain a fixed position and that machines and systems come to a stop as quickly as possible in an emergency.



PROCESS TECHNOLOGY

MAXIMUM EFFICIENCY IS ESSENTIAL FOR SYSTEMS AND COMPONENTS USED IN PROCESS TECHNOLOGY. HIGH-LEVEL CUSTOM SOLUTIONS ARE OUR TRADEMARK.

A rich reservoir of experience. Our know-how ranges from the development of materials, processes and tools through product design to production of series products.

Deep production capabilities. The Zimmer Group pairs these capabilities with flexibility, quality and precision, even when making custom products.

Series production. We manufacture demanding products out of metal (MIM), elastomers and plastics with flexibility and speed.



MACHINE TECHNOLOGY

ZIMMER GROUP DEVELOPS INNOVATIVE METAL, WOOD AND COMPOSITE MATERIAL PROCESSING TOOL SYSTEMS FOR ALL INDUSTRIES. NUMEROUS CUSTOMERS CHOOSE US AS THEIR SYSTEMS AND INNOVATION PARTNER.

Knowledge and experience. Industry knowledge and a decades-long development partnership in exchangeable assemblies, tool interfaces and systems make us bound for new challenges around the world.

Components. We deliver numerous standard components from stock and develop innovative, customized systems for OEM and end customers – far beyond the metal and wood processing industries.

Variety. Whether you have machining centers, lathes or flexible production cells, the power tools, holders, assemblies and drilling heads of Zimmer Group are ready for action.



SYSTEM TECHNOLOGY






















ZIMMER GROUP IS ONE OF THE LEADING SPECIALISTS IN THE DEVELOPMENT OF CUSTOMIZED SYSTEM SOLUTIONS WORLDWIDE.

Customized. A team made up of more than 20 experienced designers and project engineers develop and produce customized solutions for special tasks in close collaboration with end customers and system integrators. It doesn't matter if it is a simple gripper and handling solution or a complex system solution.

Solutions. These system solutions are used in many industries, from mechanical engineering to the automotive and supplier industries to plastics engineering and consumer goods industries, all the way to foundries. The Know-how Factory helps countless companies to thrive competitively by increasing automation efficiency.

HANDLING TECHNOLOGY 1

OVERVIEW OF SERIES

1	GRIPPERS	10 - 281
	2-JAW PARALLEL GRIPPERS	
	PNEUMATIC	
	Series MGP800	14
	Series GP	36
	Series GP400	50
	Series GP200	76
	ELECTRICAL	
	Series GEP9000	80
	Series GEP1400	82
	2-JAW PARALLEL GRIPPERS WITH LONG STROKE	
	PNEUMATIC	
	Series MGH8000	86
	Series GPH8000	110
	ELECTRICAL	
	Series GEH8000	126
	3-JAW CONCENTRIC GRIPPERS	
	PNEUMATIC	
	Series MGD800	130
	Series GD300	152
	Series GD	178
	ELECTRICAL	
	Series GED1300	182
	3-JAW CONCENTRIC GRIPPERS WITH LONG STROKE	
	PNEUMATIC	
	Series GD500	186

2-JAW ANGULAR GRIPPERS



PNEUMATIC



Series MGW800

190



Series GZ1000

212

2-JAW RADIAL GRIPPER



PNEUMATIC



Series GK

216



Series GG4000

234

GRIPPERS FOR SPECIFIC TASKS



PNEUMATIC



Series ST

238



Series GS

246



Series GSI

258



Series LGS

264



Series LG1000

266



Series LGG

268



Series RG

270



Series SCH

272



Series HM1000

274



ELECTRICAL



Series GEN9100

278



Series HEM1000

280

2 ROTARY GRIPPERS

282 - 287



PNEUMATIC



Series DGK

284



Series DGP400

286

HANDLING TECHNOLOGY 1

OVERVIEW OF SERIES

3 SWIVEL AND ROTARY MODULES

288 - 425

ROTARY CYLINDERS



PNEUMATIC



Series PRN

292



Series SH

294

FLAT SWIVEL UNITS



PNEUMATIC



Series SF-C

298



Series MSF

372



ELECTRICAL



Series DES

376

ANGLE PIVOT UNITS



PNEUMATIC



Series SW

380



Series SWM1000

398

SWIVEL JAWS



PNEUMATIC



Series SB

402



Series SBZ

412

4 LINEAR MODULES

426 - 443

LINEAR CYLINDERS



PNEUMATIC



Series SHX

428



Series LI

430

LINEAR RAIL SLIDES



PNEUMATIC



Series LS

434



Series LSF

436



Series LSX

438

LIFTING CYLINDERS



PNEUMATIC



Series HZ

442

5 CUTTING TONGS

444 - 449



PNEUMATIC



















Series ZK1000

446



Series ZK

448

6	SEPARATORS	450 - 459
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	 Series VEG	452
	 Series VE	454
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GRIPPERS

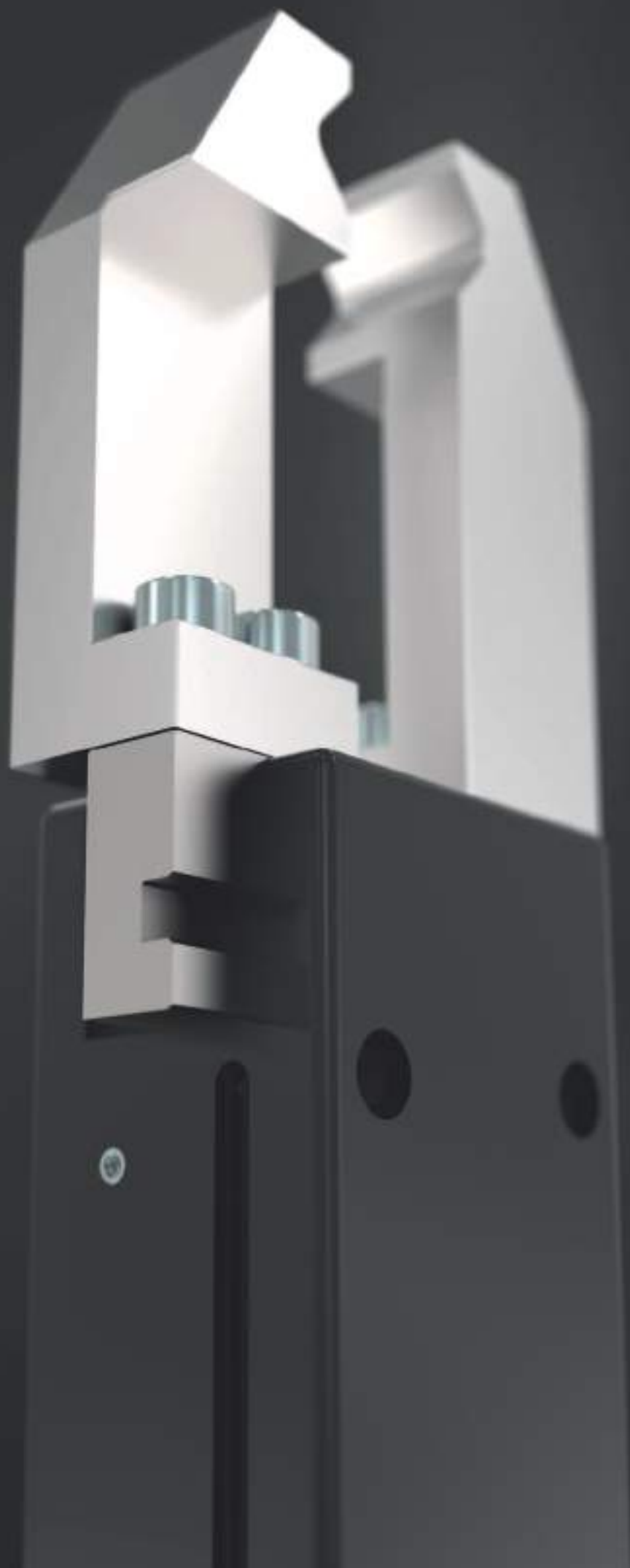
THE SERIES AT A GLANCE

1

Products

	Gripping force [N]	Stroke per jaw [mm]	Number of installation sizes
2-jaw parallel grippers pneumatic Page 12			
Series MGP800	6 400	1-12	● ● ● ● ● ● ● ●
Series GP	4 5250	3-13	● ● ● ● ● ● ●
Series GP400	85 19275	3-30	● ● ● ● ● ● ● ● ● ●
Series GP200	170 4500	6-40	● ● ● ●
2-jaw parallel grippers electric Page 78			
Series GEP9000	11-50	2-4	● ●
Series GEP1400	140-350	2-6	● ●
2-Jaw Parallel Grippers with Long Stroke pneumatic Page 84			
Series MGH8000	60 910	10 100	● ● ● ●
Series GPH8000	2000	62,5 150	●
2-Jaw Parallel Grippers with Long Stroke electric Page 124			
Series GEH8000	~200 3200	0 60	●
3-jaw concentric grippers pneumatic Page 128			
Series MGD800	30 1420	1-12	● ● ● ● ● ● ● ●
Series GD300	200 34700	3-30	● ● ● ● ● ● ● ● ● ●
Series GD	24 530	11-33	● ● ●
3-jaw concentric grippers electric Page 180			
Series GED1300	140-350	2-6	● ●
3-Jaw Concentric Grippers with Long Stroke pneumatic Page 184			
Series GD500	1300-2480	30-60	● ● ●
	Gripping force [N]	Stroke per jaw [°]	Number of installation sizes
2-Jaw Angular Grippers pneumatic Page 188			
Series MGW800	5 325	37,5	● ● ● ● ● ● ● ●
Series GZ1000	62-315	8-10	● ● ●
2-jaw radial gripper pneumatic Page 214			
Series GK	70 4250	0 90	● ● ● ● ● ● ●
Series GG4000	430-4000	20 90	● ● ● ● ● ● ●

Control			Position sensing			Options					Safety characteristics			Maintenance
IO-Link	Digital I/O	Multibus	Inductive sensor	Magnetic field sensor	Integrated sensing	Temperature-resistant	High-strength S	Protected against corrosion	Purged air	IP class	Spring closing C	Spring opening O	Self locking mechanism	Maintenance-free cycles (max.)
				•						40	•			10 million
			•				•			30	•			10 million
			•	•			•		•	40	•	•		10 million
			•	•			•		•	40	•			10 million
	•				•					40	•	•		30 million
	•									52				5 million
			•	•						54				10 million
			•							54				5 million
		•			•					54			•	10 million
				•						40	•			10 million
			•	•			•		•	40	•	•		10 million
			•							40				10 million
	•									40				5 million
			•							40				10 million
				•						30	•			10 million
			•							30				2 million
				•						20	•		•	10 million
			•	•			•		•	64	•			10 million



2-JAW PARALLEL GRIPPERS

OVERVIEW OF SERIES



PNEUMATIC



Series MGP800

14



Series GP

36



Series GP400

50



Series GP200

76

2-JAW PARALLEL GRIPPERS

SERIES MGP800





▶ PRODUCT ADVANTAGES



“The powerful”

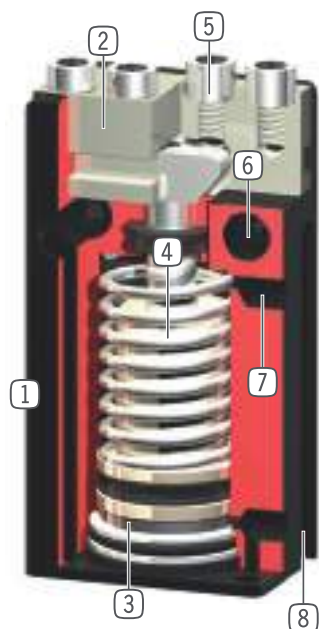
- ▶ **Over 40% more powerful than the benchmark**
Optimisation of weight and force reduces your application costs since all components can have a smaller scale
- ▶ **Gripper jaws up to 50% longer than the benchmark**
The highest force and torque measurement enables flexible use for maximum dynamics
- ▶ **Failure-free continuous operation**
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free cycles

▶ SERIES CHARACTERISTICS

Installation size	Version	
MGP8XX	N	NC
 Spring closing C		•
 10 million maintenance-free cycles (max.)	•	•
 Magnetic field sensor	•	•
 IP40	•	•



► BENEFITS IN DETAIL



- ① **Robust, lightweight housing**
- Hard-coated aluminum alloy
- ② **Gripper jaw**
- individual gripper finger mounting
- ③ **Position sensing**
- permanent magnet for direct monitoring of piston movement
- ④ **Integrated gripping force safety device**
- spring integrated into cylinder as energy storage (from size 803 upwards)
- ⑤ **Removable centering sleeves**
- quick and economical positioning of the gripper fingers
- ⑥ **Mounting and positioning**
- mounting possible from several sides for versatile positioning
- ⑦ **Energy supply**
- possible from several sides
- ⑧ **Sensing slot**
- mounting and positioning of magnetic field sensors

► TECHNICAL DATA

Installation size	Stroke per jaw [mm]	Gripping force [N]	Weight [kg]	IP class
MGP801	1	6 - 8	0,008	IP40
MGP802	2	16 - 19	0,016	IP40
MGP803	3	35 - 55	0,025 - 0,035	IP40
MGP804	4	60 - 90	0,05 - 0,07	IP40
MGP806	6	100 - 140	0,1 - 0,11	IP40
MGP808	8	170 - 220	0,16 - 0,18	IP40
MGP810	10	270 - 350	0,28 - 0,32	IP40
MGP812	12	320 - 400	0,41 - 0,46	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

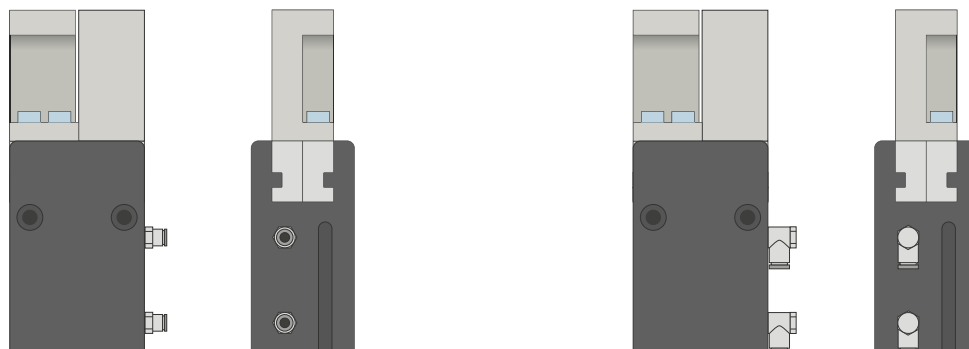
2-JAW PARALLEL GRIPPERS

SERIES MGP800 FUNCTIONAL DESCRIPTION

1

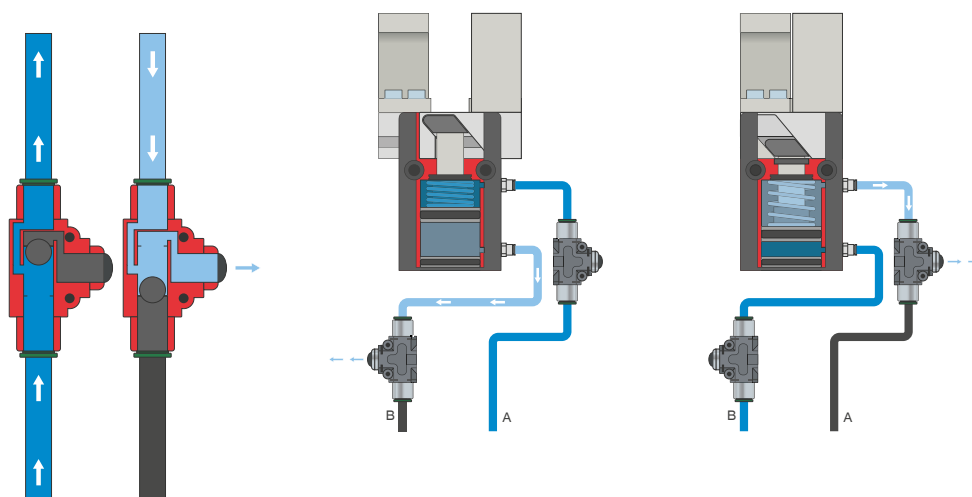


ENERGY SUPPLY



Pneumatic threaded connections

Available in straight and angled design. Can be chosen freely depending on the space conditions or installation situation.



Quick exhaust valve – DEV

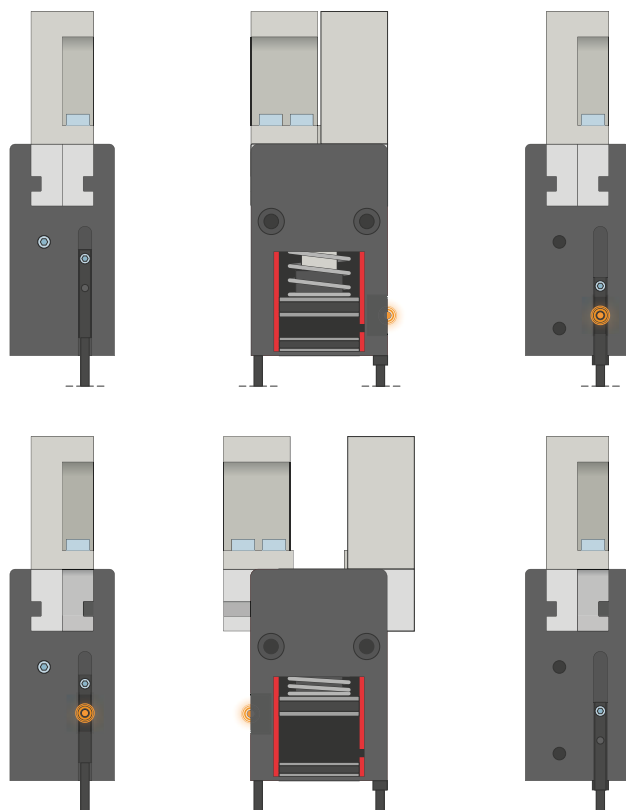
For rapid bleeding of the compressed air and preventing back pressure

The inline valves make a faster cycle time possible and prevent the formation of condensate in grippers with a small cylinder volume. To ensure the function, the valve must be installed as close to the gripper's air connection as possible.

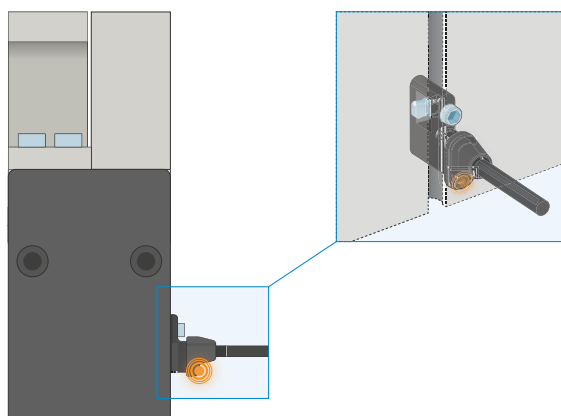


SENSORS

MFS02



MFS01



1-point magnetic field sensors – MFS

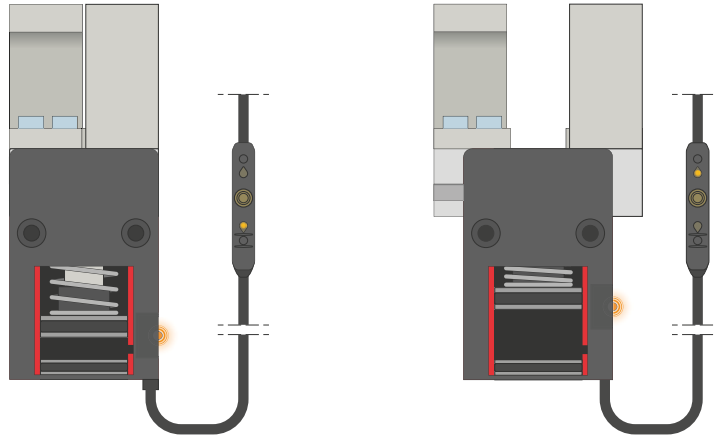
For non-contact sensing of the piston position

These sensors are installed in the C-groove of the gripper and detect the magnet attached to the piston of the gripper. To ensure use in a wide variety of space conditions, the sensors are available in two variants. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the gripper almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The variants are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.

2-JAW PARALLEL GRIPPERS

SERIES MGP800 FUNCTIONAL DESCRIPTION

SENSORS

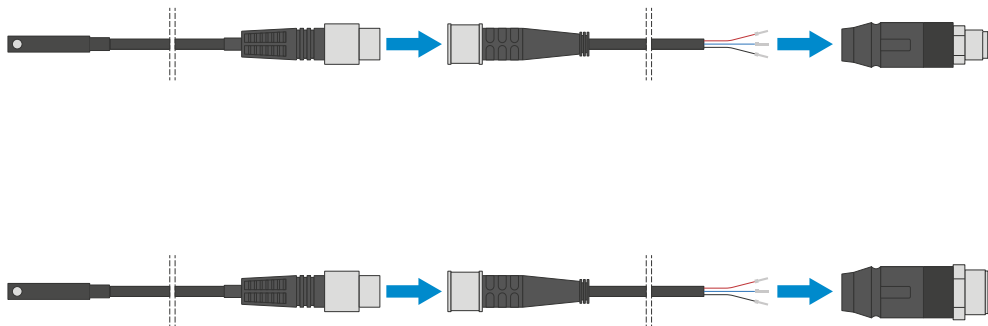


2-point magnetic field sensors – MFS

With two freely programmable switching points

Using the programming unit integrated in the cable, two switch points can be freely defined for this sensor. To do so, the sensor is clamped in the C-groove, the gripper approaches position one and the position is taught in using the teach button. Afterwards, the second position is approached with the gripper and programmed. To ensure use in a wide variety of space conditions, the sensors are available in two variants. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the gripper almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The sensors are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.

CONNECTIONS / OTHER



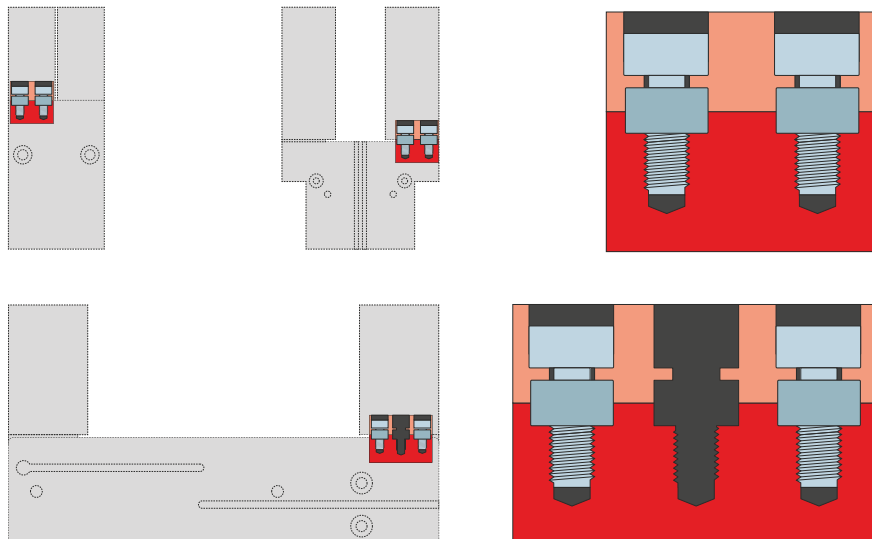
Plug-in connectors

For extending and fabricating the connection lines for the sensors

Cables with a length of 5 m with exposed leads are available. Depending on the specific needs, the cables can be shortened or fabricated with connectors in sizes M8 and M12.



CONNECTIONS / OTHER



Centering sleeves

For defined position measurement of the gripper fingers

The centering sleeves are inserted into the fits of the gripper jaws to define the position of the gripper fingers. The centering sleeves are comparable to a pin connection.

2-JAW PARALLEL GRIPPERS

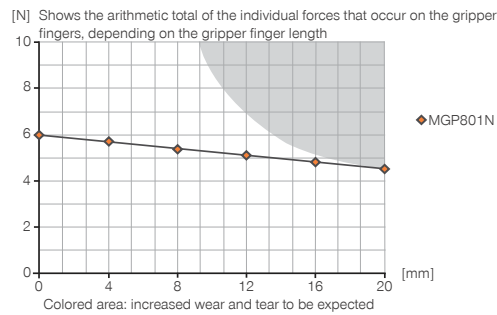
INSTALLATION SIZE MGP801

1

PRODUCT SPECIFICATIONS

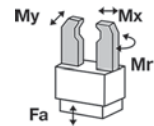


Gripping force diagram



Forces and moments

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



Mr [Nm]	1
Mx [Nm]	2
My [Nm]	1
Fa [N]	54

INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST80100

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



WVM3
Angled Fittings - Barb Style Connection

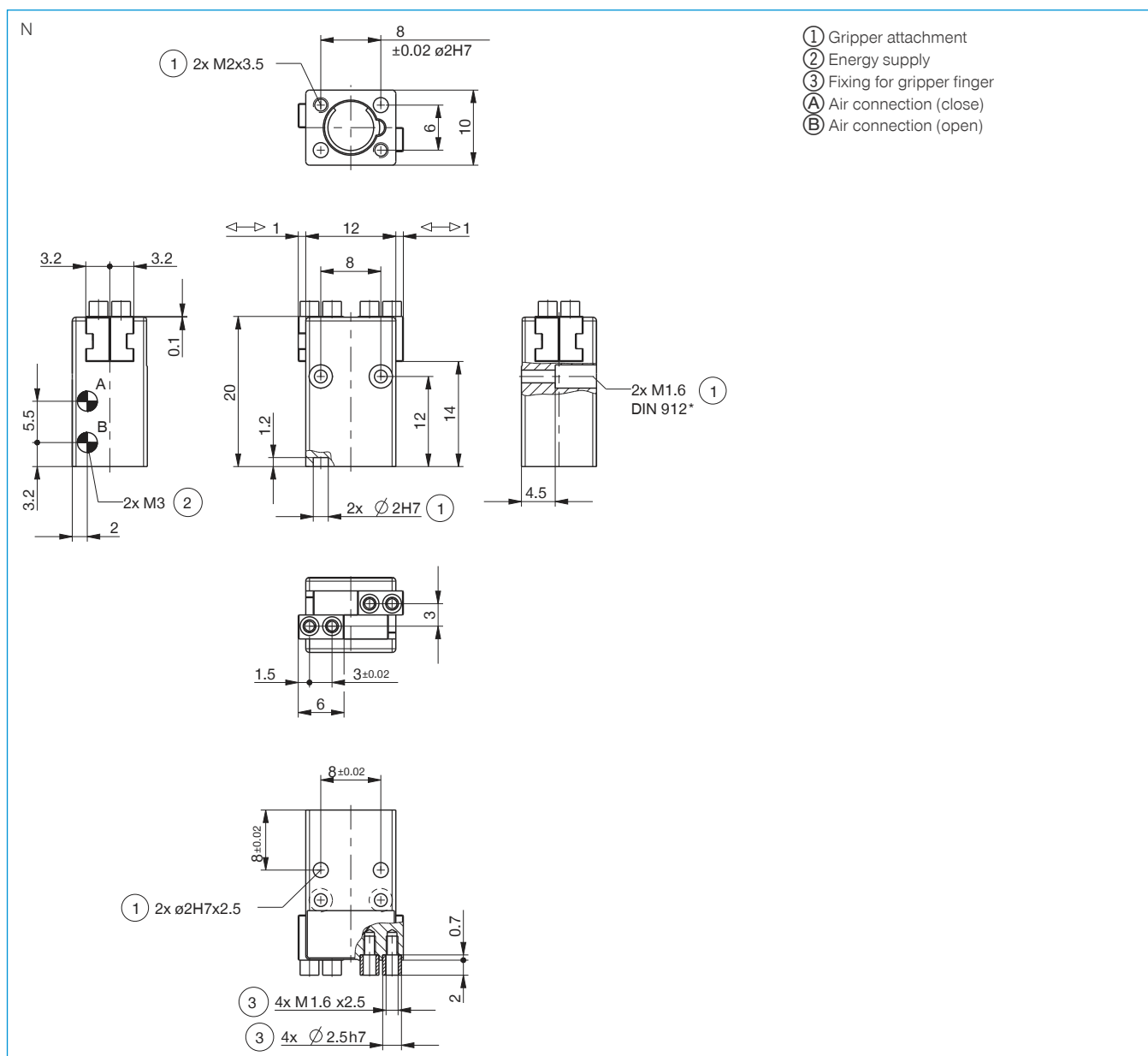


ENERGY SUPPLY



DEV04
Quick Exhaust Valve

Order no.	Technical data
	MGP801N
Stroke per jaw [mm]	1
Gripping force in closing [N]	6
Gripping force in opening [N]	8
Gripping force secured by spring min. [N]	
Closing time [s]	0.01
Opening time [s]	0.01
Repetition accuracy +/- [mm]	0.025
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm ³]	0.09
Weight [kg]	0.008



2-JAW PARALLEL GRIPPERS

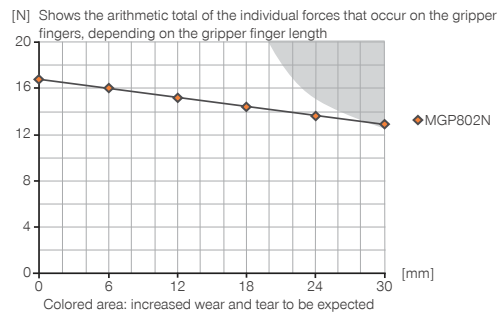
INSTALLATION SIZE MGP802

1

PRODUCT SPECIFICATIONS

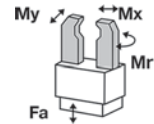


Gripping force diagram



Forces and moments

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



Mr [Nm]	1
Mx [Nm]	3
My [Nm]	2
Fa [N]	90

INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST80200

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



WVM3
Angled Fittings - Barb Style Connection

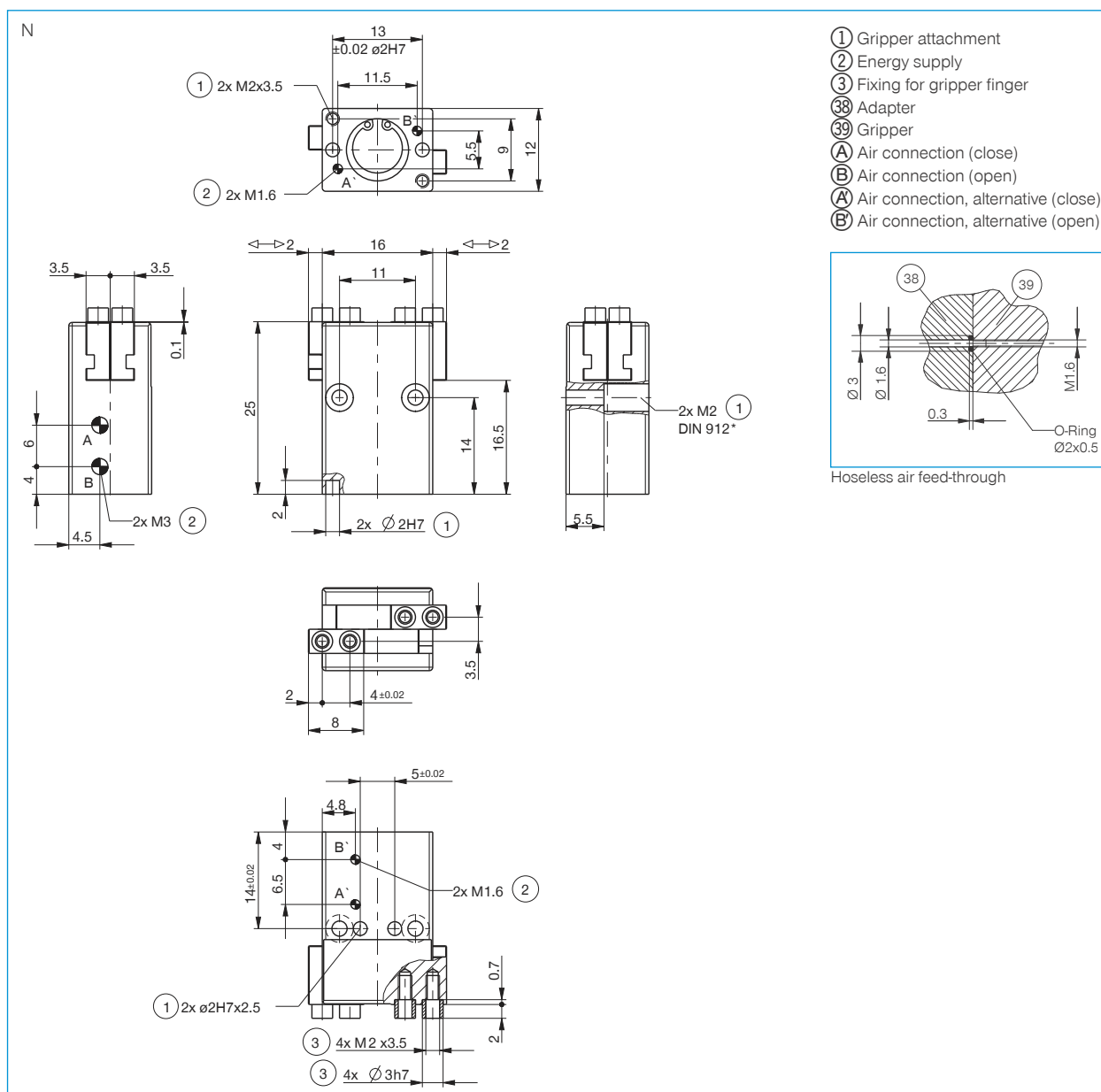


ENERGY SUPPLY



DEV04
Quick Exhaust Valve

Order no.	Technical data
	MGP802N
Stroke per jaw [mm]	2
Gripping force in closing [N]	16
Gripping force in opening [N]	19
Gripping force secured by spring min. [N]	
Closing time [s]	0.01
Opening time [s]	0.01
Repetition accuracy +/- [mm]	0.025
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	0.26
Weight [kg]	0.016



2-JAW PARALLEL GRIPPERS

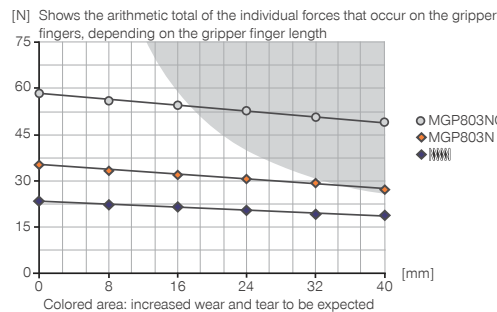
INSTALLATION SIZE MGP803

1

PRODUCT SPECIFICATIONS

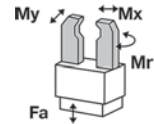


Gripping force diagram



Forces and moments

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



Mr [Nm]	2
Mx [Nm]	5
My [Nm]	2
Fa [N]	140

INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST80320

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



WVM3
Angled Fittings - Barb Style Connection



DEV04
Quick Exhaust Valve



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



MFS01-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8

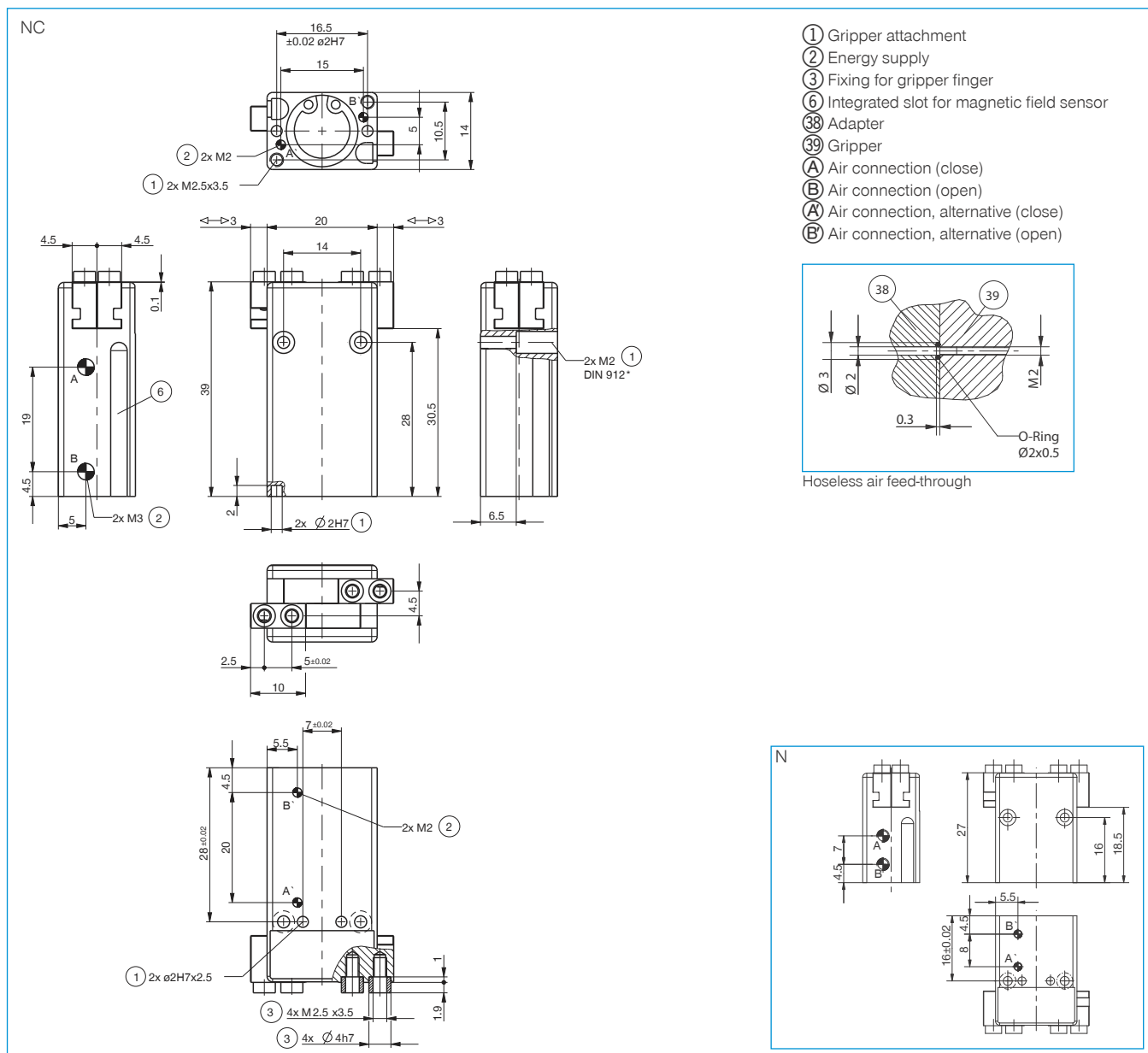


CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)

Order no.	Technical data	
	MGP803N	MGP803NC
Stroke per jaw [mm]	3	3
Gripping force in closing [N]	35	55
Gripping force in opening [N]	40	
Gripping force secured by spring min. [N]		20
Closing time [s]	0.01	0.01
Opening time [s]	0.01	0.03
Repetition accuracy +/- [mm]	0.025	0.025
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	0.8	1.1
Weight [kg]	0.025	0.035



2-JAW PARALLEL GRIPPERS

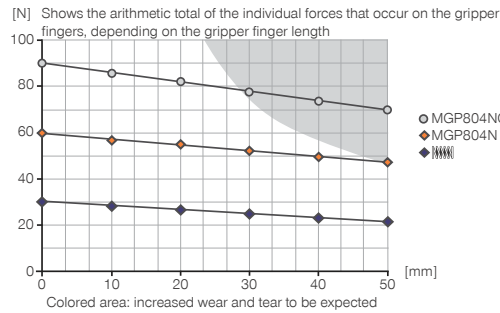
INSTALLATION SIZE MGP804

1

PRODUCT SPECIFICATIONS

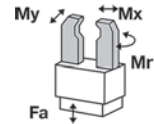


Gripping force diagram



Forces and moments

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



Mr [Nm]	3
Mx [Nm]	7
My [Nm]	3
Fa [N]	230

INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST40400

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



WVM3
Angled Fittings - Barb Style Connection



DEV04
Quick Exhaust Valve



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



MFS01-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8

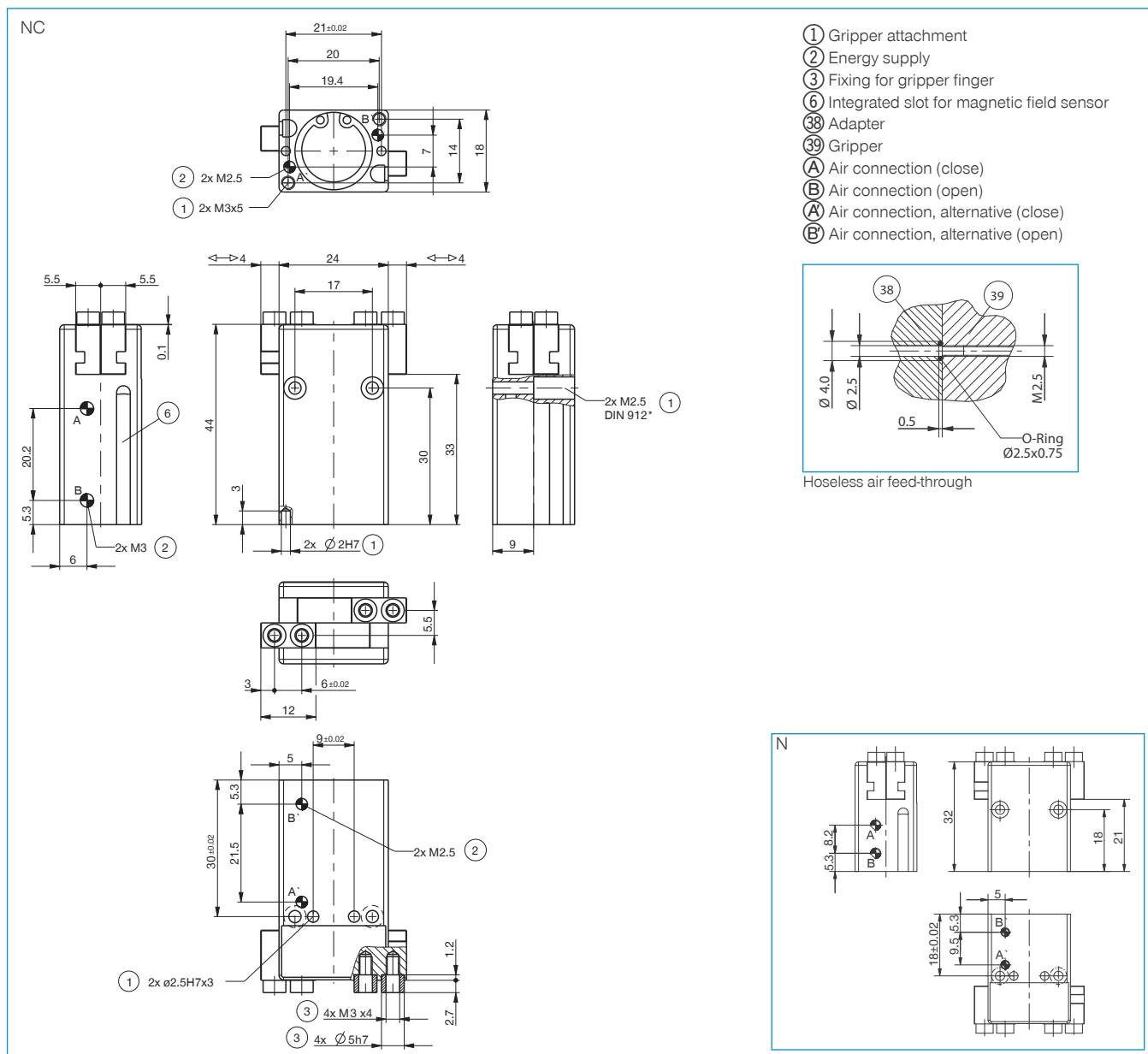


CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)

	▶ Technical data	
Order no.	MGP804N	MGP804NC
Stroke per jaw [mm]	4	4
Gripping force in closing [N]	60	90
Gripping force in opening [N]	65	
Gripping force secured by spring min. [N]		30
Closing time [s]	0.02	0.02
Opening time [s]	0.02	0.04
Repetition accuracy +/- [mm]	0.025	0.025
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	1.9	2.5
Weight [kg]	0.05	0.07



2-JAW PARALLEL GRIPPERS

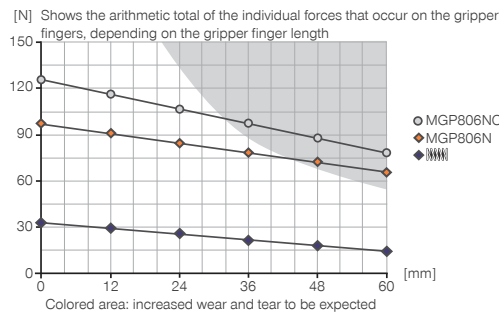
INSTALLATION SIZE MGP806

1

PRODUCT SPECIFICATIONS

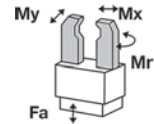


Gripping force diagram



Forces and moments

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



Mr [Nm]	4
Mx [Nm]	14
My [Nm]	5
Fa [N]	330

INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST40400

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



WVM3
Angled Fittings - Barb Style Connection



DEV04
Quick Exhaust Valve



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



MFS01-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8

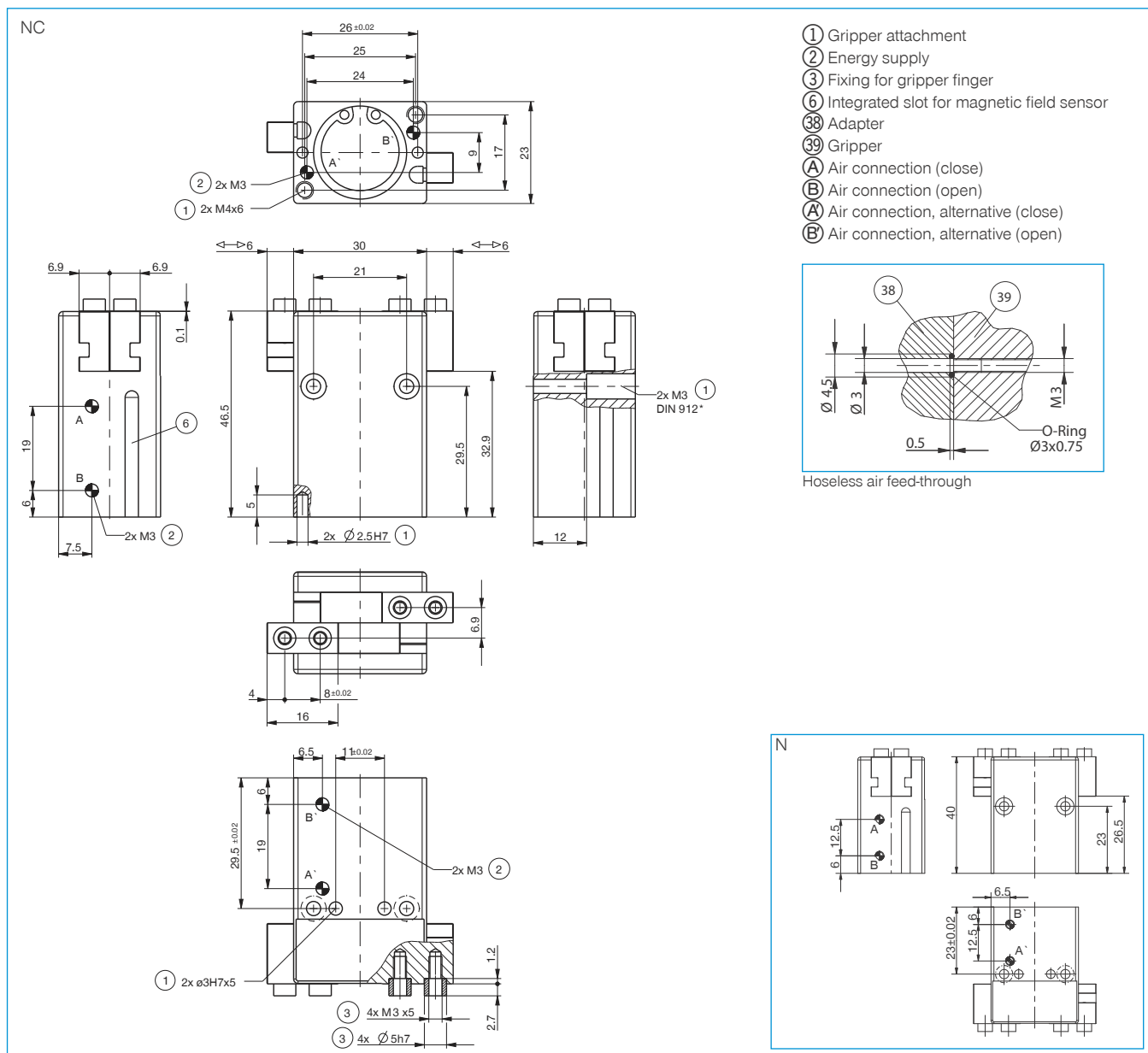


CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)

Order no.	► Technical data	
	MGP806N	MGP806NC
Stroke per jaw [mm]	6	6
Gripping force in closing [N]	100	140
Gripping force in opening [N]	120	
Gripping force secured by spring min. [N]		40
Closing time [s]	0.02	0.02
Opening time [s]	0.02	0.04
Repetition accuracy +/- [mm]	0.025	0.025
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	4.2	5.4
Weight [kg]	0.1	0.11



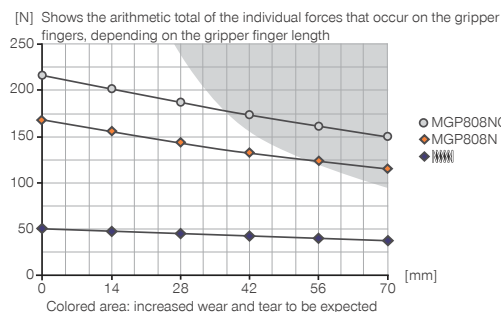
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE MGP808

PRODUCT SPECIFICATIONS

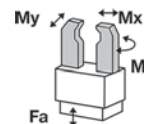


Gripping force diagram



Forces and moments

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



Mr [Nm]	6
Mx [Nm]	21
My [Nm]	7
Fa [N]	450

INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST40600

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



DEV04
Quick Exhaust Valve



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



MFS01-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8

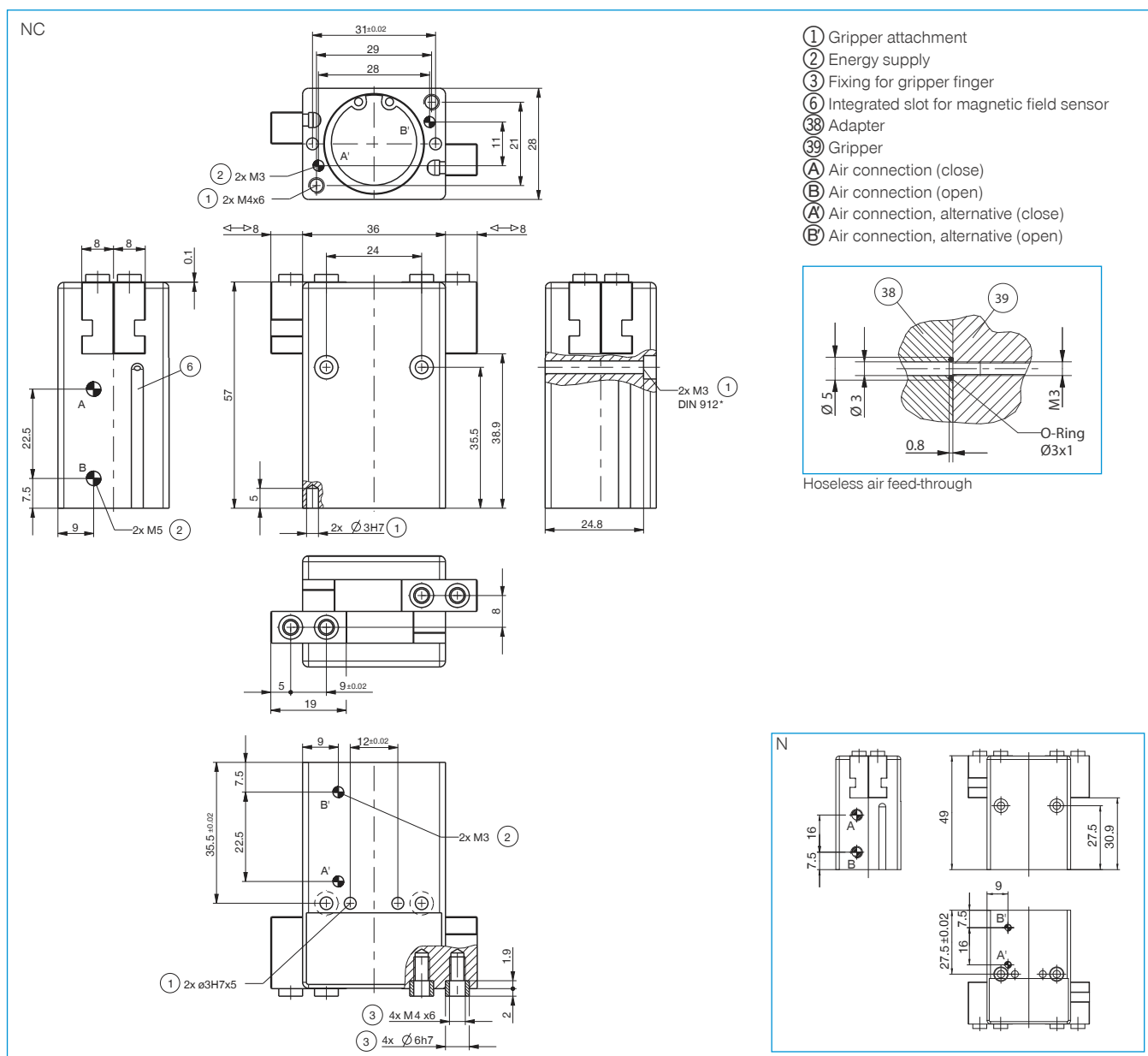


CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)

	► Technical data	
Order no.	MGP808N	MGP808NC
Stroke per jaw [mm]	8	8
Gripping force in closing [N]	170	220
Gripping force in opening [N]	190	
Gripping force secured by spring min. [N]		50
Closing time [s]	0.04	0.04
Opening time [s]	0.04	0.06
Repetition accuracy +/- [mm]	0.02	0.02
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	8.4	11.3
Weight [kg]	0.16	0.18



2-JAW PARALLEL GRIPPERS

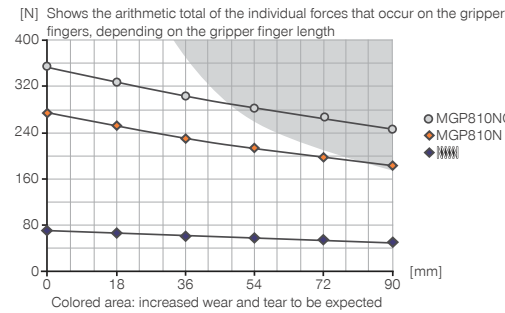
INSTALLATION SIZE MGP810

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PRODUCT SPECIFICATIONS

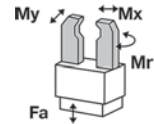


Gripping force diagram



Forces and moments

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



Mr [Nm]	9
Mx [Nm]	32
My [Nm]	12
Fa [N]	590

INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST07540

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



DEV04
Quick Exhaust Valve



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



MFS01-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8

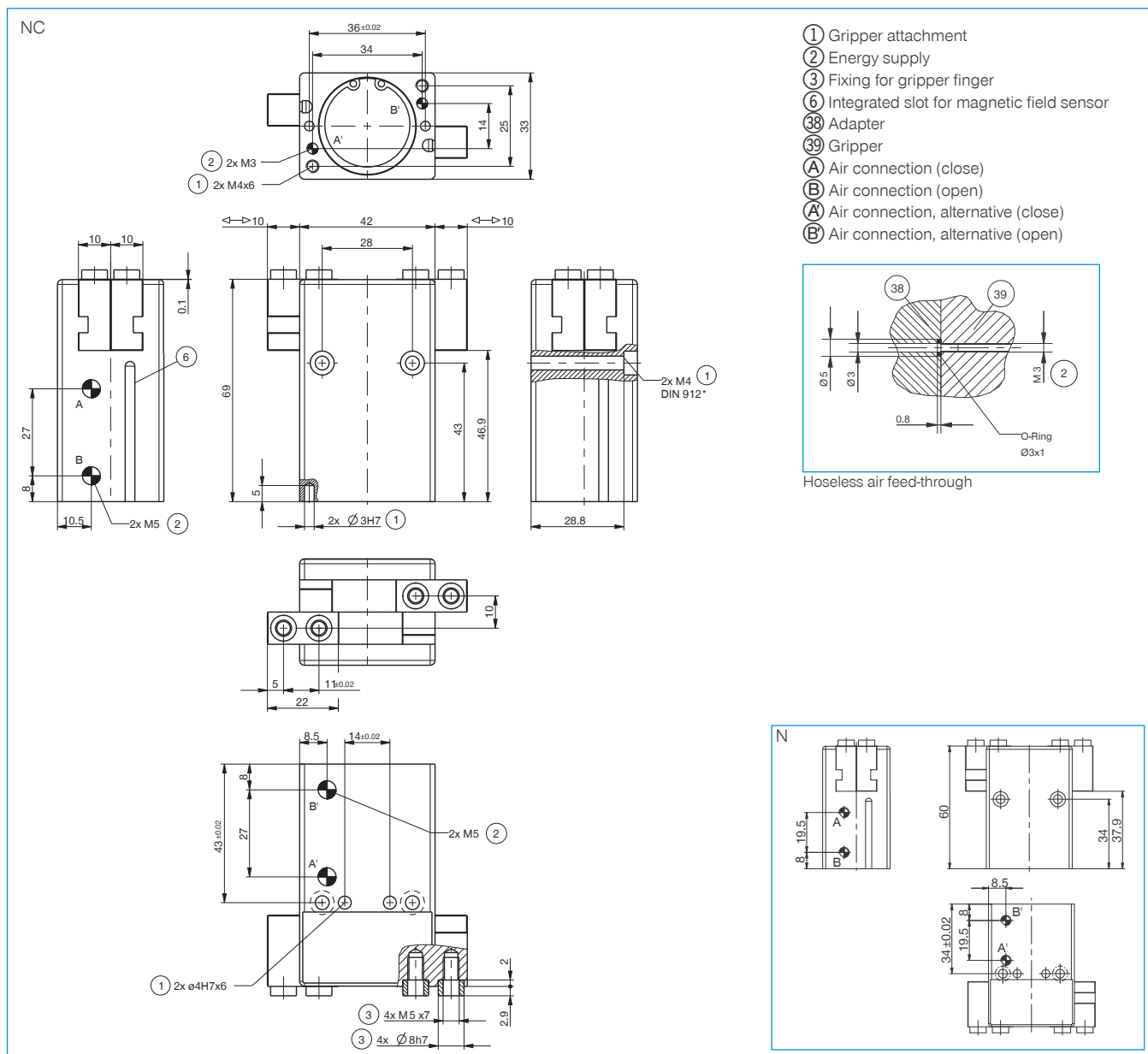


CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)

Order no.	Technical data	
	MGP810N	MGP810NC
Stroke per jaw [mm]	10	10
Gripping force in closing [N]	270	350
Gripping force in opening [N]	310	
Gripping force secured by spring min. [N]		80
Closing time [s]	0.04	0.04
Opening time [s]	0.04	0.06
Repetition accuracy +/- [mm]	0.02	0.02
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	15.2	20.5
Weight [kg]	0.28	0.32



2-JAW PARALLEL GRIPPERS

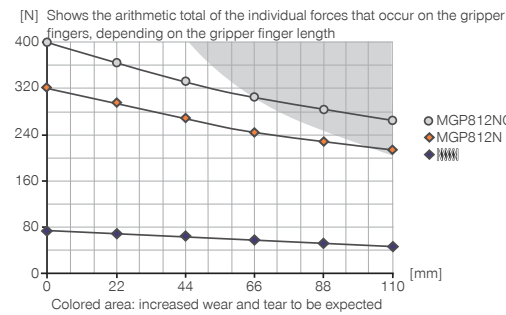
INSTALLATION SIZE MGP812

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PRODUCT SPECIFICATIONS

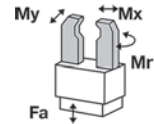


Gripping force diagram



Forces and moments

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



Mr [Nm]	11
Mx [Nm]	42
My [Nm]	16
Fa [N]	790

INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST07540

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



DEV04
Quick Exhaust Valve



SENSORS



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



MFS01-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8

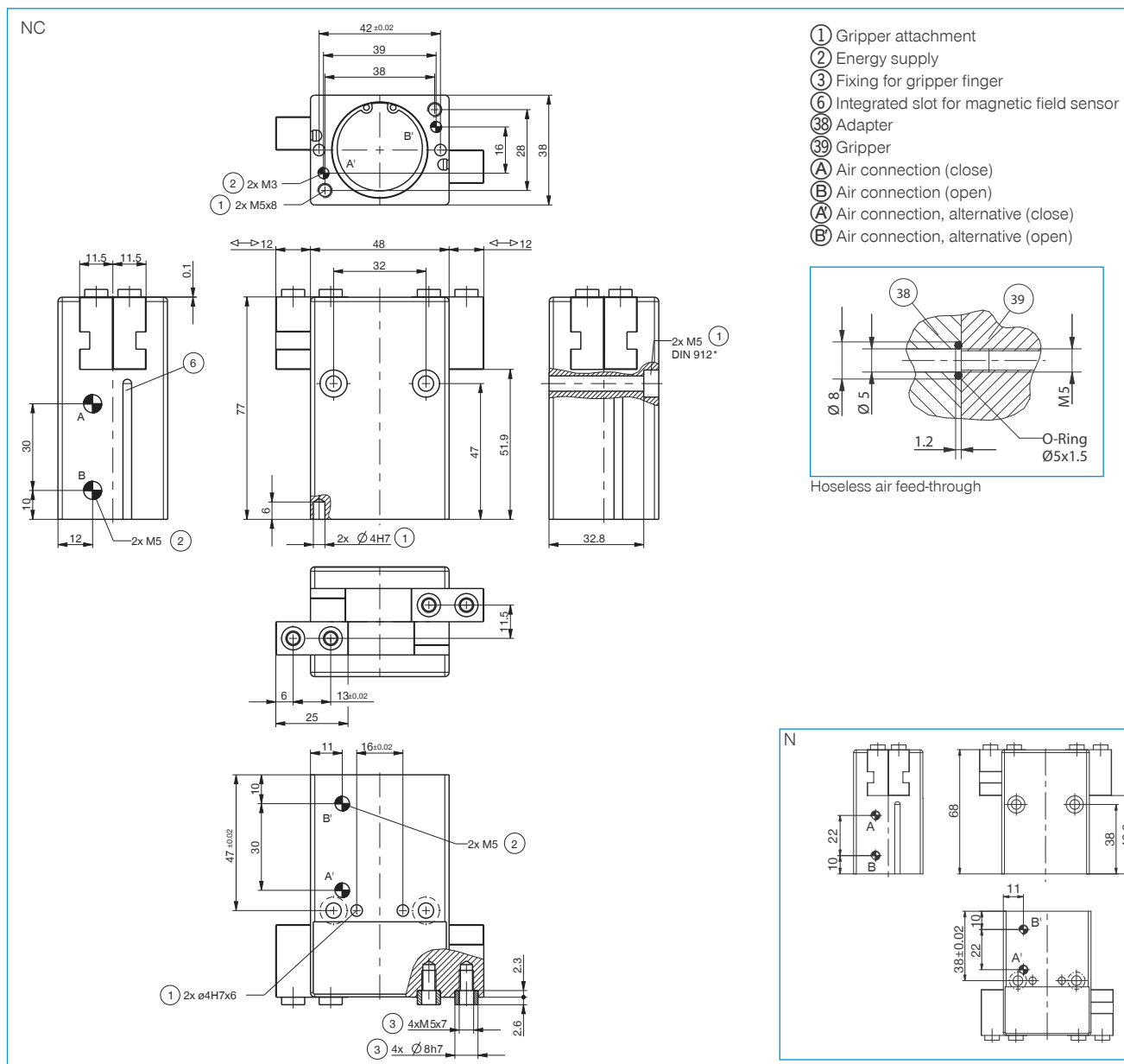


CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)

	► Technical data	
Order no.	MGP812N	MGP812NC
Stroke per jaw [mm]	12	12
Gripping force in closing [N]	320	400
Gripping force in opening [N]	350	
Gripping force secured by spring min. [N]		80
Closing time [s]	0.06	0.06
Opening time [s]	0.06	0.08
Repetition accuracy +/- [mm]	0.02	0.02
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	22.3	28.1
Weight [kg]	0.41	0.46



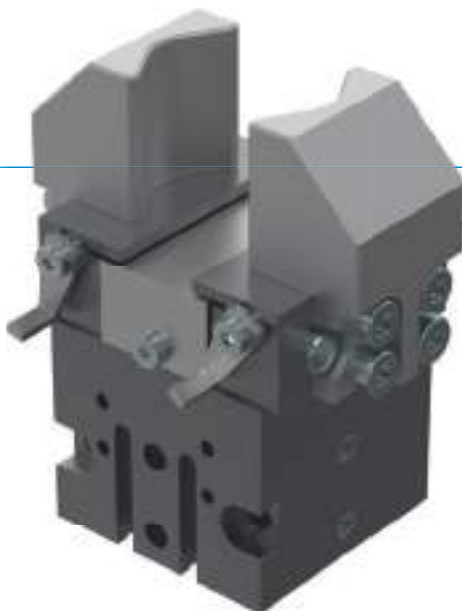
2-JAW PARALLEL GRIPPERS

SERIES GP

1

Series GP / 2-Jaw Parallel Grippers / pneumatic / Grippers

▶ PRODUCT ADVANTAGES



“The enduring”

▶ Proven technology

We have more than 20 years of proven reliability, which ensures uninterrupted production for you







▶ Very short cycle times

Low-friction circular guides enable very short cycle times and, therefore, high component output for your machine

▶ Failure-free continuous operation

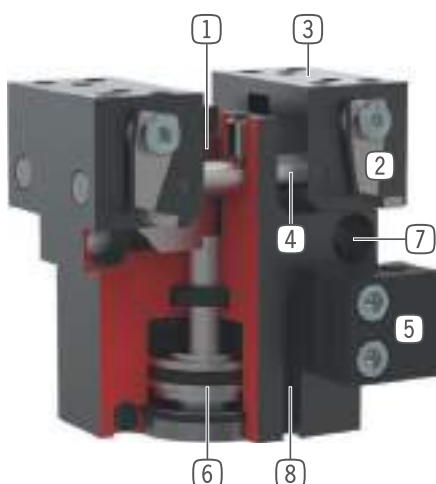
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free cycles

▶ SERIES CHARACTERISTICS

Installation size	Version	
GPXXX	-C	S-C
 Spring closing C		•
 High-strength S		•
 10 million maintenance-free cycles (max.)	•	•
 Inductive sensor	•	•
 Magnetic field sensor	•	•
 IP30	•	•



► BENEFITS IN DETAIL



- ① **Wedge hook mechanism**
 - synchronized the movement of the gripper jaws
 - high force transfer
- ② **Adjustable switch cam**
 - for position sensing
- ③ **Gripper jaw**
 - individual gripper finger mounting
- ④ **Roller slide**
 - for low wear movement sequence
- ⑤ **Mounting block**
 - mounting for inductive proximity switch
- ⑥ **Drive**
 - double-acting pneumatic cylinder
- ⑦ **Mounting and positioning**
 - mounting possible from several sides for versatile positioning
- ⑧ **Sensing slot**
 - mounting and positioning of magnetic field sensors

► TECHNICAL DATA

Installation size	Stroke per jaw [mm]	Gripping force [N]	Weight [kg]	IP class
GP12	3	8,4	0.034	IP30
GP19	4	36	0.085	IP30
GP30	5	94	0.155	IP30
GP45	5	118 - 190	0.236 - 0.271	IP30
GP75	10	220 - 275	0.466 - 0.511	IP30
GP100	8 - 13	450 - 5250	1.295 - 1.311	IP30

► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

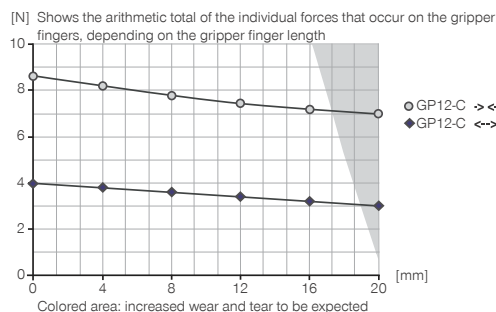
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP12

PRODUCT SPECIFICATIONS

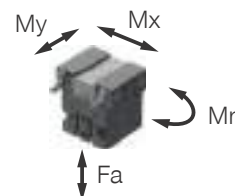


Gripping force diagram



Forces and moments

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



Mr [Nm]	0.15
Mx [Nm]	0.15
My [Nm]	0.15
Fa [N]	15

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB12
Universal jaw set aluminium



SENSORS



NJ3-E2
Inductive proximity switch - Cable 5 m



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



NJ3-E2SK
Inductive Proximity Switch Cable 0,3 m - Connector M8



WVM3
Angled Fittings - Barb Style Connection



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



DEV04
Quick Exhaust Valve



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



DSV1-8
Pressure safety valve



MFS01-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



DSV1-8E
Pressure safety valve with quick exhaust



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



CONNECTIONS / OTHER



SENSORS



KB3M
Mounting block

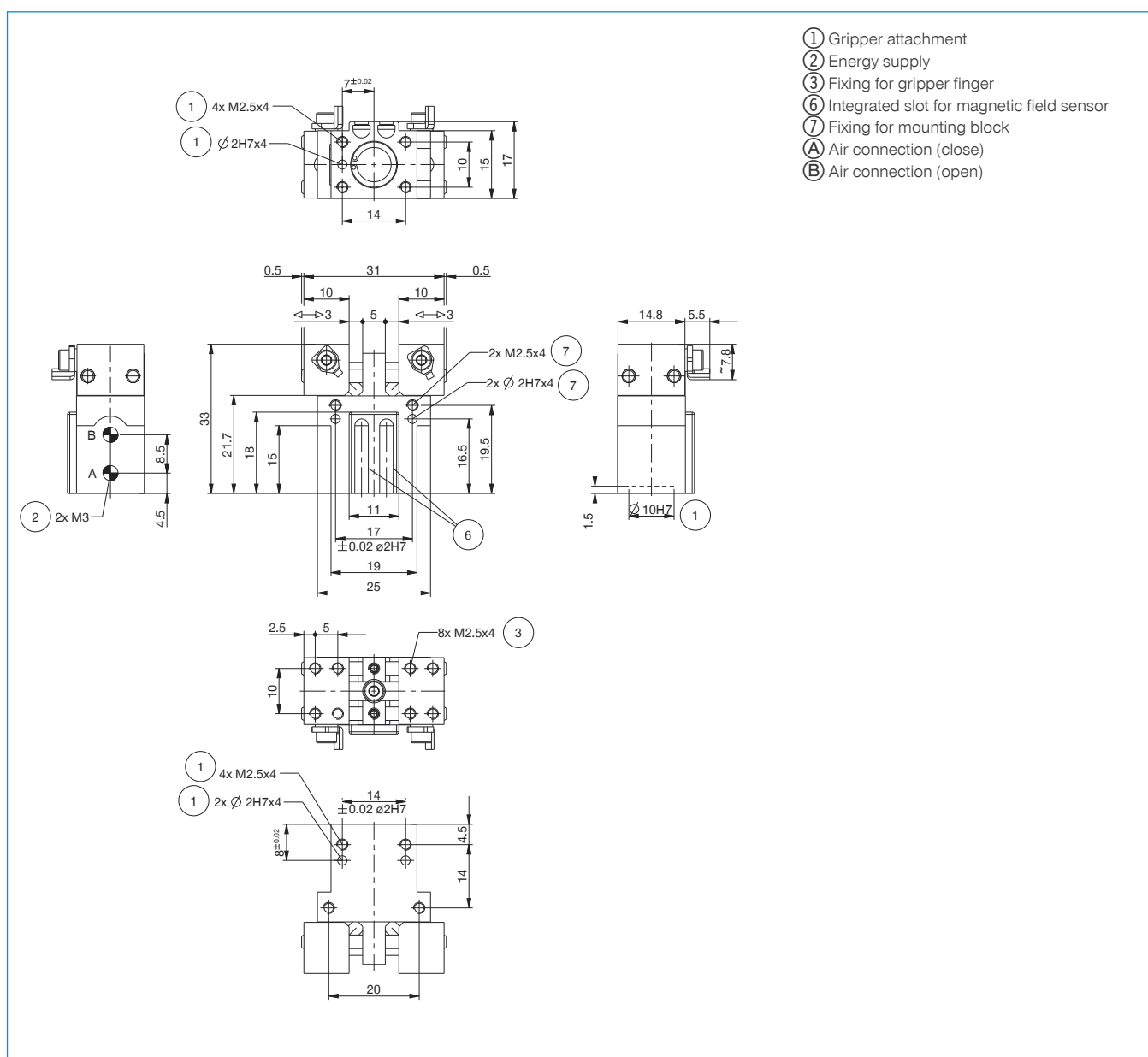


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



ZE10H7X6
Centering Disc

Order no.	Technical data
	GP12-C
Stroke per jaw [mm]	3
Gripping force in closing [N]	8.4
Gripping force in opening [N]	4
Gripping force secured by spring min. [N]	
Closing time [s]	0.02
Opening time [s]	0.02
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	0.4
Weight [kg]	0.034



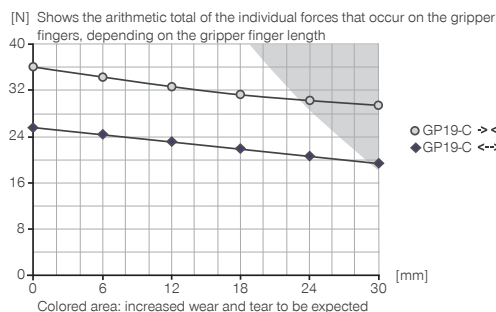
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP19

PRODUCT SPECIFICATIONS

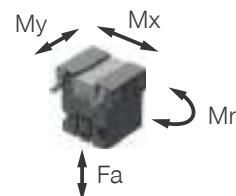


Gripping force diagram



Forces and moments

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



Mr [Nm]	0.8
Mx [Nm]	0.8
My [Nm]	0.8
Fa [N]	40

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB19
Universal jaw set aluminium



SENSORS



NJ3-E2
Inductive proximity switch - Cable 5 m



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



DEV04
Quick Exhaust Valve



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



NJ3-E2SK
Inductive Proximity Switch Cable 0,3 m - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



MFS01-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



ZE12H7X4
Centering Disc

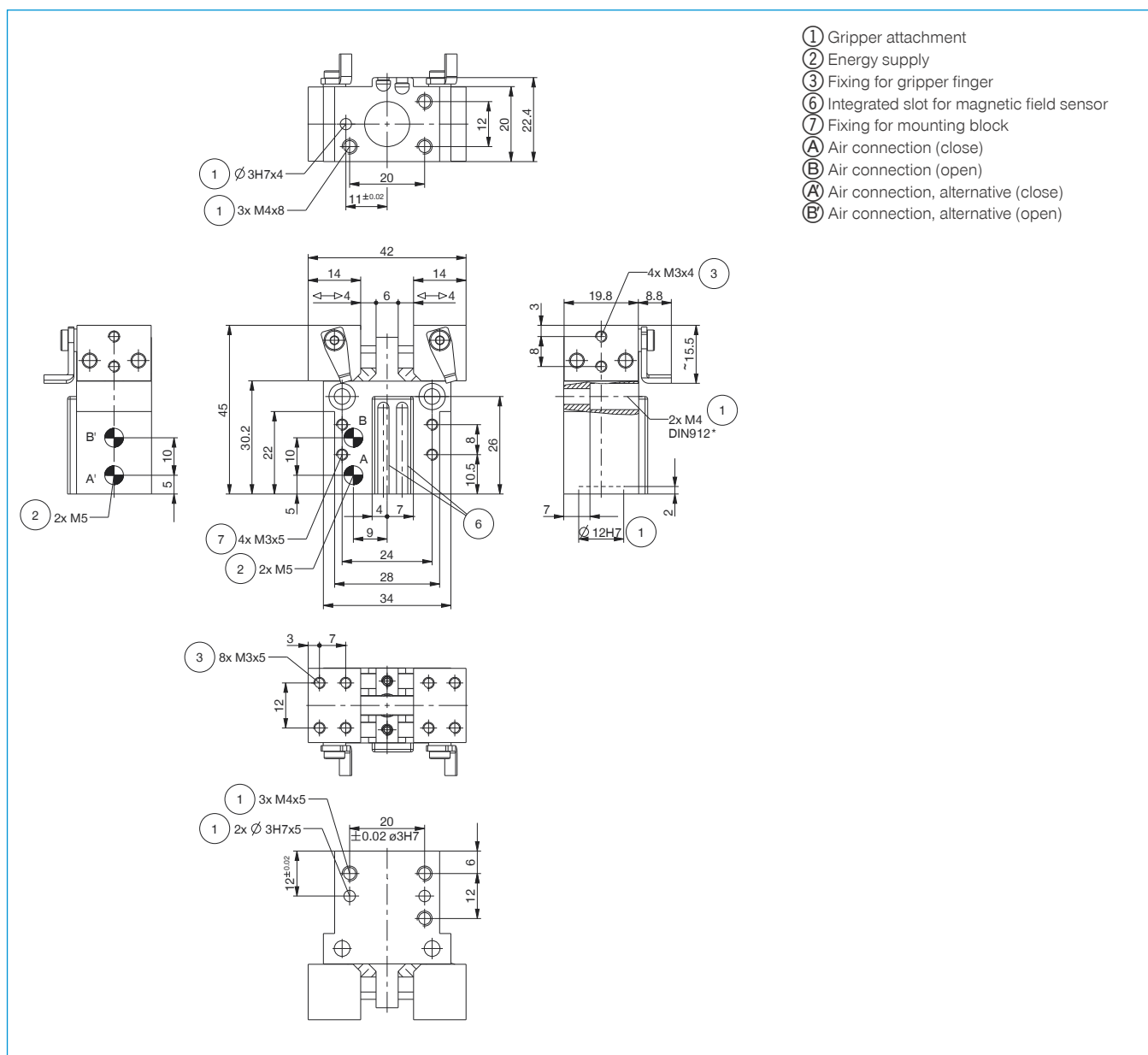


SENSORS



KB3
Mounting block

Order no.	Technical data
	GP19-C
Stroke per jaw [mm]	4
Gripping force in closing [N]	36
Gripping force in opening [N]	26
Gripping force secured by spring min. [N]	
Closing time [s]	0.02
Opening time [s]	0.02
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	1
Weight [kg]	0.085



2-JAW PARALLEL GRIPPERS

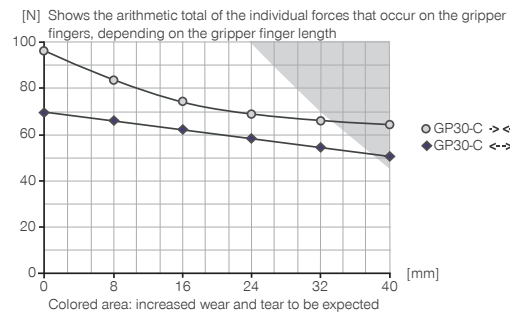
INSTALLATION SIZE GP30

1

PRODUCT SPECIFICATIONS

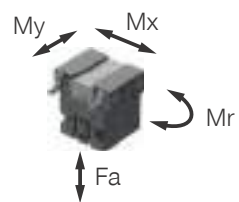


Gripping force diagram



Forces and moments

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



Mr [Nm]	2
Mx [Nm]	2
My [Nm]	2
Fa [N]	80

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB30
Universal jaw set aluminium



SENSORS



NJ5-E2
Inductive proximity switch - Cable 5 m



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



NJ5-E2SK
Inductive Proximity Switch Cable 0,3 m - Connector M8



WVM5
Angled Fittings - Quick Connect Style



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



DEV04
Quick Exhaust Valve



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



DSV1-8
Pressure safety valve



MFS01-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



DSV1-8E
Pressure safety valve with quick exhaust



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



SENSORS



KB5
Mounting block



CONNECTIONS / OTHER

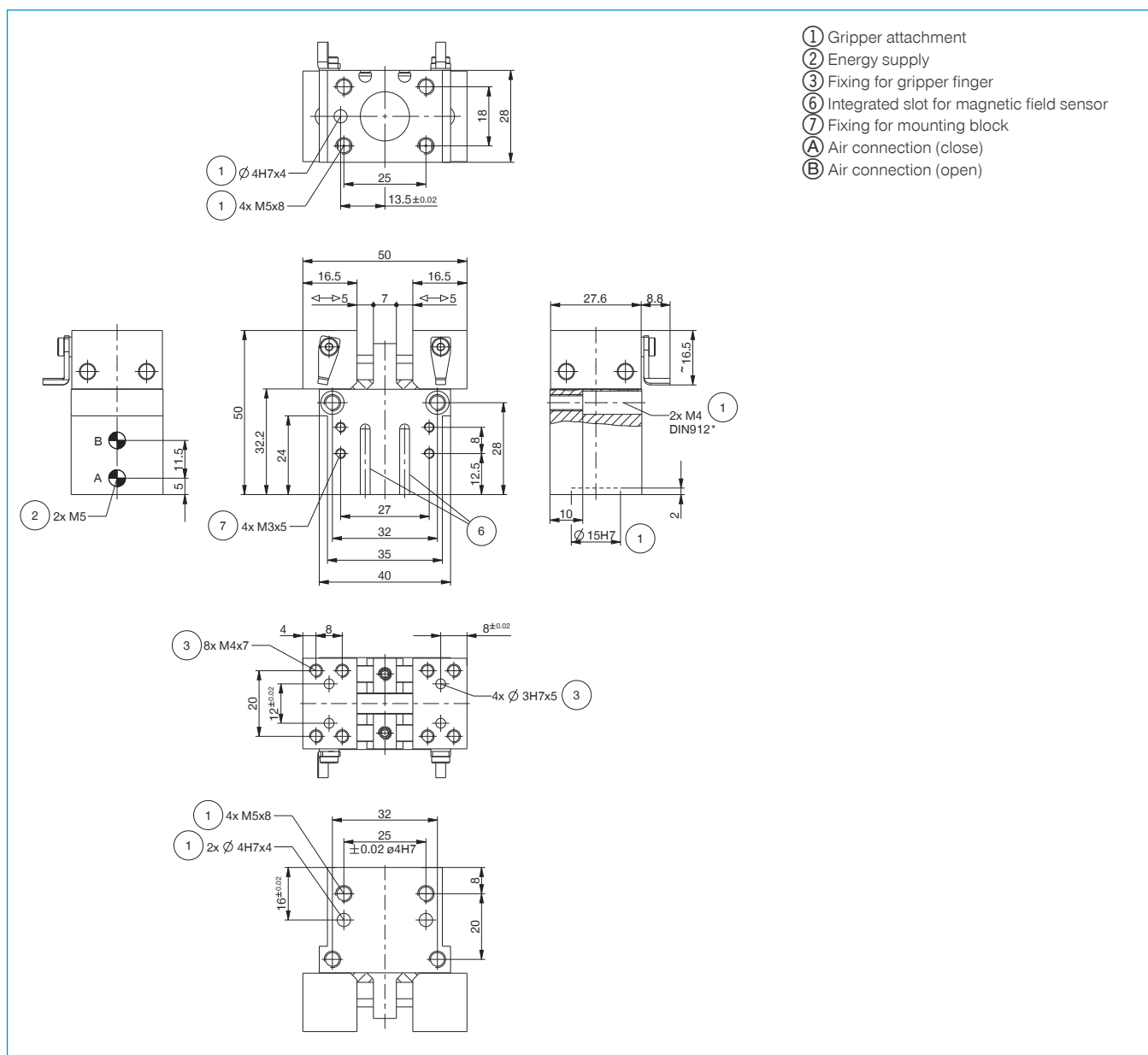


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



ZE15H7X4
Centering Disc

Order no.	Technical data
	GP30-C
Stroke per jaw [mm]	5
Gripping force in closing [N]	94
Gripping force in opening [N]	76
Gripping force secured by spring min. [N]	
Closing time [s]	0.02
Opening time [s]	0.02
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	3
Weight [kg]	0.155



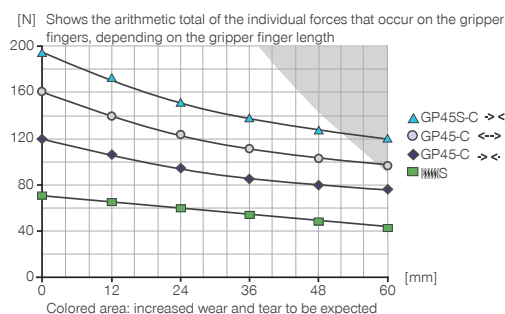
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP45

PRODUCT SPECIFICATIONS

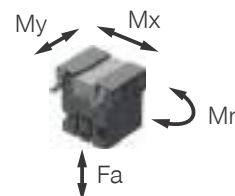


Gripping force diagram



Forces and moments

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



Mr [Nm]	4
Mx [Nm]	4
My [Nm]	4
Fa [N]	160

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB45
Universal jaw set aluminium



SENSORS



NJ6.5-E2-01
Inductive proximity switch - Cable 5 m



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



DEV04
Quick Exhaust Valve



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



NJ6.5-E2S
Inductive proximity switch - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



MFS01-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



ZE20H7X4
Centering Disc

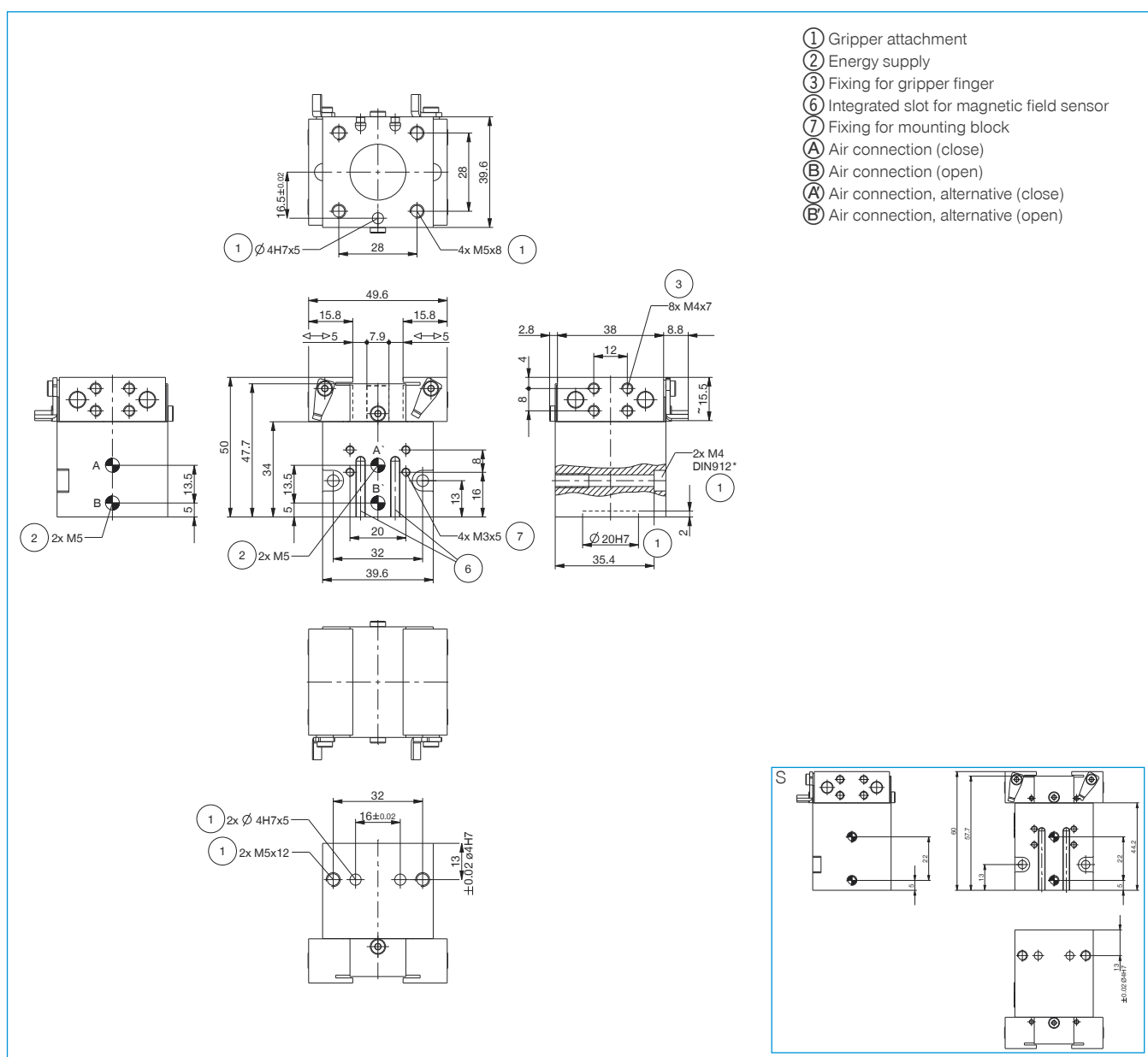


SENSORS



KB6.5
Mounting block

	▶ Technical data	
Order no.	GP45-C	GP45S-C
Stroke per jaw [mm]	5	5
Gripping force in closing [N]	118	190
Gripping force in opening [N]	155	
Gripping force secured by spring min. [N]		75
Closing time [s]	0.03	0.04
Opening time [s]	0.03	0.04
Repetition accuracy +/- [mm]	0.05	0.05
Operating pressure min. [bar]	3	5
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	4	8
Weight [kg]	0.236	0.271



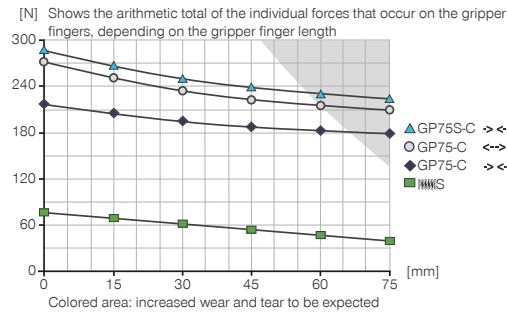
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP75

PRODUCT SPECIFICATIONS

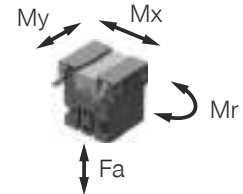


Gripping force diagram



Forces and moments

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



Mr [Nm]	5
Mx [Nm]	5
My [Nm]	5
Fa [N]	180

INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB75
Universal jaw set aluminium



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



MFS01-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



WV1-8X8
Angled Fittings - Quick Connect Style



DEV08
Quick Exhaust Valve



SENSORS



NJ8-E2
Inductive proximity switch - Cable 5 m



NJ8-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER

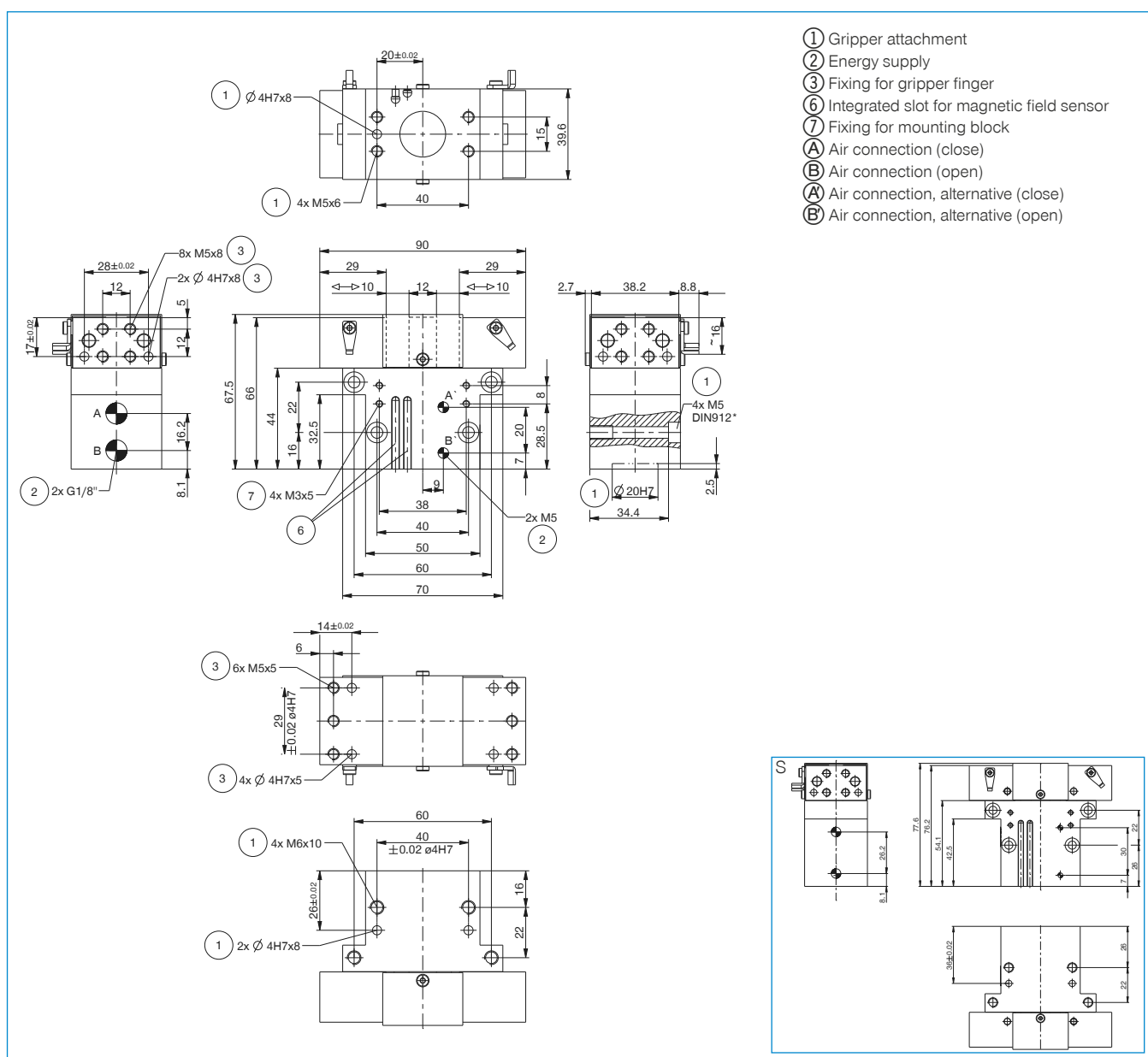


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



ZE20H7X4
Centering Disc

Order no.	► Technical data	
	GP75-C	GP75S-C
Stroke per jaw [mm]	10	10
Gripping force in closing [N]	220	275
Gripping force in opening [N]	260	
Gripping force secured by spring min. [N]		63
Closing time [s]	0.03	0.04
Opening time [s]	0.03	0.04
Repetition accuracy +/- [mm]	0.05	0.05
Operating pressure min. [bar]	3	5
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	13	19
Weight [kg]	0.466	0.511



2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP100

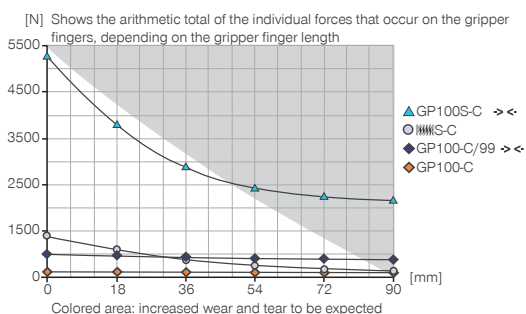
1

Installation size GP100 / 2-Jaw Parallel Grippers / pneumatic / Grippers

PRODUCT SPECIFICATIONS

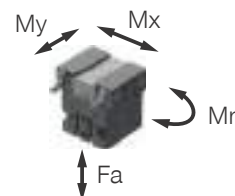


Gripping force diagram



Forces and moments

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



Mr [Nm]	10
Mx [Nm]	10
My [Nm]	10
Fa [N]	400

INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB100
Universal jaw set aluminium



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



MFS01-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



WV1-8X8
Angled Fittings - Quick Connect Style



DEV08
Quick Exhaust Valve



CONNECTIONS / OTHER



SENSORS



NJ8-E2
Inductive proximity switch - Cable 5 m



NJ8-E2S
Inductive proximity switch - Connector M8

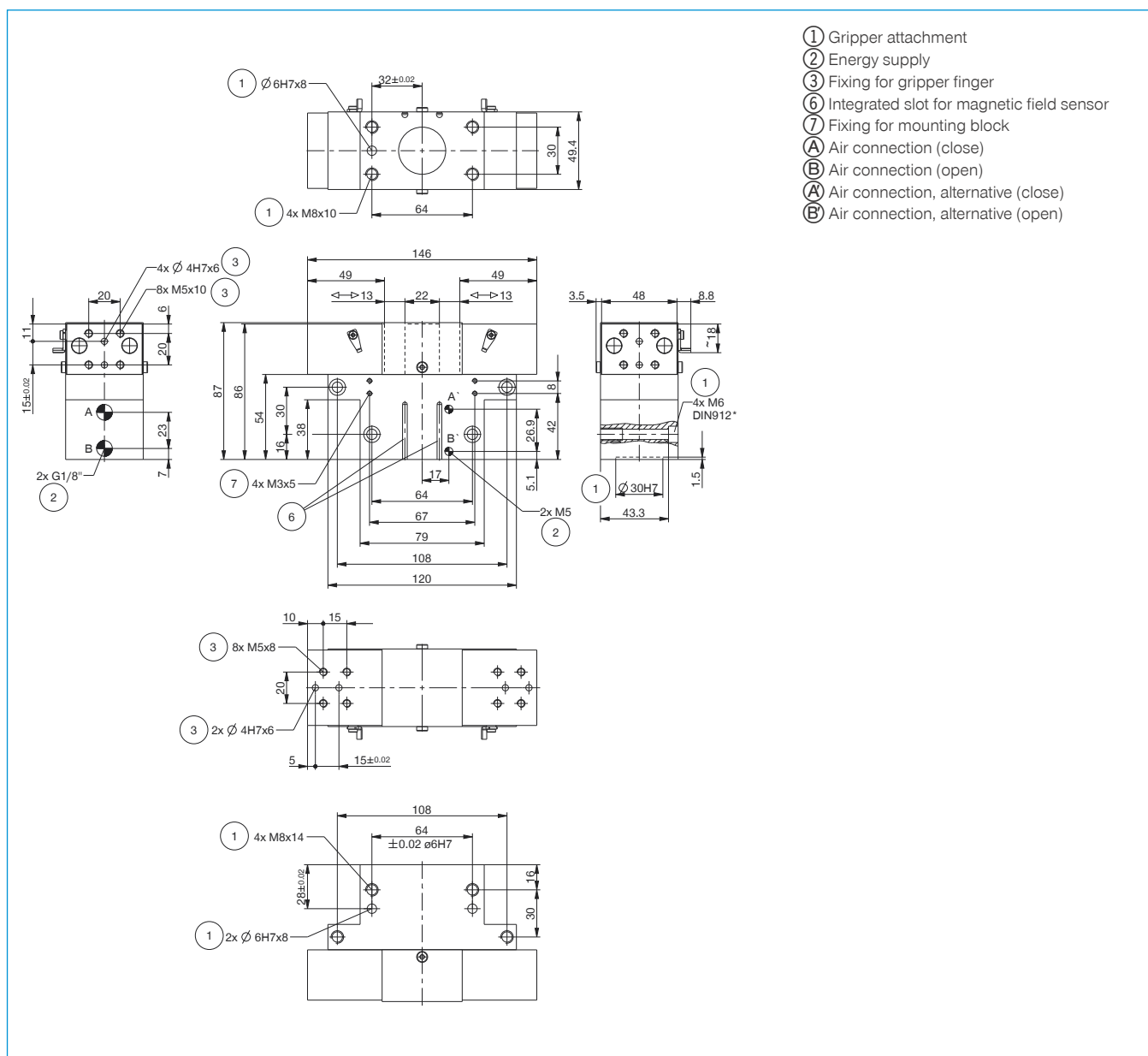


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



ZE30H7X4
Centering Disc

Order no.	► Technical data		
	GP100-C	GP100-C-99	GP100S-C
Stroke per jaw [mm]	13	13	8
Gripping force in closing [N]	450	450	5250
Gripping force in opening [N]		450	
Gripping force secured by spring min. [N]	70		250
Closing time [s]	0.05	0.04	0.05
Opening time [s]	0.05	0.04	0.05
Repetition accuracy +/- [mm]	0.05	0.05	0.05
Operating pressure min. [bar]	5	4	5
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	30	30	30
Weight [kg]	1.311	1.295	1.308



2-JAW PARALLEL GRIPPERS

SERIES GP400

1

Series GP400 / 2-Jaw Parallel Grippers / pneumatic / Grippers

▶ PRODUCT ADVANTAGES



“The economical”

▶ Concentration on the essentials

The most economic type of gripping: This is how you reduce your production costs









▶ Proven T slot guide

This established and proven guiding technology stands for the highest process reliability like no other

▶ Compact structure

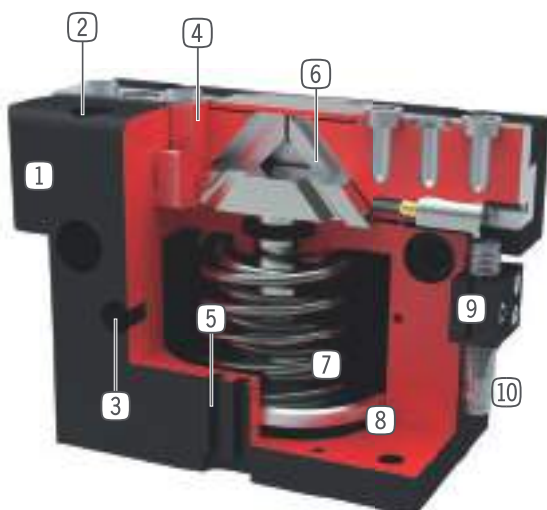
Reduces the interference contours for your application

▶ SERIES CHARACTERISTICS

Installation size	Version					
GP4XX	N	NC	NO	S	SC	SO
 Spring closing C		•			•	
 Spring opening O			•			•
 High-strength S				•	•	•
 10 million maintenance-free cycles (max.)	•	•	•	•	•	•
 Inductive sensor	•	•	•	•	•	•
 Magnetic field sensor	•	•	•	•	•	•
 Purged air	•	•	•	•	•	•
 IP 40	•	•	•	•	•	•



► BENEFITS IN DETAIL



- ① **Robust, lightweight housing**
- Hard-coated aluminum alloy
- ② **Mounting and positioning**
- mounting possible from several sides for versatile positioning
- ③ **Energy supply**
- possible from several sides
- ④ **Gripper jaw**
- individual gripper finger mounting
- ⑤ **Sensing slot**
- mounting and positioning of magnetic field sensors
- ⑥ **Wedge hook mechanism**
- synchronized the movement of the gripper jaws
- ⑦ **Integrated gripping force safety device**
- spring integrated into cylinder as energy storage
- ⑧ **Position sensing**
- permanent magnet for direct monitoring of piston movement
- ⑨ **Mounting block**
- mounting for inductive proximity switch (10)

► TECHNICAL DATA

Installation size	Stroke per jaw [mm]	Gripping force [N]	Weight [kg]	IP class
GP403	3	85 - 115	0,08 - 0,1	IP40
GP404	2 - 4	170 - 500	0,14 - 0,16	IP40
GP406	3 - 6	300 - 950	0,27 - 0,32	IP40
GP408	4 - 8	550 - 1660	0,5 - 0,57	IP40
GP410	5 - 10	740 - 2340	0,85 - 1	IP40
GP412	6 - 12	1290 - 4130	1,5 - 1,78	IP40
GP416	8 - 16	1860 - 5780	2,9 - 3,4	IP40
GP420	10 - 20	3175 - 9400	5,5 - 6,7	IP40
GP430	15 - 30	6675 - 19275	14 - 18,9	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

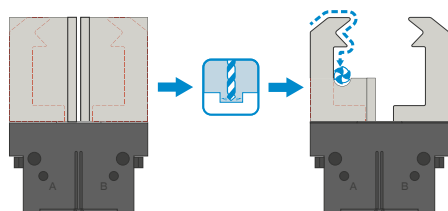
2-JAW PARALLEL GRIPPERS

SERIES GP400 FUNCTIONAL DESCRIPTION

1



GRIPPING COMPONENTS



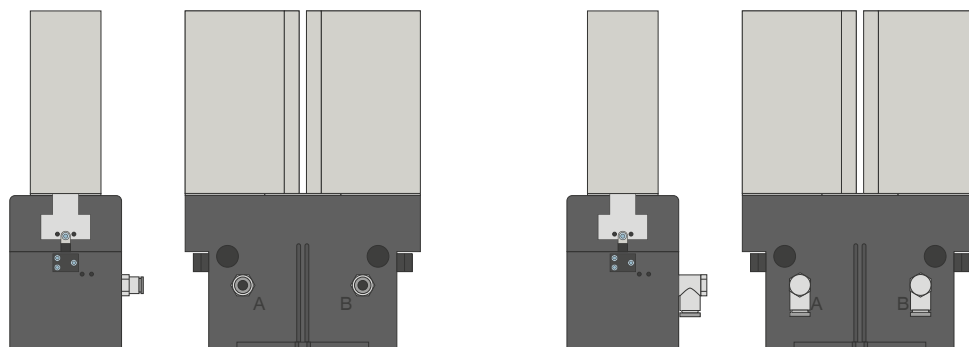
Universal jaws – UB400

Can be used immediately or for individual reprocessing

The gripper blanks are available in an aluminum (AL) and also in a steel (ST) version and are installed directly on the gripper using the screws in the scope of delivery. The fits for the centering sleeves are already in place for this purpose. One universal jaw set is required for each gripper.



ENERGY SUPPLY



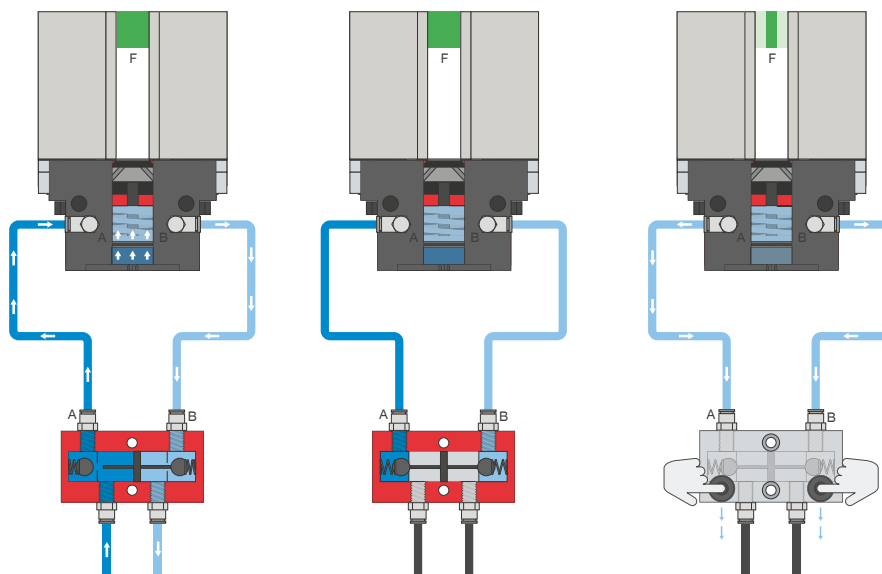
Pneumatic threaded connections

Available in straight and angled design. Can be chosen freely depending on the space conditions or installation situation.



ENERGY SUPPLY

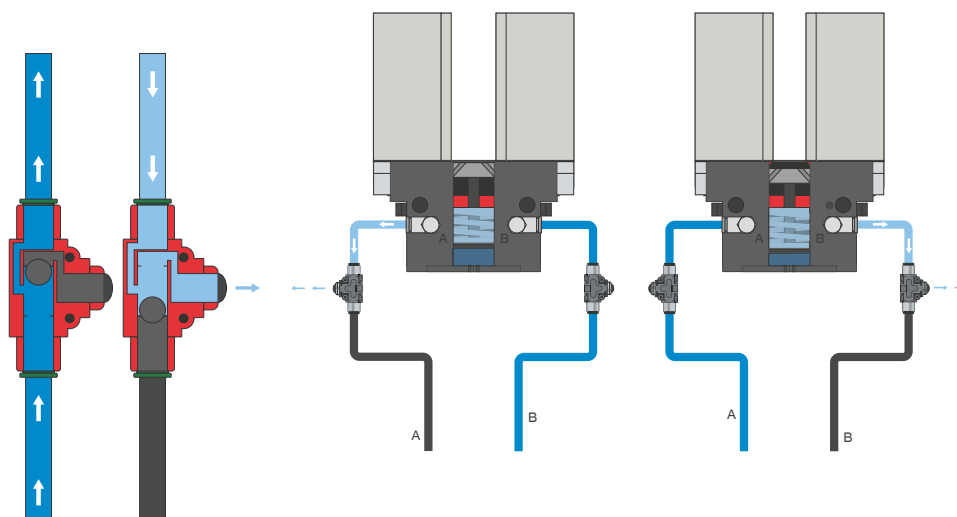
1



Pressure safety valve – DSV

Ensures safe retention of force and position if the system pressure drops

The integrated double check valve, which can be unlocked, retains the system pressure of the gripper in case of EMERGENCY STOP. To ensure the function, the valve must be installed as close to the gripper's air connection as possible. In variant E, two pushbuttons are installed that allow for controlled bleeding of the gripper.



Quick exhaust valve – DEV

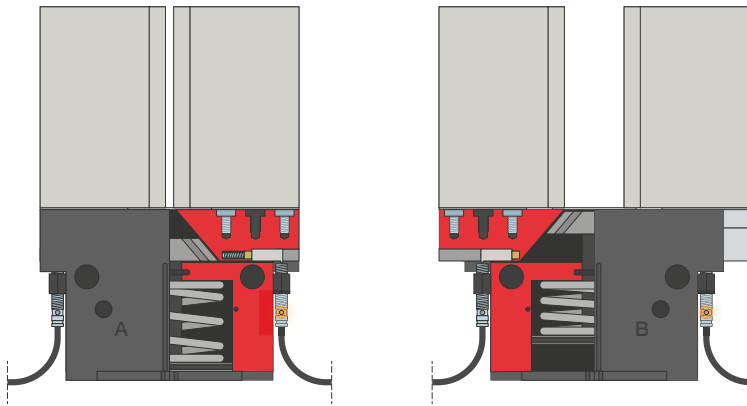
For rapid bleeding of the compressed air and preventing back pressure

The inline valves make a faster cycle time possible and prevent the formation of condensate in grippers with a small cylinder volume. To ensure the function, the valve must be installed as close to the gripper's air connection as possible.

2-JAW PARALLEL GRIPPERS

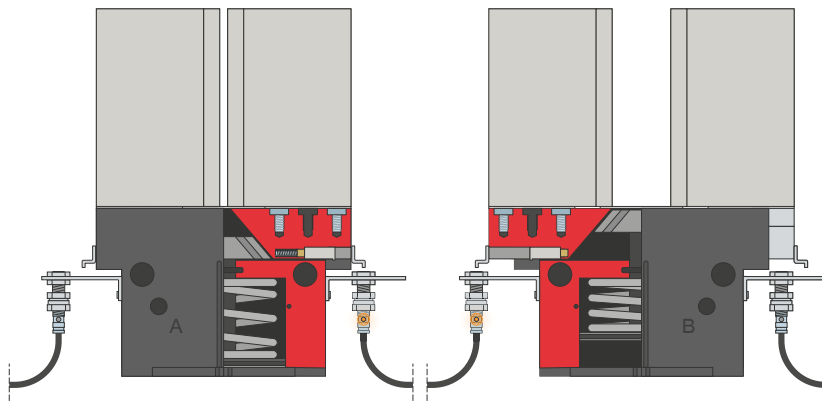
SERIES GP400 FUNCTIONAL DESCRIPTION

SENSORS



Inductive sensors – NJ

The sensor is inserted into the mounting block as far as it will go and secured. Tuning to the desired position then takes place by adjusting the cam switch. The sensors are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector, as well as with direct plug orientation.



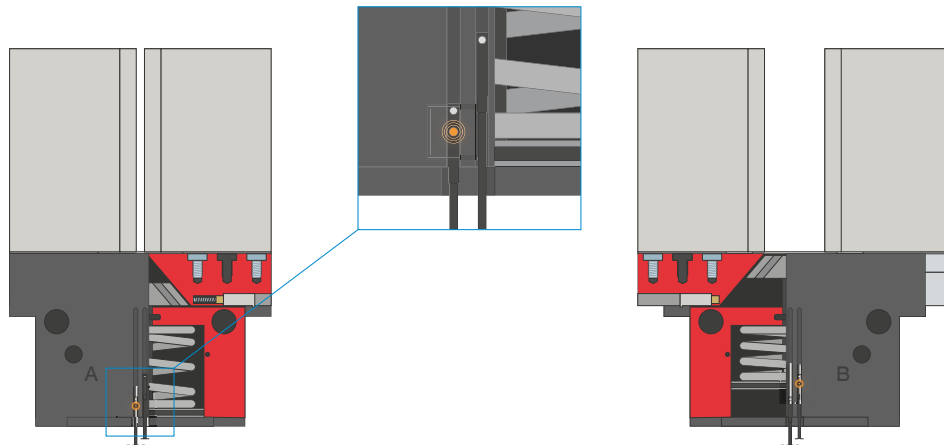
Clamping bracket – KHA

The KHA can be used as an alternative to installing the sensor via the mounting block. The sensor is inserted into the clamping bracket as far as it will go and secured. Tuning to the cam switch then takes place. Fine adjustment can be made by moving the clamping bracket again.

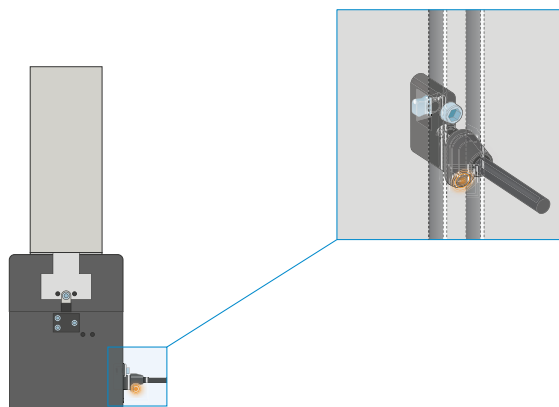


SENSORS

MFS02



MFS01



1-point magnetic field sensors – MFS

For non-contact sensing of the piston position

These sensors are installed in the C-groove of the gripper and detect the magnet attached to the piston of the gripper. To ensure use in a wide variety of space conditions, the sensors are available in two variants. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the gripper almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The variants are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.

2-JAW PARALLEL GRIPPERS

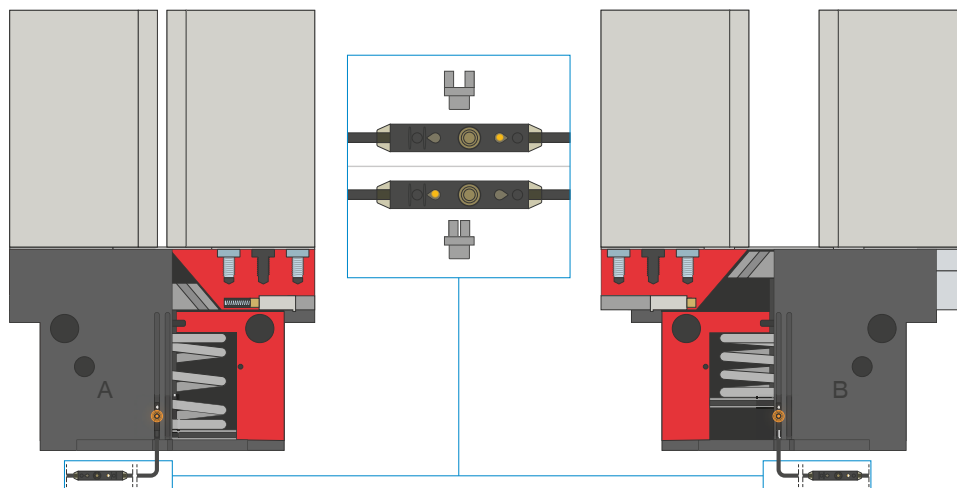
SERIES GP400 FUNCTIONAL DESCRIPTION

1

Series GP400 / 2-Jaw Parallel Grippers / pneumatic / Grippers



SENSORS



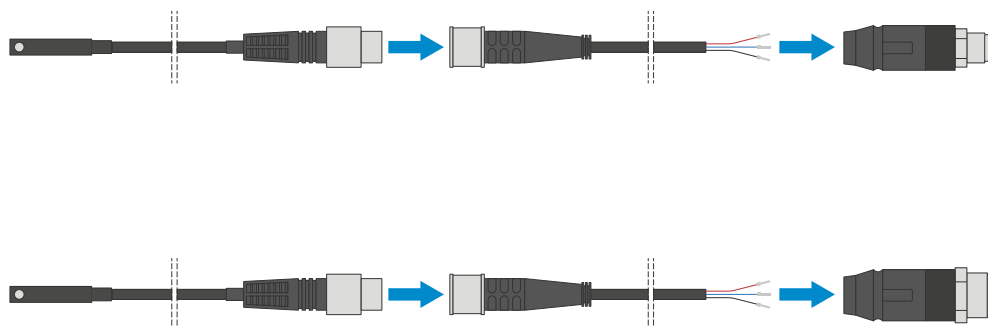
2-point magnetic field sensors – MFS

With two freely programmable switching points

Using the programming unit integrated in the cable, two switch points can be freely defined for this sensor. To do so, the sensor is clamped in the C-groove, the gripper approaches position one and the position is taught in using the teach button. Afterwards, the second position is approached with the gripper and programmed. To ensure use in a wide variety of space conditions, the sensors are available in two variants. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the gripper almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The sensors are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.



CONNECTIONS / OTHER



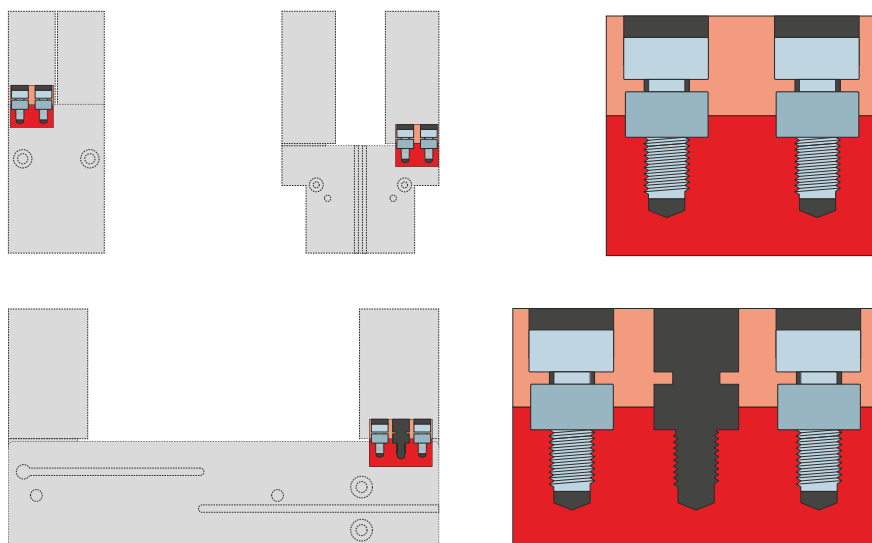
Plug-in connectors

For extending and fabricating the connection lines for the sensors

Cables with a length of 5 m with exposed leads are available. Depending on the specific needs, the cables can be shortened or fabricated with connectors in sizes M8 and M12.



CONNECTIONS / OTHER



Centering sleeves

For defined position measurement of the gripper fingers

The centering sleeves are inserted into the fits of the gripper jaws to define the position of the gripper fingers. The centering sleeves are comparable to a pin connection.

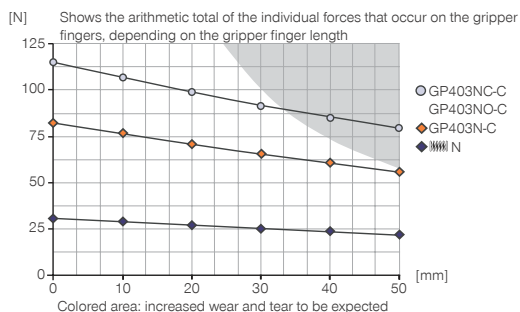
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP403

PRODUCT SPECIFICATIONS

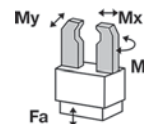


Gripping force diagram



Forces and moments

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



Mr [Nm]	6
Mx [Nm]	9
My [Nm]	12
Fa [N]	500

INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB3-03



4 [piece]
Centering Disc
DST40400

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB403
Universal jaw set aluminium



UB403ST
Universal jaw set steel



ENERGY SUPPLY



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ3-E2SK
Inductive Proximity Switch Cable 0,3 m - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



DEV04
Quick Exhaust Valve



DSV1-8
Pressure safety valve



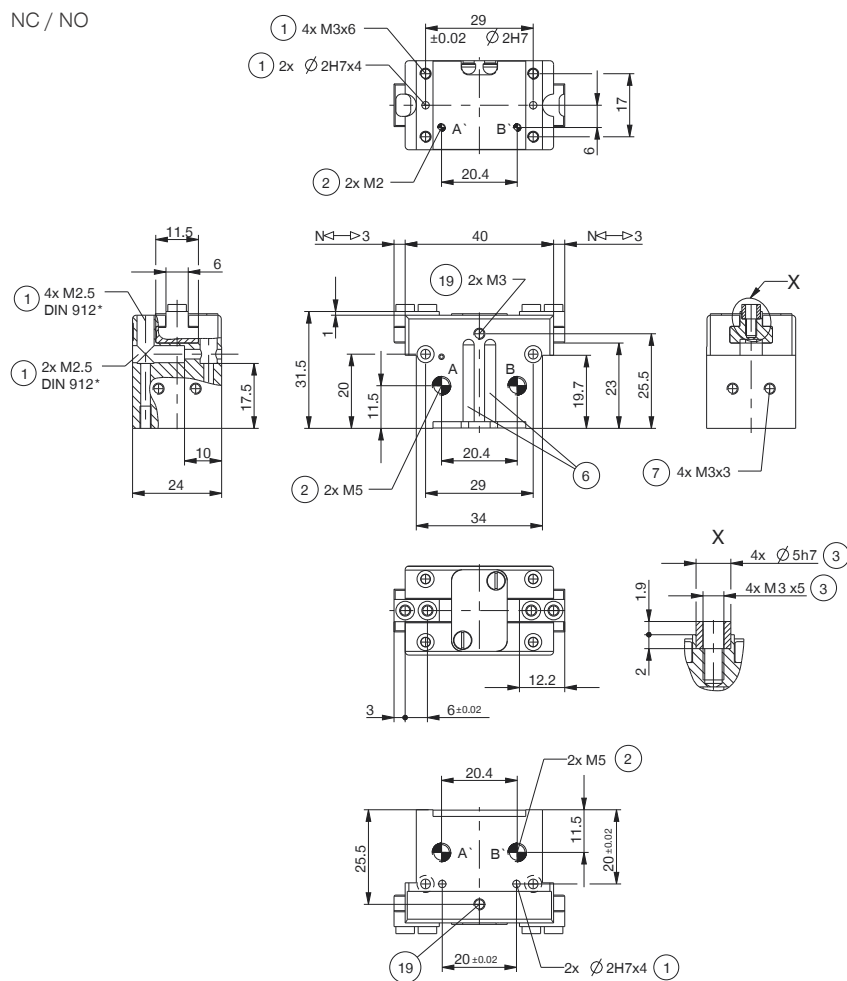
CONNECTIONS / OTHER



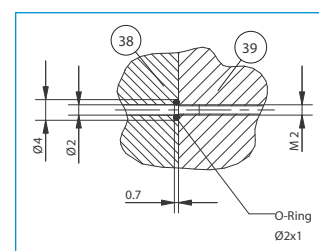
KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)

Order no.	Technical data		
	GP403N-C	GP403NC-C	GP403NO-C
Stroke per jaw [mm]	3	3	3
Gripping force in closing [N]	85	115	
Gripping force in opening [N]	100		115
Gripping force secured by spring min. [N]		32	32
Closing time [s]	0.015	0.01	0.02
Opening time [s]	0.015	0.02	0.01
Repetition accuracy +/- [mm]	0.01	0.01	0.01
Operating pressure min. [bar]	3	4	4
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Max. operating pressure for sealing air [bar]	0.5	0.5	0.5
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	1.8	3.3	3.3
Weight [kg]	0.08	0.1	0.1

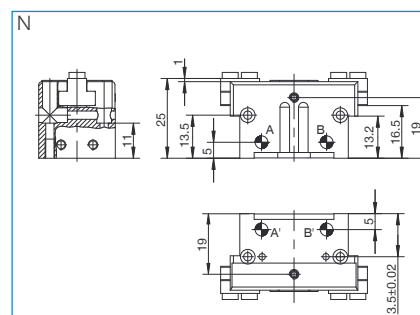
NC / NO



- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Fixing for mounting block
- ①⑨ Air purge connection option
- ③⑧ Adapter
- ③⑨ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)



Hoseless air feed-through



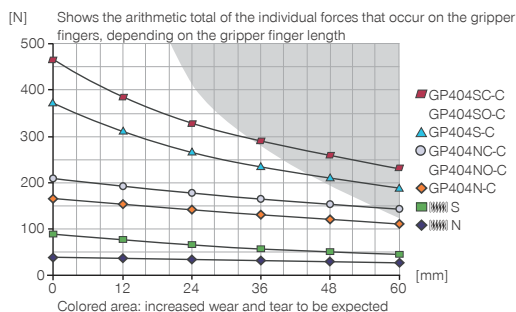
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP404

PRODUCT SPECIFICATIONS

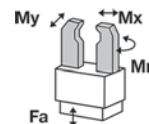


Gripping force diagram



Forces and moments

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



Mr [Nm]	8
Mx [Nm]	15
My [Nm]	15
Fa [N]	700

INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB3-08



4 [piece]
Centering Disc
DST40400

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB404
Universal jaw set aluminium



UB404ST
Universal jaw set steel



SENSORS



NJ3-E2SK
Inductive Proximity Switch Cable 0,3 m - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



DEV04
Quick Exhaust Valve



DSV1-8
Pressure safety valve



CONNECTIONS / OTHER



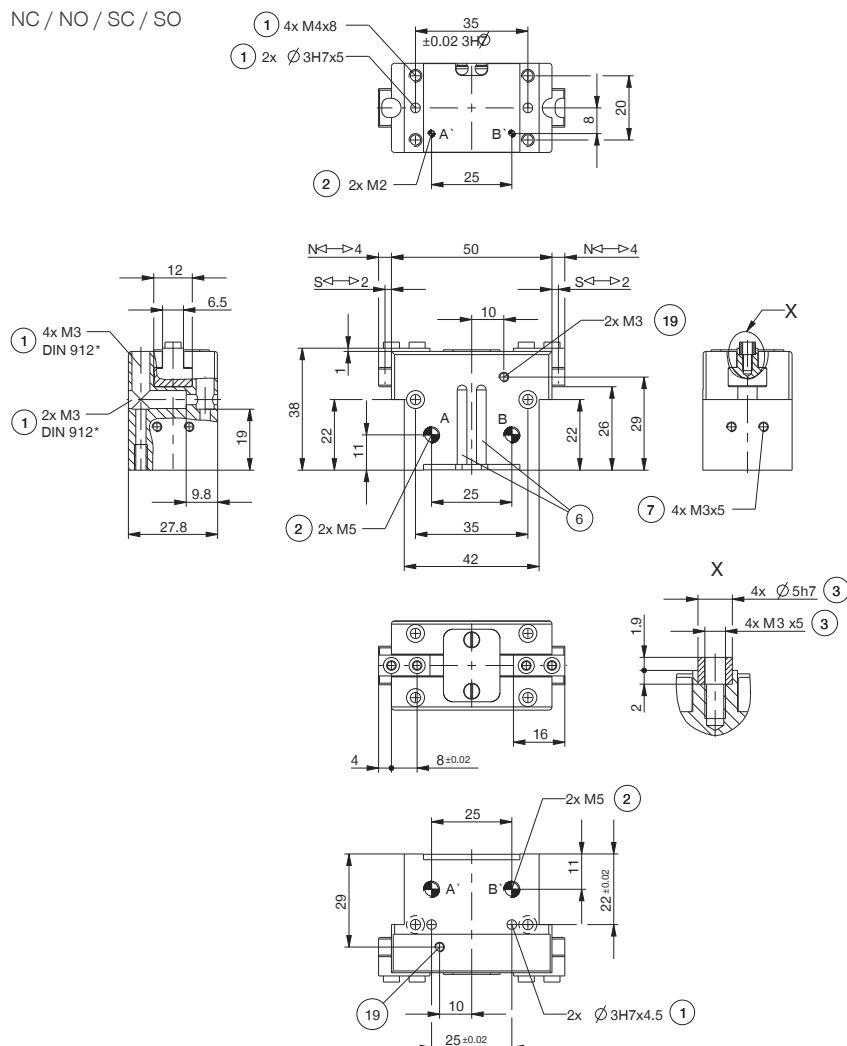
KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



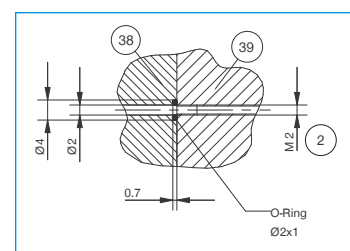
WFR01
Angle flange

Order no.	Technical data					
	GP404N-C	GP404NC-C	GP404NO-C	GP404S-C	GP404SC-C	GP404SO-C
Stroke per jaw [mm]	4	4	4	2	2	2
Gripping force in closing [N]	170	210		375	465	
Gripping force in opening [N]	185		225	410		500
Gripping force secured by spring min. [N]		40	40		90	90
Closing time [s]	0.02	0.015	0.025	0.02	0.015	0.025
Opening time [s]	0.02	0.025	0.015	0.02	0.025	0.015
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	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Max. operating pressure for sealing air [bar]	0.5	0.5	0.5	0.5	0.5	0.5
Operating temperature min. [°C]	5	5	5	5	5	5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm ³]	4.1	6.9	6.9	4.1	6.9	6.9
Weight [kg]	0.14	0.16	0.16	0.14	0.16	0.16

NC / NO / SC / SO

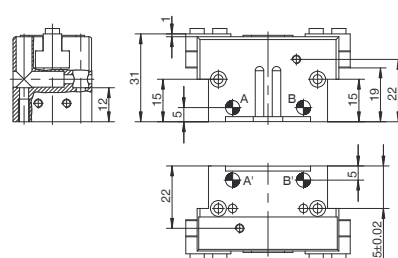


- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Fixing for mounting block
- ①⑨ Air purge connection option
- ③⑧ Adapter
- ③⑨ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)



Hoseless air feed-through

N / S



2-JAW PARALLEL GRIPPERS

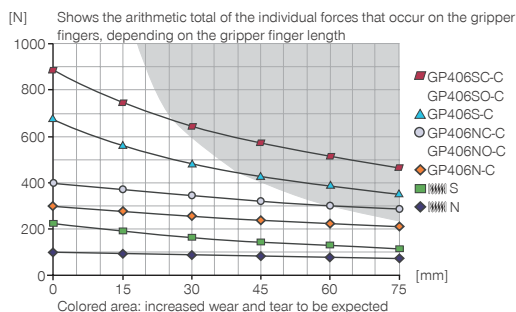
INSTALLATION SIZE GP406

1

PRODUCT SPECIFICATIONS

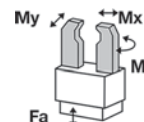


Gripping force diagram



Forces and moments

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



Mr [Nm]	35
Mx [Nm]	50
My [Nm]	45
Fa [N]	1200

INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K



4 [piece]
Centering Disc
DST40600

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB406
Universal jaw set aluminium



UB406ST
Universal jaw set steel



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



SENSORS



NJ8-E2S
Inductive proximity switch - Connector M8



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



MFS01-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



CONNECTIONS / OTHER



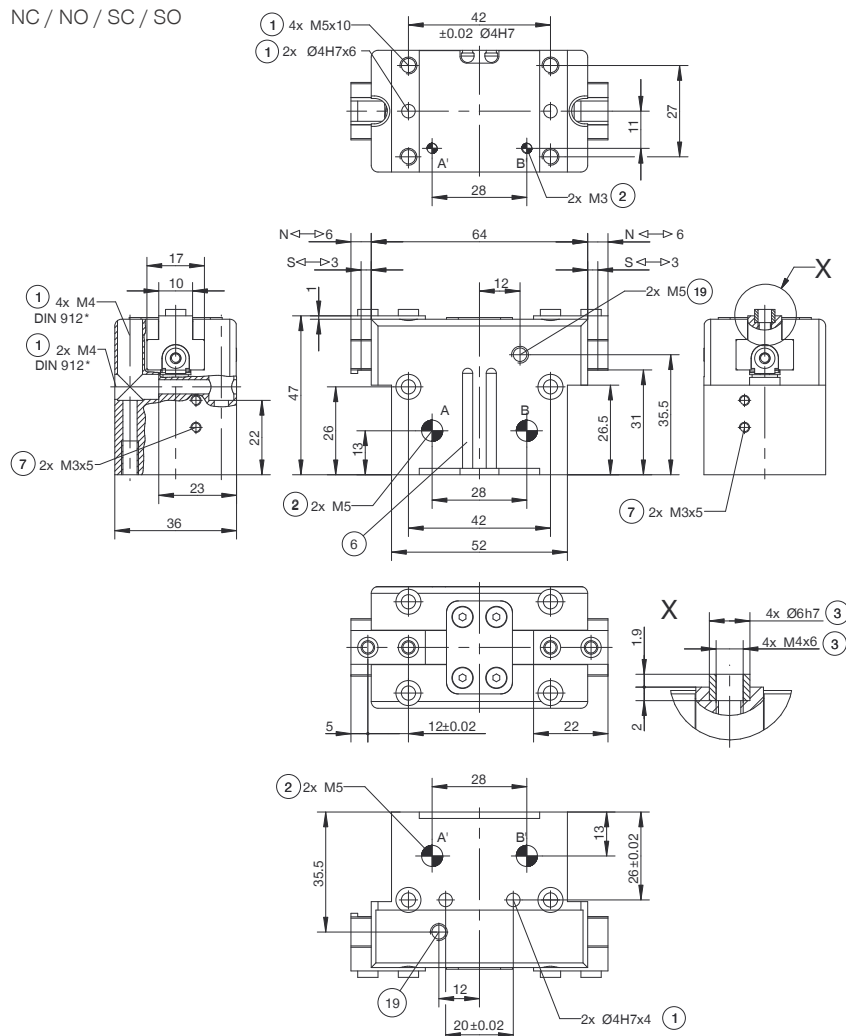
KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



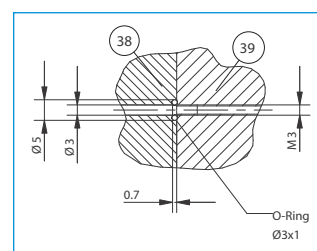
WFR01
Angle flange

Order no.	Technical data					
	GP406N-C	GP406NC-C	GP406NO-C	GP406S-C	GP406SC-C	GP406SO-C
Stroke per jaw [mm]	6	6	6	3	3	3
Gripping force in closing [N]	300	400		670	900	
Gripping force in opening [N]	325		425	725		950
Gripping force secured by spring min. [N]		100	100		230	230
Closing time [s]	0.03	0.025	0.04	0.03	0.025	0.04
Opening time [s]	0.03	0.04	0.025	0.03	0.04	0.025
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	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Max. operating pressure for sealing air [bar]	0.5	0.5	0.5	0.5	0.5	0.5
Operating temperature min. [°C]	5	5	5	5	5	5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm³]	10.1	15.5	15.5	10.1	15.5	15.5
Weight [kg]	0.27	0.32	0.32	0.27	0.32	0.32

NC / NO / SC / SO

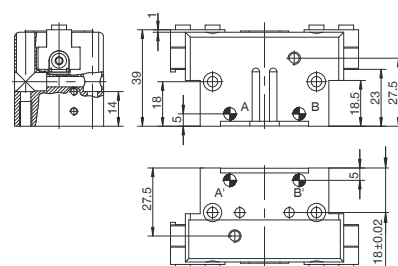


- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Fixing for mounting block
- ⑬ Air purge connection option
- ⑮ Adapter
- ⑯ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)



Hoseless air feed-through

N / S



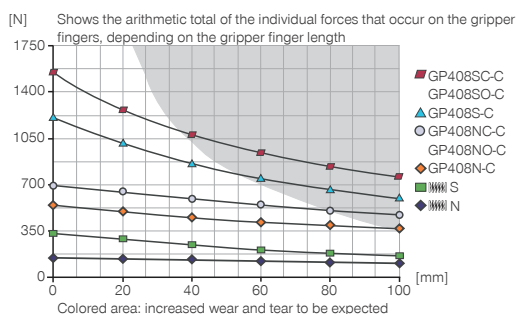
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP408

PRODUCT SPECIFICATIONS

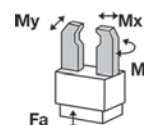


Gripping force diagram



Forces and moments

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



Mr [Nm]	50
Mx [Nm]	80
My [Nm]	60
Fa [N]	1800

INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K



4 [piece]
Centering Disc
DST40800

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB408
Universal jaw set aluminium



UB408ST
Universal jaw set steel



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



SENSORS



NJ8-E2S
Inductive proximity switch - Connector M8



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



MFS01-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



WFR02
Angle flange

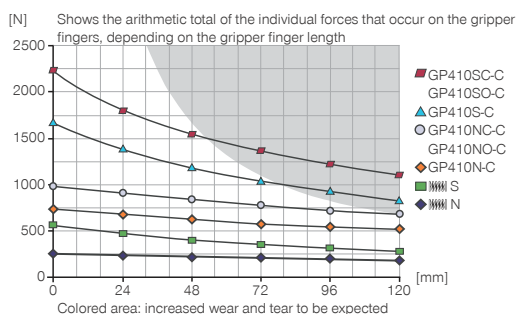
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP410

PRODUCT SPECIFICATIONS

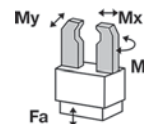


Gripping force diagram



Forces and moments

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



Mr [Nm]	75
Mx [Nm]	100
My [Nm]	90
Fa [N]	2500

INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K



4 [piece]
Centering Disc
DST41000

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB410
Universal jaw set aluminium



UB410ST
Universal jaw set steel



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



MFS01-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



SENSORS



KHA410-B-8
Alternate proximity bracket



NJ8-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER



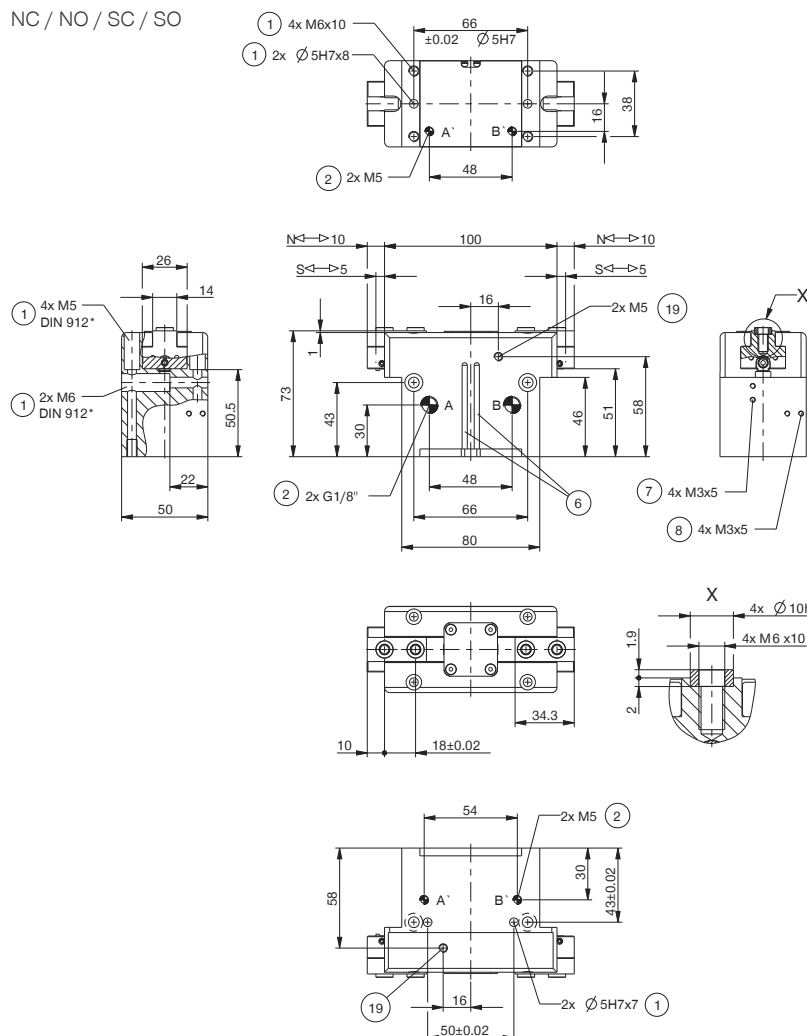
KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



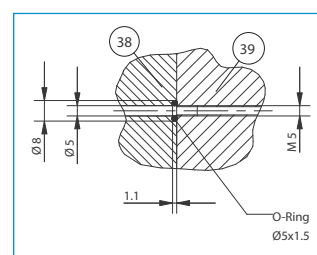
WFR02
Angle flange

Order no.	Technical data					
	GP410N-C	GP410NC-C	GP410NO-C	GP410S-C	GP410SC-C	GP410SO-C
Stroke per jaw [mm]	10	10	10	5	5	5
Gripping force in closing [N]	740	990		1650	2215	
Gripping force in opening [N]	795		1050	1770		2340
Gripping force secured by spring min. [N]		250	250		570	570
Closing time [s]	0.07	0.06	0.09	0.07	0.06	0.09
Opening time [s]	0.07	0.09	0.06	0.07	0.09	0.06
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	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Max. operating pressure for sealing air [bar]	0.5	0.5	0.5	0.5	0.5	0.5
Operating temperature min. [°C]	5	5	5	5	5	5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm ³]	39.3	66.7	66.7	39.3	66.7	66.7
Weight [kg]	0.85	1	1	0.85	1	1

NC / NO / SC / SO

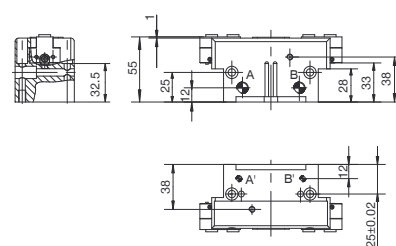


- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Fixing for mounting block
- ⑧ Fixing clamping bracket (KHA)
- ⑨ Air purge connection option
- ③⑧ Adapter
- ③⑨ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)



Hoseless air feed-through

N / S



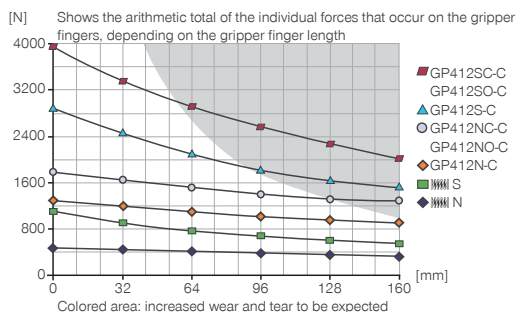
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP412

PRODUCT SPECIFICATIONS

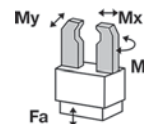


Gripping force diagram



Forces and moments

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



Mr [Nm]	100
Mx [Nm]	120
My [Nm]	120
Fa [N]	3200

INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K



4 [piece]
Centering Disc
DST41000

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB412
Universal jaw set aluminium



UB412ST
Universal jaw set steel



SENSORS



KHA412-B-8
Alternate proximity bracket



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



MFS01-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



WV1-8X8
Angled Fittings - Quick Connect Style



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



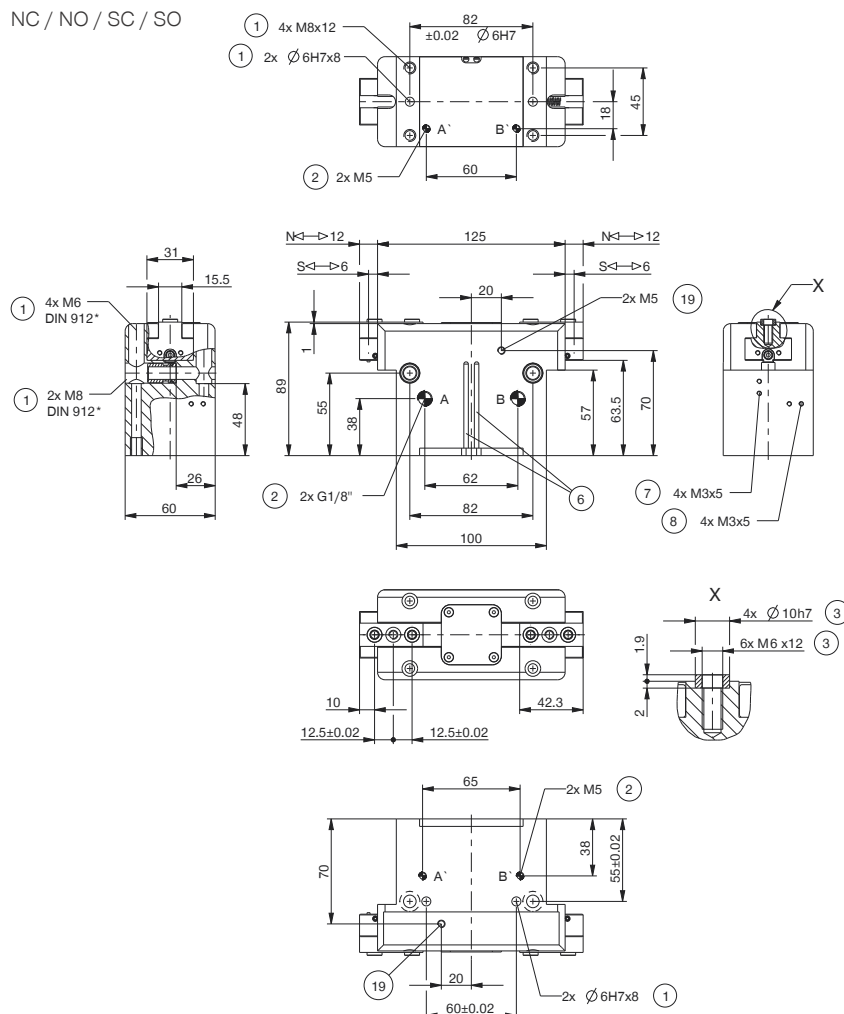
CONNECTIONS / OTHER



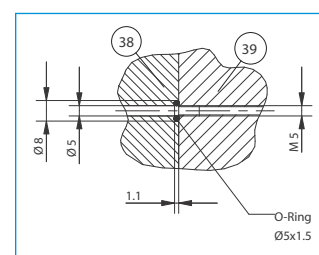
KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)

Order no.	► Technical data					
	GP412N-C	GP412NC-C	GP412NO-C	GP412S-C	GP412SC-C	GP412SO-C
Stroke per jaw [mm]	12	12	12	6	6	6
Gripping force in closing [N]	1290	1780		2890	3960	
Gripping force in opening [N]	1370		1850	3050		4130
Gripping force secured by spring min. [N]		490	490		1080	1080
Closing time [s]	0.1	0.08	0.12	0.1	0.08	0.12
Opening time [s]	0.1	0.12	0.08	0.1	0.12	0.08
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	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Max. operating pressure for sealing air [bar]	0.5	0.5	0.5	0.5	0.5	0.5
Operating temperature min. [°C]	5	5	5	5	5	5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm³]	80	148	148	80	148	148
Weight [kg]	1.5	1.78	1.78	1.5	1.78	1.78

NC / NO / SC / SO

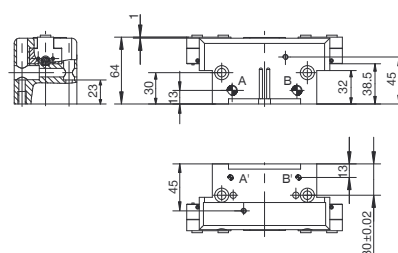


- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Fixing for mounting block
- ⑧ Fixing clamping bracket (KHA)
- ⑨ Air purge connection option
- ③⑧ Adapter
- ③⑨ Gripper
- ③ A Air connection (close)
- ③ B Air connection (open)
- ③ A Air connection, alternative (close)
- ③ B Air connection, alternative (open)



Hoseless air feed-through

N / S



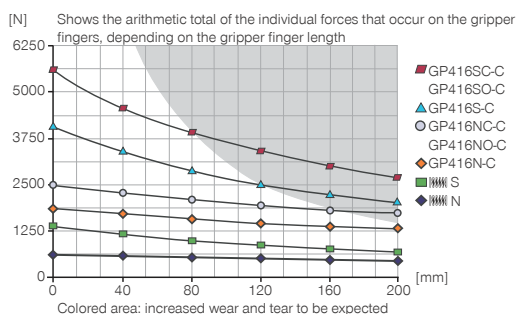
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP416

PRODUCT SPECIFICATIONS

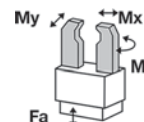


Gripping force diagram



Forces and moments

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



Mr [Nm]	140
Mx [Nm]	160
My [Nm]	180
Fa [N]	5000

INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K



4 [piece]
Centering Disc
DST41600

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB416
Universal jaw set aluminium



UB416ST
Universal jaw set steel



SENSORS



KHA416-B-8
Alternate proximity bracket



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



MFS01-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



WV1-8X8
Angled Fittings - Quick Connect Style



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



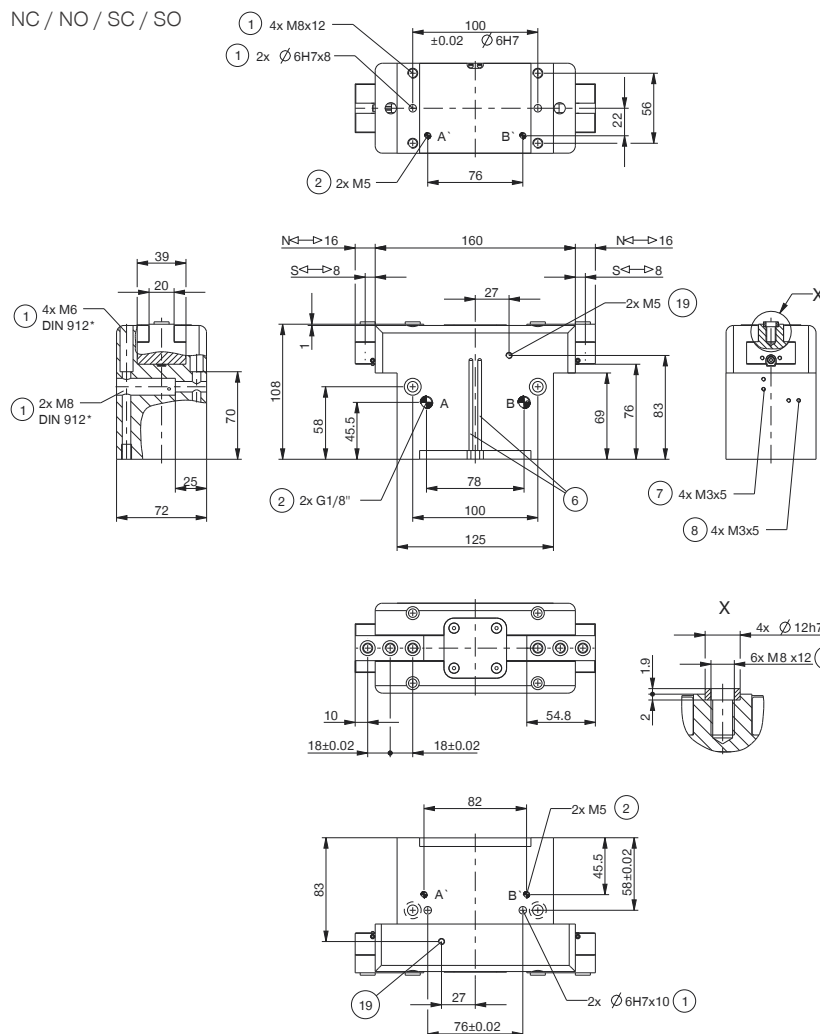
CONNECTIONS / OTHER



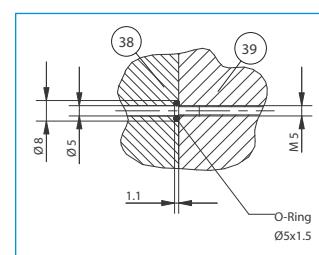
KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)

Order no.	Technical data					
	GP416N-C	GP416NC-C	GP416NO-C	GP416S-C	GP416SC-C	GP416SO-C
Stroke per jaw [mm]	16	16	16	8	8	8
Gripping force in closing [N]	1860	2490		4160	5560	
Gripping force in opening [N]	1960		2590	4390		5780
Gripping force secured by spring min. [N]		630	630		1400	1400
Closing time [s]	0.2	0.15	0.25	0.2	0.15	0.25
Opening time [s]	0.2	0.25	0.15	0.2	0.25	0.15
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	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Max. operating pressure for sealing air [bar]	0.5	0.5	0.5	0.5	0.5	0.5
Operating temperature min. [°C]	5	5	5	5	5	5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm³]	268	477	477	268	477	477
Weight [kg]	2.9	3.4	3.4	2.9	3.4	3.4

NC / NO / SC / SO

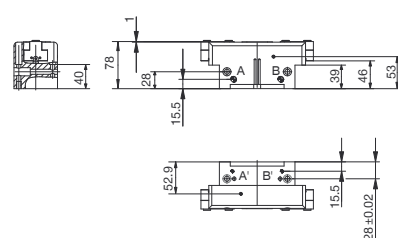


- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Fixing for mounting block
- ⑧ Fixing clamping bracket (KHA)
- ⑨ Air purge connection option
- ③⑧ Adapter
- ③⑨ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)



Hoseless air feed-through

N / S



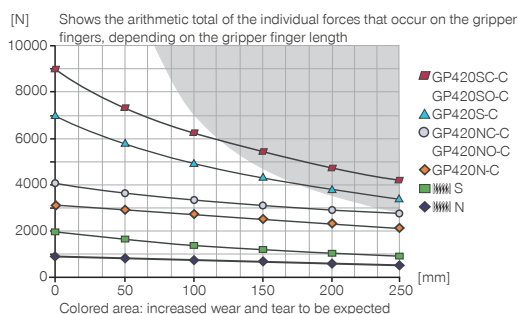
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP420

PRODUCT SPECIFICATIONS

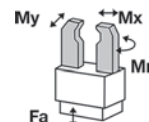


Gripping force diagram



Forces and moments

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



Mr [Nm]	170
Mx [Nm]	180
My [Nm]	220
Fa [N]	7000

INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K



4 [piece]
Centering Disc
DST42000

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB420
Universal jaw set aluminium



UB420ST
Universal jaw set steel



SENSORS



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



MFS01-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



ENERGY SUPPLY



GV1-4X8
Straight Fittings - Quick Connect Style



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



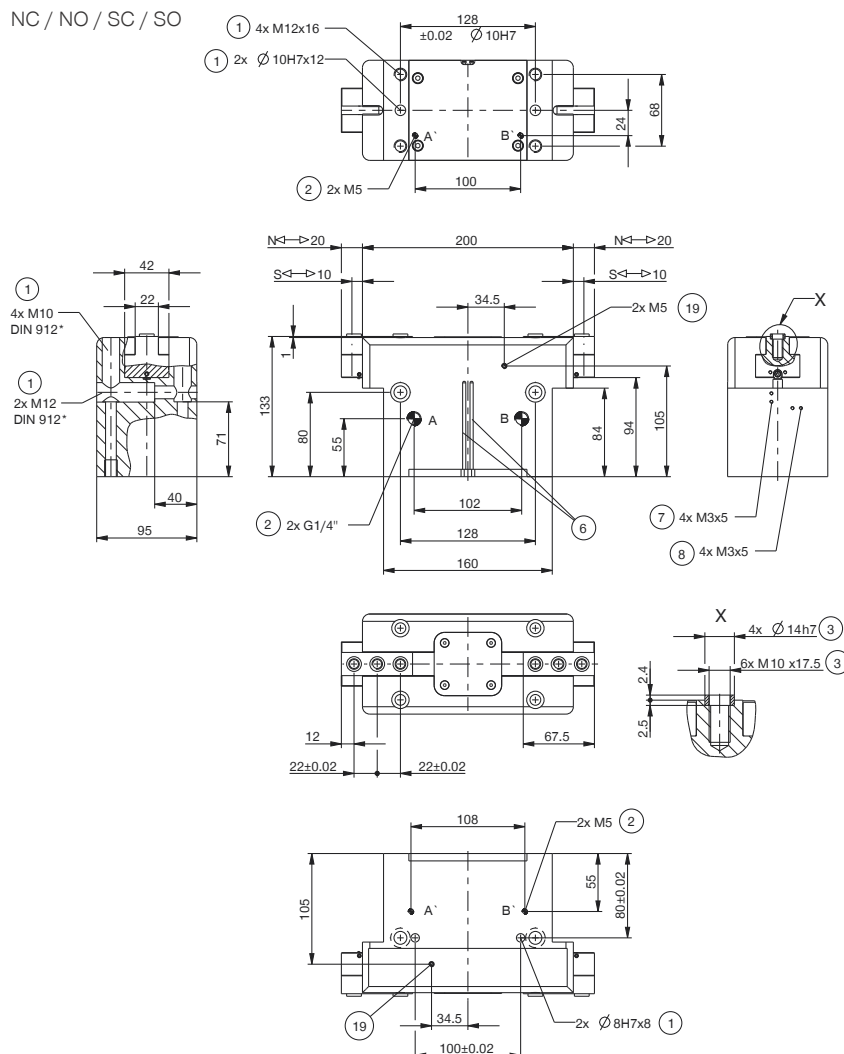
SENSORS



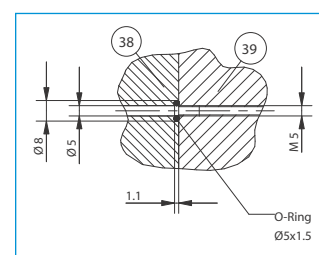
KHA420-B-8
Alternate proximity bracket

Order no.	Technical data					
	GP420N-C	GP420NC-C	GP420NO-C	GP420S-C	GP420SC-C	GP420SO-C
Stroke per jaw [mm]	20	20	20	10	10	10
Gripping force in closing [N]	3175	4060		7080	9060	
Gripping force in opening [N]	3330		4215	7430		9400
Gripping force secured by spring min. [N]		900	900		1975	1975
Closing time [s]	0.35	0.3	0.4	0.35	0.3	0.4
Opening time [s]	0.35	0.4	0.3	0.35	0.4	0.3
Repetition accuracy +/- [mm]	0.02	0.02	0.02	0.02	0.02	0.02
Operating pressure min. [bar]	3	4	4	3	4	4
Operating pressure max. [bar]	8	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Max. operating pressure for sealing air [bar]	0.5	0.5	0.5	0.5	0.5	0.5
Operating temperature min. [°C]	5	5	5	5	5	5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm³]	320	590	590	320	590	590
Weight [kg]	5.5	6.7	6.7	5.5	6.7	6.7

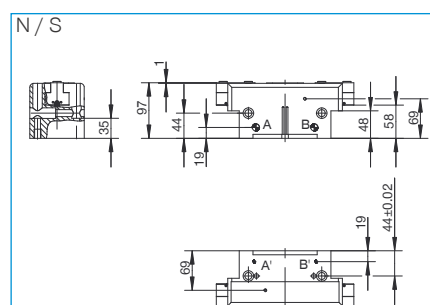
NC / NO / SC / SO



- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Fixing for mounting block
- ⑧ Fixing clamping bracket (KHA)
- ①⑨ Air purge connection option
- ③⑧ Adapter
- ③⑨ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)



Hoseless air feed-through



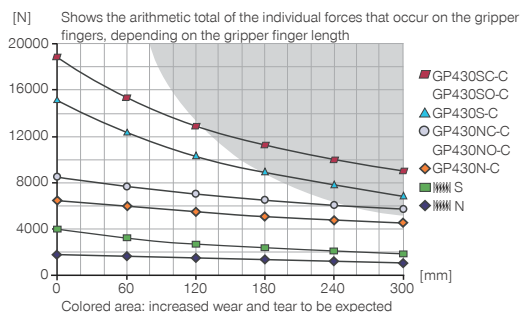
2-JAW PARALLEL GRIPPERS

INSTALLATION SIZE GP430

PRODUCT SPECIFICATIONS

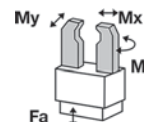


Gripping force diagram



Forces and moments

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



Mr [Nm]	200
Mx [Nm]	275
My [Nm]	300
Fa [N]	9000

INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB8K



4 [piece]
Centering Disc
DST43000

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB430
Universal jaw set aluminium



UB430ST
Universal jaw set steel



SENSORS



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



MFS01-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



MFS02-S-KHC-P2-PNP
2-Position-Sensor Cable 0,3 m - Connector M8



ENERGY SUPPLY



GV1-4X8
Straight Fittings - Quick Connect Style



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



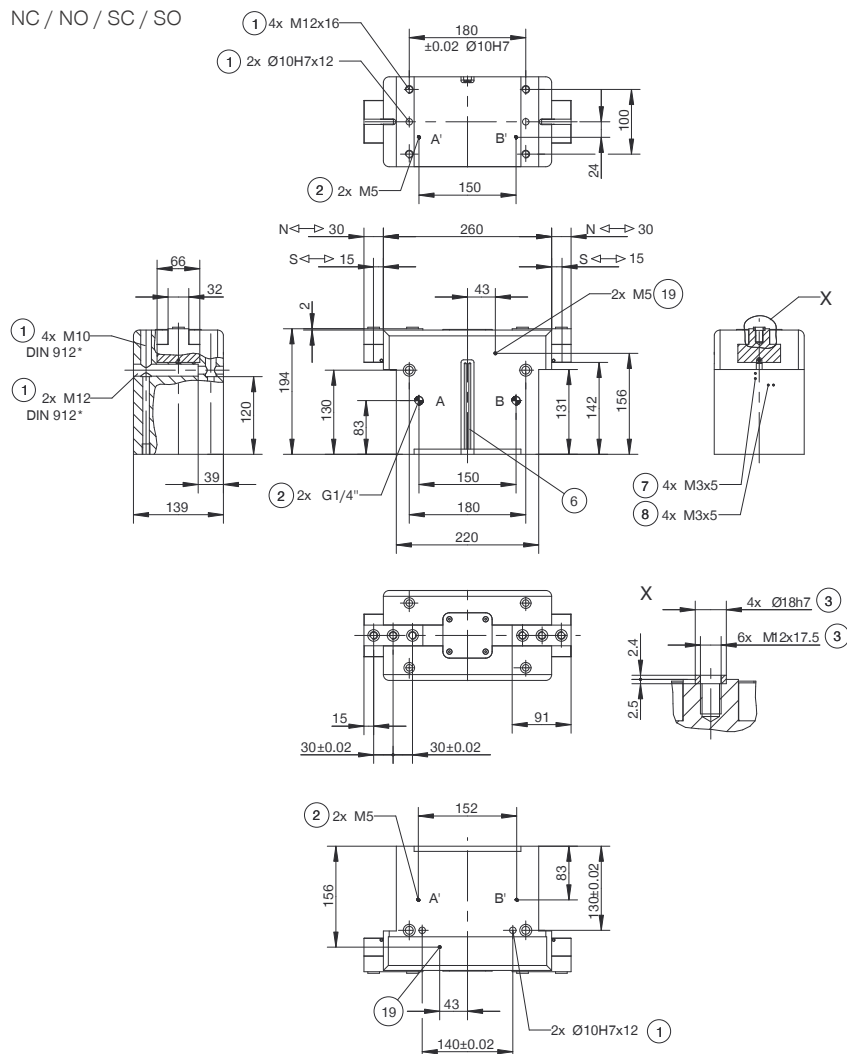
SENSORS



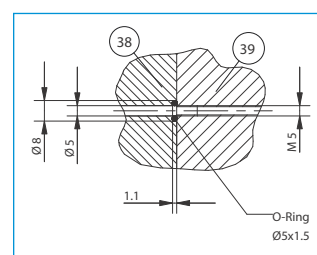
KHA430-B-8
Alternate proximity bracket

Order no.	Technical data					
	GP430N-C	GP430NC-C	GP430NO-C	GP430S-C	GP430SC-C	GP430SO-C
Stroke per jaw [mm]	30	30	30	15	15	15
Gripping force in closing [N]	6675	8480		14900	18930	
Gripping force in opening [N]	6830		8640	15250		19275
Gripping force secured by spring min. [N]		1800	1800		4030	4030
Closing time [s]	0.4	0.4	0.8	0.4	0.4	0.8
Opening time [s]	0.4	0.8	0.4	0.4	0.8	0.4
Repetition accuracy +/- [mm]	0.04	0.04	0.04	0.04	0.04	0.04
Operating pressure min. [bar]	3	4	4	3	4	4
Operating pressure max. [bar]	8	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Max. operating pressure for sealing air [bar]	0.5	0.5	0.5	0.5	0.5	0.5
Operating temperature min. [°C]	5	5	5	5	5	5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm³]	980	1850	1850	980	1850	1850
Weight [kg]	14	18.9	18.9	14	18.9	18.9

NC / NO / SC / SO

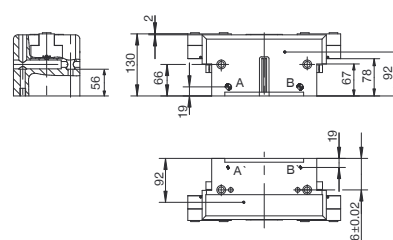


- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Fixing for mounting block
- ⑧ Fixing clamping bracket (KHA)
- ①⑨ Air purge connection option
- ③⑧ Adapter
- ③⑨ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ' Air connection, alternative (close)
- Ⓑ' Air connection, alternative (open)



Hoseless air feed-through

N / S



2-JAW PARALLEL GRIPPERS

SERIES GP200

1

Series GP200 / 2-Jaw Parallel Grippers / pneumatic / Grippers

▶ PRODUCT ADVANTAGES



“The variable”

▶ Smooth stroke configuration

An adjusting screw allows you to adjust the stroke to your specific application








▶ Proven technology

We have more than 20 years of proven reliability, which ensures uninterrupted production for you

▶ Dirt protection

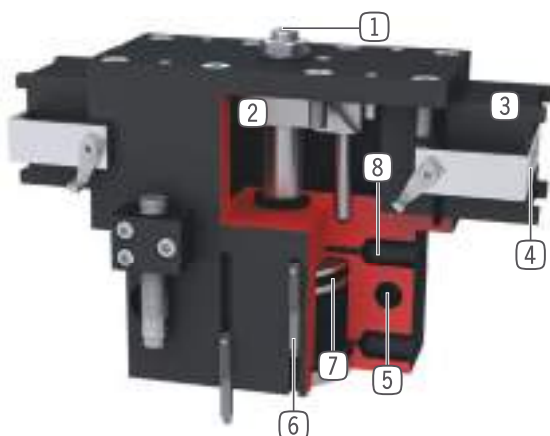
Using the scrapers on the guides, you can reliably use the gripper even under the harshest conditions

▶ SERIES CHARACTERISTICS

Installation size	Version			
GP2XX	-	-99	S	S-99
 Spring closing C	•		•	
 High-strength S			•	•
 10 million maintenance-free cycles (max.)	•	•	•	•
 Inductive sensor	•	•	•	•
 Magnetic field sensor	•	•	•	•
 Purged air	•	•	•	•
 IP40	•	•	•	•



► BENEFITS IN DETAIL



- ① **Stroke adjustment**
 - infinitely adjustable in „open“ movement
 - adjusting screw in delivery
- ② **Wedge hook mechanism**
 - synchronized the movement of the gripper jaws
 - high force transfer
- ③ **Square guide**
 - high forces and moments capacity
- ④ **Gripper jaw**
 - individual gripper finger mounting
- ⑤ **Mounting and positioning**
 - mounting possible from several sides for versatile positioning
- ⑥ **Sensing slot**
 - mounting and positioning of magnetic field sensors
- ⑦ **Drive**
 - double-acting pneumatic cylinder
- ⑧ **Energy supply**
 - possible from several sides

► TECHNICAL DATA

Installation size	Stroke per jaw [mm]	Gripping force [N]	Weight [kg]	IP class
GP224	6 - 12	170 - 335	0,33	IP40
GP240	8 - 20	510 - 1290	1,2	IP40
GP260	10 - 30	800 - 2480	2,9	IP40
GP280	15 - 40	1690 - 4500	8,3	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE






All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.



2-JAW PARALLEL GRIPPERS

OVERVIEW OF SERIES



 ELECTRICAL		
	Series GEP9000	80
	Series GEP1400	82

2-JAW PARALLEL GRIPPERS

SERIES GEP9000

1

Series GEP9000 / 2-Jaw Parallel Grippers / electrical / Grippers

▶ PRODUCT ADVANTAGES



“The quickest”

▶ Plug and play

Reduce programming and assembly costs to a minimum with the integrated control system and the 3 position query








▶ 250 cycles per minute

No more worrying about cycle times: There is nothing faster on the market!

▶ Failure-free continuous operation

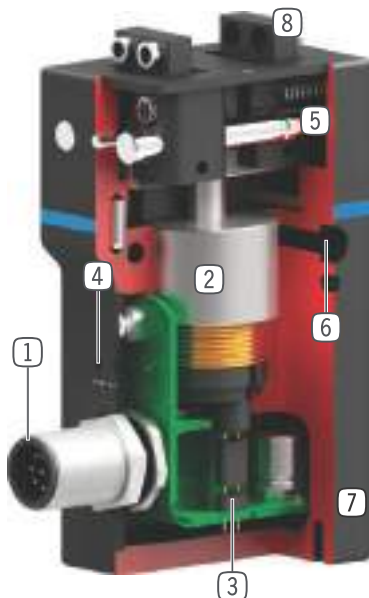
Our “Made in Germany” quality guarantees up to 30 million maintenance-free gripping cycles

▶ SERIES CHARACTERISTICS

Installation size		Version		
GEP900X		NC	NO	NCV
 I/O	Digital I/O	•	•	•
 Spring closing C	Spring closing C	•		•
 CV	Spring closing / Power-assisted Version			•
 Spring opening O	Spring opening O		•	
 30 Mio	30 million maintenance-free cycles (max.)	•	•	•
 Integrated sensing	Integrated sensing	•	•	•
 IP 40	IP40	•	•	•



► BENEFITS IN DETAIL



- ① Energy supply**
 - standardized interface M12 round connector
- ② Drive**
 - via Pot magnet and coil bobbin according to the coil system principle
 - energy consumption only at opening and closing (<25ms)
- ③ Position sensing**
 - integrated Hallsensor
 - 3 positions monitorable
- ④ Status control**
 - optical LED position display
 - gripper opened, gripper closed, "workpiece available"
- ⑤ Wedge hook mechanism**
 - self locking mechanism at stop position
- ⑥ Mounting and positioning**
 - mounting possible from several sides for versatile positioning
- ⑦ Robust, lightweight housing**
 - Hard-coated aluminum alloy
- ⑧ Gripper jaw**
 - from high-strength, hard-anodized aluminium
 - removable centering sleeves for individual gripper finger mounting

► TECHNICAL DATA

Installation size	Stroke per jaw [mm]	Gripping force [N]	Weight [kg]	IP class
GEP9002	2	11 - 30	0,25 - 0,34	IP40
GEP9004	4	14 - 50	0,57 - 0,79	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

2-JAW PARALLEL GRIPPERS

SERIES GEP1400




▶ PRODUCT ADVANTAGES



“The robust”

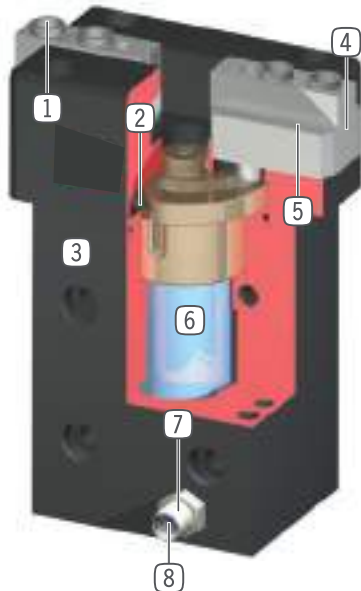
- ▶ **Proven T slot guide**
This established and proven guiding technology stands for the highest process reliability like no other
- ▶ **Integrated position sensing**
You can detect the gripper status safely via the motor current using your control system
- ▶ **The simplest activation**
The included control unit is controlled easily via plus and minus buttons, while you can optionally adjust the gripping force using the potentiometer

▶ SERIES CHARACTERISTICS

Installation size		Version		
GEP140X			C	O
I/O	Digital I/O	•	•	•
	External gripping		•	
	Internal gripping			•
	5 million maintenance-free cycles (max.)	•	•	•
IP 52	IP52	•	•	•



► BENEFITS IN DETAIL



- ① **Removable centering sleeves**
 - quick and economical positioning of the gripper fingers
- ② **Positively driven curve disc**
 - synchronized the movement of the gripper jaws
 - high force transfer
 - rapid stroke and force stroke (version with 6 mm stroke per jaw)
- ③ **Robust, lightweight housing**
 - Hard-coated aluminum alloy
- ④ **Gripper jaw**
 - hardened steel
 - individual gripper finger mounting
- ⑤ **Guide**
 - precise T-Slot guide for high forces and moments capacity
- ⑥ **Drive**
 - electric drive by 24 VDC step motor
- ⑦ **Position sensing**
 - measured at the end of stroke via power increase on the motor
- ⑧ **Energy supply**
 - standardized interface M8 round plug
 - signal control line (use only cable without diode)

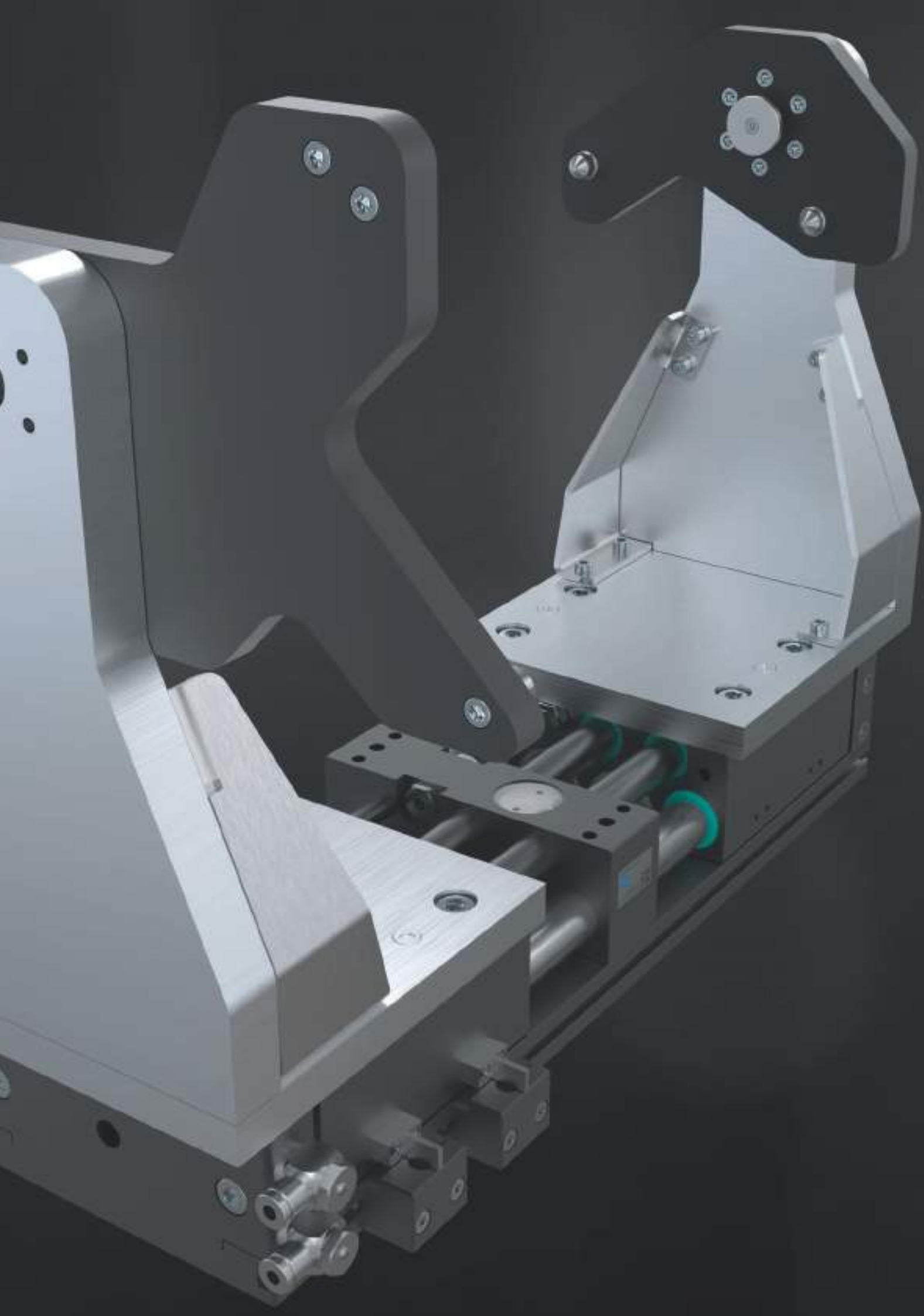
► TECHNICAL DATA

Installation size	Stroke per jaw [mm]	Gripping force [N]	Weight [kg]	IP class
GEP1402	2	140	0.3	IP52
GEP1406	6	350	1	IP52

► FURTHER INFORMATION IS AVAILABLE ONLINE






All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.



2-JAW PARALLEL GRIPPERS WITH LONG STROKE

OVERVIEW OF SERIES



	PNEUMATIC		
	Series MGH8000		86
	Series GPH8000		110

2-JAW PARALLEL GRIPPERS WITH LONG STROKE

SERIES MGH8000





▶ PRODUCT ADVANTAGES



“The compact”

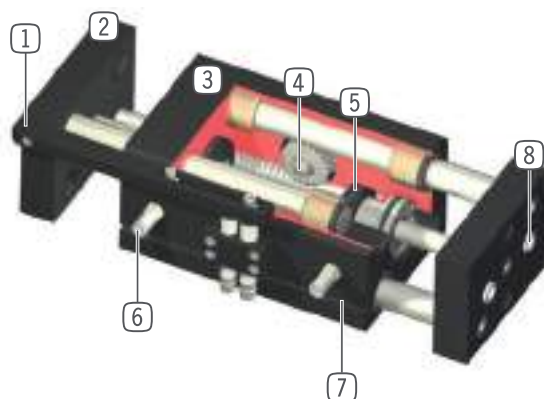
- ▶ **Reduced interference contours**
Low-profile designs and versatile screw connection options enable simple integration into your design
- ▶ **Dirt protection**
Using the scrapers on the guides, you can reliably use the gripper even under the harshest conditions
- ▶ **Failure-free continuous operation**
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free cycles

▶ SERIES CHARACTERISTICS

Installation size		
MGH80XX		
 10 million maintenance-free cycles (max.)		●
 Inductive sensor		●
 Magnetic field sensor		●
 IP54		●



► BENEFITS IN DETAIL



- ① **Attachment kit (cam switch and clamping block)**
- for sensing position by means of proximity switch (optional feature)
- ② **Gripper jaw**
- individual gripper finger mounting
- ③ **Robust, lightweight housing**
- Hard-coated aluminum alloy
- ④ **Synchronization**
- via rack and pinion
- ⑤ **Drive**
- two double-acting pneumatic cylinders
- ⑥ **Energy supply**
- possible from several sides
- ⑦ **Integrated groove**
- mounting and positioning of magnetic field sensors
- ⑧ **Removable centering sleeves**
- quick and economical positioning of the gripper fingers

► TECHNICAL DATA

Installation size	Stroke per jaw [mm]	Gripping force [N]	Weight [kg]	IP class
MGH8000	10 - 20	60 - 90	0,35 - 0,5	IP54
MGH8100	10 - 20	180 - 220	0,7 - 0,85	IP54
MGH8200	30 - 40	500 - 570	2,4 - 2,9	IP54
MGH8300	50 - 100	800 - 910	5,1 - 7,3	IP54

► FURTHER INFORMATION IS AVAILABLE ONLINE

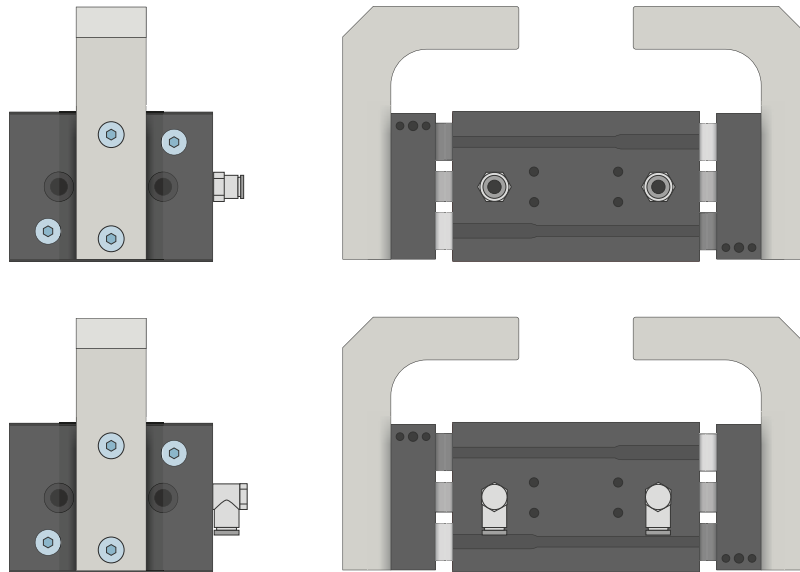


All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

2-JAW PARALLEL GRIPPERS WITH LONG STROKE

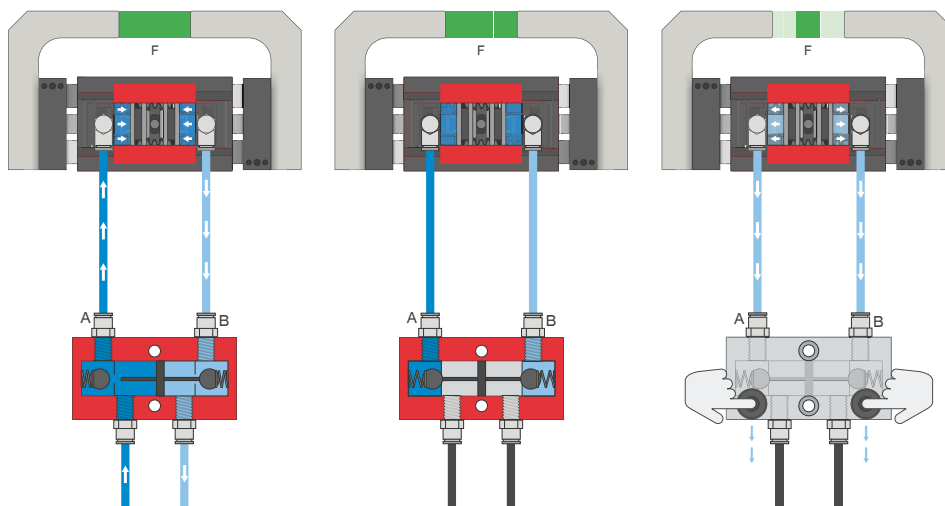
SERIES MGH8000 FUNCTIONAL DESCRIPTION

ENERGY SUPPLY



Pneumatic threaded connections

Available in straight and angled design. Can be chosen freely depending on the space conditions or installation situation.



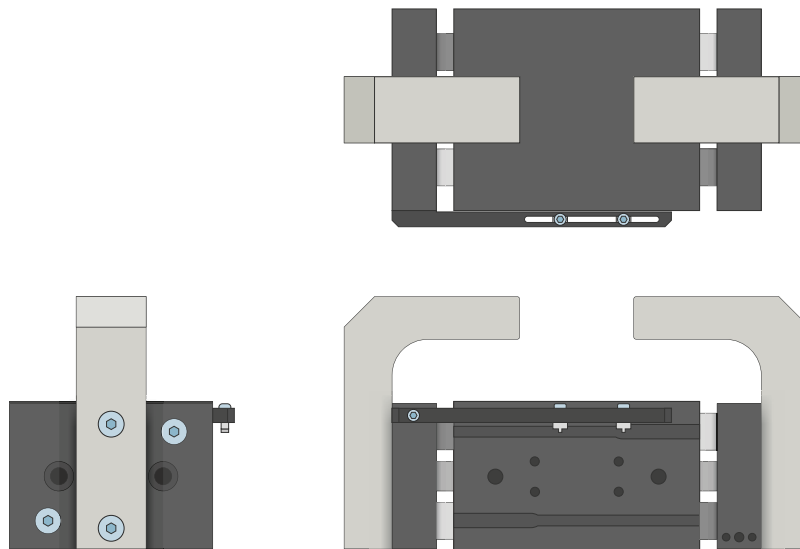
Pressure safety valve – DSV

Ensures safe retention of force and position if the system pressure drops

The integrated double check valve, which can be unlocked, retains the system pressure of the gripper in case of EMERGENCY STOP. To ensure the function, the valve must be installed as close to the gripper's air connection as possible. In variant E, two pushbuttons are installed that allow for controlled bleeding of the gripper.

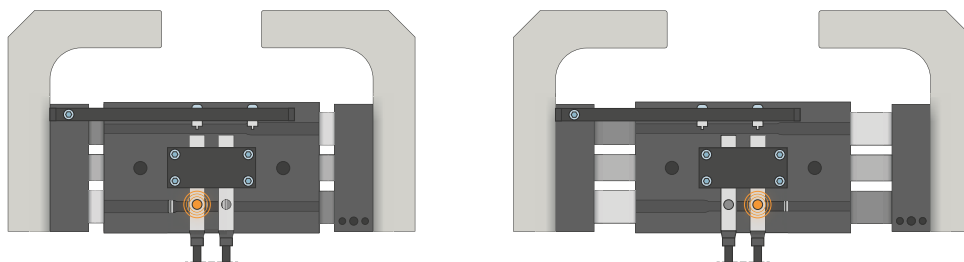


SENSORS



Attachment kit

The attachment kit is installed on the gripper using the fastening material included in the scope of delivery. The attachment kit enables sensing of the gripper positions via inductive proximity switches.



Inductive sensors – NJ

The sensor is guided into the mounting block and fixed in place according to its switching distance. Tuning to the desired position then takes place by adjusting the cam switch. The sensors are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector, as well as with direct plug orientation.

2-JAW PARALLEL GRIPPERS WITH LONG STROKE

SERIES MGH8000 FUNCTIONAL DESCRIPTION

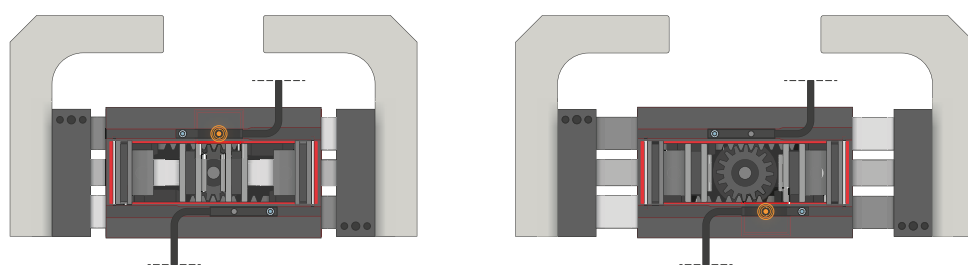
1

Series MGH8000 / 2-Jaw Parallel Grippers with Long Stroke / pneumatic / Grippers

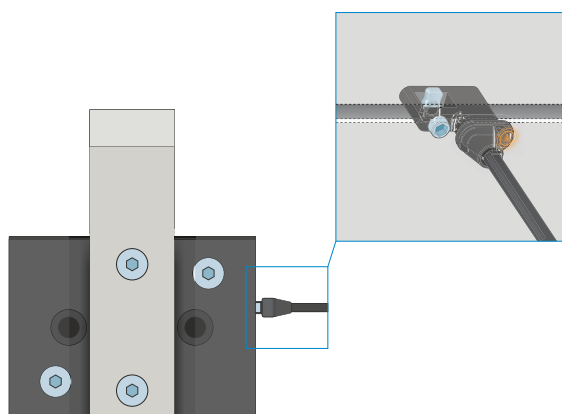


SENSORS

MFS02



MFS01



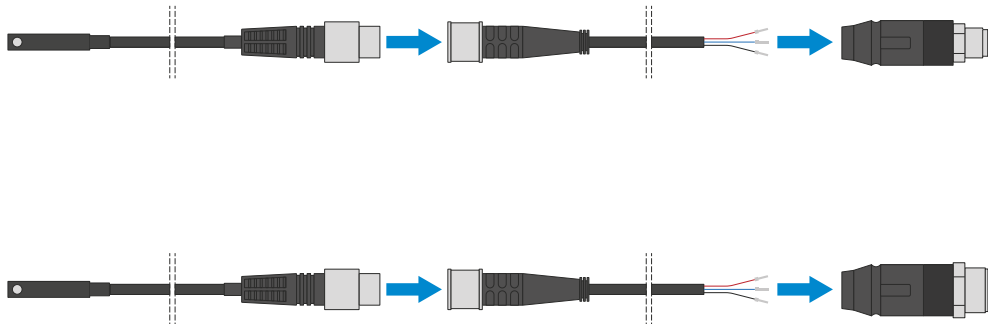
1-point magnetic field sensors – MFS

For non-contact sensing of the piston position

These sensors are installed in the C-groove of the gripper and detect the magnet attached to the piston of the gripper. To ensure use in a wide variety of space conditions, the sensors are available in two variants. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the gripper almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The variants are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.



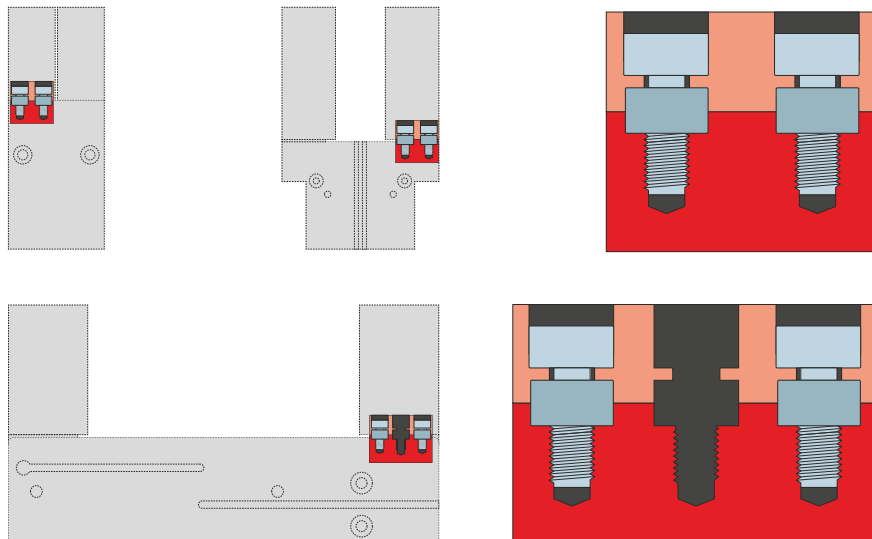
CONNECTIONS / OTHER



Plug-in connectors

For extending and fabricating the connection lines for the sensors

Cables with a length of 5 m with exposed leads are available. Depending on the specific needs, the cables can be shortened or fabricated with connectors in sizes M8 and M12.



Centering sleeves

For defined position measurement of the gripper fingers

The centering sleeves are inserted into the fits of the gripper jaws to define the position of the gripper fingers. The centering sleeves are comparable to a pin connection.

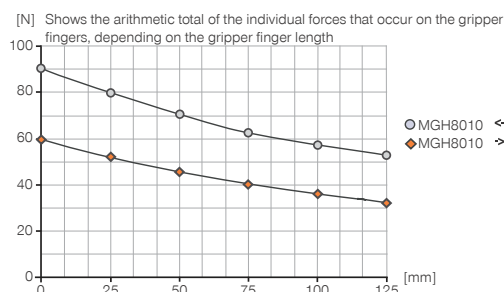
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE MGH8010

PRODUCT SPECIFICATIONS

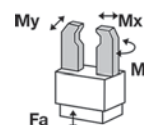


Gripping force diagram



Forces and moments

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



Mr [Nm]	12
Mx [Nm]	12
My [Nm]	8
Fa [N]	260

INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST40400

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



SENSORS



ANS0027
Attachment Kit for Inductive Proximity Switch



NJ4-E2-01
Inductive proximity switch - Cable 5 m



NJ4-E2SK-01
Inductive Proximity Switch Cable 0,3 m - Connector M8



MFS01-K-KHC-P1-PNP
Magnetic field sensor Angled Cable 5 m



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-K-KHC-P1-PNP
Magnetic field sensor Straight Cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

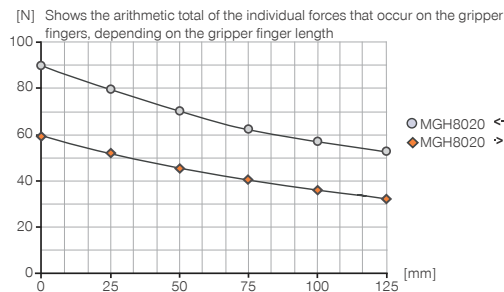
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE MGH8020

PRODUCT SPECIFICATIONS

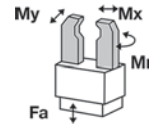


Gripping force diagram



Forces and moments

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



Mr [Nm]	12
Mx [Nm]	12
My [Nm]	8
Fa [N]	260

INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST40400

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



SENSORS



ANS0028
Attachment Kit for Inductive Proximity Switch



NJ4-E2-01
Inductive proximity switch - Cable 5 m



NJ4-E2SK-01
Inductive Proximity Switch Cable 0,3 m - Connector M8



MFS01-K-KHC-P1-PNP
Magnetic field sensor Angled Cable 5 m



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-K-KHC-P1-PNP
Magnetic field sensor Straight Cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

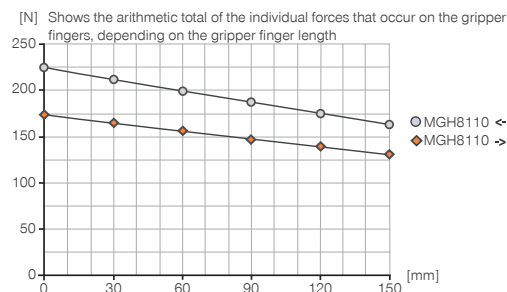
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE MGH8110

PRODUCT SPECIFICATIONS

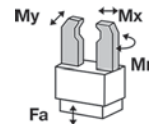


Gripping force diagram



Forces and moments

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



Mr [Nm]	20
Mx [Nm]	20
My [Nm]	18
Fa [N]	435

INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST40800

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



SENSORS



ANS0020
Attachment Kit for Inductive Proximity Switch



NJ8-E2
Inductive proximity switch - Cable 5 m



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-K-KHC-P1-PNP
Magnetic field sensor Angled Cable 5 m



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-K-KHC-P1-PNP
Magnetic field sensor Straight Cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



CONNECTIONS / OTHER

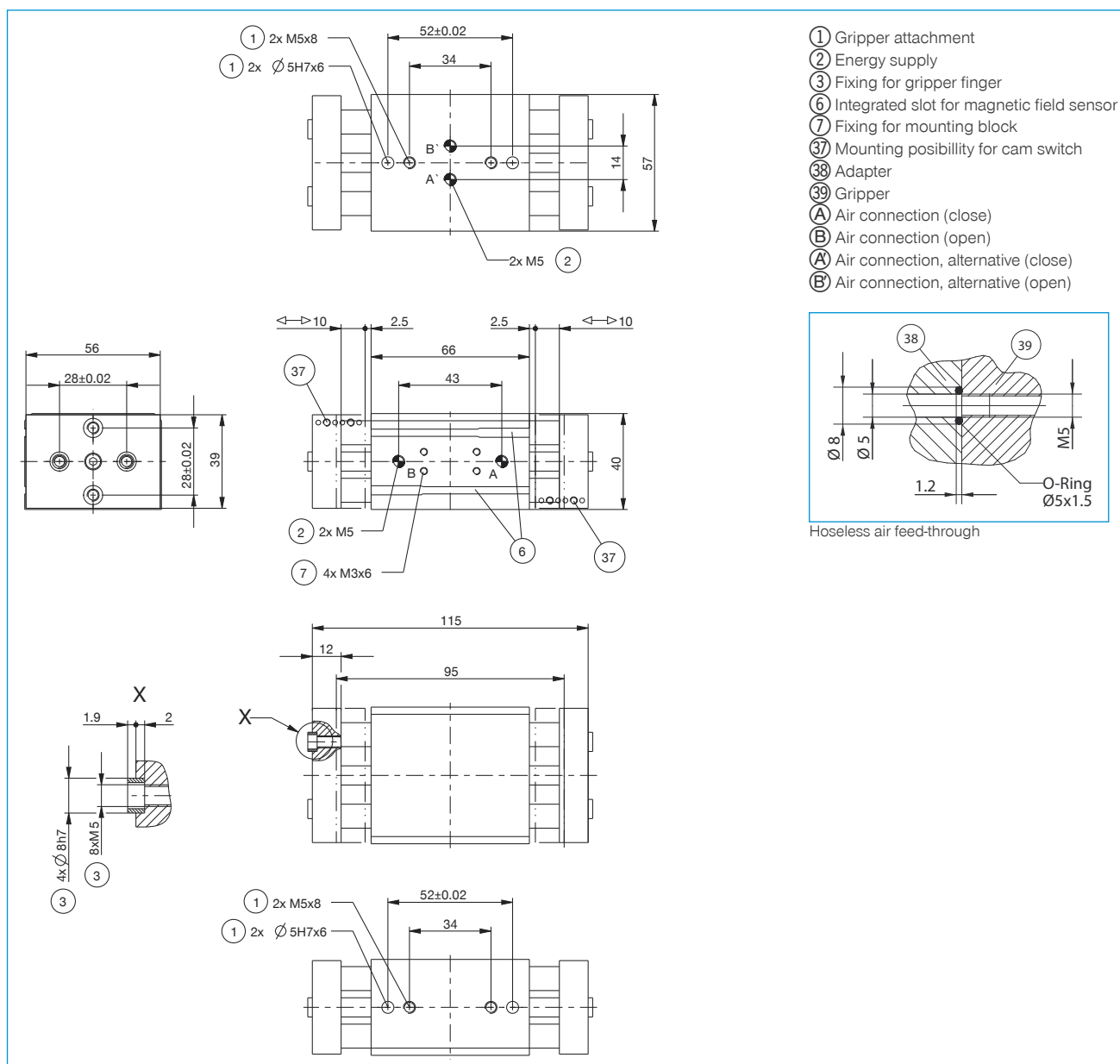


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

Order no.	MGH8110
Stroke per jaw [mm]	10
Gripping force in closing [N]	180
Gripping force in opening [N]	220
Closing time [s]	0.08
Opening time [s]	0.04
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	9.2
Weight [kg]	0.7



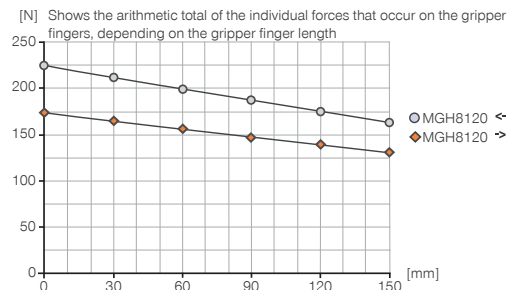
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE MGH8120

PRODUCT SPECIFICATIONS

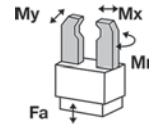


Gripping force diagram



Forces and moments

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



Mr [Nm]	20
Mx [Nm]	20
My [Nm]	18
Fa [N]	435

INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST40800

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



SENSORS



ANS0021
Attachment Kit for Inductive Proximity Switch



MFS02-K-KHC-P1-PNP
Magnetic field sensor Straight Cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



NJ8-E2
Inductive proximity switch - Cable 5 m



CONNECTIONS / OTHER



NJ8-E2S
Inductive proximity switch - Connector M8



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



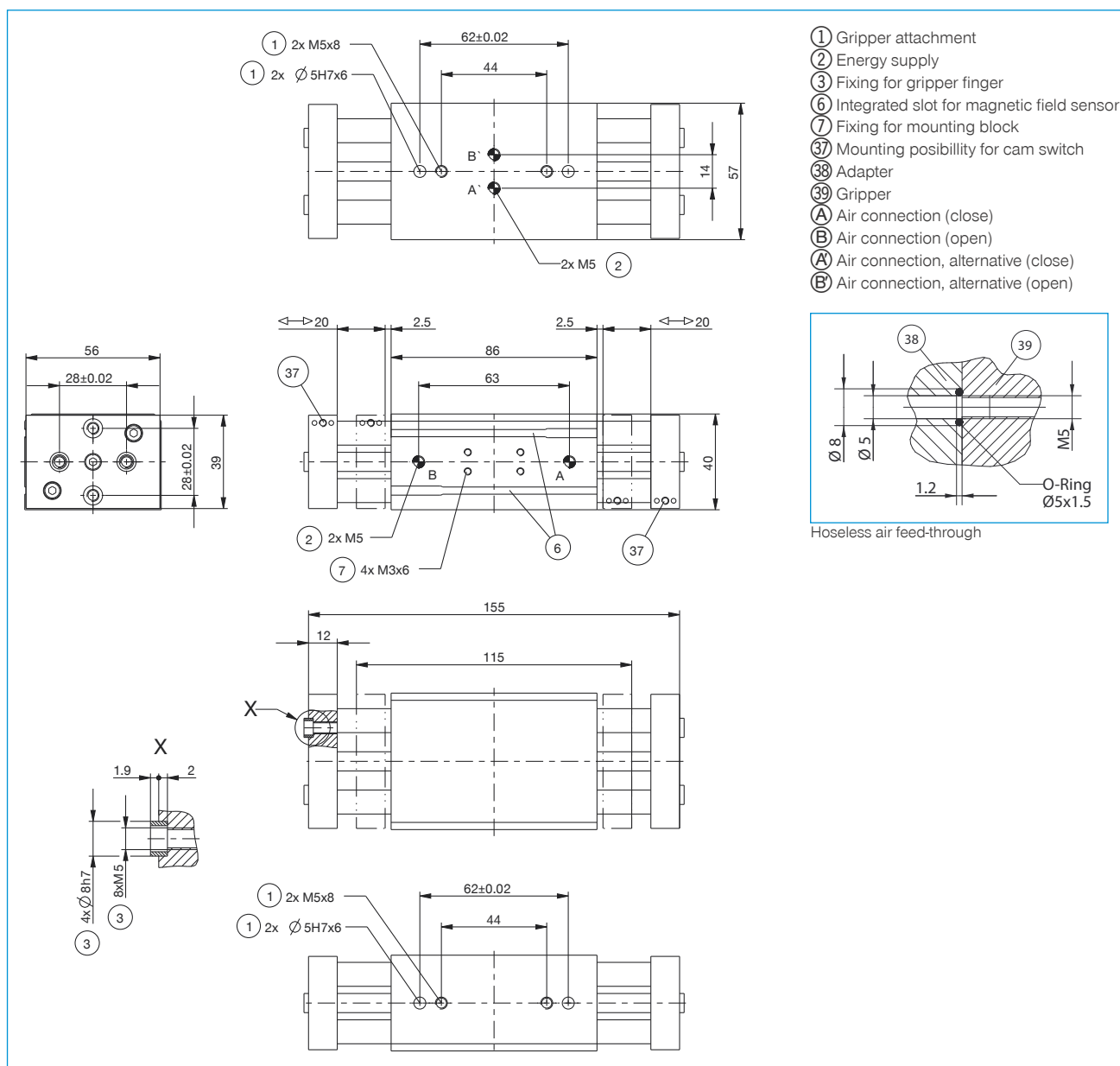
MFS01-K-KHC-P1-PNP
Magnetic field sensor Angled Cable 5 m



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



Order no.	Technical data
	MGH8120
Stroke per jaw [mm]	20
Gripping force in closing [N]	190
Gripping force in opening [N]	220
Closing time [s]	0.1
Opening time [s]	0.06
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	18.4
Weight [kg]	0.85



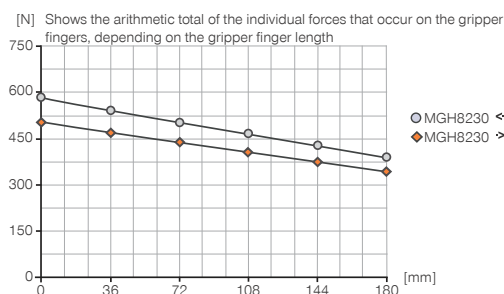
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE MGH8230

PRODUCT SPECIFICATIONS

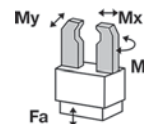


Gripping force diagram



Forces and moments

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



Mr [Nm]	64
Mx [Nm]	64
My [Nm]	45
Fa [N]	760

INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST41000

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



SENSORS



ANS0022
Attachment Kit for Inductive Proximity Switch



NJ8-E2
Inductive proximity switch - Cable 5 m



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-K-KHC-P1-PNP
Magnetic field sensor Angled Cable 5 m



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-K-KHC-P1-PNP
Magnetic field sensor Straight Cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

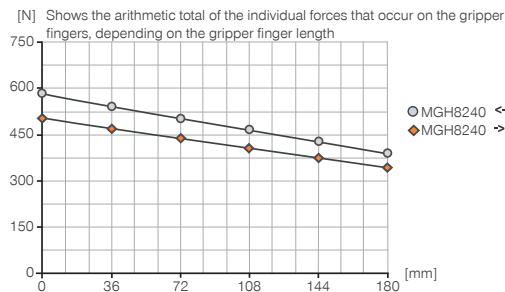
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE MGH8240

PRODUCT SPECIFICATIONS

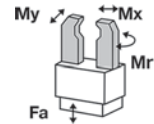


Gripping force diagram



Forces and moments

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



Mr [Nm]	64
Mx [Nm]	64
My [Nm]	45
Fa [N]	760

INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST41000

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



SENSORS



ANS0023
Attachment Kit for Inductive Proximity Switch



NJ8-E2
Inductive proximity switch - Cable 5 m



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-K-KHC-P1-PNP
Magnetic field sensor Angled Cable 5 m



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-K-KHC-P1-PNP
Magnetic field sensor Straight Cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



CONNECTIONS / OTHER

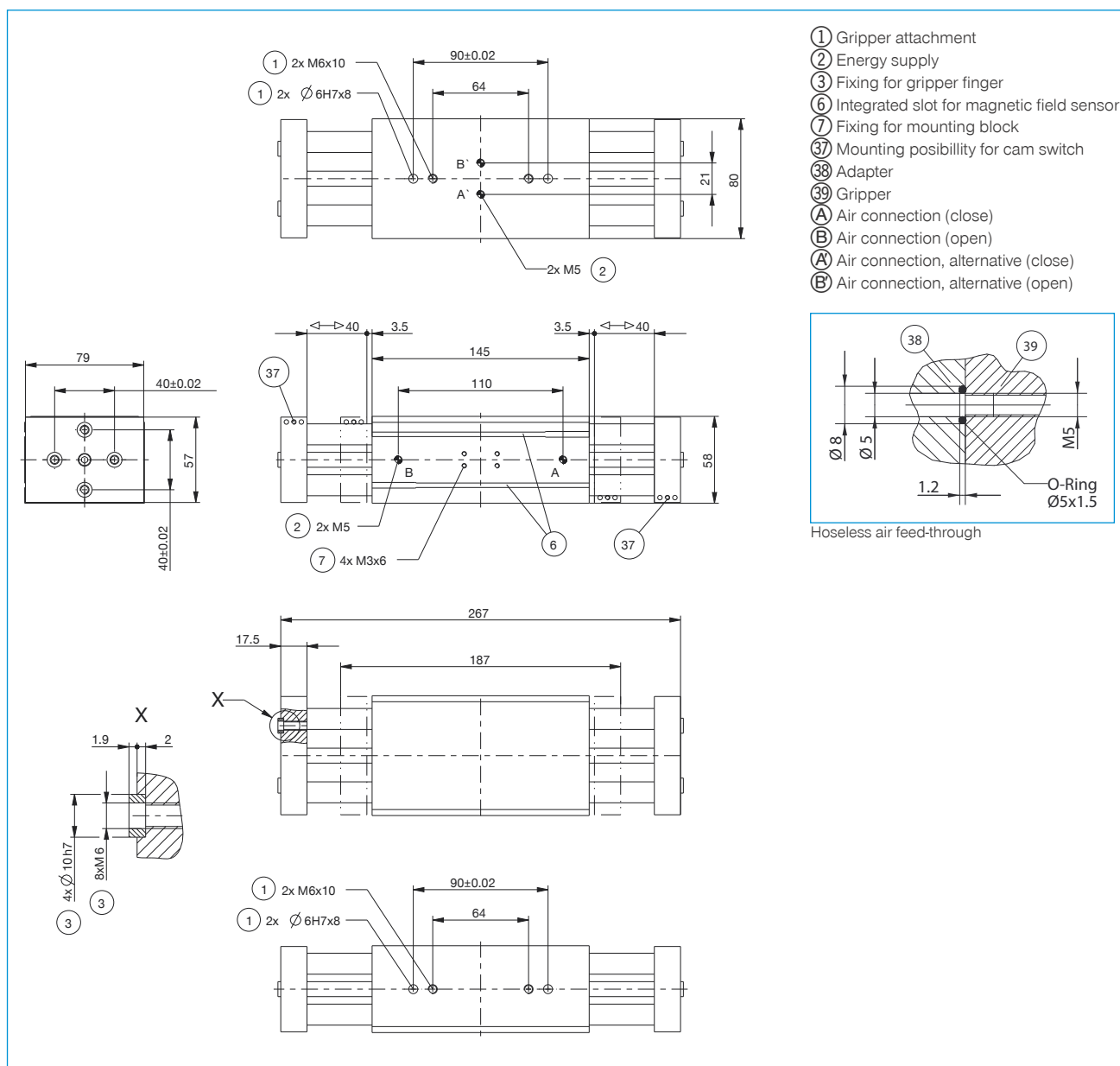


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

Order no.	Technical data
	MGH8240
Stroke per jaw [mm]	40
Gripping force in closing [N]	500
Gripping force in opening [N]	570
Closing time [s]	0.18
Opening time [s]	0.14
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	128
Weight [kg]	2.9



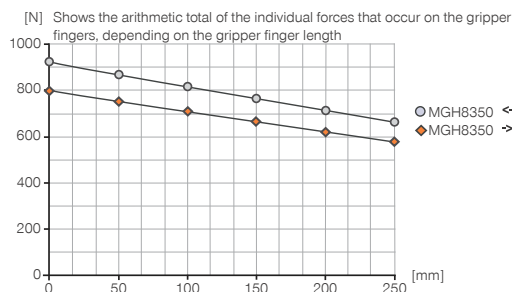
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE MGH8350

PRODUCT SPECIFICATIONS

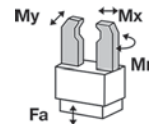


Gripping force diagram



Forces and moments

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



Mr [Nm]	130
Mx [Nm]	130
My [Nm]	98
Fa [N]	1300

INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST41600

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



SENSORS



ANS0024
Attachment Kit for Inductive Proximity Switch



NJ8-E2
Inductive proximity switch - Cable 5 m



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-K-KHC-P1-PNP
Magnetic field sensor Angled Cable 5 m



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-K-KHC-P1-PNP
Magnetic field sensor Straight Cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

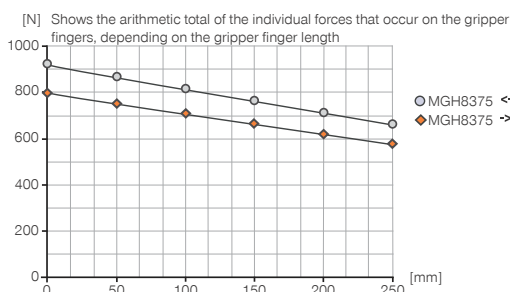
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE MGH8375

PRODUCT SPECIFICATIONS

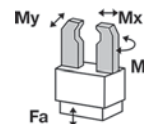


Gripping force diagram



Forces and moments

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



Mr [Nm]	130
Mx [Nm]	130
My [Nm]	98
Fa [N]	1300

INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST41600

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



SENSORS



ANS0025
Attachment Kit for Inductive Proximity Switch



NJ8-E2
Inductive proximity switch - Cable 5 m



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-K-KHC-P1-PNP
Magnetic field sensor Angled Cable 5 m



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-K-KHC-P1-PNP
Magnetic field sensor Straight Cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



CONNECTIONS / OTHER

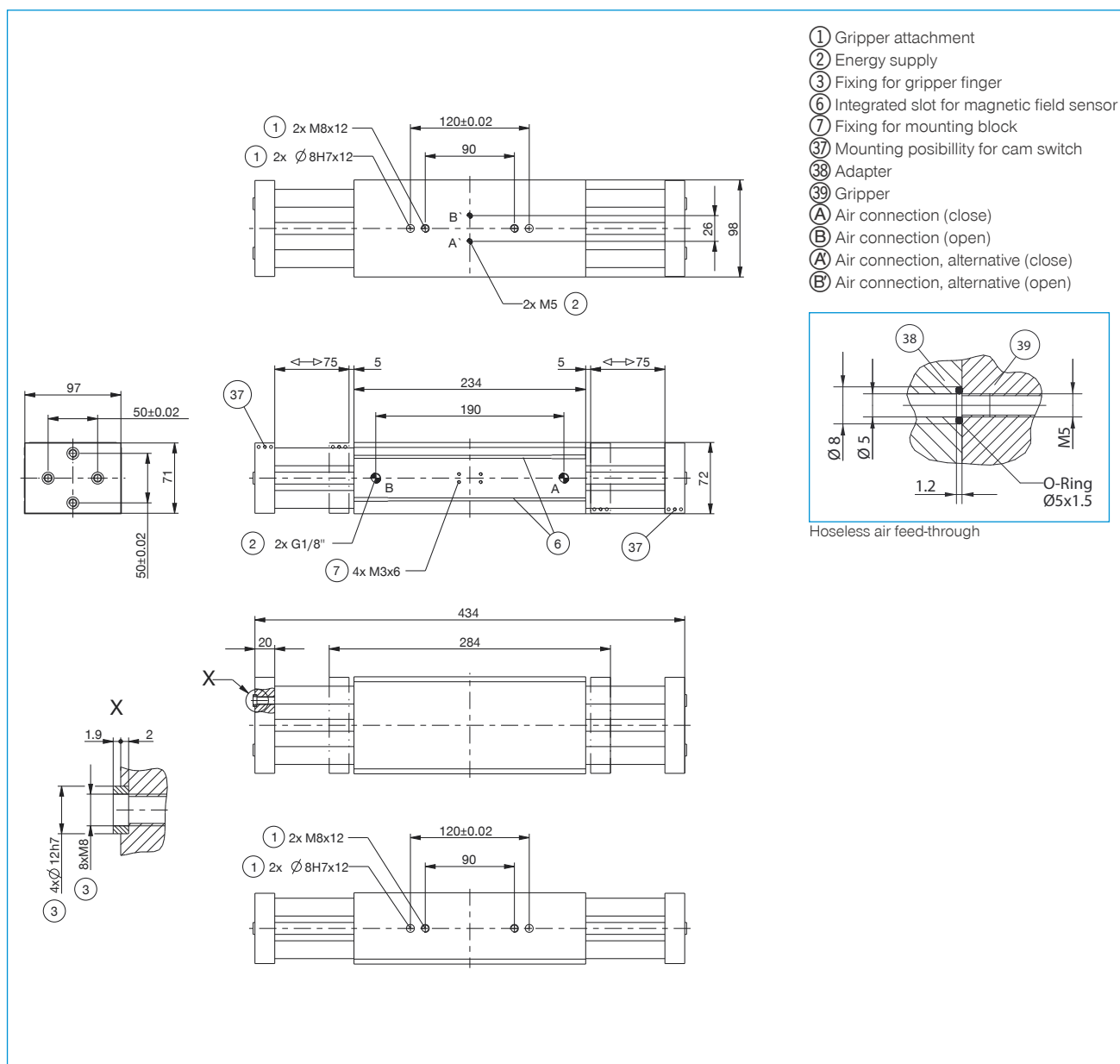


KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

Order no.	Technical data
	MGH8375
Stroke per jaw [mm]	75
Gripping force in closing [N]	800
Gripping force in opening [N]	910
Closing time [s]	0.4
Opening time [s]	0.35
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm ³]	255
Weight [kg]	6.2



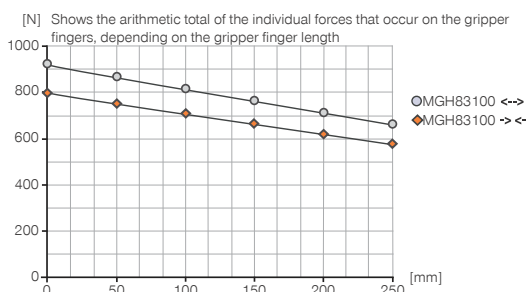
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE MGH83100

PRODUCT SPECIFICATIONS

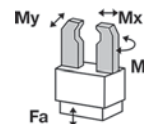


Gripping force diagram



Forces and moments

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



Mr [Nm]	130
Mx [Nm]	130
My [Nm]	98
Fa [N]	1300

INCLUDED IN DELIVERY



4 [piece]
Centering Disc
DST41600

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



SENSORS



ANS0026
Attachment Kit for Inductive Proximity Switch



NJ8-E2
Inductive proximity switch - Cable 5 m



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-K-KHC-P1-PNP
Magnetic field sensor Angled Cable 5 m



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-K-KHC-P1-PNP
Magnetic field sensor Straight Cable 5 m



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)

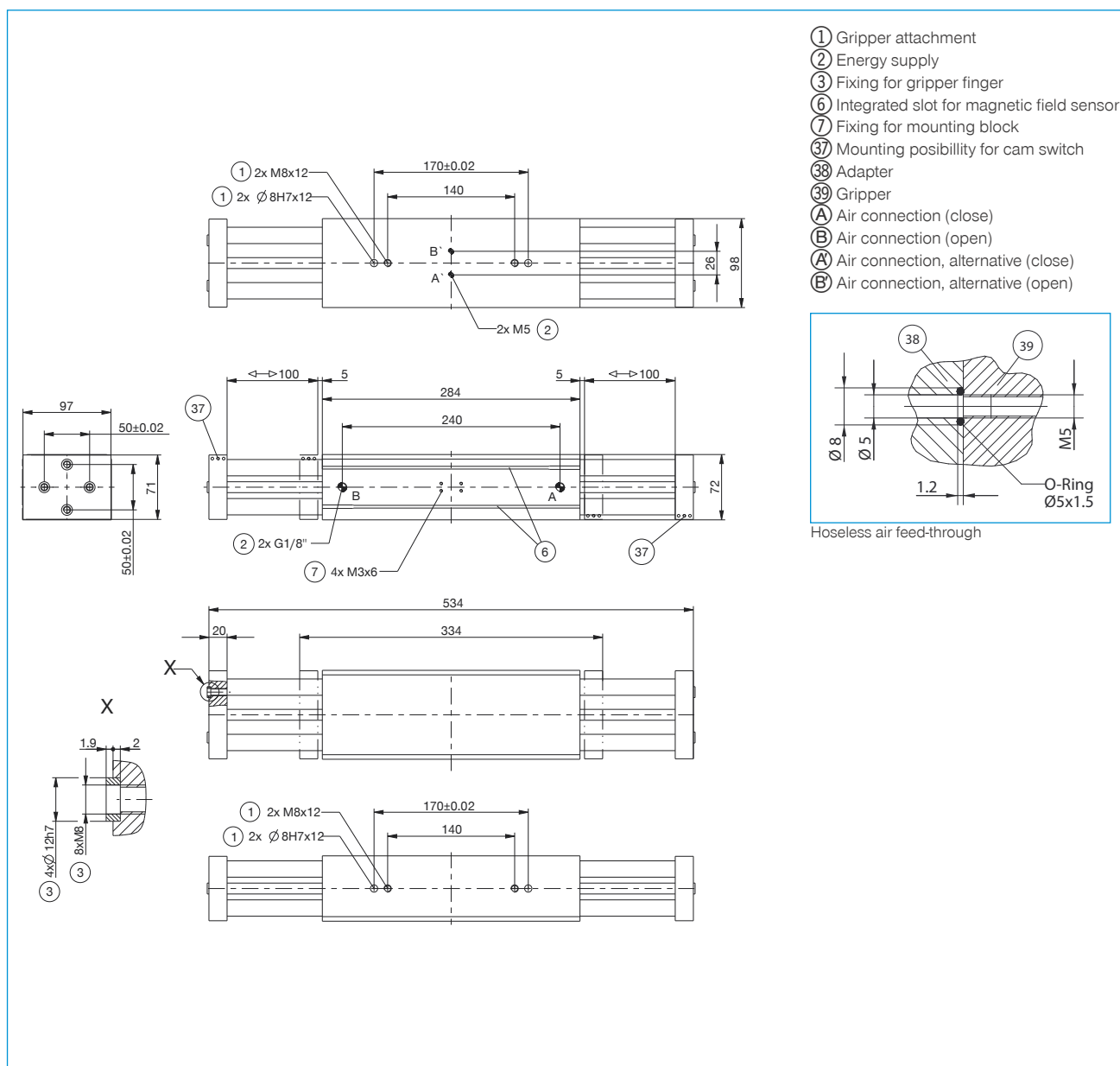


KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

Order no.	MGH83100
Stroke per jaw [mm]	100
Gripping force in closing [N]	800
Gripping force in opening [N]	910
Closing time [s]	0.5
Opening time [s]	0.4
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	340
Weight [kg]	7.3

► Technical data

MGH83100



2-JAW PARALLEL GRIPPERS WITH LONG STROKE

SERIES GPH8000

▶ PRODUCT ADVANTAGES



“The powerful”

▶ Extremely long and heavy gripper fingers possible

Despite their flat structural design, one of the features of the gripper fingers is that there are virtually no limitations where it comes to loading the machine with engine blocks or rims.



▶ Synchronous, asynchronous and securing the work-piece

Select between synchronous or asynchronous gripper finger movement and increase process safety by using the integrated clamping element to secure the workpiece in the event of a drop in pressure

▶ Dirt protection

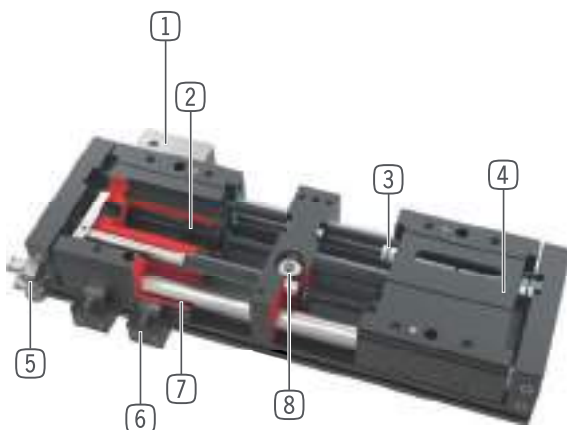
Using the scrapers on the guides, you can reliably use the gripper even under the harshest conditions

▶ SERIES CHARACTERISTICS

Installation size	Version		
GPH8XXX	N-00	CL-00	CL-30
 Gripper jaws are synchronized	•	•	
 Position maintenance by means of clamping element		•	•
 5 Mio	•	•	•
 Inductive sensor	•	•	•
 IP 54	•	•	•



► BENEFITS IN DETAIL



- ① **Clamping element**
 - Workpiece secured in the event of a drop in pressure
- ② **Drive**
 - two double-acting pneumatic cylinders
- ③ **Stroke adjustment**
 - 40 mm for each gripping direction, infinitely variable
 - Further reductions in stroke are available upon request
- ④ **Gripper jaw**
 - individual gripper finger mounting
- ⑤ **Energy supply**
 - possible from several sides
 - CAUTION: always operate long stroke gripper with supplied exhaust air flow control valve (speed regulation)
- ⑥ **Mounting block**
 - mounting for inductive proximity switch
- ⑦ **Roller slide**
 - sealed round guide for harsh environmental conditions
 - Maintenance-free plain bearing bushes
- ⑧ **Synchronization**
 - By means of gear and rack
 - Encapsulated and protected against dirt
 - Also available as an asynchronous variant

► TECHNICAL DATA

Installation size	Stroke per jaw [mm]	Gripping force [N]	Weight [kg]	IP class
GPH8300	62,5 - 150	2000	14,9 - 21,3	IP54

► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

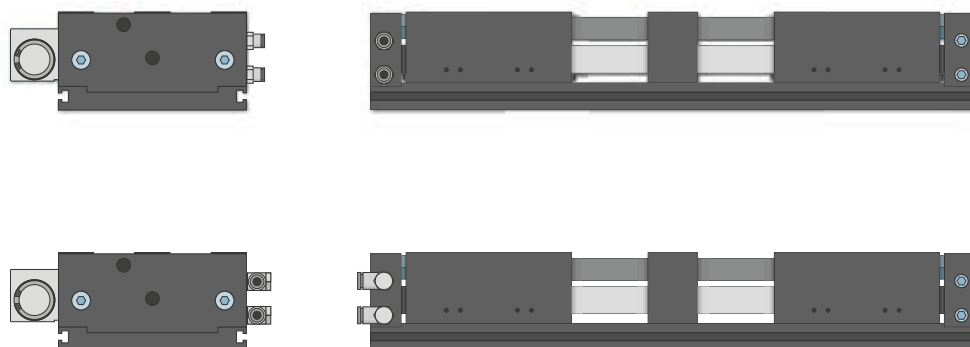
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

SERIES GPH8000 FUNCTIONAL DESCRIPTION

1



ENERGY SUPPLY

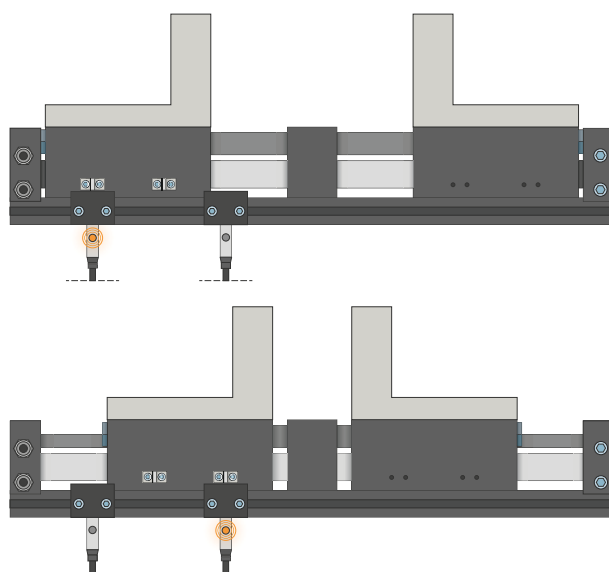


Pneumatic threaded connections

Available in straight and angled design. Can be chosen freely depending on the space conditions or installation situation.



SENSORS



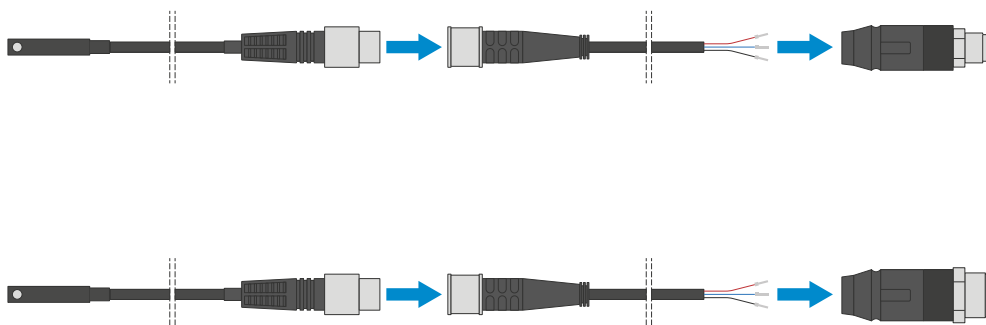
Inductive sensors – NJ

The mounting block is aligned to the cam switch, and the sensor is guided into the mounting block until the required switching distance to the cam switch is reached. Fine adjustment can be made by moving the mounting block again. The sensors are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector, as well as with direct plug orientation.



CONNECTIONS / OTHER

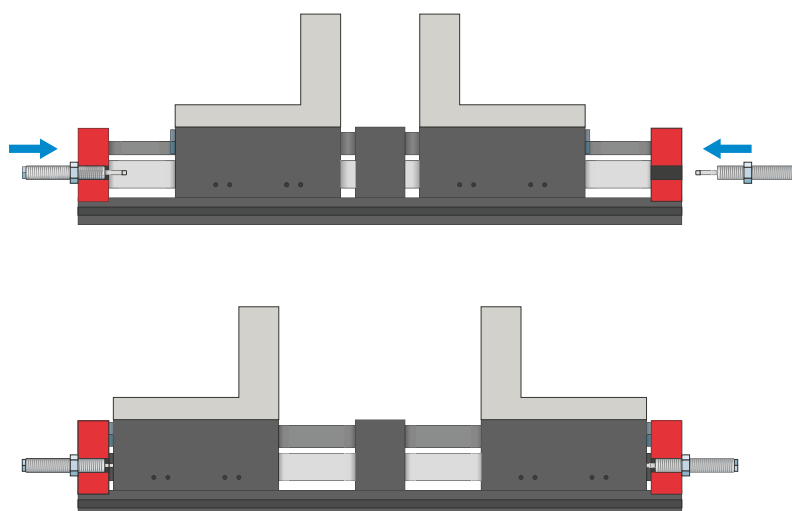
1



Plug-in connectors

For extending and fabricating the connection lines for the sensors

Cables with a length of 5 m with exposed leads are available. Depending on the specific needs, the cables can be shortened or fabricated with connectors in sizes M8 and M12.



PowerStop shock absorber

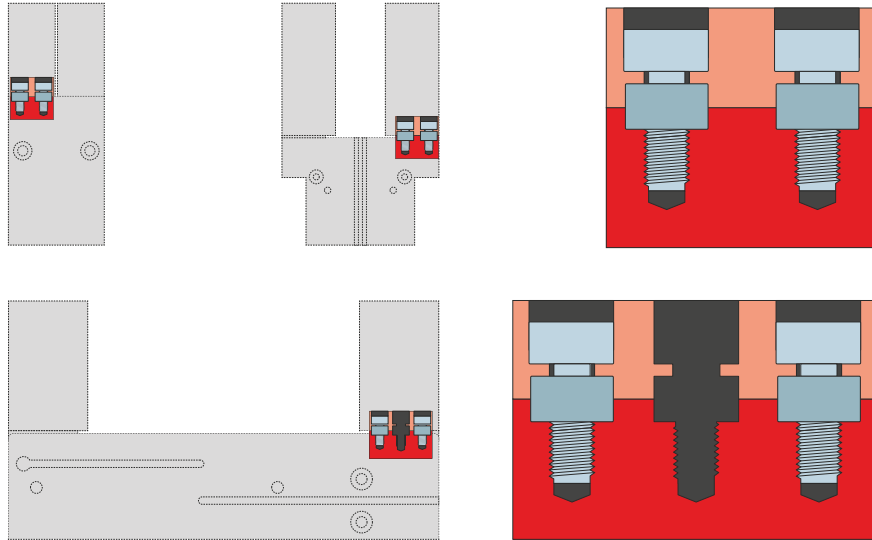
For soft absorption of kinetic energy

The shock absorbers are used primarily in fast, unthrottled jaw movements. They are equally suitable for long gripper fingers, high jaw mass and for cycle time optimization. The energy is absorbed by means of a hydraulic industrial shock absorber.

2-JAW PARALLEL GRIPPERS WITH LONG STROKE

SERIES GPH8000 FUNCTIONAL DESCRIPTION

CONNECTIONS / OTHER



Centering sleeves

For defined position measurement of the gripper fingers

The centering sleeves are inserted into the fits of the gripper jaws to define the position of the gripper fingers. The centering sleeves are comparable to a pin connection.

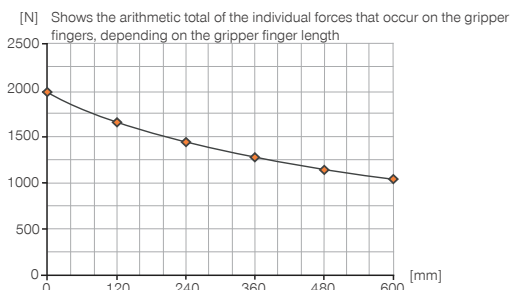
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE GPH83063

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]	1020
Mx [Nm]	1010
My [Nm]	1020
Fa [N]	18000

INCLUDED IN DELIVERY (SYNCHRONOUS / -00-A)



2 [piece]
Mounting block
ANS000001



2 [piece]
Centering Disc
059600



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

INCLUDED IN DELIVERY (ASYNCHRONOUS / -30-A)



4 [piece]
Mounting block
ANS000001



2 [piece]
Centering Disc
059600



4 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

RECOMMENDED ACCESSORIES



SENSORS



NJ12-E2
Inductive proximity switch - Cable 5 m



NJ12-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8



S12-G-3
Plug-in connector customizable Straight - Connector M12



CONNECTIONS / OTHER



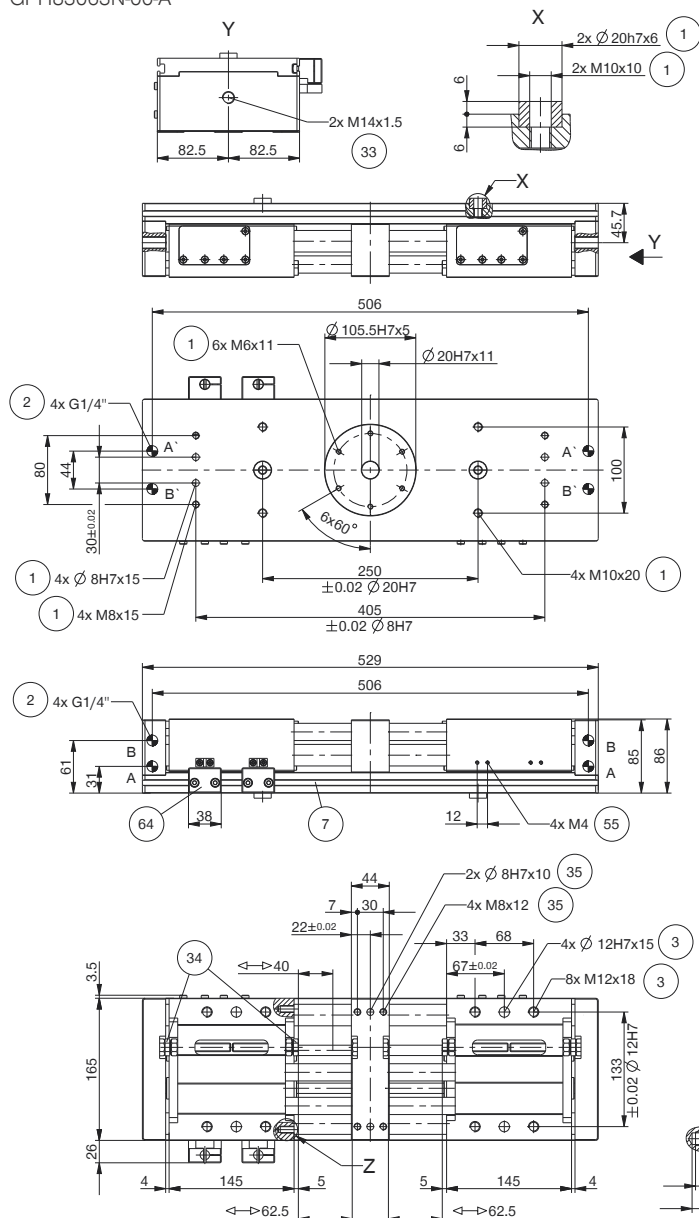
KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



M14X1.5H
Shock Absorbers

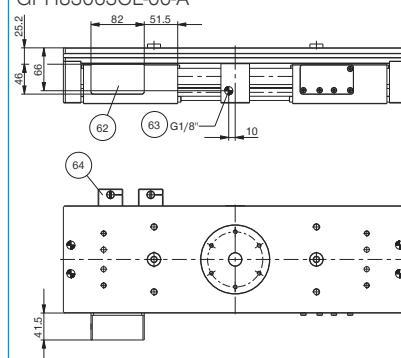
Order no.	Technical data		
	GPH83063N-00-A	GPH83063CL-00-A	GPH83063CL-30-A
Gripper jaws are synchronized	Yes	Yes	
Position maintenance by means of clamping element		Yes	Yes
No. of clamping elements [piece]	-	1	2
Holding force per clamping element [N]		2300	2300
Stroke per jaw [mm]	62.5	62.5	62.5
Gripping force in closing / opening [N]	2000 / 2000	2000 / 2000	2000 / 2000
Closing time [s]	0.32	0.32	0.32
Opening time [s]	0.32	0.32	0.32
Permissible weight per jaw max [kg]	35	35	35
Length of the gripper fingers max. [mm]	600	600	600
Repetition accuracy +/- [mm]	0.05	0.05	0.05
Operating pressure [bar]	4 ... 8	4 ... 8	4 ... 8
Nominal operating pressure [bar]	6	6	6
Operating temperature [°C]	5 ... +80	5 ... +80	5 ... +80
Air volume per cycle [cm³]	586	586	586
Protection to IEC 60529	IP54	IP54	IP54
Weight [kg]	14.9	15.7	15.7

GPH83063N-00-A

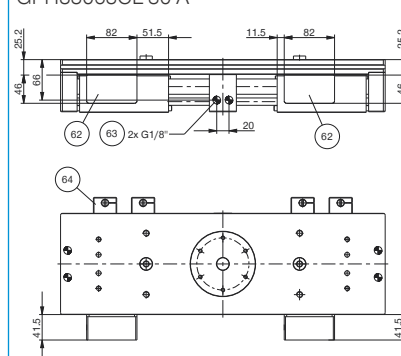


- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑦ Fixing for mounting block
- ③③ Shock absorber
- ③④ Stop screw for stroke setting
- ③⑤ Attachment option for customer-specific fittings
- ⑤⑤ Cam switch attachment
- ⑥② Clamping element
- ⑥③ Energy supply clamping element
- ⑥④ Clamp for sensor
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ' Air connection, alternative (close)
- Ⓑ' Air connection, alternative (open)

GPH83063CL-00-A



GPH83063CL-30-A



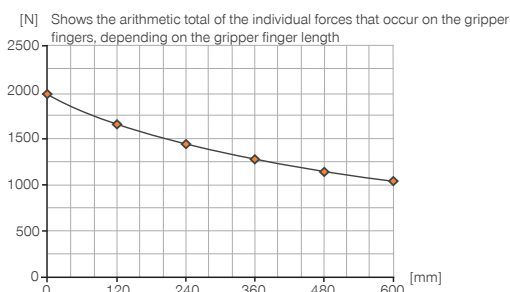
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE GPH83100

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]	1020
Mx [Nm]	1010
My [Nm]	1020
Fa [N]	18000

INCLUDED IN DELIVERY (SYNCHRONOUS / -00-A)



2 [piece]
Mounting block
ANS000001



2 [piece]
Centering Disc
059600



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

INCLUDED IN DELIVERY (ASYNCHRONOUS / -30-A)



4 [piece]
Mounting block
ANS000001



2 [piece]
Centering Disc
059600



4 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

RECOMMENDED ACCESSORIES



SENSORS



NJ12-E2
Inductive proximity switch - Cable 5 m



NJ12-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8



S12-G-3
Plug-in connector customizable Straight - Connector M12



CONNECTIONS / OTHER



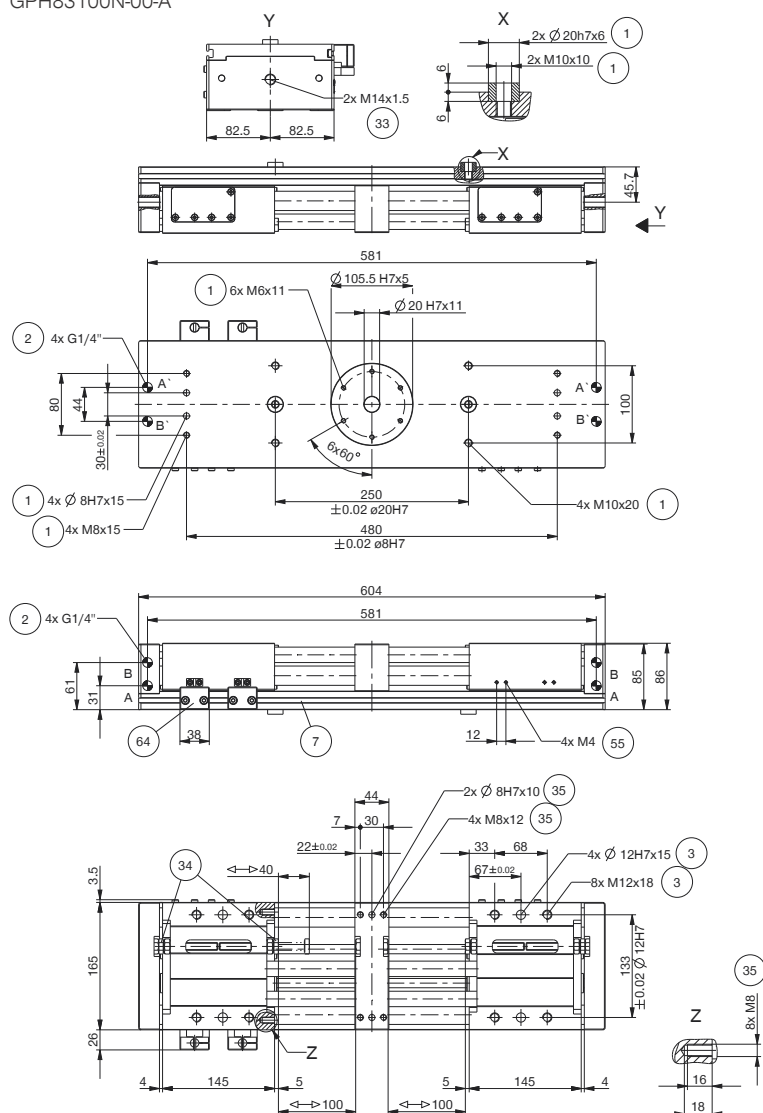
KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



M14X1.5H
Shock Absorbers

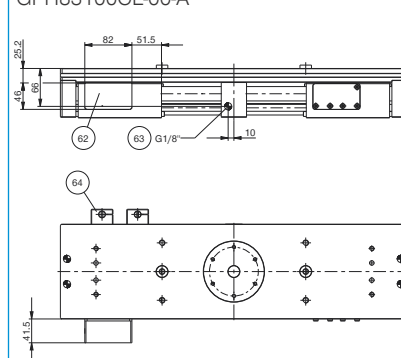
Order no.	Technical data		
	GPH83100N-00-A	GPH83100CL-00-A	GPH83100CL-30-A
Gripper jaws are synchronized	Yes	Yes	
Position maintenance by means of clamping element		Yes	Yes
No. of clamping elements [piece]	-	1	2
Holding force per clamping element [N]		2300	2300
Stroke per jaw [mm]	100	100	100
Gripping force in closing / opening [N]	2000 / 2000	2000 / 2000	2000 / 2000
Closing time [s]	0.5	0.5	0.5
Opening time [s]	0.5	0.5	0.5
Permissible weight per jaw max [kg]	35	35	35
Length of the gripper fingers max. [mm]	600	600	600
Repetition accuracy +/- [mm]	0.05	0.05	0.05
Operating pressure [bar]	4 ... 8	4 ... 8	4 ... 8
Nominal operating pressure [bar]	6	6	6
Operating temperature [°C]	5 ... +80	5 ... +80	5 ... +80
Air volume per cycle [cm³]	714	714	714
Protection to IEC 60529	IP54	IP54	IP54
Weight [kg]	15	17	16.6

GPH83100N-00-A

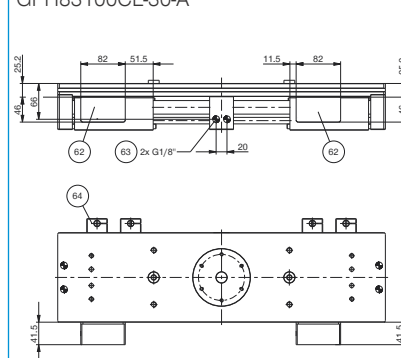


- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑦ Fixing for mounting block
- ③③ Shock absorber
- ③④ Stop screw for stroke setting
- ③⑤ Attachment option for customer-specific fittings
- ⑤⑤ Cam switch attachment
- ⑥② Clamping element
- ⑥③ Energy supply clamping element
- ⑥④ Clamp for sensor
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)

GPH83100CL-00-A



GPH83100CL-30-A



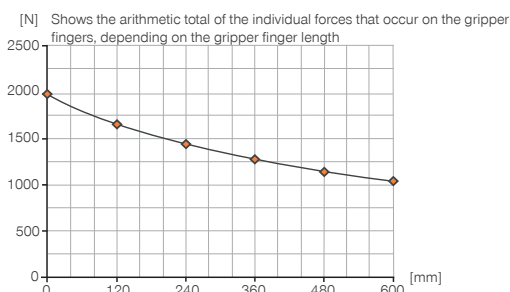
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE GPH83125

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]	1020
Mx [Nm]	1010
My [Nm]	1020
Fa [N]	18000

INCLUDED IN DELIVERY (SYNCHRONOUS / -00-A)



2 [piece]
Mounting block
ANS000001



2 [piece]
Centering Disc
059600



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

INCLUDED IN DELIVERY (ASYNCHRONOUS / -30-A)



4 [piece]
Mounting block
ANS000001



2 [piece]
Centering Disc
059600



4 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

RECOMMENDED ACCESSORIES



SENSORS



NJ12-E2
Inductive proximity switch - Cable 5 m



NJ12-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8



S12-G-3
Plug-in connector customizable Straight - Connector M12



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



M14X1.5H
Shock Absorbers

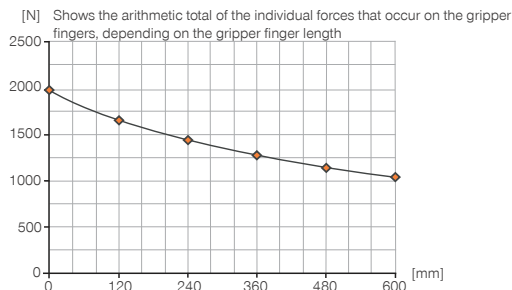
2-JAW PARALLEL GRIPPERS WITH LONG STROKE

INSTALLATION SIZE GPH83150

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]	1020
Mx [Nm]	1010
My [Nm]	1020
Fa [N]	18000

INCLUDED IN DELIVERY (SYNCHRONOUS / -00-A)



2 [piece]
Mounting block
ANS000001



2 [piece]
Centering Disc
059600



2 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

INCLUDED IN DELIVERY (ASYNCHRONOUS / -30-A)



4 [piece]
Mounting block
ANS000001



2 [piece]
Centering Disc
059600



4 [piece]
Flow Control Valves - with Swivel joint
DRV1-4X8

RECOMMENDED ACCESSORIES



SENSORS



NJ12-E2
Inductive proximity switch - Cable 5 m



NJ12-E2S
Inductive proximity switch - Connector M8



CONNECTIONS / OTHER



KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)



S8-G-3
Plug-in connector customizable Straight - Connector M8



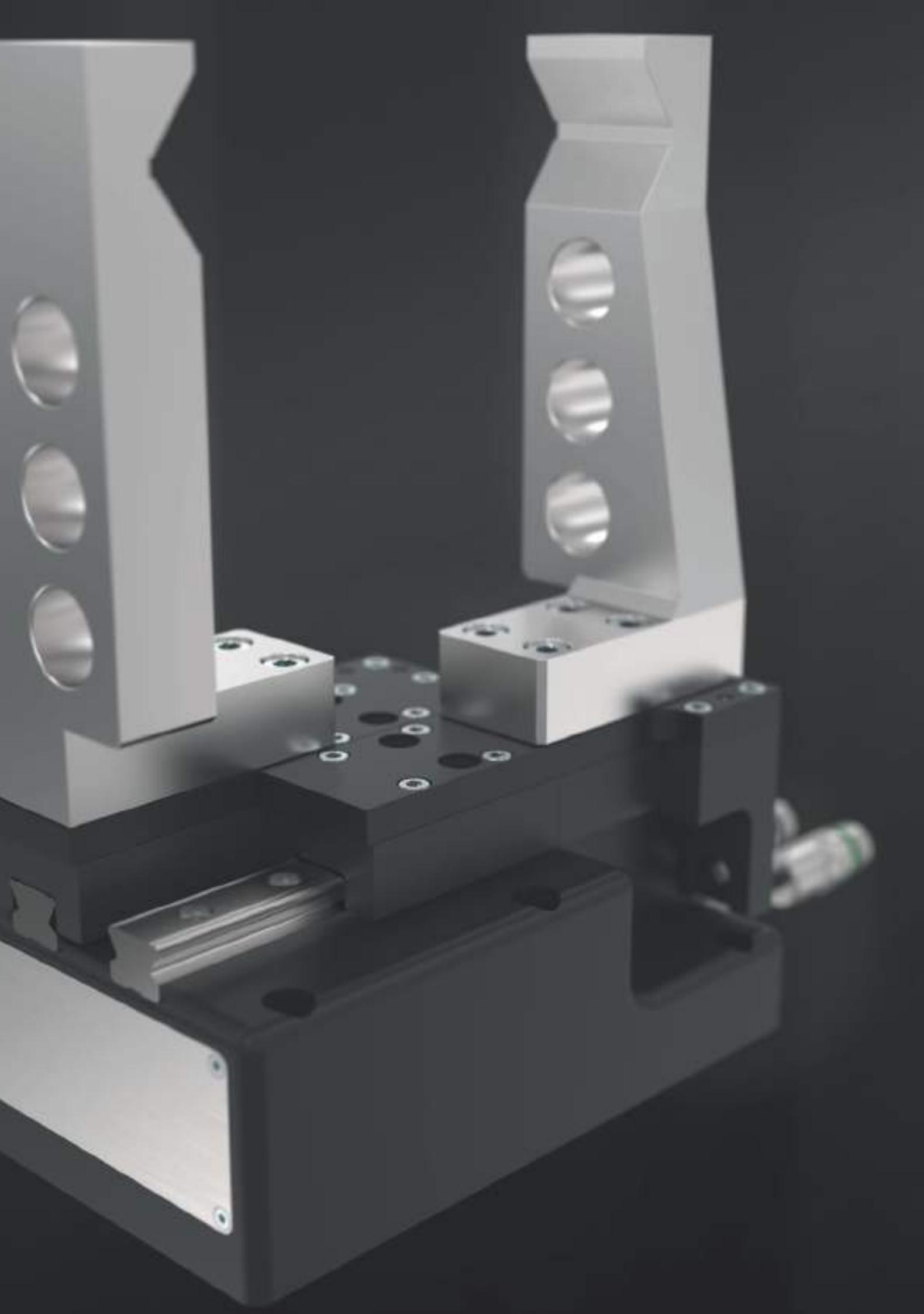
CONNECTIONS / OTHER



KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



M14X1.5H
Shock Absorbers



2-JAW PARALLEL GRIPPERS WITH LONG STROKE

OVERVIEW OF SERIES

1

Overview of Series / 2-Jaw Parallel Grippers with Long Stroke



ELECTRICAL

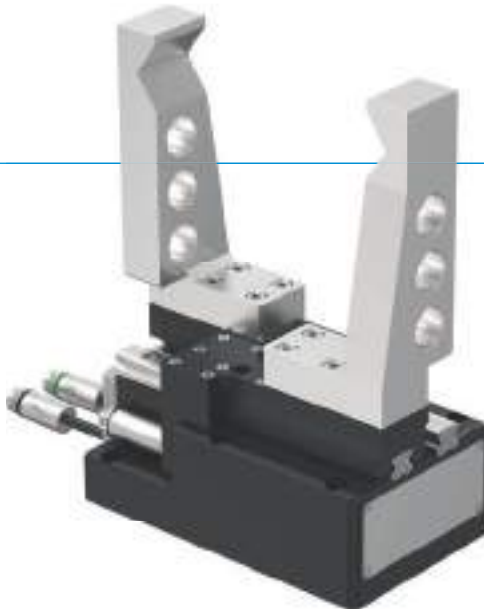


Series GEH8000

126

2-JAW PARALLEL GRIPPERS WITH LONG STROKE SERIES GEH8000

▶ PRODUCT ADVANTAGES



“The strong”

▶ High gripping force

Using the high gripping force, you can safely handle even the heaviest workpieces




▶ Servo drive

Position, speed and force control in combination with a mechanical self locking mechanism guarantee the highest functionality

▶ Multibus

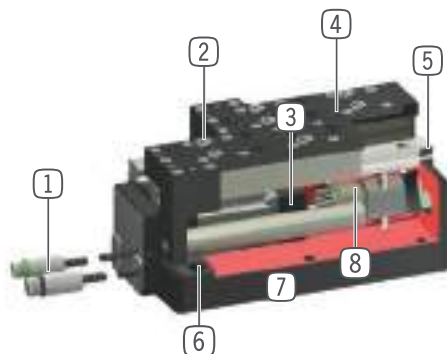
How you stay flexible: PROFIBUS, SERCOS III, PROFINET IO, EtherNet/IP or EtherCat - You decide what harmonises best with your system

▶ SERIES CHARACTERISTICS

Installation size		
GEH86XX-B		
PB Profibus		•
PN Profinet, EtherCat, EtherNet/IP, Sercos		•
 10 million maintenance-free cycles (max.)		•
 Integrated sensing		•
 Self locking mechanism		•
IP 40 IP40		•



► BENEFITS IN DETAIL



- 1 Energy supply**
 - motor cable, male
 - encoder cable, female
- 2 Removable centering sleeves**
 - quick and economical positioning of the gripper fingers
- 3 Drive**
 - AC servo motor
- 4 Gripper jaw**
 - hardened steel
 - individual gripper finger mounting
- 5 Precise linear guide**
 - high forces and moments capacity
 - guide wagon with wiper for harsh environments
- 6 Mounting and positioning**
- 7 Robust, lightweight housing**
 - Hard-coated aluminum alloy
- 8 Synchronization**
 - via rack and pinion

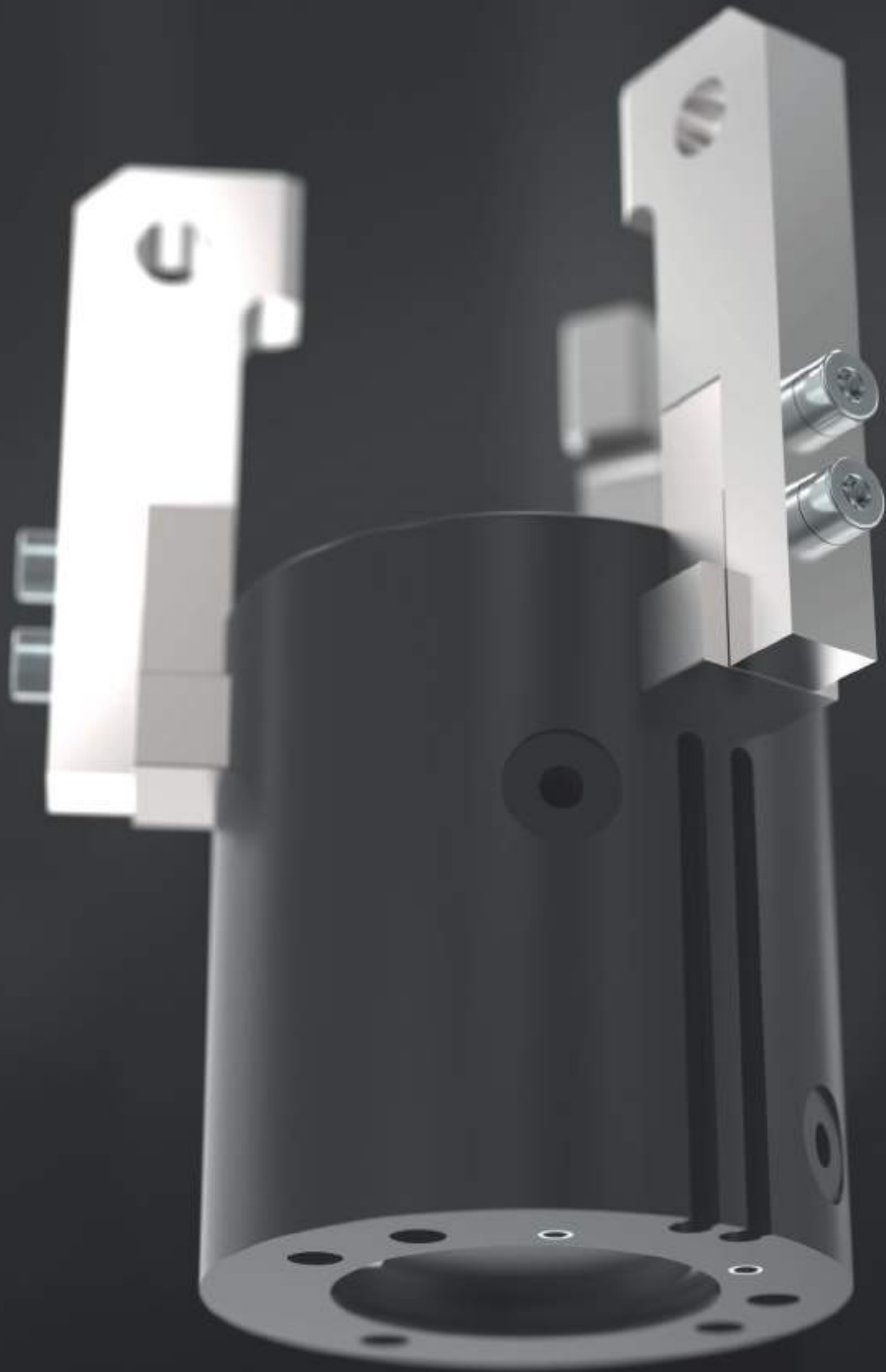
► TECHNICAL DATA

Installation size	Stroke per jaw [mm]	Holding force [N]	Weight [kg]	IP class
GEH8660	60	200 - 3200	10	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE







All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.



3-JAW CONCENTRIC GRIPPERS

OVERVIEW OF SERIES



	PNEUMATIC		
	Series MGD800		130
	Series GD300		152
	Series GD		178

3-JAW CONCENTRIC GRIPPERS

SERIES MGD800





▶ PRODUCT ADVANTAGES



“The superior”

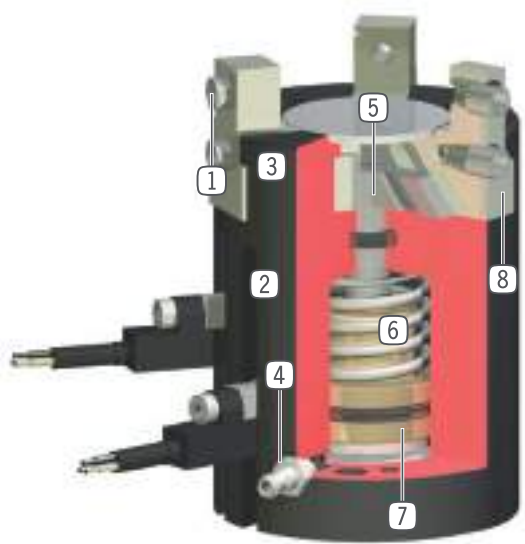
- ▶ **Gripper jaws may be almost 100% longer in comparison to the benchmark**
The highest force and torque measurement enables flexible for maximum dynamics
- ▶ **Best price/performance ratio**
Reduces your investment costs and speeds the ROI for your application
- ▶ **Failure-free continuous operation**
Our uncompromising “Made in Germany” quality guarantees up to 10 million maintenance-free cycles

▶ SERIES CHARACTERISTICS

Installation size	Version	
MGD8XX	N	NC
 Spring closing C		•
 10 million maintenance-free cycles (max.)	•	•
 Magnetic field sensor	•	•
 IP40	•	•



► BENEFITS IN DETAIL



- ① **Removable centering sleeves**
- quick and economical positioning of the gripper fingers
- ② **Sensing slot**
- mounting and positioning of magnetic field sensors
- ③ **Robust, lightweight housing**
- Hard-coated aluminum alloy
- ④ **Energy supply**
- possible from several sides
- ⑤ **Wedge hook mechanism**
- synchronized the movement of the gripper jaws
- ⑥ **Integrated gripping force safety device**
- spring integrated into cylinder as energy storage (from size 803 upwards)
- ⑦ **Position sensing**
- permanent magnet for direct monitoring of piston movement
- ⑧ **Precise T-Slot guide**
- high forces and moments capacity

► TECHNICAL DATA

Installation size	Stroke per jaw [mm]	Gripping force [N]	Weight [kg]	IP class
MGD801	1	30 - 34	0,025	IP40
MGD802	2	40 - 45	0,05	IP40
MGD803	3	78 - 110	0,08 - 0,115	IP40
MGD804	4	125 - 160	0,14 - 0,18	IP40
MGD806	6	240 - 295	0,26 - 0,35	IP40
MGD808	8	415 - 560	0,47 - 0,65	IP40
MGD810	10	740 - 920	0,98 - 1,16	IP40
MGD812	12	1130 - 1420	1,67 - 2	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

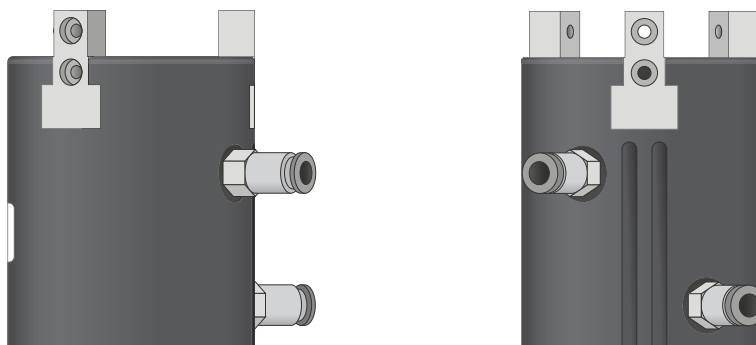
3-JAW CONCENTRIC GRIPPERS

SERIES MGD800 FUNCTIONAL DESCRIPTION

1

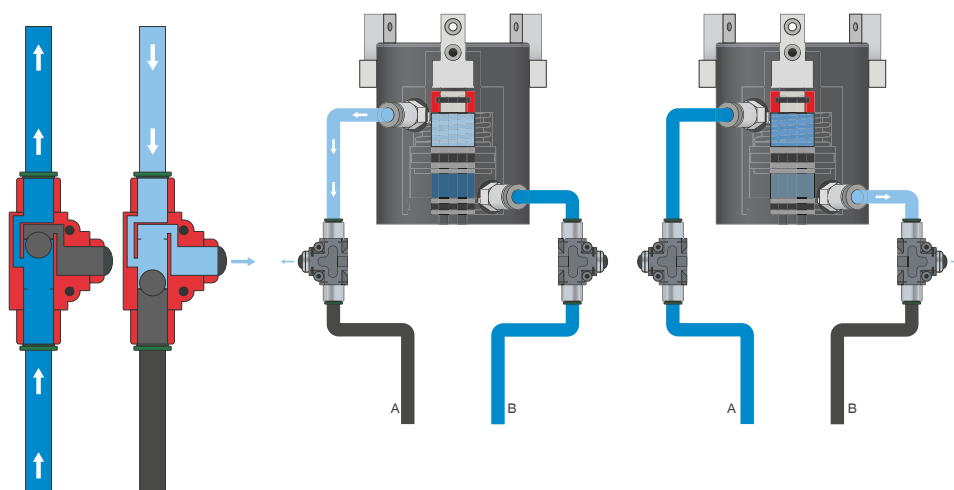


ENERGY SUPPLY



Pneumatic threaded connections

Available in straight and angled design. Can be chosen freely depending on the space conditions or installation situation.



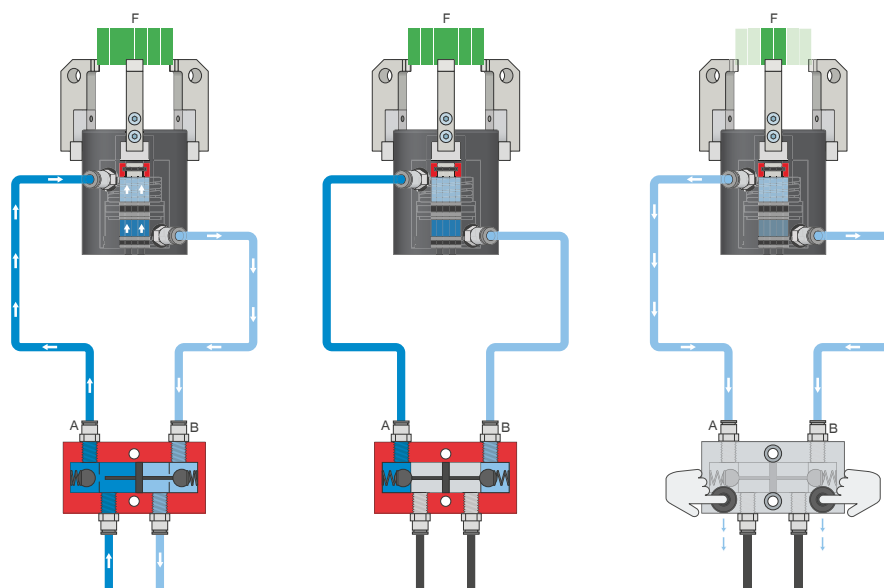
Quick exhaust valve – DEV

For rapid bleeding of the compressed air and preventing back pressure

The inline valves make a faster cycle time possible and prevent the formation of condensate in grippers with a small cylinder volume. To ensure the function, the valve must be installed as close to the gripper's air connection as possible.



ENERGY SUPPLY



Pressure safety valve – DSV

Ensures safe retention of force and position if the system pressure drops

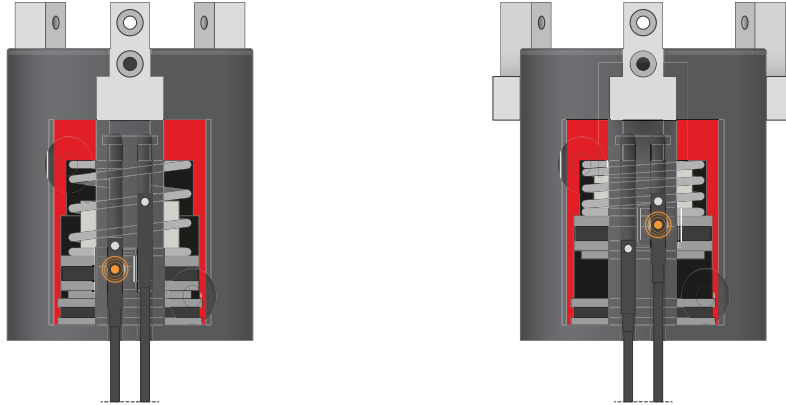
The integrated double check valve, which can be unlocked, retains the system pressure of the gripper in case of EMERGENCY STOP. To ensure the function, the valve must be installed as close to the gripper's air connection as possible. In variant E, two pushbuttons are installed that allow for controlled bleeding of the gripper.

3-JAW CONCENTRIC GRIPPERS

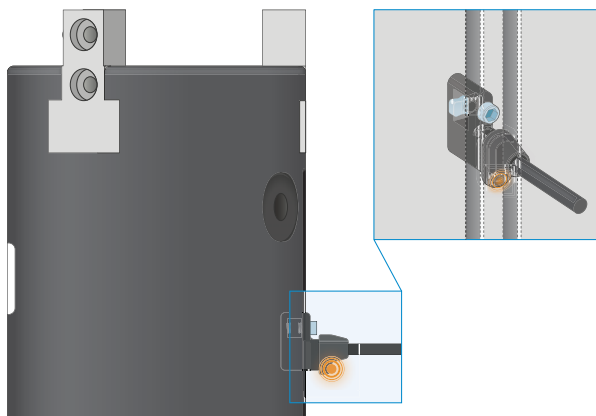
SERIES MGD800 FUNCTIONAL DESCRIPTION

SENSORS

MFS02



MFS01



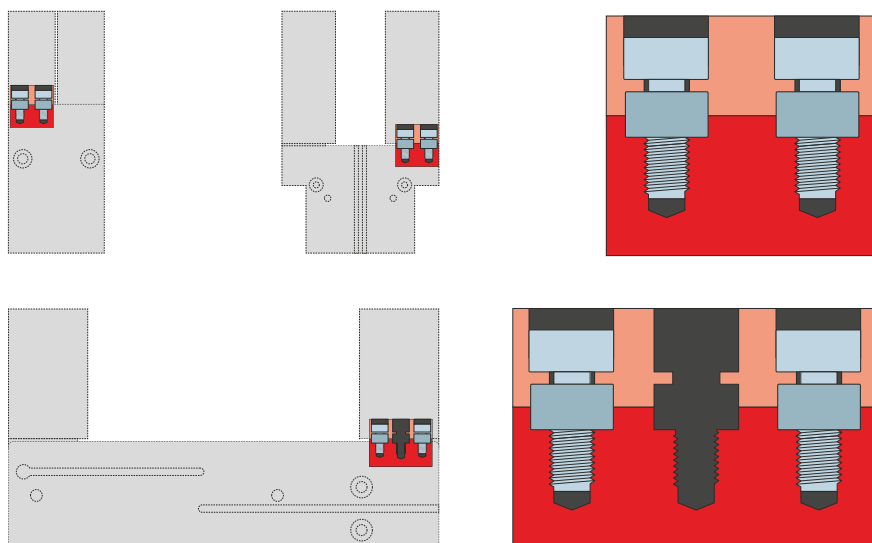
1-point magnetic field sensors – MFS

For non-contact sensing of the piston position

These sensors are installed in the C-groove of the gripper and detect the magnet attached to the piston of the gripper. To ensure use in a wide variety of space conditions, the sensors are available in two variants. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the gripper almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The variants are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.



CONNECTIONS / OTHER



Centering sleeves

For defined position measurement of the gripper fingers

The centering sleeves are inserted into the fits of the gripper jaws to define the position of the gripper fingers. The centering sleeves are comparable to a pin connection.

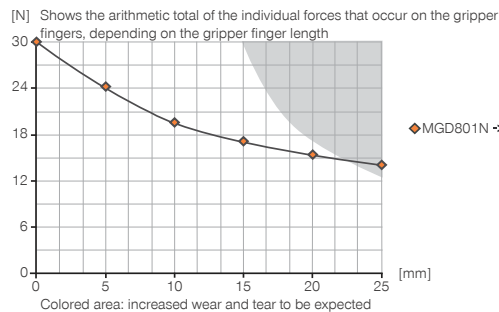
3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE MGD801

PRODUCT SPECIFICATIONS

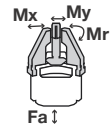


Gripping force diagram



Forces and moments

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



Mr [Nm]	2
Mx [Nm]	2
My [Nm]	4
Fa [N]	58

INCLUDED IN DELIVERY



6 [piece]
Centering Disc
DST80200

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



WVM3
Angled Fittings - Barb Style Connection



DEV04
Quick Exhaust Valve



ENERGY SUPPLY

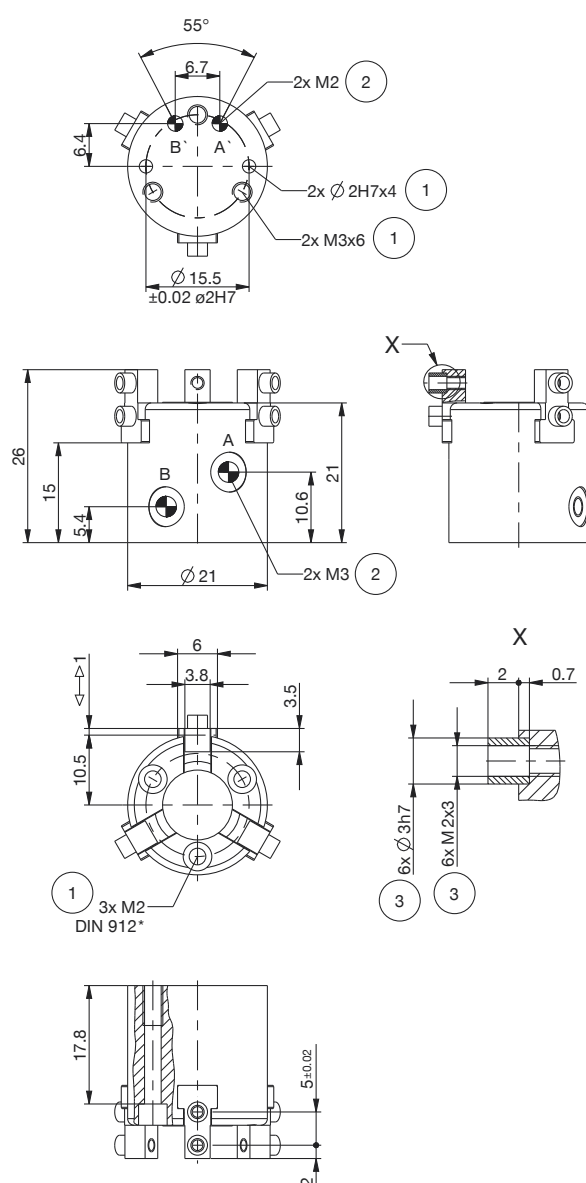


DSV1-8
Pressure safety valve

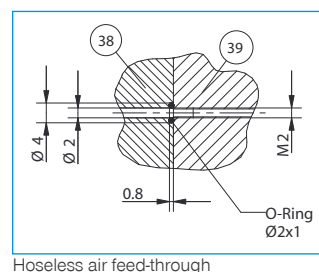


DSV1-8E
Pressure safety valve with quick exhaust

Order no.	MGD801N
Stroke per jaw [mm]	1
Gripping force in closing [N]	30
Gripping force in opening [N]	34
Closing time [s]	0.01
Opening time [s]	0.01
Repetition accuracy +/- [mm]	0.02
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	0.2
Weight [kg]	0.025



- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ③ Adapter
- ③ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)



Hoseless air feed-through

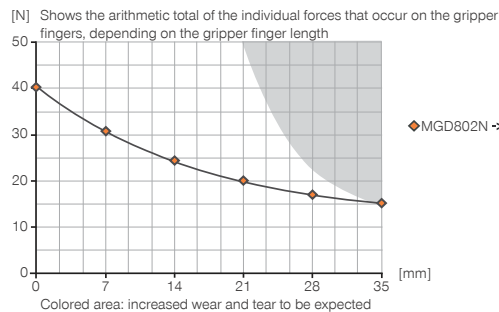
3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE MGD802

PRODUCT SPECIFICATIONS

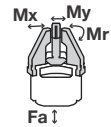


Gripping force diagram



Forces and moments

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



Mr [Nm]	4
Mx [Nm]	4
My [Nm]	6
Fa [N]	100

INCLUDED IN DELIVERY



6 [piece]
Centering Disc
DST80200

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



WVM3
Angled Fittings - Barb Style Connection



DEV04
Quick Exhaust Valve



ENERGY SUPPLY

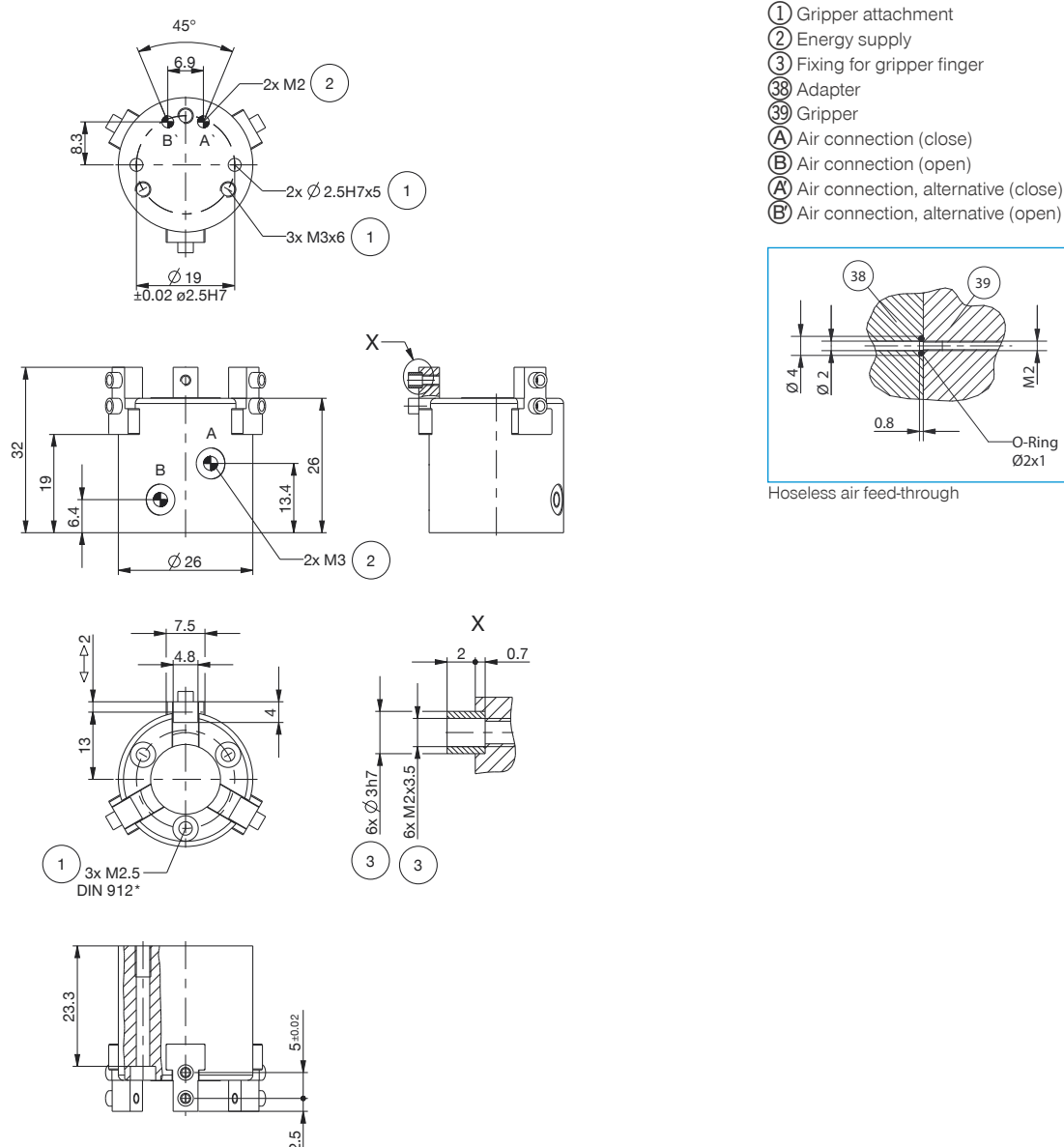


DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust

Order no.	Technical data
	MGD802N
Stroke per jaw [mm]	2
Gripping force in closing [N]	40
Gripping force in opening [N]	45
Closing time [s]	0.02
Opening time [s]	0.02
Repetition accuracy +/- [mm]	0.02
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Nominal operating pressure [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	0.3
Weight [kg]	0.05



3-JAW CONCENTRIC GRIPPERS

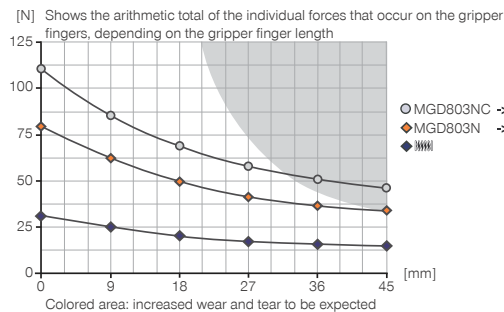
INSTALLATION SIZE MGD803

1

PRODUCT SPECIFICATIONS

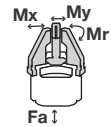


Gripping force diagram



Forces and moments

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



Mr [Nm]	5
Mx [Nm]	5
My [Nm]	8
Fa [N]	155

INCLUDED IN DELIVERY



6 [piece]
Centering Disc
DST80310

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



WVM3
Angled Fittings - Barb Style Connection



DEV04
Quick Exhaust Valve



DSV1-8
Pressure safety valve



ENERGY SUPPLY



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8

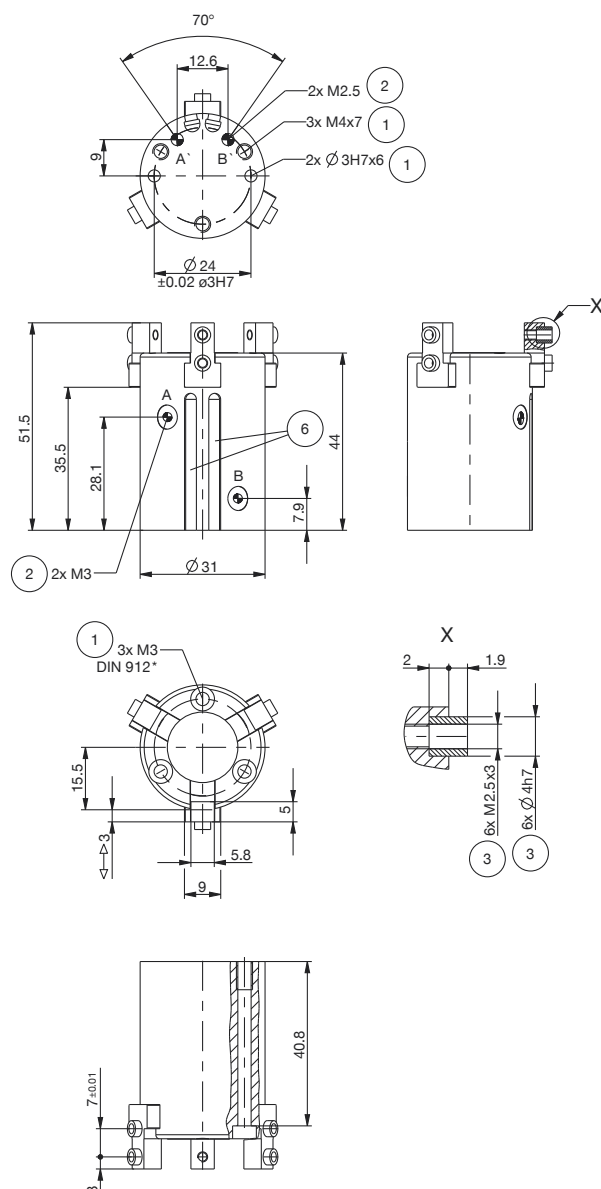


MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8

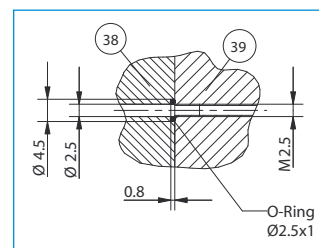


Order no.	► Technical data	
	MGD803N	MGD803NC
Stroke per jaw [mm]	3	3
Gripping force in closing [N]	78	110
Gripping force in opening [N]	87	
Gripping force secured by spring min. [N]		32
Closing time [s]	0.02	0.02
Opening time [s]	0.02	0.03
Repetition accuracy +/- [mm]	0.02	0.02
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	1.5	2.4
Weight [kg]	0.08	0.115

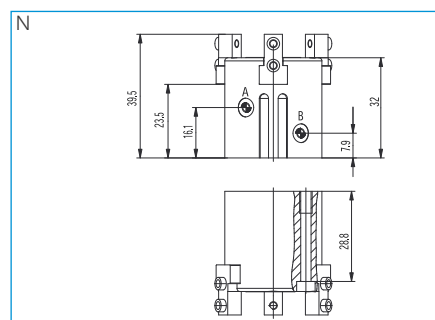
NC



- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ③⑧ Adapter
- ③⑨ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)



Hoseless air feed-through



3-JAW CONCENTRIC GRIPPERS

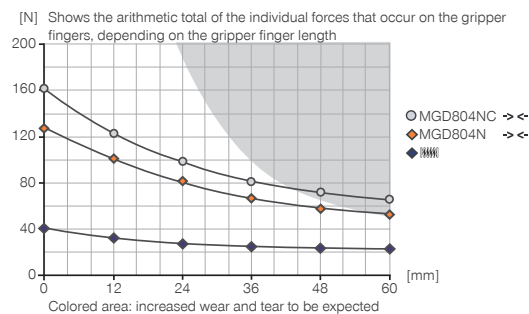
INSTALLATION SIZE MGD804

1

PRODUCT SPECIFICATIONS

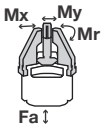


Gripping force diagram



Forces and moments

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



Mr [Nm]	8
Mx [Nm]	8
My [Nm]	12
Fa [N]	250

INCLUDED IN DELIVERY



6 [piece]
Centering Disc
DST06510

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM3
Straight Fittings - Barb Style Connection



WVM3
Angled Fittings - Barb Style Connection



DEV04
Quick Exhaust Valve



DSV1-8
Pressure safety valve



ENERGY SUPPLY



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8

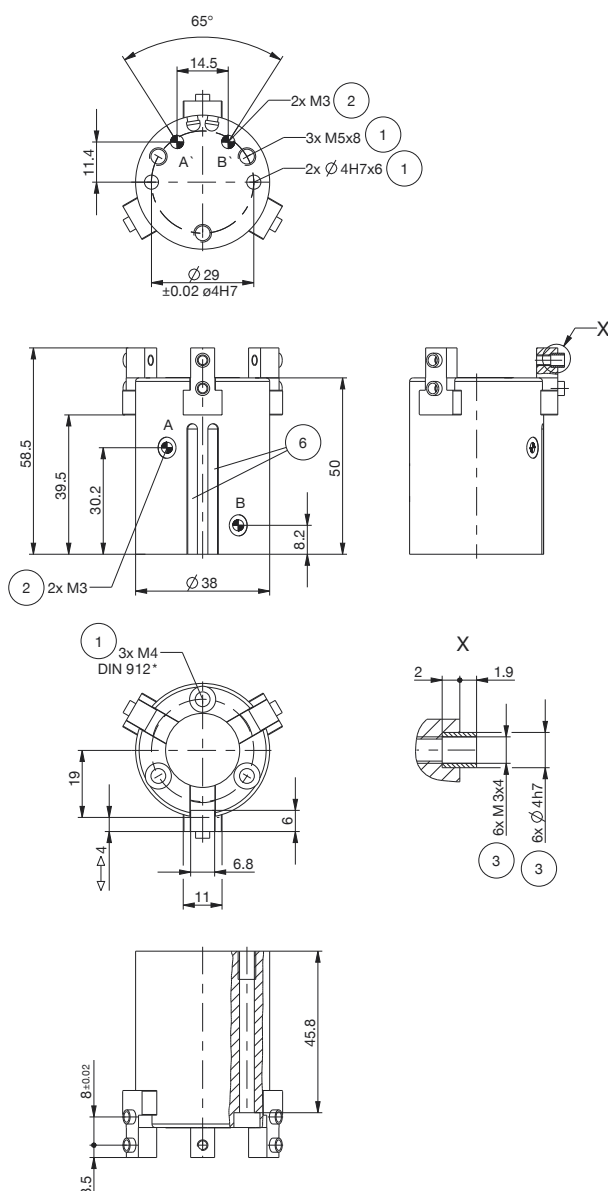


MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8

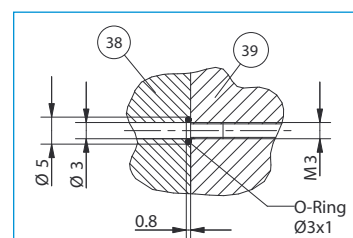


	► Technical data	
Order no.	MGD804N	MGD804NC
Stroke per jaw [mm]	4	4
Gripping force in closing [N]	125	160
Gripping force in opening [N]	140	
Gripping force secured by spring min. [N]		35
Closing time [s]	0.02	0.02
Opening time [s]	0.02	0.03
Repetition accuracy +/- [mm]	0.02	0.02
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	2.9	4.5
Weight [kg]	0.14	0.18

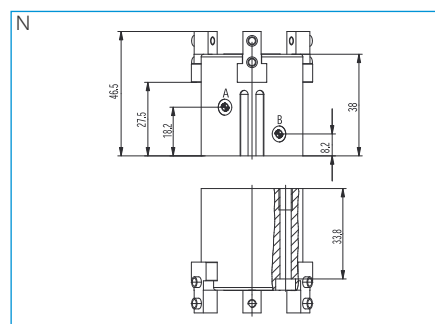
NC



- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- 38 Adapter
- 39 Gripper
- A Air connection (close)
- B Air connection (open)
- A Air connection, alternative (close)
- B Air connection, alternative (open)



Hoseless air feed-through



3-JAW CONCENTRIC GRIPPERS

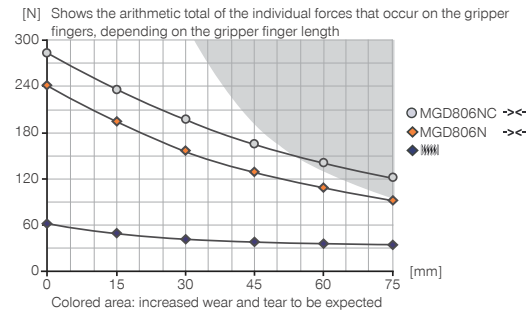
INSTALLATION SIZE MGD806

1

PRODUCT SPECIFICATIONS

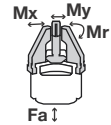


Gripping force diagram



Forces and moments

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



Mr [Nm]	12
Mx [Nm]	12
My [Nm]	18
Fa [N]	420

INCLUDED IN DELIVERY



6 [piece]
Centering Disc
DST40400

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



DEV04
Quick Exhaust Valve



DSV1-8
Pressure safety valve



ENERGY SUPPLY



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8

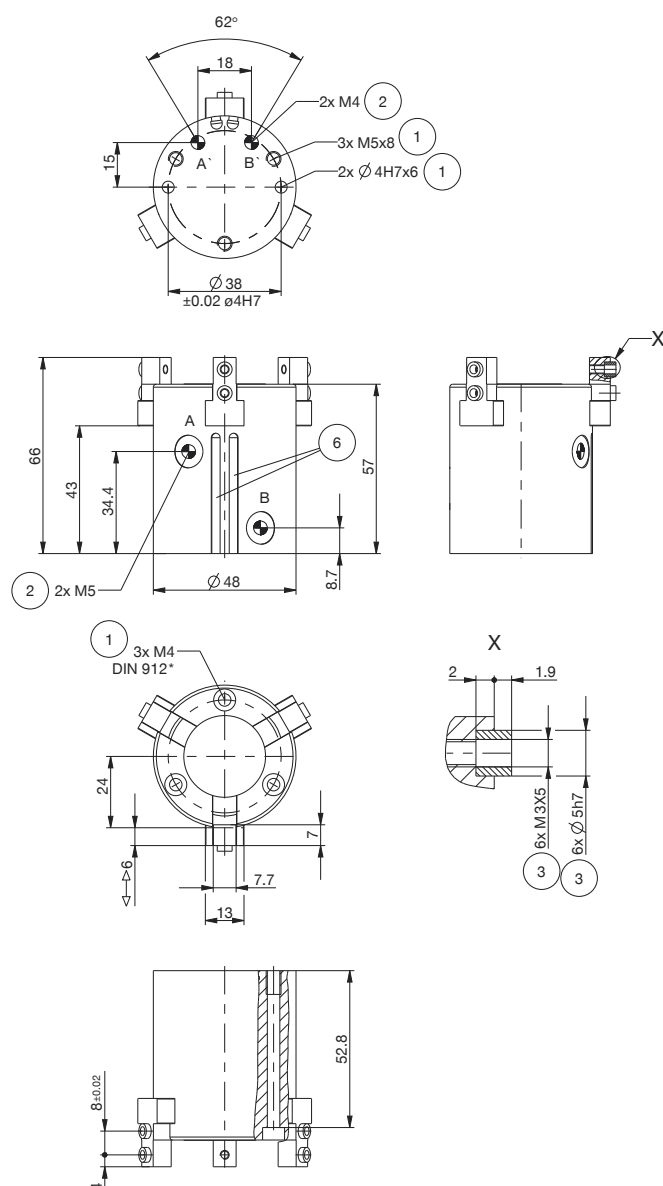


MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8

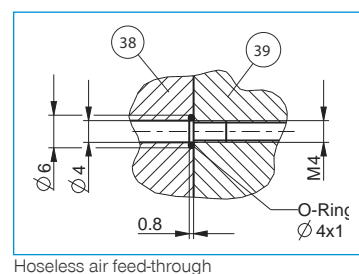


Order no.	► Technical data	
	MGD806N	MGD806NC
Stroke per jaw [mm]	6	6
Gripping force in closing [N]	240	295
Gripping force in opening [N]	265	
Gripping force secured by spring min. [N]		55
Closing time [s]	0.04	0.04
Opening time [s]	0.04	0.06
Repetition accuracy +/- [mm]	0.02	0.02
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	8	11
Weight [kg]	0.26	0.35

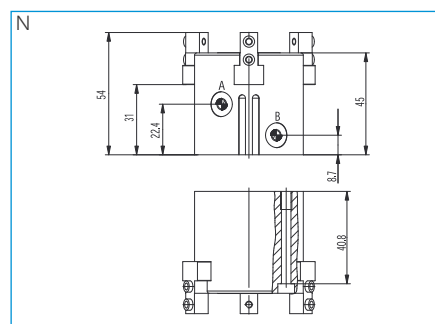
NC



- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ③⑧ Adapter
- ③⑨ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)



Hoseless air feed-through



3-JAW CONCENTRIC GRIPPERS

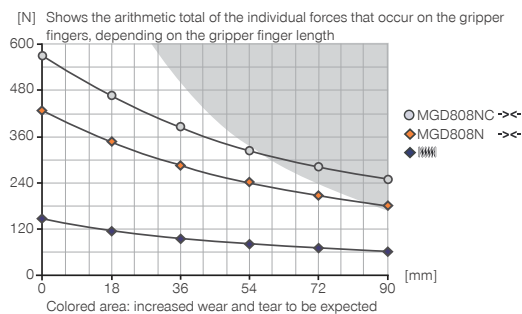
INSTALLATION SIZE MGD808

1

PRODUCT SPECIFICATIONS

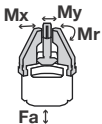


Gripping force diagram



Forces and moments

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



Mr [Nm]	18
Mx [Nm]	19
My [Nm]	29
Fa [N]	660

INCLUDED IN DELIVERY



6 [piece]
Centering Disc
DST40600

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



DEV04
Quick Exhaust Valve



DSV1-8
Pressure safety valve



ENERGY SUPPLY



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8

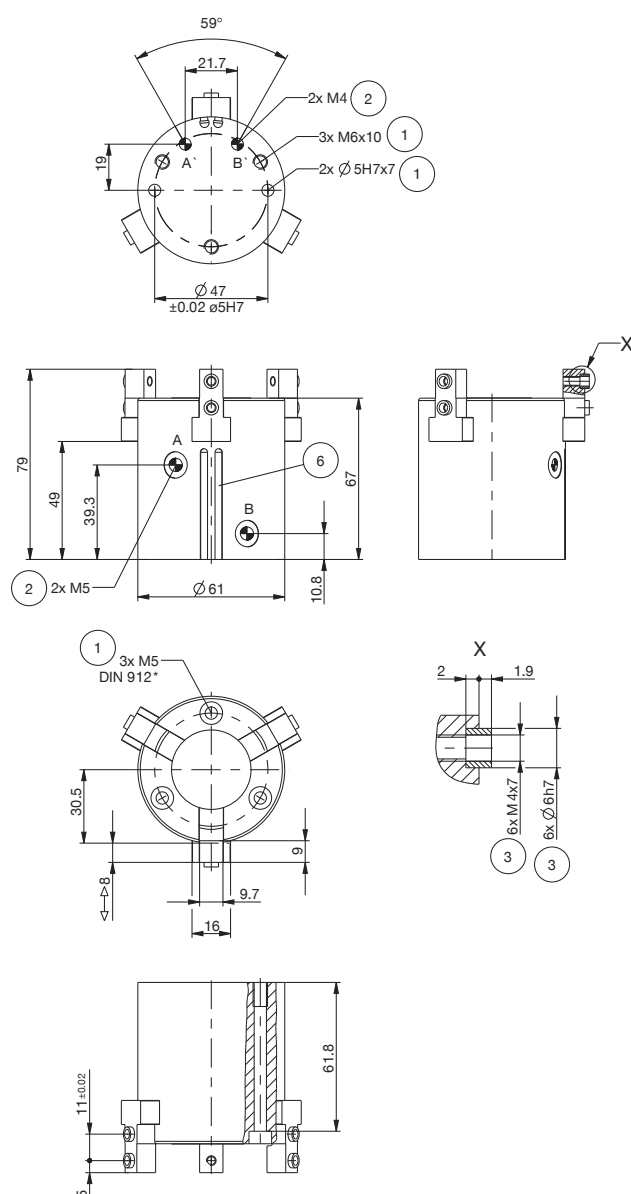


MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8

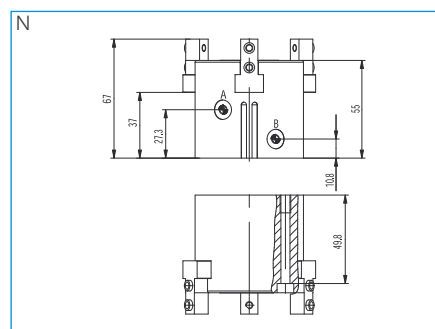
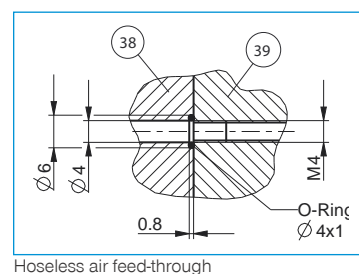


Order no.	► Technical data	
	MGD808N	MGD808NC
Stroke per jaw [mm]	8	8
Gripping force in closing [N]	415	560
Gripping force in opening [N]	450	
Gripping force secured by spring min. [N]		145
Closing time [s]	0.09	0.08
Opening time [s]	0.09	0.13
Repetition accuracy +/- [mm]	0.02	0.02
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	18	26
Weight [kg]	0.47	0.65

NC



- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ③⑧ Adapter
- ③⑨ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ' Air connection, alternative (close)
- Ⓑ' Air connection, alternative (open)



3-JAW CONCENTRIC GRIPPERS

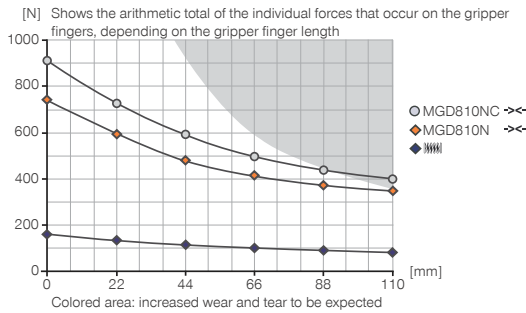
INSTALLATION SIZE MGD810

1

PRODUCT SPECIFICATIONS

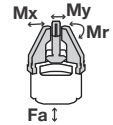


Gripping force diagram



Forces and moments

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



Mr [Nm]	27
Mx [Nm]	29
My [Nm]	43
Fa [N]	960

INCLUDED IN DELIVERY



6 [piece]
Centering Disc
DST07540

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



DEV04
Quick Exhaust Valve



DSV1-8
Pressure safety valve



ENERGY SUPPLY



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8

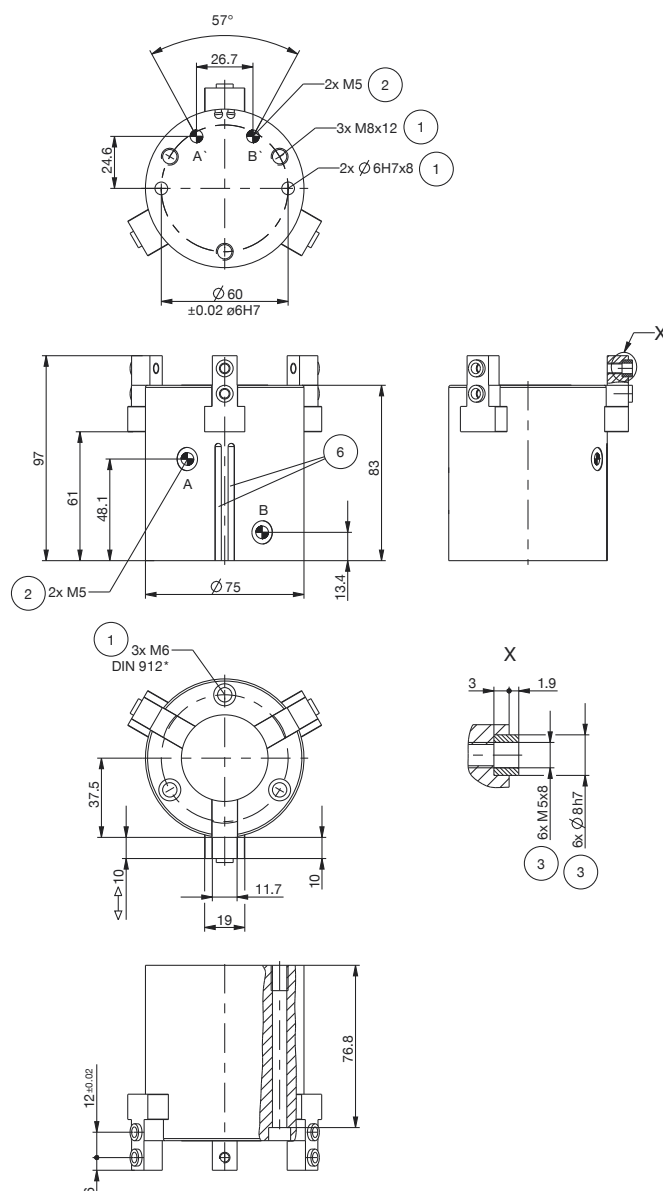


MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8

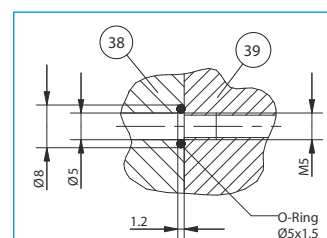


	► Technical data	
Order no.	MGD810N	MGD810NC
Stroke per jaw [mm]	10	10
Gripping force in closing [N]	740	920
Gripping force in opening [N]	790	
Gripping force secured by spring min. [N]		180
Closing time [s]	0.1	0.1
Opening time [s]	0.1	0.15
Repetition accuracy +/- [mm]	0.02	0.02
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	37	50
Weight [kg]	0.98	1.16

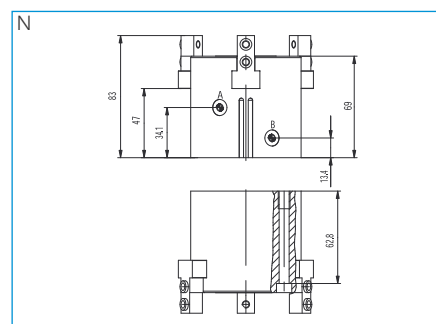
NC



- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- 38 Adapter
- 39 Gripper
- A Air connection (close)
- B Air connection (open)
- A Air connection, alternative (close)
- B Air connection, alternative (open)



Hoseless air feed-through



3-JAW CONCENTRIC GRIPPERS

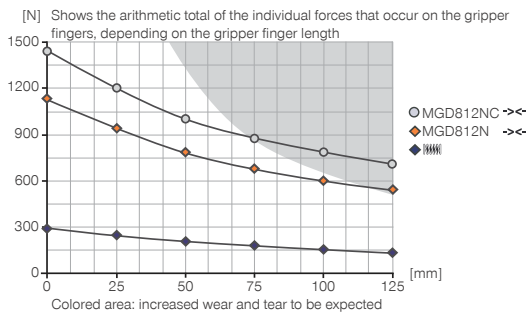
INSTALLATION SIZE MGD812

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PRODUCT SPECIFICATIONS

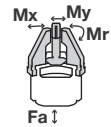


Gripping force diagram



Forces and moments

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



Mr [Nm]	41
Mx [Nm]	45
My [Nm]	65
Fa [N]	1500

INCLUDED IN DELIVERY



6 [piece]
Centering Disc
DST41000

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



DEV06
Quick Exhaust Valve



DSV1-8
Pressure safety valve



ENERGY SUPPLY



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



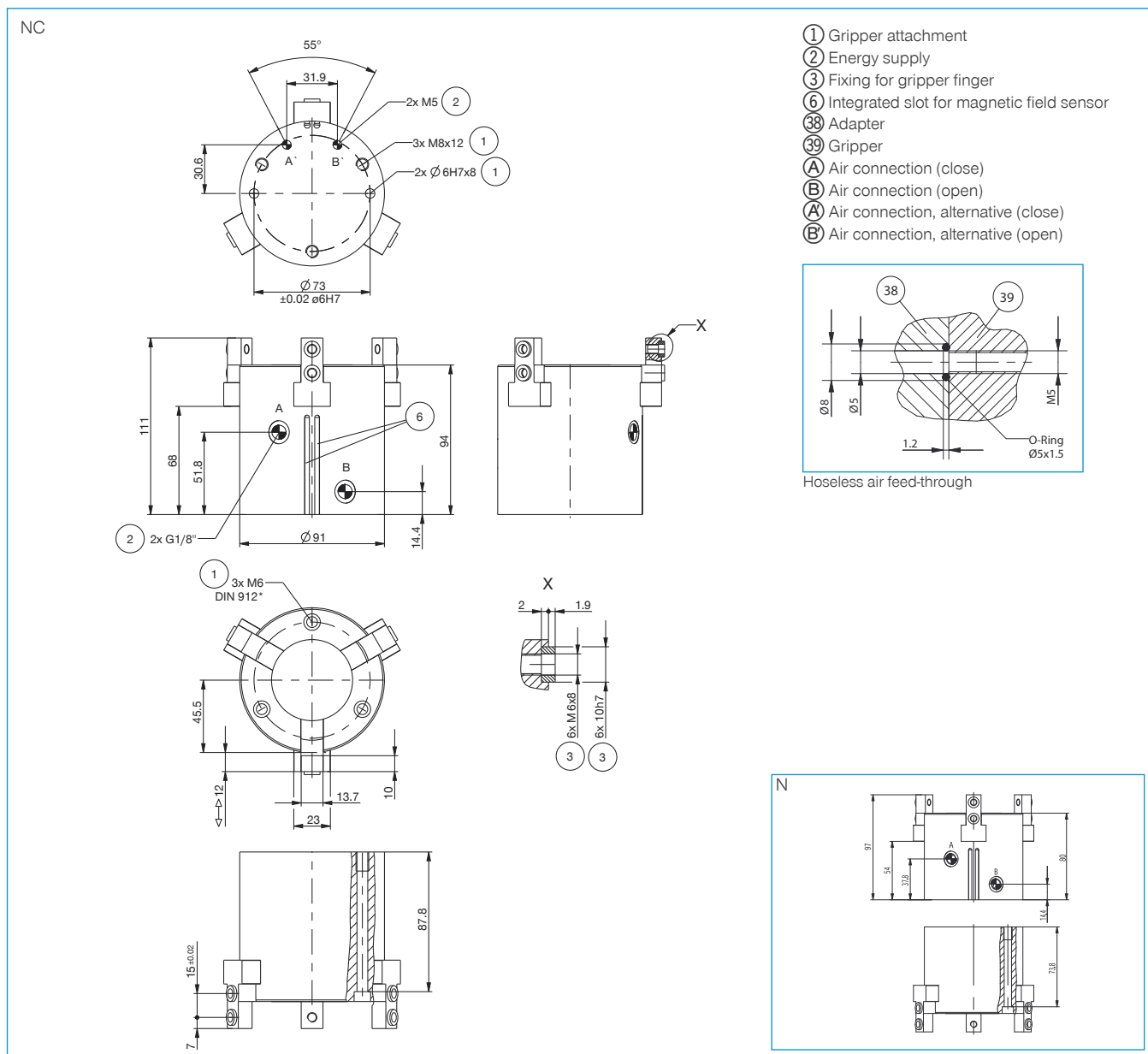
MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



Order no.	► Technical data	
	MGD812N	MGD812NC
Stroke per jaw [mm]	12	12
Gripping force in closing [N]	1130	1420
Gripping force in opening [N]	1200	
Gripping force secured by spring min. [N]		290
Closing time [s]	0.12	0.12
Opening time [s]	0.12	0.17
Repetition accuracy +/- [mm]	0.02	0.02
Operating pressure min. [bar]	3	4
Operating pressure max. [bar]	8	8
Nominal operating pressure [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	69	97
Weight [kg]	1.67	2



3-JAW CONCENTRIC GRIPPERS

SERIES GD300

▶ PRODUCT ADVANTAGES



“The economical”

▶ Concentration on the essentials

The most economic type of gripping: This is how you reduce your production costs









▶ Proven T slot guide

This established and proven guiding technology stands for the highest process reliability like no other

▶ Compact structure

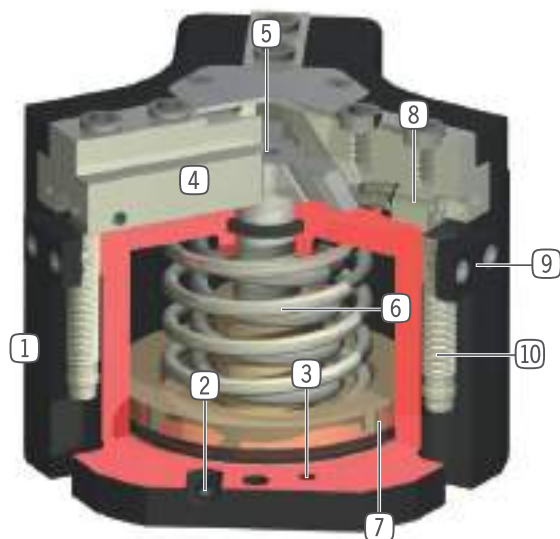
Reduces the interference contours for your application

▶ SERIES CHARACTERISTICS

Installation size	Version					
GD3XX	N	NC	NO	S	SC	SO
 Spring closing C		•			•	
 Spring opening O			•			•
 High-strength S				•	•	•
 10 million maintenance-free cycles (max.)	•	•	•	•	•	•
 Inductive sensor	•	•	•	•	•	•
 Magnetic field sensor	•	•	•	•	•	•
 Purged air	•	•	•	•	•	•
 IP 40	•	•	•	•	•	•



► BENEFITS IN DETAIL



- ① **Robust, lightweight housing**
- Hard-coated aluminum alloy
- ② **Energy supply**
- possible from several sides
- ③ **Mounting and positioning**
- mounting possible from several sides for versatile positioning
- ④ **Gripper jaw**
- individual gripper finger mounting
- ⑤ **Wedge hook mechanism**
- synchronized the movement of the gripper jaws
- high force transfer
- ⑥ **Integrated gripping force safety device**
- spring integrated into cylinder as energy storage
- ⑦ **Position sensing**
- permanent magnet for direct monitoring of piston movement
- ⑧ **Integrated, adjustable switch cam**
- for direct position sensing of the gripper jaw
- ⑨ **Mounting block**
- mounting for inductive proximity switch (10)

► TECHNICAL DATA

Installation size	Stroke per jaw [mm]	Gripping force [N]	Weight [kg]	IP class
GD303	3	200 - 300	0,13 - 0,16	IP40
GD304	2 - 4	450 - 1500	0,22 - 0,28	IP40
GD306	3 - 6	750 - 2300	0,5 - 0,65	IP40
GD308	4 - 8	1200 - 4000	0,85 - 1,2	IP40
GD310	5 - 10	2000 - 6400	1,6 - 2,2	IP40
GD312	6 - 12	3500 - 9250	2,7 - 3,8	IP40
GD316	8 - 16	6500 - 19100	5,1 - 8	IP40
GD320	10 - 20	8200 - 18700	9,6	IP40
GD330	15 - 30	15300 - 34700	24	IP40

► FURTHER INFORMATION IS AVAILABLE ONLINE



All information just a click away at: www.zimmer-group.com. Find data, illustrations, 3D models and operating instructions for your installation size using the order number for your desired product. Quick, clear and always up-to-date.

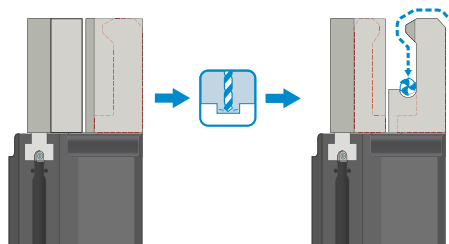
3-JAW CONCENTRIC GRIPPERS

SERIES GD300 FUNCTIONAL DESCRIPTION

1

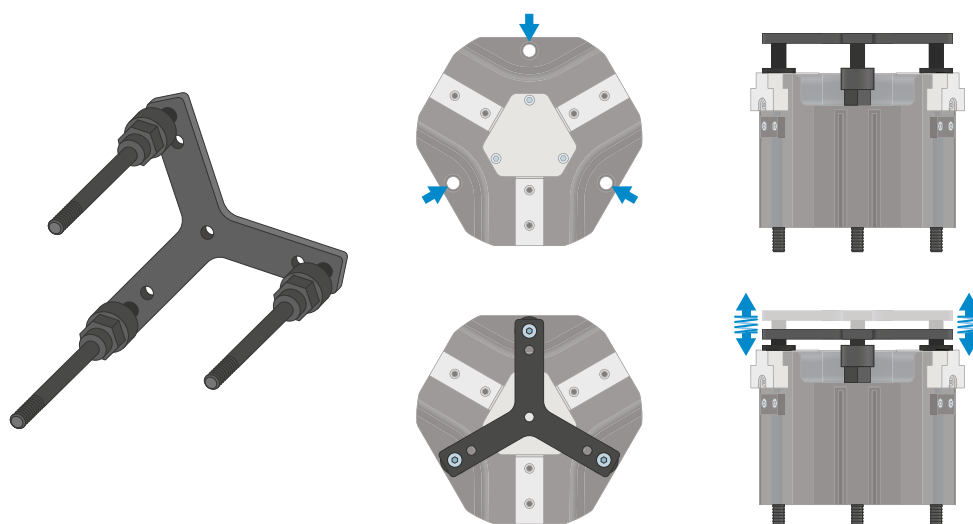


GRIPPING COMPONENTS



Universal jaws – UB300

When the gripper fingers are open, the pressure piece is used for spring-supported positioning of the workpiece against a limit stop. This greatly reduces the loads on the gripper that arise during joining.

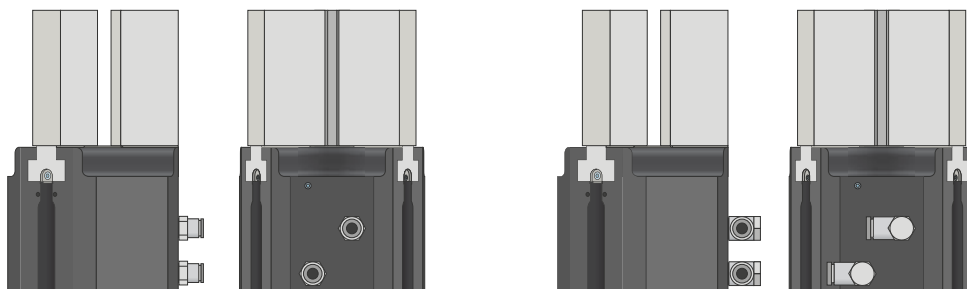


Pressure piece – ADS300

When the gripper fingers are open, the pressure piece is used for spring-supported positioning of the workpiece against a limit stop. This greatly reduces the loads on the gripper that arise during joining.

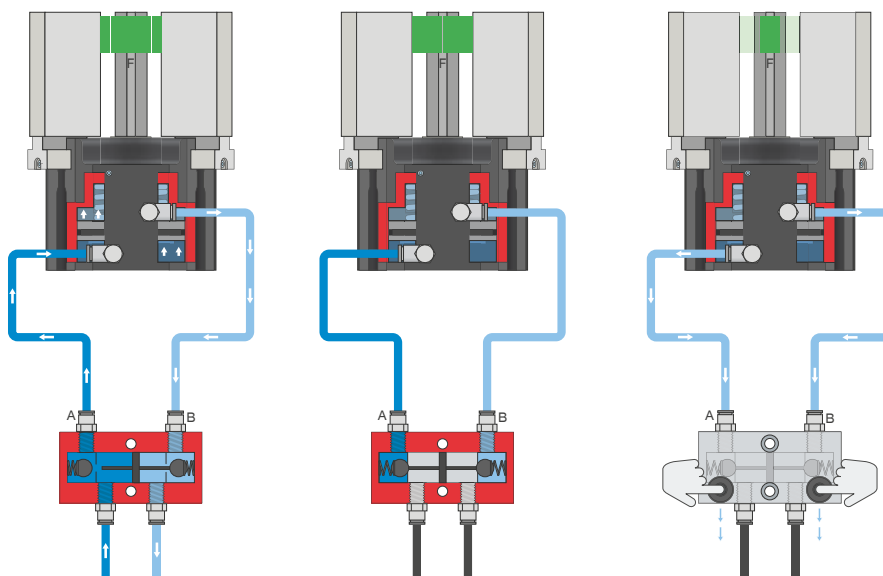


ENERGY SUPPLY



Pneumatic threaded connections

Available in straight and angled design. Can be chosen freely depending on the space conditions or installation situation.



Pressure safety valve – DSV

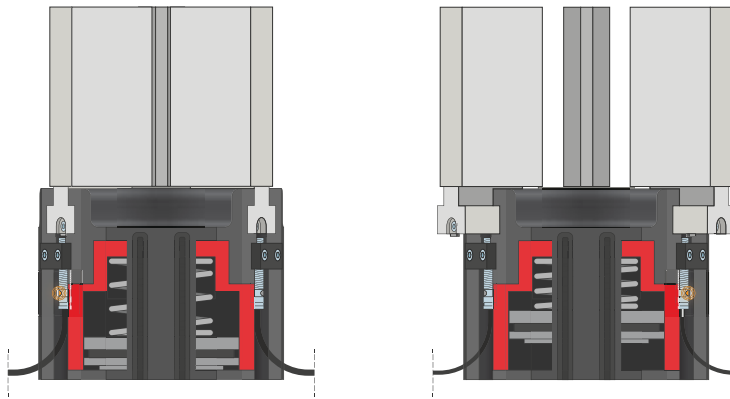
Ensures safe retention of force and position if the system pressure drops

The integrated double check valve, which can be unlocked, retains the system pressure of the gripper in case of EMERGENCY STOP. To ensure the function, the valve must be installed as close to the gripper's air connection as possible. In variant E, two pushbuttons are installed that allow for controlled bleeding of the gripper.

3-JAW CONCENTRIC GRIPPERS

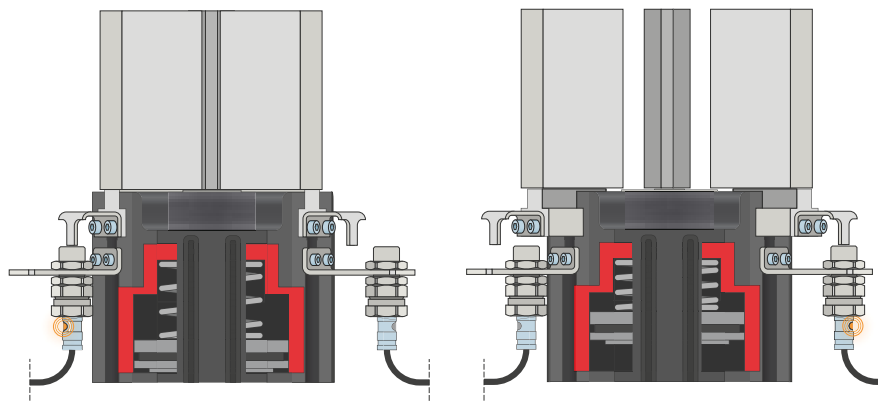
SERIES GD300 FUNCTIONAL DESCRIPTION

SENSORS



Inductive sensors – NJ

The sensor is inserted into the mounting block as far as it will go and secured. Tuning to the desired position then takes place by adjusting the cam switch. The sensors are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector, as well as with direct plug orientation.



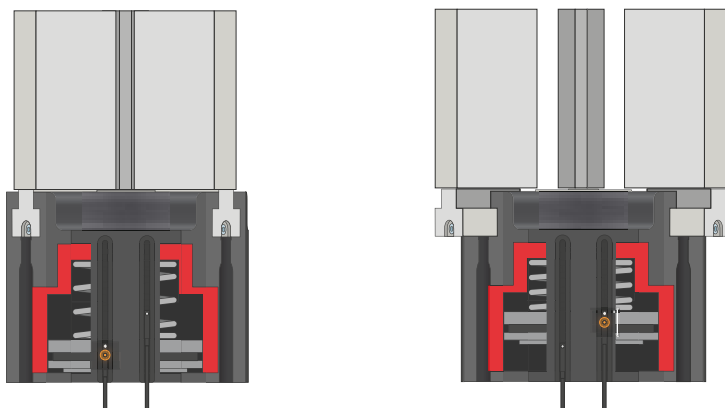
Clamping bracket – KHA

The KHA can be used as an alternative to installing the sensor via the mounting block. The sensor is inserted into the clamping bracket as far as it will go and secured. Tuning to the cam switch then takes place. Fine adjustment can be made by moving the clamping bracket again.

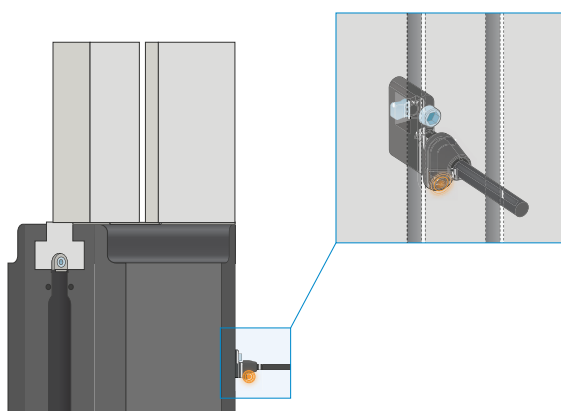


SENSORS

MFS02



MFS01



1-point magnetic field sensors – MFS

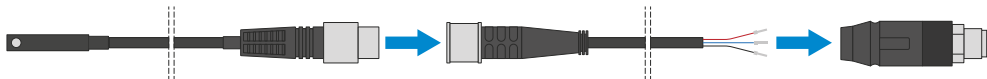
For non-contact sensing of the piston position

These sensors are installed in the C-groove of the gripper and detect the magnet attached to the piston of the gripper. To ensure use in a wide variety of space conditions, the sensors are available in two variants. While the horizontal MFS02, with straight cable outlet, disappears into the C-groove of the gripper almost completely, the vertical MFS01 is taller, but has a cable outlet that is offset at an angle of 90°. The variants are available in versions with 5 m cables with exposed leads and 0,3 m cable with connector.

3-JAW CONCENTRIC GRIPPERS

SERIES GD300 FUNCTIONAL DESCRIPTION

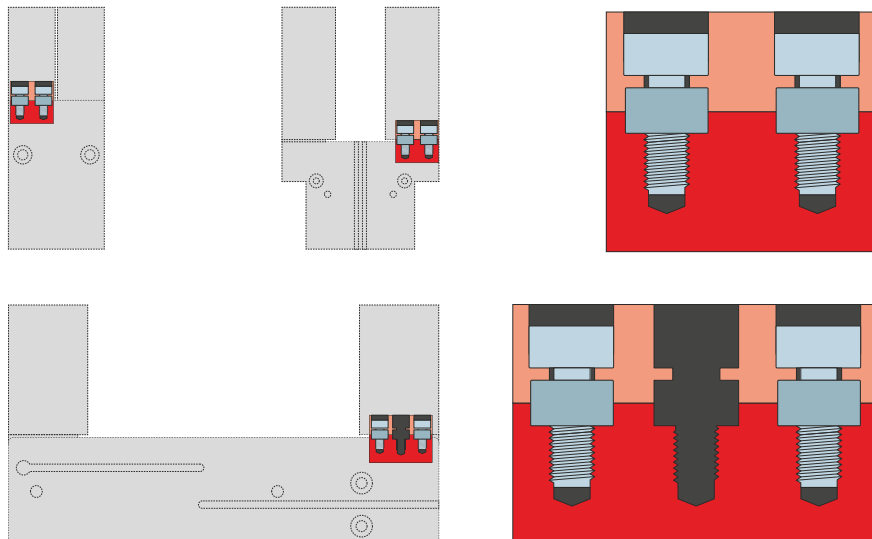
CONNECTIONS / OTHER



Plug-in connectors

For extending and fabricating the connection lines

Cables with a length of 10 m with exposed leads are available. Depending on the specific needs, the cables can be shortened or fabricated with connectors in sizes M12. A 5 m long cable with connector / socket is available for the IO-Link connection.



Centering sleeves

For defined position measurement of the gripper fingers

The centering sleeves are inserted into the fits of the gripper jaws to define the position of the gripper fingers. The centering sleeves are comparable to a pin connection.

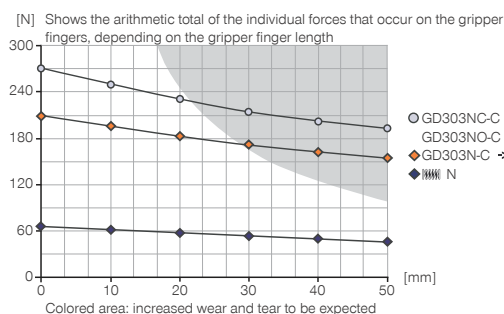
3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE GD303

PRODUCT SPECIFICATIONS

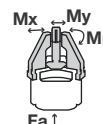


Gripping force diagram



Forces and moments

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



Mr [Nm]	6
Mx [Nm]	9
My [Nm]	12
Fa [N]	500

INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB3-07



6 [piece]
Centering Disc
DST40400

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB303
Universal jaw set aluminium



UB303ST
Universal jaw set steel



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WVM5
Angled Fittings - Quick Connect Style



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ3-E2SK
Inductive Proximity Switch Cable 0,3 m - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



CONNECTIONS / OTHER



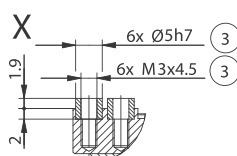
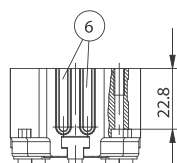
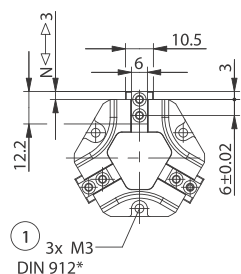
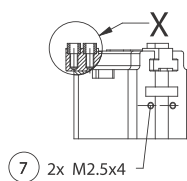
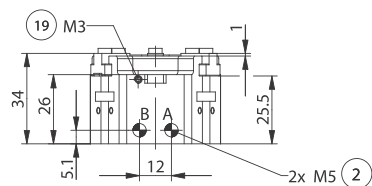
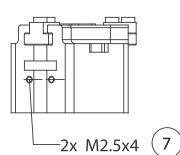
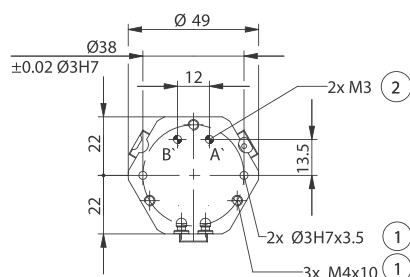
KAG500
Plug-in connector Straight Cable 5m - Socket M8 (female)



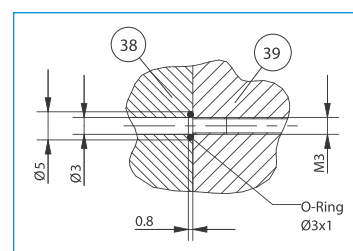
KAW500
Plug-in connector Angled Cable 5m - Socket M8 (female)

Order no.	Technical data		
	GD303N-C	GD303NC-C	GD303NO-C
Stroke per jaw [mm]	3	3	3
Gripping force in closing [N]	200	270	
Gripping force in opening [N]	230		300
Gripping force secured by spring min. [N]		70	70
Closing time [s]	0.02	0.02	0.03
Opening time [s]	0.02	0.03	0.02
Repetition accuracy +/- [mm]	0.05	0.05	0.05
Operating pressure min. [bar]	2	4	4
Operating pressure max. [bar]	8	8	8
Nominal operating pressure [bar]	6	6	6
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Air volume per cycle [cm³]	3.5	6.7	6.7
Weight [kg]	0.13	0.16	0.16

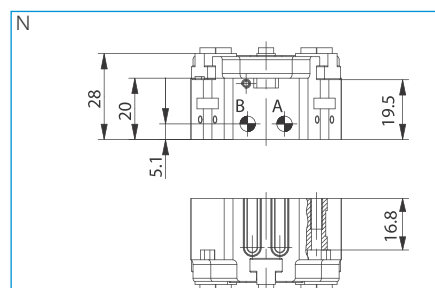
NC / NO



- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Fixing for mounting block
- ⑰ Air purge connection option
- ⑳ Adapter
- ㉑ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)



Hoseless air feed-through



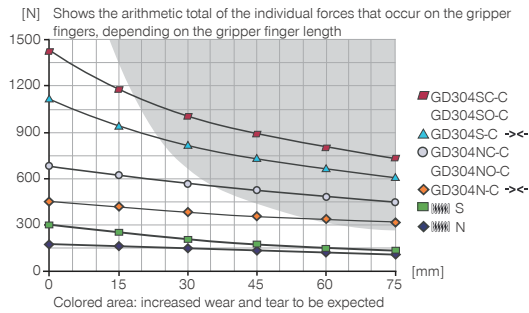
3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE GD304

PRODUCT SPECIFICATIONS

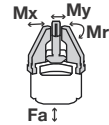


Gripping force diagram



Forces and moments

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



Mr [Nm]	8
Mx [Nm]	15
My [Nm]	15
Fa [N]	700

INCLUDED IN DELIVERY



2 [piece]
Mounting block
KB3-08



6 [piece]
Centering Disc
DST40400

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB304
Universal jaw set aluminium



UB304ST
Universal jaw set steel



ADS304N-S
Pressure piece N / S



ADS304C-O
Pressure piece NC / NO / SC / SO



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ3-E2SK
Inductive Proximity Switch Cable 0,3 m - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



ENERGY SUPPLY



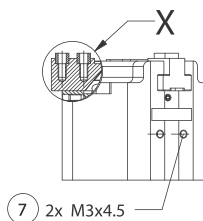
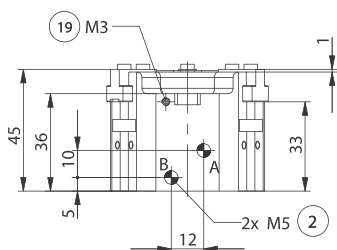
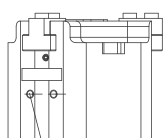
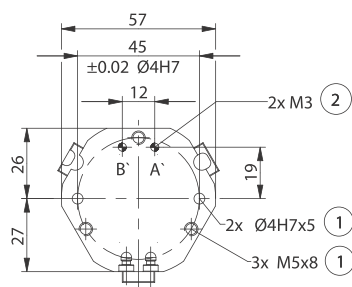
GVM5
Straight Fittings - Quick Connect Style



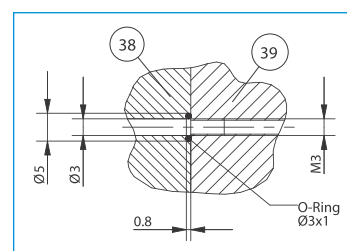
WVM5
Angled Fittings - Quick Connect Style

	► Technical data					
Order no.	GD304N-C	GD304NC-C	GD304NO-C	GD304S-C	GD304SC-C	GD304SO-C
Stroke per jaw [mm]	4	4	4	2	2	2
Gripping force in closing [N]	450	650		1000	1400	
Gripping force in opening [N]	500		700	1100		1500
Gripping force secured by spring min. [N]		200	200		400	400
Closing time [s]	0.025	0.02	0.03	0.025	0.02	0.03
Opening time [s]	0.025	0.03	0.02	0.025	0.03	0.02
Repetition accuracy +/- [mm]	0.05	0.05	0.05	0.05	0.05	0.05
Operating pressure min. [bar]	2	4	4	2	4	4
Operating pressure max. [bar]	8	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Operating temperature min. [°C]	5	5	5	5	5	5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm³]	9.2	19.2	19.2	9.2	19.2	19.2
Weight [kg]	0.22	0.28	0.28	0.22	0.28	0.28

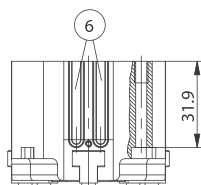
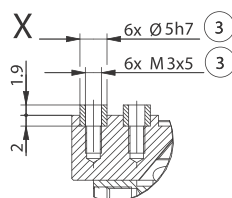
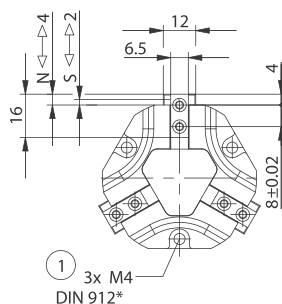
NC / NO / SC / SO



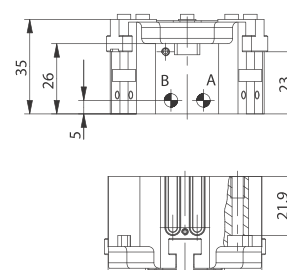
- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Fixing for mounting block
- ⑱ Air purge connection option
- ⑳ Adapter
- ㉑ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)



Hoseless air feed-through



N / S



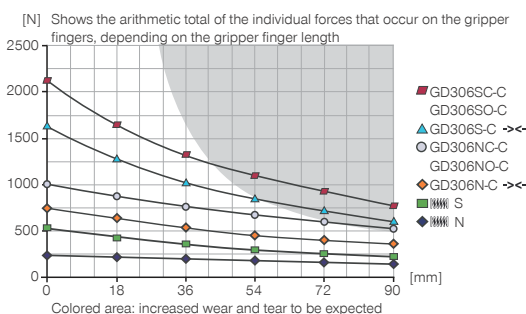
3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE GD306

PRODUCT SPECIFICATIONS

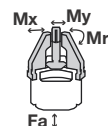


Gripping force diagram



Forces and moments

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



Mr [Nm]	35
Mx [Nm]	50
My [Nm]	45
Fa [N]	1200

INCLUDED IN DELIVERY



3 [piece]
Mounting block
KB3-39



6 [piece]
Centering Disc
DST40600

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB306
Universal jaw set aluminium



UB306ST
Universal jaw set steel



ADS306N-S
Pressure piece N / S



ADS306C-O
Pressure piece NC / NO / SC / SO



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



ENERGY SUPPLY



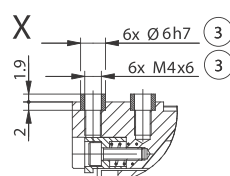
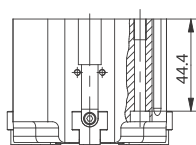
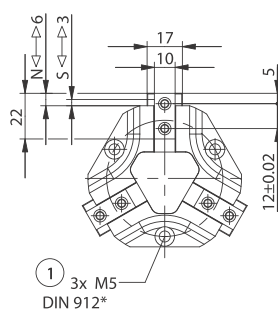
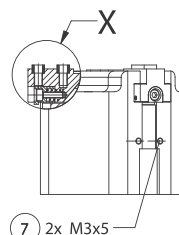
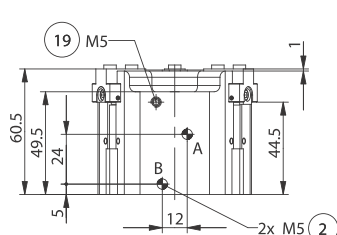
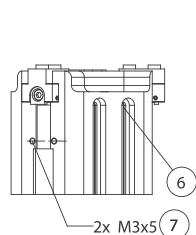
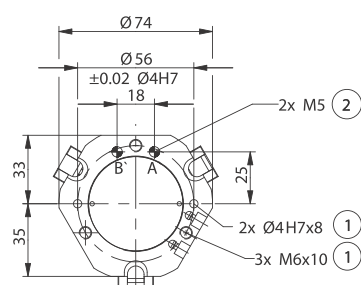
GVM5
Straight Fittings - Quick Connect Style



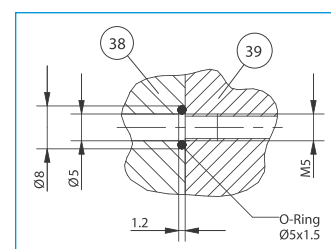
WVM5
Angled Fittings - Quick Connect Style

Order no.	Technical data					
	GD306N-C	GD306NC-C	GD306NO-C	GD306S-C	GD306SC-C	GD306SO-C
Stroke per jaw [mm]	6	6	6	3	3	3
Gripping force in closing [N]	750	1000		1600	2150	
Gripping force in opening [N]	800		1050	1750		2300
Gripping force secured by spring min. [N]		250	250		550	550
Closing time [s]	0.03	0.03	0.05	0.03	0.03	0.05
Opening time [s]	0.03	0.05	0.03	0.03	0.05	0.03
Repetition accuracy +/- [mm]	0.05	0.05	0.05	0.05	0.05	0.05
Operating pressure min. [bar]	2	4	4	2	4	4
Operating pressure max. [bar]	8	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Operating temperature min. [°C]	5	5	5	5	5	5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm³]	21.5	48	48	21.5	48	48
Weight [kg]	0.5	0.65	0.65	0.5	0.65	0.65

NC / NO / SC / SO

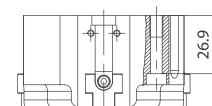
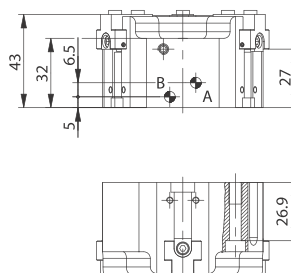


- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Fixing for mounting block
- ⑨ Air purge connection option
- ⑩ Adapter
- ⑪ Gripper
- ⑫ Air connection (close)
- ⑬ Air connection (open)
- ⑭ Air connection, alternative (close)
- ⑮ Air connection, alternative (open)



Hoseless air feed-through

N / S



3-JAW CONCENTRIC GRIPPERS

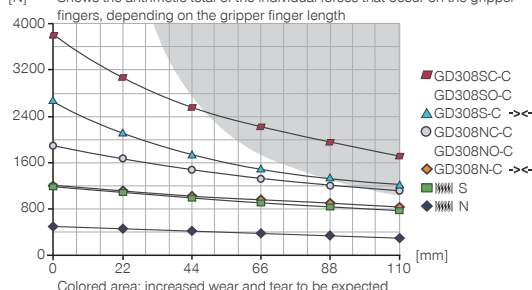
INSTALLATION SIZE GD308

PRODUCT SPECIFICATIONS



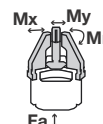
Gripping force diagram

Shows the arithmetic total of the individual forces that occur on the gripper fingers, depending on the gripper finger length



Forces and moments

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



Mr [Nm]	50
Mx [Nm]	80
My [Nm]	60
Fa [N]	1800

INCLUDED IN DELIVERY



3 [piece]
Mounting block
KB8-30



6 [piece]
Centering Disc
DST40800

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB308
Universal jaw set aluminium



UB308ST
Universal jaw set steel



ADS308N-S
Pressure piece N / S



ADS308C-O
Pressure piece NC / NO / SC / SO



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



ENERGY SUPPLY



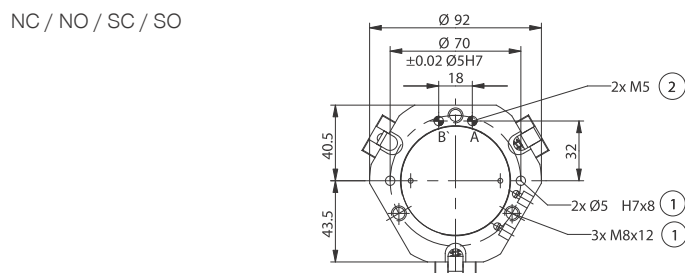
GV1-8X8
Straight Fittings - Quick Connect Style



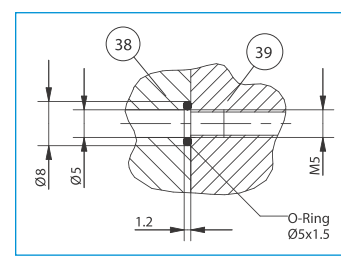
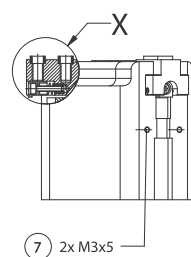
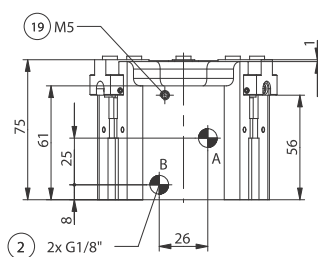
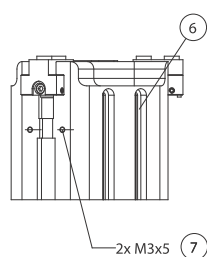
WV1-8X8
Angled Fittings - Quick Connect Style

Order no.	Technical data					
	GD308N-C	GD308NC-C	GD308NO-C	GD308S-C	GD308SC-C	GD308SO-C
Stroke per jaw [mm]	8	8	8	4	4	4
Gripping force in closing [N]	1200	1800		2600	3800	
Gripping force in opening [N]	1300		1900	2800		4000
Gripping force secured by spring min. [N]		600	600		1200	1200
Closing time [s]	0.05	0.03	0.06	0.05	0.03	0.06
Opening time [s]	0.05	0.06	0.03	0.05	0.06	0.03
Repetition accuracy +/- [mm]	0.05	0.05	0.05	0.05	0.05	0.05
Operating pressure min. [bar]	2	4	4	2	4	4
Operating pressure max. [bar]	8	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Operating temperature min. [°C]	5	5	5	5	5	5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm³]	47	108	108	47	108	108
Weight [kg]	0.85	1.2	1.2	0.85	1.2	1.2

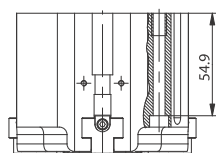
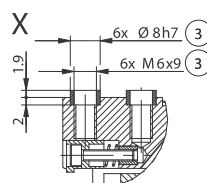
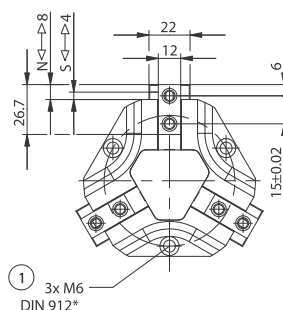
NC / NO / SC / SO



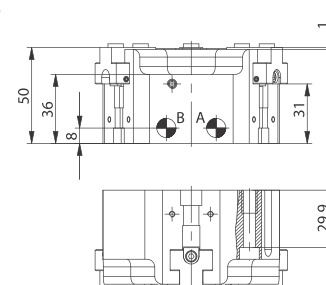
- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Fixing for mounting block
- ⑨ Air purge connection option
- ③⑧ Adapter
- ③⑨ Gripper
- Ⓐ Air connection (close)
- Ⓑ Air connection (open)
- Ⓐ Air connection, alternative (close)
- Ⓑ Air connection, alternative (open)



Hoseless air feed-through



N / S



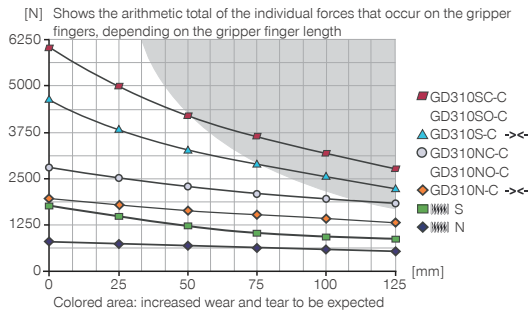
3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE GD310

PRODUCT SPECIFICATIONS

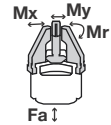


Gripping force diagram



Forces and moments

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



Mr [Nm]	75
Mx [Nm]	100
My [Nm]	90
Fa [N]	2500

INCLUDED IN DELIVERY



6 [piece]
Centering Disc
DST41000

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB310
Universal jaw set aluminium



UB310ST
Universal jaw set steel



ADS310N-S
Pressure piece N / S



ADS310C-O
Pressure piece NC / NO / SC / SO



ENERGY SUPPLY



DSV1-8
Pressure safety valve



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



KHA310-B-8
Alternate proximity bracket



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8



ENERGY SUPPLY



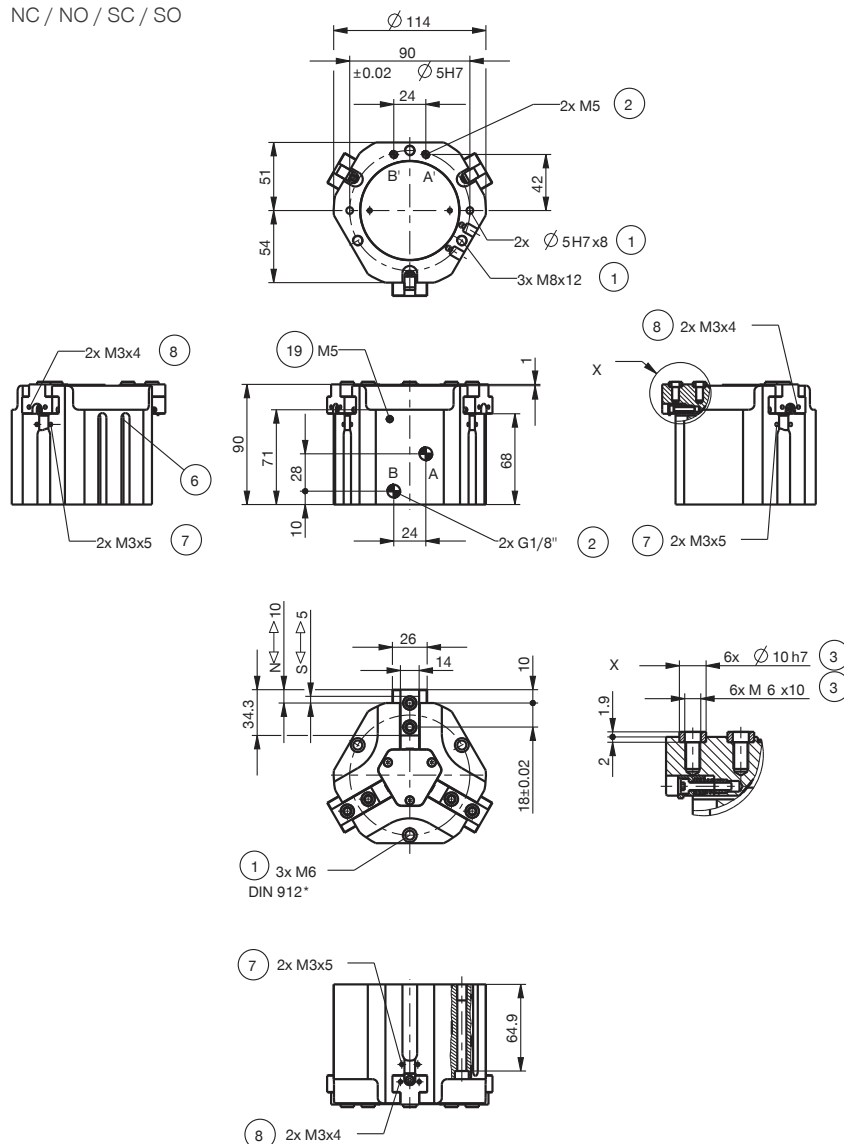
GV1-8X8
Straight Fittings - Quick Connect Style



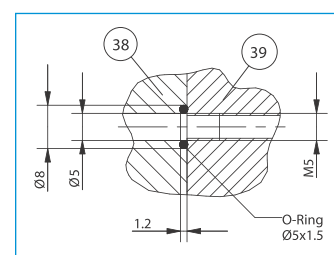
WV1-8X8
Angled Fittings - Quick Connect Style

Order no.	Technical data					
	GD310N-C	GD310NC-C	GD310NO-C	GD310S-C	GD310SC-C	GD310SO-C
Stroke per jaw [mm]	10	10	10	5	5	5
Gripping force in closing [N]	2000	2800		4400	6200	
Gripping force in opening [N]	2100		2900	4600		6400
Gripping force secured by spring min. [N]		800	800		1800	1800
Closing time [s]	0.1	0.07	0.2	0.1	0.07	0.2
Opening time [s]	0.1	0.2	0.07	0.1	0.2	0.07
Repetition accuracy +/- [mm]	0.05	0.05	0.05	0.05	0.05	0.05
Operating pressure min. [bar]	2	4	4	2	4	4
Operating pressure max. [bar]	8	8	8	8	8	8
Nominal operating pressure [bar]	6	6	6	6	6	6
Operating temperature min. [°C]	5	5	5	5	5	5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80
Air volume per cycle [cm³]	100	220	220	100	220	220
Weight [kg]	1.6	2.2	2.2	1.6	2.2	2.2

NC / NO / SC / SO

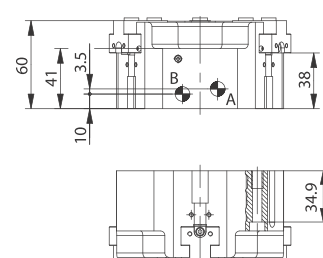


- ① Gripper attachment
- ② Energy supply
- ③ Fixing for gripper finger
- ⑥ Integrated slot for magnetic field sensor
- ⑦ Fixing for mounting block
- ⑧ Fixing clamping bracket (KHA)
- ⑨ Air purge connection option
- ⑩ Adapter
- ⑪ Gripper
- A Air connection (close)
- B Air connection (open)
- A' Air connection, alternative (close)
- B' Air connection, alternative (open)



Hoseless air feed-through

N / S



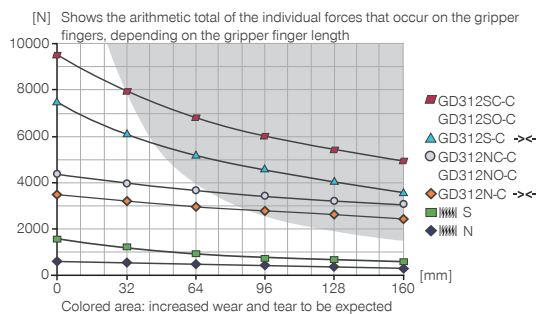
3-JAW CONCENTRIC GRIPPERS

INSTALLATION SIZE GD312

PRODUCT SPECIFICATIONS

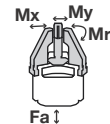


Gripping force diagram



Forces and moments

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



Mr [Nm]	100
Mx [Nm]	120
My [Nm]	120
Fa [N]	3200

INCLUDED IN DELIVERY



3 [piece]
Mounting block
KB8-32



6 [piece]
Centering Disc
DST41000

RECOMMENDED ACCESSORIES



GRIPPING COMPONENTS



UB312
Universal jaw set aluminium



UB312ST
Universal jaw set steel



ADS312N-S
Pressure piece N / S



ADS312C-O
Pressure piece NC / NO / SC / SO



ENERGY SUPPLY



GV1-8X8
Straight Fittings - Quick Connect Style



DSV1-8
Pressure safety valve



ENERGY SUPPLY



DSV1-8E
Pressure safety valve with quick exhaust



SENSORS



KHA312-B-8
Alternate proximity bracket



NJ8-E2S
Inductive proximity switch - Connector M8



MFS01-S-KHC-P1-PNP
Magnetic field sensor Angled Cable 0,3 m - Connector M8



MFS02-S-KHC-P1-PNP
Magnetic field sensor Straight Cable 0,3 m - Connector M8