

► PNEUMATI	C	
â	Series LGS	450
	Series LG1000	458
	Series LGG	468
	Series RG	474
	Series ST	480
	Series SCH	486
	Series GS	492
	Series GSI	500
	Series HM1000	504

INTERNAL GRIPPER SERIES LGS

► PRODUCT ADVANTAGES



Concentration on the essentials

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

Individually machinable clamping jaws

You have never adjusted a gripper to your application this quickly and easily

Direct drive

The control system with only one pneumatic line reduces installation effort and interference contours

▶ THE BEST PRODUCT FOR YOUR APPLICATION



Our products love the challenge!

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

HOW TO ORDER CORRECTLY

The product order numbers are arranged according to this diagram:

Order no.	LG4-20		
extended collet chuck		V	





- 1 Energy supply
 - axial and radial possible
- 2 Protective membrane
 - between collet chuck and function membrane
- 3 Direct drive with membrane
 - only one pneumatic line required
- 4 Stroke limit
 - prevents damage by overstretching with empty strokes
- 5 Collet chuck
 - for individual machining
- 6 Steel protective cover
 - protects the membrane against puncturing
- (7) **O**-ring for backstroke
 - gripper close movement after venting

FURTHER INFORMATION IS AVAILABLE ONLINE



Technical Information

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.



INTERNAL GRIPPERINSTALLATION SIZE LG4-20

▶ PRODUCT SPECIFICATIONS



► INCLUDED IN DELIVERY



Collet Chuck



Collet chuck V-version

DST04200

DST04201

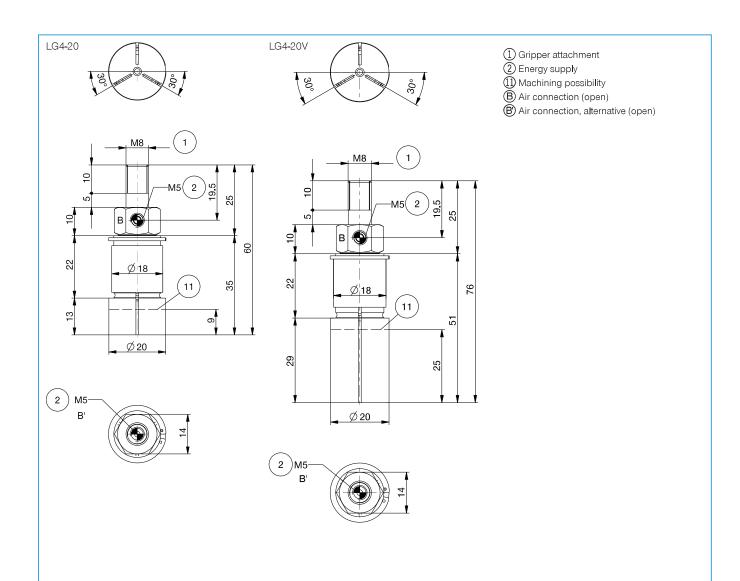
► RECOMMENDED ACCESSORIES



Straight Fittings - Quick Connect Style

	► Technical Data*	
Order no.	LG4-20	LG4-20V
Total stroke in Ø [mm]	1	1
Grip diameter min. [mm]	4	4
Gripping moment in opening [Nm]	0.5	0.5
Closing time [s]	0.1	0.1
Opening time [s]	0.1	0.1
Operating pressure min. [bar]	4	4
Operating pressure max. [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+60	+60
Air volume per cycle [cm³]	1	1
Weight [kg]	0.075	0.115
Machining length of the collet max. [mm]	9	25

^{*}All data measured at 6 bar



INTERNAL GRIPPERINSTALLATION SIZE LG20-30

▶ PRODUCT SPECIFICATIONS



► INCLUDED IN DELIVERY



Collet Chuck



Collet chuck V-version

DST20300

DST20301

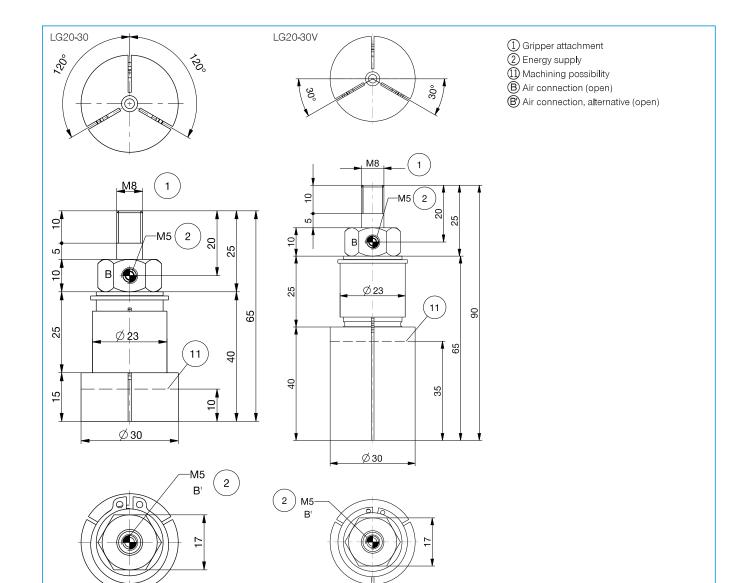
► RECOMMENDED ACCESSORIES



Straight Fittings - Quick Connect Style

	► Technical Data*	
Order no.	LG20-30	LG20-30V
Total stroke in Ø [mm]	1	1
Grip diameter min. [mm]	5	5
Gripping moment in opening [Nm]	2	2
Closing time [s]	0.1	0.1
Opening time [s]	0.1	0.1
Operating pressure min. [bar]	4	4
Operating pressure max. [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+60	+60
Air volume per cycle [cm ³]	3	3
Weight [kg]	0.16	0.29
Machining length of the collet max. [mm]	10	35

^{*}All data measured at 6 bar



INTERNAL GRIPPER INSTALLATION SIZE LG30-50

PRODUCT SPECIFICATIONS



► INCLUDED IN DELIVERY



DST30500

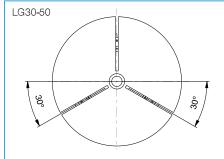
► RECOMMENDED ACCESSORIES

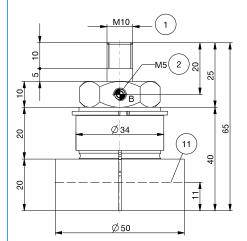


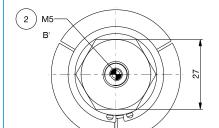
Straight Fittings - Quick Connect Style

	► Technical Data*
Order no.	LG30-50
Total stroke in Ø [mm]	1
Grip diameter min. [mm]	6
Gripping moment in opening [Nm]	3
Closing time [s]	0.1
Opening time [s]	0.1
Operating pressure min. [bar]	4
Operating pressure max. [bar]	6
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+60
Air volume per cycle [cm³]	5
Weight [kg]	0.46
Machining length of the collet max. [mm]	11

^{*}All data measured at 6 bar







- ① Gripper attachment ② Energy supply ① Machining possibility ⑥ Air connection (open)

- B Air connection, alternative (open)

INTERNAL GRIPPER SERIES LG1000

▶ PRODUCT ADVANTAGES



Individually adjustable

The design of the gripper enables you to grip not only cylindrical gripping surfaces, but also conical and square ones with process reliability

Integrated air or vacuum feedthrough

Use this option for applications such as leak tests, purging or vacuuming your part

Surface protection provided by silicone membrane

In addition to covering a vast range of gripper hole diameters, the membrane provides ideal protection from damage

▶ THE BEST PRODUCT FOR YOUR APPLICATION



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HOW TO ORDER CORRECTLY

The product order numbers are arranged according to this diagram:

Order no.	LG1008		SI	
Axial energy supply		-01		
Radial energy supply, through-hole -02				
Silicone rubber membrane				



Version-01



1 Energy supply

- Axial (version-01) or radial (version-02)
- 2 Mounting and positioning
 - via fit, thread and lock nut
- 3 Robust, lightweight housing
 - Hard-coated aluminum alloy
- 4 Direct gripping with rubber membrane
 - High holding force due to high friction value
 - reset when venting

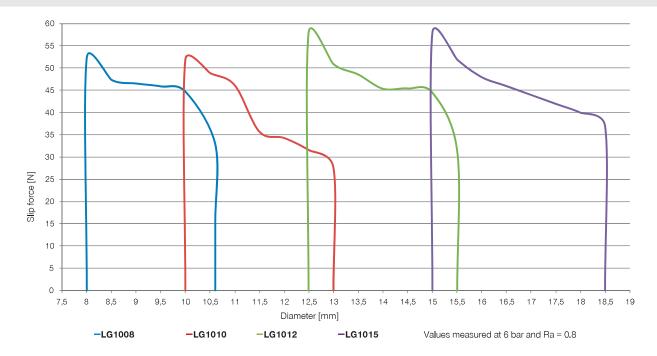
(5) Through-hole

 Compressed air or vacuum connection for cooling the workpieces or testing them for leaks (version-02)

Version-02



SLIP FORCE DIAGRAM

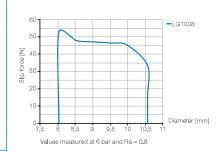


INTERNAL GRIPPER INSTALLATION SIZE LG1008

PRODUCT SPECIFICATIONS



Slip force diagram



► RECOMMENDED ACCESSORIES



Centering cone

DAL02350



Straight Fittings - Barb Style Connection

GVM3



Straight Fittings - Quick Connect Style

GVM5



Angled Fittings - Barb Style Connection

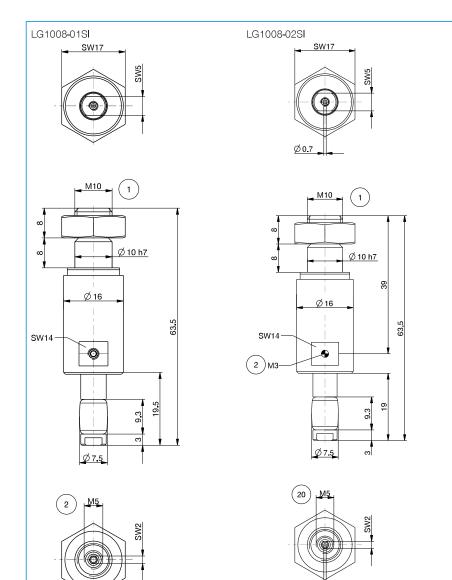
WVM3



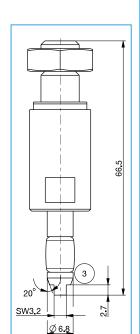
Angled Fittings - Quick Connect Style

	► Technical Data*	
Order no.	LG1008-01SI	LG1008-02SI
Operating temperature [°C]	5 +80	5 +80
Retract time / Extend time [s]	0.2	0.2
Grip diameter max. [mm]	10.5	10.5
Grip diameter min. [mm]	8	8
Total stroke in Ø [mm]	2.5	2.5
Max. slip force [N]	53	53
Operating pressure min. [bar]	4	4
Operating pressure max. [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm ³]	0.7	0.7
Weight [kg]	0.032	0.028

^{*}All data measured at 6 bar



- ① Gripper attachment ② Energy supply
- (3) Centering cone (for order no., see accessory recommendation)
- 20 Through-hole

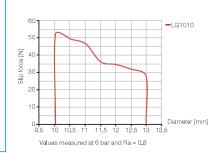


INTERNAL GRIPPER INSTALLATION SIZE LG1010

PRODUCT SPECIFICATIONS



Slip force diagram



► RECOMMENDED ACCESSORIES



Centering cone

DAL02360



Straight Fittings - Barb Style Connection

GVM3



Straight Fittings - Quick Connect Style

GVM5



Angled Fittings - Barb Style Connection

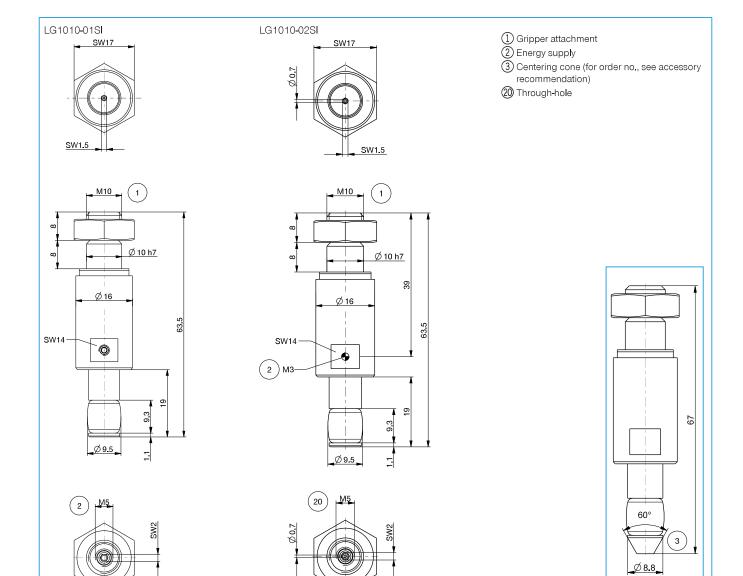
WVM3



Angled Fittings - Quick Connect Style

	► Technical Data*	
Order no.	LG1010-01SI	LG1010-02SI
Operating temperature [°C]	5 +80	5 +80
Retract time / Extend time [s]	0.2	0.2
Grip diameter max. [mm]	13	13
Grip diameter min. [mm]	10	10
Total stroke in Ø [mm]	3	3
Max. slip force [N]	53	53
Operating pressure min. [bar]	4	4
Operating pressure max. [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	0.7	0.7
Weight [kg]	0.033	0.029

^{*}All data measured at 6 bar



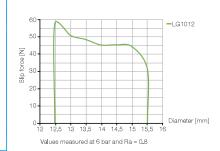
Installation size LG1012 / Internal gripper / pneumatic / Grippers

INTERNAL GRIPPER INSTALLATION SIZE LG1012

PRODUCT SPECIFICATIONS



Slip force diagram



► RECOMMENDED ACCESSORIES



Centering cone

DAL02370



Straight Fittings - Barb Style Connection

GVM3



Straight Fittings - Quick Connect Style

GVM5



Angled Fittings - Barb Style Connection

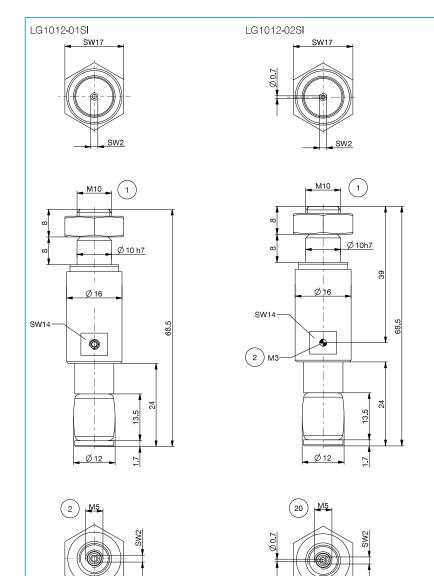
WVM3



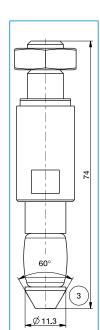
Angled Fittings - Quick Connect Style

	► Technical Data*	
Order no.	LG1012-01SI	LG1012-02SI
Operating temperature [°C]	5 +80	5 +80
Retract time / Extend time [s]	0.2	0.2
Grip diameter max. [mm]	15.5	15.5
Grip diameter min. [mm]	12.5	12.5
Total stroke in Ø [mm]	3	3
Max. slip force [N]	58	58
Operating pressure min. [bar]	4	4
Operating pressure max. [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	0.7	0.7
Weight [kg]	0.036	0.034

^{*}All data measured at 6 bar



- Gripper attachment
 Energy supply
 Centering cone (for order no., see accessory recommendation)
- 20 Through-hole



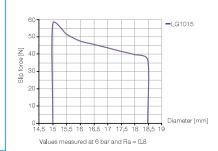
Installation size LG1015 / Internal gripper / pneumatic / Grippers

INTERNAL GRIPPER INSTALLATION SIZE LG1015

PRODUCT SPECIFICATIONS



Slip force diagram



► RECOMMENDED ACCESSORIES



Centering cone

DAL02380



Straight Fittings - Barb Style Connection

GVM3



Straight Fittings - Quick Connect Style

GVM5



Angled Fittings - Barb Style Connection

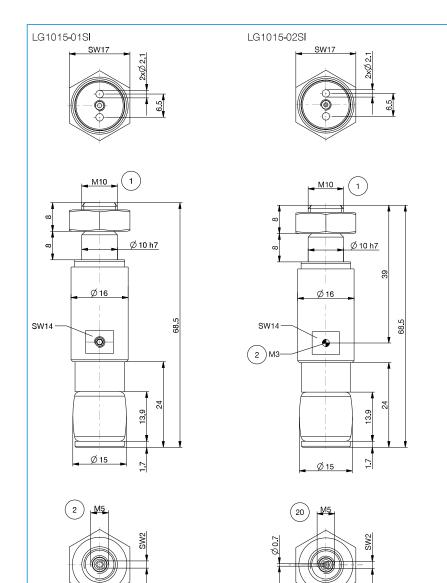
WVM3



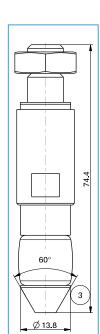
Angled Fittings - Quick Connect Style

	► Technical Data*	
Order no.	LG1015-01SI	LG1015-02SI
Operating temperature [°C]	5 +80	5 +80
Retract time / Extend time [s]	0.2	0.2
Grip diameter max. [mm]	18.5	18.5
Grip diameter min. [mm]	15	15
Total stroke in Ø [mm]	3.5	3.5
Max. slip force [N]	58	58
Operating pressure min. [bar]	4	4
Operating pressure max. [bar]	6	6
Operating temperature min. [°C]	5	5
Operating temperature max. [°C]	+80	+80
Air volume per cycle [cm³]	0.7	0.7
Weight [kg]	0.041	0.037

^{*}All data measured at 6 bar



- Gripper attachment
 Energy supply
 Centering cone (for order no., see accessory recommendation)
- 20 Through-hole



INTERNAL GRIPPER SERIES LGG

▶ PRODUCT ADVANTAGES



Surface protection with rubber knobs

Continuously protect the surface of your workpieces and minimise rejections in the process

Secure hold

The coefficient of friction ensures your workpiece stays held reliably, even under high dynamics

Direct drive

The control system with only one pneumatic line reduces installation effort and interference contours

▶ THE BEST PRODUCT FOR YOUR APPLICATION



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1 Energy supply

- radial
- axial and radial from LG35-39
- 2 Fixing
 - by fit, thread and locknut

3 Robust, lightweight housing

- Hard-coated aluminum alloy
- no overstretching of the rubber membrane at empty stroke

4 Direct gripping with rubber knops

- high retention force due to good friction value, approx. 0.5 with rubber

(5) Gripping with single-acting rubber membranes

- low actuate effort
- reset when venting
- adjustable force with operating pressure (2 6 bar)

6 Inner core

- saves air volume and cycle time (from LG35-39)

FURTHER INFORMATION IS AVAILABLE ONLINE



Technical Information

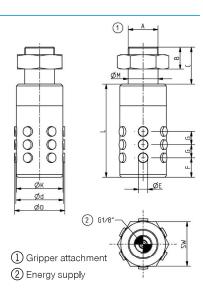
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size using the order number for your desired product.
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INTERNAL GRIPPER SERIES LGG

PRODUCT SPECIFICATIONS





► RECOMMENDED ACCESSORIES







Quick Exhaust Valve

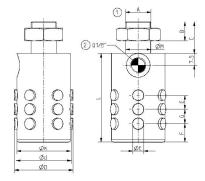
DEV06

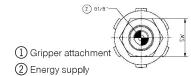
	Technical Data	*			
Order no.	LG15-18	LG18-22	LG22-26	LG26-30	LG30-35
Total stroke in Ø [mm]	2.5	4	4	4	5
Clamping diameter d min. [mm]	15	17.5	21.5	25.5	29.5
Clamping diameter D max. [mm]	17.5	21.5	25.5	29.5	34.5
Gripping force in extraction [N]	100	100	150	150	200
Retract time / Extend time [s]	0.2	0.2	0.2	0.2	0.2
Repetition accuracy +/- [mm]	0.05	0.05	0.05	0.05	0.05
Operating pressure min. [bar]	2	2	2	2	2
Operating pressure max. [bar]	6	6	6	6	6
Air volume per cycle [cm³]	1	1	1	2	3
Operating temperature min. [°C]	5	5	5	5	5
Operating temperature max. [°C]	+80	+80	+80	+80	+80
A	M14X1.5	M14X1.5	M14X1.5	M16X1	M16X1
C [mm]	18	18	20	20	20
EØ[mm]	5	5	5	6	7
F [mm]	10.5	10.5	11.5	10.5	11.5
G [mm]	7	7	7	7	8
KØ[mm]	14.5	17	21	25	29
L [mm]	42	42	50	50	52
MØ[mm]	14h7	14h7	14h7	16h7	16h7
Weight [kg]	0.031	0.035	0.051	0.071	0.09

^{*}All data measured at 6 bar

▶ PRODUCT SPECIFICATIONS







► RECOMMENDED ACCESSORIES



Straight Fittings - Quick Connect Style GV1-8X6



Quick Exhaust Valve

DEV06

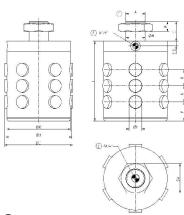
	► Tech	nical Data	+							
Order no.	LG35-39	LG40-45	LG46-51	LG51-56	LG56-62	LG63-70	LG71-80	LG76-84	LG81-90	LG91-100
Total stroke in Ø [mm]	4.5	6.5	6	7	7.5	8	10.5	8.5	11	10
Clamping diameter d min. [mm]	34.5	39.5	45.5	50.5	55.5	62.5	70.5	75.5	80.5	90.5
Clamping diameter D max. [mm]	39	46	51.5	57.5	63	70.5	81	84	91.5	100.5
Gripping force in extraction [N]	300	400	500	750	900	1100	1500	1700	2000	2500
Retract time / Extend time [s]	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4
Repetition accuracy +/- [mm]	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Operating pressure min. [bar]	2	2	2	2	2	2	2	2	2	2
Operating pressure max. [bar]	6	6	6	6	6	6	6	6	6	6
Air volume per cycle [cm3]	5	8	13	17	25	33	42	53	67	117
Operating temperature min. [°C]	5	5	5	5	5	5	5	5	5	5
Operating temperature max. [°C]	+80	+80	+80	+80	+80	+80	+80	+80	+80	+80
А	M16X1	M16X1	M16X1	M16X1	M16X1	M20X1.5	M20X1.5	M20X1.5	M20X1.5	M20X1.5
C [mm]	20	20	20	20	20	15	15	15	15	15
EØ[mm]	7	8	9	10	11	12.5	15	15.5	16	18
F [mm]	11.5	14	15.5	17	19	21.5	21.5	22.7	24.5	26.5
G [mm]	9	11	12	13	14.5	15.5	18	19	20	22.5
KØ[mm]	34	39	45	50	50	62	70	75	80	90
L [mm]	56	62	68	74	80	86	92	96	100	110
MØ[mm]	16h7	16h7	16h7	16h7	16h7	20h7	20h7	20h7	20h7	20h7
Weight [kg]	0.13	0.178	0.26	0.37	0.373	0.53	0.69	0.8	1	1.3

^{*}All data measured at 6 bar

INTERNAL GRIPPER SERIES LGG

PRODUCT SPECIFICATIONS





- (1) Gripper attachment
- 2 Energy supply

► RECOMMENDED ACCESSORIES



Straight Fittings - Quick Connect Style GV1-8X6

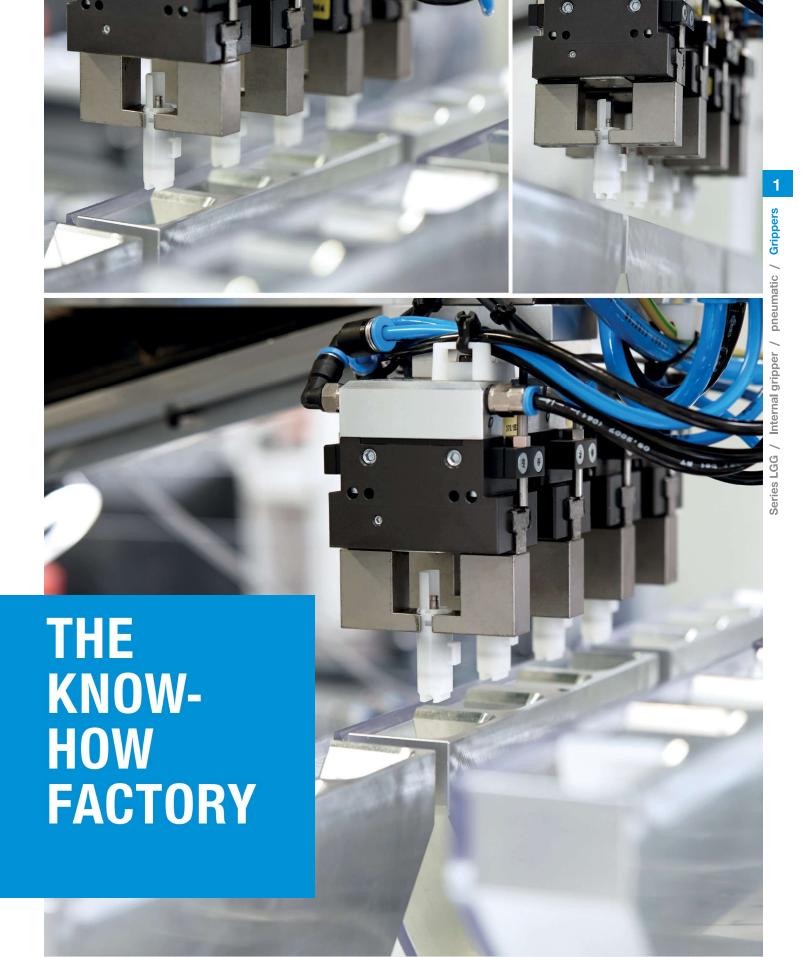


Quick Exhaust Valve

DEV06

	► Technical Data*		
Order no.	LG100-110	LG110-120	LG120-135
Total stroke in Ø [mm]	11	11	16
Clamping diameter d min. [mm]	99.5	109.5	119.5
Clamping diameter D max. [mm]	110.5	120.5	135.5
Gripping force in extraction [N]	2800	3500	3500
Retract time / Extend time [s]	0.4	0.4	0.4
Repetition accuracy +/- [mm]	0.05	0.05	0.05
Operating pressure min. [bar]	2	2	2
Operating pressure max. [bar]	6	6	6
Air volume per cycle [cm³]	150	200	250
Operating temperature min. [°C]	5	5	5
Operating temperature max. [°C]	+80	+80	+80
Α	M30X1.5	M30X1.5	M30X1.5
C [mm]	30	30	30
EØ[mm]	20	22	22
F [mm]	30	31	37
G [mm]	25	25	28
KØ[mm]	99	109	119
L [mm]	120	130	145
MØ[mm]	30h7	30h7	30h7
Weight [kg]	1.9	2.3	2.7

^{*}All data measured at 6 bar



EXTERNAL GRIPPERSERIES RG

▶ PRODUCT ADVANTAGES



Surface protection with rubber knobs

Continuously protect the surface of your workpieces and minimise rejections in the process

Secure hold

The coefficient of friction ensures your workpiece stays held reliably, even under high dynamics

Direct drive

The control system with only one pneumatic line reduces installation effort and interference contours

THE BEST PRODUCT FOR YOUR APPLICATION



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- 1 Mounting and positioning
- 2 Drive
 - direct via rubber membrane
- 3 Energy supply
 - possible from several sides
- 4 Robust, lightweight housing
 - Hard-coated aluminum alloy

FURTHER INFORMATION IS AVAILABLE ONLINE



► Technical Information

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size using the order number for your desired product.
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EXTERNAL GRIPPER INSTALLATION SIZE RG0-30

PRODUCT SPECIFICATIONS



► RECOMMENDED ACCESSORIES



Straight Fittings - Quick Connect Style GVM5

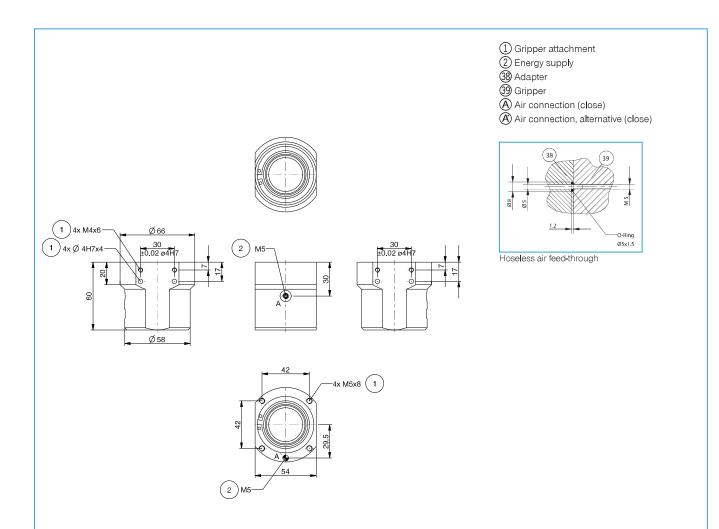


Quick Exhaust Valve

DEV04

	► Technical Data*
Order no.	RG0-30
Grip diameter min. [mm]	0
Grip diameter max. [mm]	28
Gripping force in closing [N]	350
Closing time [s]	0.1
Opening time [s]	0.1
Operating pressure min. [bar]	1
Operating pressure max. [bar]	3
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	5
Weight [kg]	0.28

^{*}All data measured at 3 bar



EXTERNAL GRIPPER INSTALLATION SIZE RG10-60

PRODUCT SPECIFICATIONS



► RECOMMENDED ACCESSORIES



Straight Fittings - Quick Connect Style



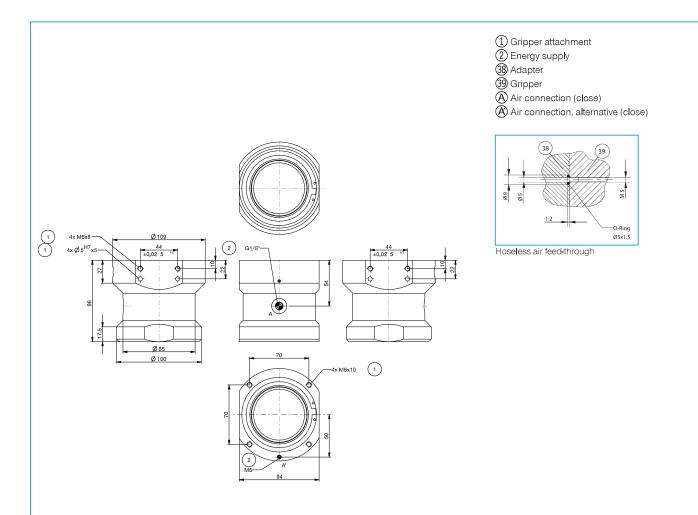


Quick Exhaust Valve

DEV04

	► Technical Data*
Order no.	RG10-60
Grip diameter min. [mm]	10
Grip diameter max. [mm]	58
Gripping force in closing [N]	1000
Closing time [s]	0.1
Opening time [s]	0.1
Operating pressure min. [bar]	1
Operating pressure max. [bar]	3
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	33
Weight [kg]	0.85

*All data measured at 3 bar



NEEDLE GRIPPERSERIES ST

▶ PRODUCT ADVANTAGES



Smooth stroke configuration

Customise the stroke for your application with infinitely variable adjustment using an adjusting dial

Workpiece drain function

This function guarantees the quick and reliable deposit of the workpiece and prevents disruptions to the process sequence

Query about magnetic field sensor technology

Detecting the end position allows you to have shorter cycle times and an integrated control system

▶ THE BEST PRODUCT FOR YOUR APPLICATION



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- 1 Extending needles
 - gripping by penetration
- 2 Force transfer
 - via hardened steel taper pin
- 3 Needle wiper
 - helps wiping the workpiece
- 4 Stroke adjustment
 - adjustment of the needle stroke
- 5 Integrated spring
 - for return
- 6 Blow off air connection
 - to reject the workpiece with air
- 7 Energy supply
 - possible from several sides (size ST40)
- 8 Drive
 - single-acting pneumatic cylinder with spring return
- 9 Sensing slot
 - mounting and positioning of magnetic field sensors

► FURTHER INFORMATION IS AVAILABLE ONLINE



► Technical Information

All information just a click away at: www.zimmer-group.com
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NEEDLE GRIPPERINSTALLATION SIZE ST36

▶ PRODUCT SPECIFICATIONS



► RECOMMENDED ACCESSORIES



Magnetic field sensor Angled Cable 5 m

MFS103KHC



Magnetic field sensor Angled Cable 0,3 m -Connector M8 MFS103SKHC

Straight Fittings - Quick Connect Style



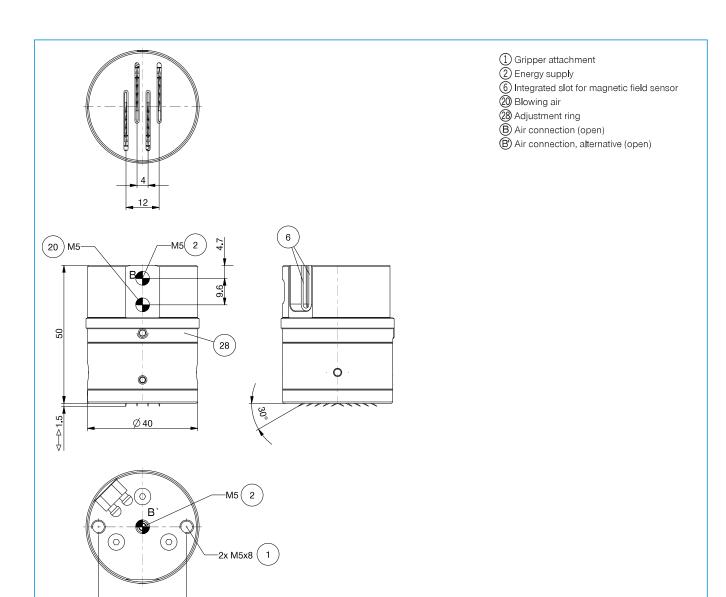
Plug-in connector customizable Straight -Connector M8 **\$8-G-3**



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

	► Technical Data*
Order no.	ST36-B
Needle stroke adjustable min. [mm]	0
Needle stroke adjustable max. [mm]	1.5
Number of needles [Pice]	20
Needle diameter [mm]	0.7
Retract time / Extend time [s]	0.03
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	4
Operating pressure max. [bar]	8
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	1
Weight [kg]	0.21

^{*}All data measured at 6 bar



NEEDLE GRIPPERINSTALLATION SIZE ST40

▶ PRODUCT SPECIFICATIONS



► RECOMMENDED ACCESSORIES



Magnetic field sensor Angled Cable 5 m

MFS103KHC



Magnetic field sensor Angled Cable 0,3 m -Connector M8 MFS103SKHC

Straight Fittings - Quick Connect Style



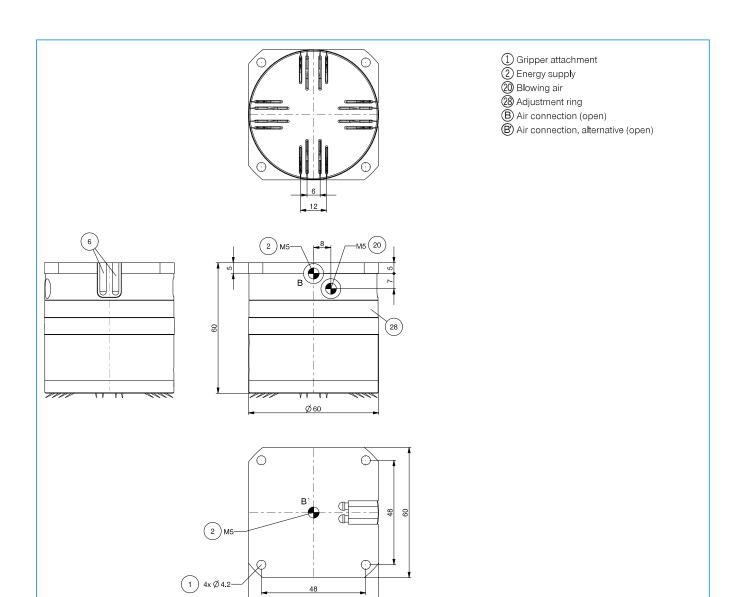
Plug-in connector customizable Straight -Connector M8 **\$8-G-3**



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

	► Technical Data*
Order no.	ST40-B
Needle stroke adjustable min. [mm]	0
Needle stroke adjustable max. [mm]	2
Number of needles [Pice]	40
Needle diameter [mm]	0.7
Retract time / Extend time [s]	0.03
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	4
Operating pressure max. [bar]	8
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	3
Weight [kg]	0.49

^{*}All data measured at 6 bar



NEEDLE GRIPPER SERIES SCH

▶ PRODUCT ADVANTAGES



Smooth stroke configuration

Adjust the needle stroke individually and smoothly via the direct needle setting

Flat structure

Due to its compact design, you save precious space in your machine

Query about magnetic field sensor technology

Detecting the end position allows you to have faster cycle times and an integrated control system

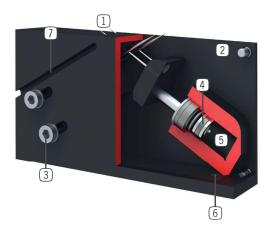
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BENEFITS IN DETAIL



- 1 Extending needles
 - gripping by penetration
- 2 Robust, lightweight housing
 - Hard-coated aluminum alloy
- 3 Stroke adjustment
 - by shifting in an elongated hole
- 4 Drive
 - two double-acting pneumatic cylinders
- 5 Energy supply
- 6 Mounting and positioning
- 7 Sensing slot
 - mounting and positioning of magnetic field sensors

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NEEDLE GRIPPERINSTALLATION SIZE SCH20

▶ PRODUCT SPECIFICATIONS



► INCLUDED IN DELIVERY



Spare needle

CNAD00200



Pneumatic face hose

00200

► RECOMMENDED ACCESSORIES



Magnetic field sensor Straight Cable 5 m

MFS204KHC



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

MFS204SKHC



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

KAG500



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

KAW500



Plug-in connector customizable Straight -Connector M8

S8-G-3

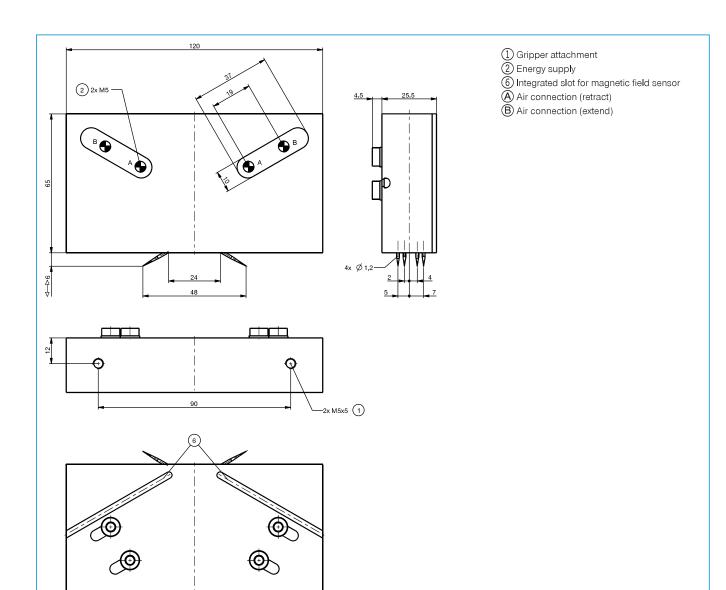


Plug-in connector customizable Straight - Connector M12

S12-G-3

	► Technical Data*
Order no.	SCH20-B
Needle stroke adjustable min. [mm]	0
Needle stroke adjustable max. [mm]	6
Number of needles [Pice]	4
Needle diameter [mm]	1.2
Retract time / Extend time [s]	0.02
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	4
Operating pressure max. [bar]	8
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	5
Weight [kg]	0.35

^{*}All data measured at 6 bar



NEEDLE GRIPPERINSTALLATION SIZE SCH23

▶ PRODUCT SPECIFICATIONS



► INCLUDED IN DELIVERY



Spare needle

CNAD00230



Pneumatic face hose

► RECOMMENDED ACCESSORIES



Magnetic field sensor Straight Cable 5 m

MFS204KHC



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

MFS204SKHC



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

KAG500



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

KAW500



Plug-in connector customizable Straight -Connector M8

S8-G-3

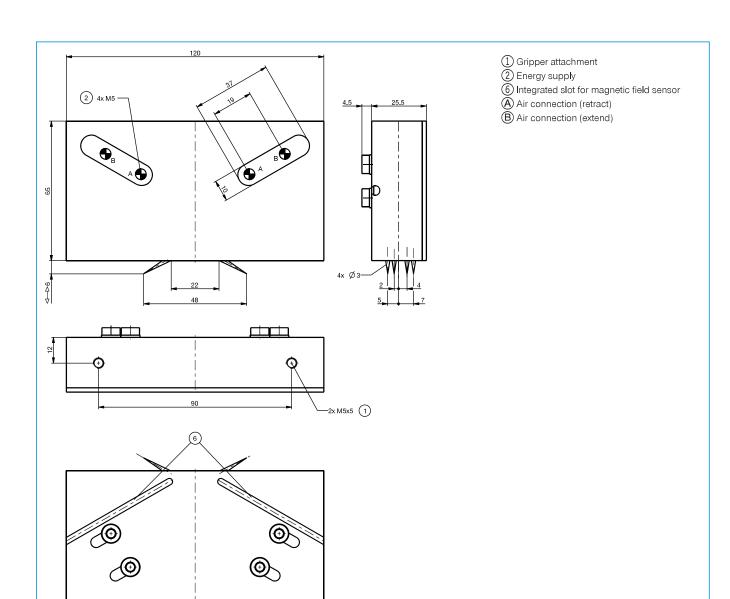


Plug-in connector customizable Straight - Connector M12

S12-G-3

	► Technical Data*
Order no.	SCH23-B
Needle stroke adjustable min. [mm]	0
Needle stroke adjustable max. [mm]	6
Number of needles [Pice]	4
Needle diameter [mm]	3
Retract time / Extend time [s]	0.2
Repetition accuracy +/-[mm]	0.05
Operating pressure min. [bar]	4
Operating pressure max. [bar]	8
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	5
Weight [kg]	0.37

^{*}All data measured at 6 bar



O-RING ASSEMBLY GRIPPER, OUTER SERIES GS

▶ PRODUCT ADVANTAGES



Proven technology

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

Adjustable expanding stroke

Prevents the O-ring from overexpanding and ensures consistent production quality

Query about magnetic field sensor technology

Detecting the end position allows you to have shorter cycle times and an integrated control system

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BENEFITS IN DETAIL



- 1 Ejector jaw
 - to shift off the O-ring
- 2 Stroke adjustment
 - for adjustment of the spread stroke
- 3 Energy supply
 - possible from several sides
- 4 Drive
 - two single-acting pneumatic cylinders
- 5 Force transfer
 - direct via taper
- 6 Mounting and positioning
 - axial, on the gripper bottom
- 7 Sensing slot
 - mounting and positioning of magnetic field sensors
- 8 Robust, lightweight housing
 - Hard-coated aluminum alloy
- 9 Gripper jaw
 - individual gripper finger mounting

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O-RING ASSEMBLY GRIPPER, OUTER INSTALLATION SIZE GS65

▶ PRODUCT SPECIFICATIONS



► INCLUDED IN DELIVERY



Centering Disc

DST06510

► RECOMMENDED ACCESSORIES



Ejector Jaws Aluminium

UB65-3



Expanding Jaws Steel





Mounting block





Inductive proximity switch - Cable 5 m

NJ6.5-E2-01



Inductive proximity switch - Connector M8

NJ6.5-E2S



Magnetic field sensor Angled Cable 5 m

MFS103KHC



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

MFS103SKHC



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

KAG500



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

KAW500

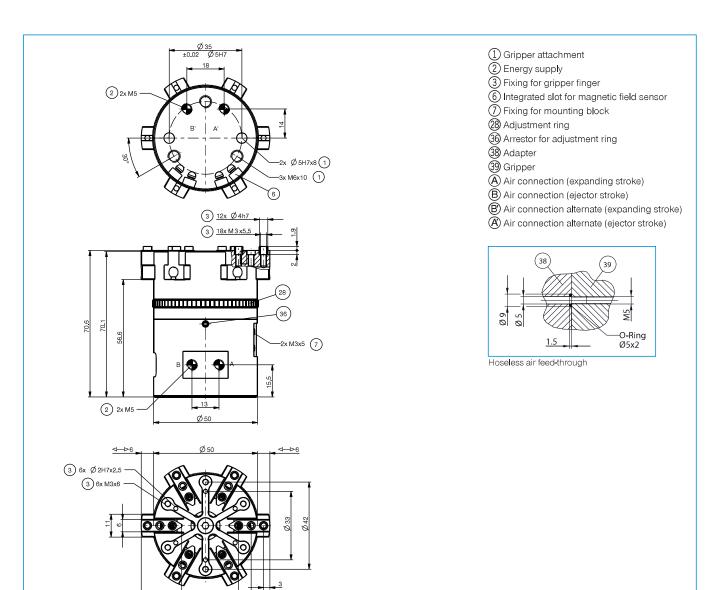


Straight Fittings - Quick Connect Style

GVM5

	► Technical Data*
Order no.	GS65-B
Opening stroke adjustable per jaw min. [mm]	3
Opening stroke adjustable per jaw max. [mm]	6
Stripping stroke [mm]	5
Opening force [N]	300
Recommended O-ring diameter min. [mm]	4
Recommended O-ring diameter max. [mm]	60
Number of gripping jaws [Quantity]	6
Closing time [s]	0.05
Opening time [s]	0.05
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	4
Operating pressure max. [bar]	8
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Weight [kg]	0.5

^{*}All data measured at 6 bar



O-RING ASSEMBLY GRIPPER, OUTER **INSTALLATION SIZE GS810**

PRODUCT SPECIFICATIONS



► INCLUDED IN DELIVERY



Centering Disc

DST40600

► RECOMMENDED ACCESSORIES



UB810-3



Expanding Jaws Steel





Mounting block

KB6.5-02



Inductive proximity switch - Cable 5 m

NJ8-E2



Inductive proximity switch - Connector M8

NJ8-E2S



Magnetic field sensor Angled Cable 5 m

MFS103KHC



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

MFS103SKHC



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

KAG500



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

KAW500

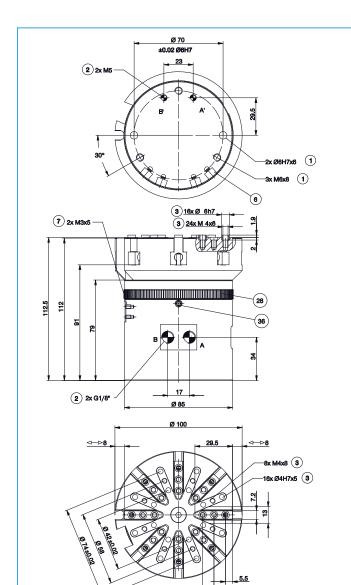


Straight Fittings - Quick Connect Style

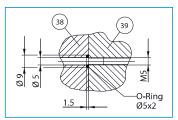
GV1-8X6

	► Technical Data*
Order no.	GS810-B
Opening stroke adjustable per jaw min. [mm]	4
Opening stroke adjustable per jaw max. [mm]	8
Stripping stroke [mm]	10
Opening force [N]	1200
Recommended O-ring diameter min. [mm]	30
Recommended O-ring diameter max. [mm]	120
Number of gripping jaws [Quantity]	8
Closing time [s]	0.05
Opening time [s]	0.05
Repetition accuracy +/- [mm]	0.05
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Weight [kg]	2.5

^{*}All data measured at 6 bar



- ① Gripper attachment
- 2 Energy supply
- 3 Fixing for gripper finger
- 6 Integrated slot for magnetic field sensor
- 7 Fixing for mounting block
- 28 Adjustment ring
- 36 Arrestor for adjustment ring
- 38 Adapter
- 39 Gripper
- Air connection (expanding stroke)
- B Air connection (ejector stroke)
- Air connection alternate (expanding stroke)
- Air connection alternate (ejector stroke)



Hoseless air feed-through

O-RING ASSEMBLY GRIPPER, OUTER INSTALLATION SIZE GS1015

▶ PRODUCT SPECIFICATIONS



► INCLUDED IN DELIVERY



Mounting block

KB8K



Centering Disc

K DST60800

► RECOMMENDED ACCESSORIES



Ejector Jaws Aluminium

UB1015-3



Expanding Jaws Steel

UB1015-4



Inductive proximity switch - Cable 5 m

NJ8-E2



Inductive proximity switch - Connector M8

NJ8-E2S



Magnetic field sensor Angled Cable 5 m

MFS103KHC



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

MFS103SKHC



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

KAG500



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

KAW500



Straight Fittings - Quick Connect Style

GV1-8X8



Plug-in connector customizable Straight - Connector M8

S8-G-3

► Technical Data*
GS1015-B
1.6
10
15
1450
40
150
10
0.05
0.05
0.05
3
8
5
+80
5.4

Repetition accuracy +/- [mm]
Operating pressure min. [bar]
Operating pressure max. [bar]
Operating temperature min. [°C]
Operating temperature max. [°C]

Order no.

Stripping stroke [mm]
Opening force [N]

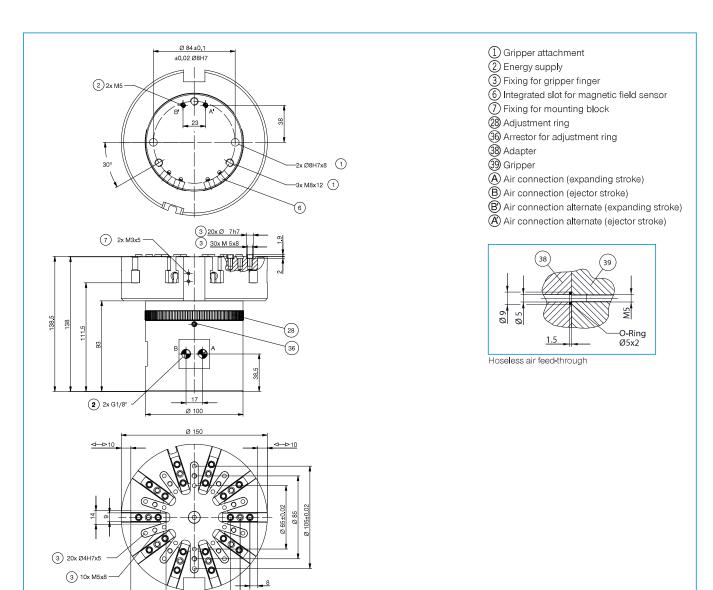
Closing time [s]
Opening time [s]

Weight [kg]

Opening stroke adjustable per jaw min. [mm]

Opening stroke adjustable per jaw max. [mm]

Recommended O-ring diameter min. [mm]
Recommended O-ring diameter max. [mm]
Number of gripping jaws [Quantity]



^{*}All data measured at 6 bar

O-RING ASSEMBLY GRIPPER, INNER SERIES GSI

▶ PRODUCT ADVANTAGES



Concentration on the essentials

Only pay for what you need - individual standard gripper specific to O-ring inside assembly

Adjustable expanding stroke

Prevents the O-ring from overexpanding and ensures consistent production quality

Query about magnetic field sensor technology

Detecting the end position allows you to have shorter cycle times and an integrated control system

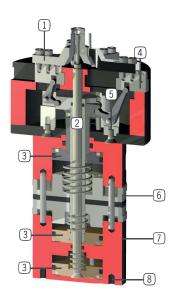
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BENEFITS IN DETAIL



- 1 Spread jaws
 - to position the O-ring in the groove of the workpiece
- 2 Ejector (piston rod)
 - to remove the O-ring
- 3 Driven by three single-acting pneumatic cylinders
 - drive for grabber jaws
 - drive for spread jaws
 - drive for ejector
- 4 Grabber jaw
 - to grab the O-ring
- 5 Force transfer
 - via lever and connecting rod
- 6 Stroke adjustment on grabber jaws
 - prevents overstretching of O-ring during assembly
- 7 Stroke on spread jaws
 - adjustable to fit bore diameter of workpiece
- 8 Mounting and positioning
 - axial, on the gripper bottom

FURTHER INFORMATION IS AVAILABLE ONLINE



Technical Information

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O-RING ASSEMBLY GRIPPER, INNER INSTALLATION SIZE GSI206

▶ PRODUCT SPECIFICATIONS



► INCLUDED IN DELIVERY



Centering Disc

DST06510

► RECOMMENDED ACCESSORIES



Magnetic field sensor Angled Cable 5 m

MFS103KHC



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

MFS103SKHC



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

KAG500



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

KAW500



Straight Fittings - Quick Connect Style

GVM5



Plug-in connector customizable Straight - Connector M8

S8-G-3

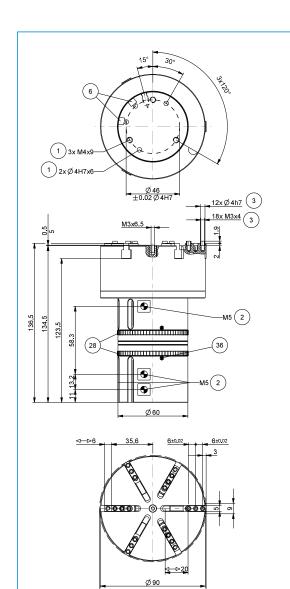


Plug-in connector customizable Straight - Connector M12

S12-G-3

	Technical Data*
Order no.	GSI206
Stroke adjustable per jaw min. [mm]	6
Stroke adjustable per jaw max. [mm]	20
Opening stroke adjustable per jaw min. [mm]	1
Opening stroke adjustable per jaw max. [mm]	6
Stripping stroke [mm]	5
Opening force [N]	240
Possible O-ring diameter at cord size 1 [mm]	11-45
Possible O-ring diameter at cord size 2 [mm]	20-130
Possible O-ring diameter at cord size 3 [mm]	32-130
Possible O-ring diameter at cord size 4 [mm]	42-100
Number of gripping jaws [Quantity]	6
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Weight [kg]	1.1

^{*}All data measured at 6 bar



- ① Gripper attachment

- ② Energy supply
 ③ Fixing for gripper finger
 ⑥ Integrated slot for magnetic field sensor
- 28 Adjustment ring
- 36 Arrestor for adjustment ring

MAGNETIC GRIPPER SERIES HM1000

▶ PRODUCT ADVANTAGES



Secure hold during EMERGENCY STOP

Magnets attached to springs ensure your workpiece remains secure, even during a drop in pressure

Contact plate that increases friction value

The replaceable O-ring ensures the high dynamics in your application and protection of your workpiece

Residual holding force < 1N</p>

The demagnetised contact surface safeguards the process reliability of dropping off your workpiece

► THE BEST PRODUCT FOR YOUR APPLICATION



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BENEFITS IN DETAIL



(1) Mounting and positioning

- via centering sleeve and thread

2 Spring

- for piston return
- secured holding even in drop pressure

(3) Permanent magnet

- requires no power supply
- high holding forces

4 Transport safeguarding

- **5** Robust, lightweight housing
 - Hard-coated aluminum alloy

6 single-acting pneumatic cylinders

- only one pneumatic line required
- Spring return

7 Contact plate

- easy replaceable
- embedded O-ring to increase the friction coefficient

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▶ PRODUCT SPECIFICATIONS



► INCLUDED IN DELIVERY



Locking nut

C043910002

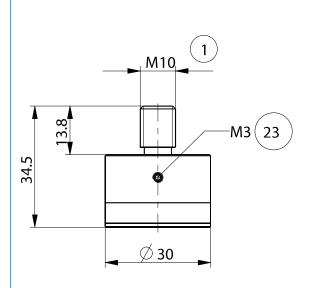
► RECOMMENDED ACCESSORIES

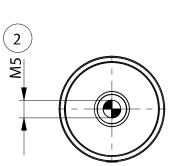


Straight Fittings - Quick Connect Style

GVM5

	► Technical Data
Order no.	HM1030NC
Max. adhesive force [N]	27
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	3.5
Weight [kg]	0.06





- ① Gripper attachment ② Energy supply ② Filter

▶ PRODUCT SPECIFICATIONS



► RECOMMENDED ACCESSORIES



Centering Disc

ZE10H7X6



Ball Joints

KG40



Ball Joints Steel

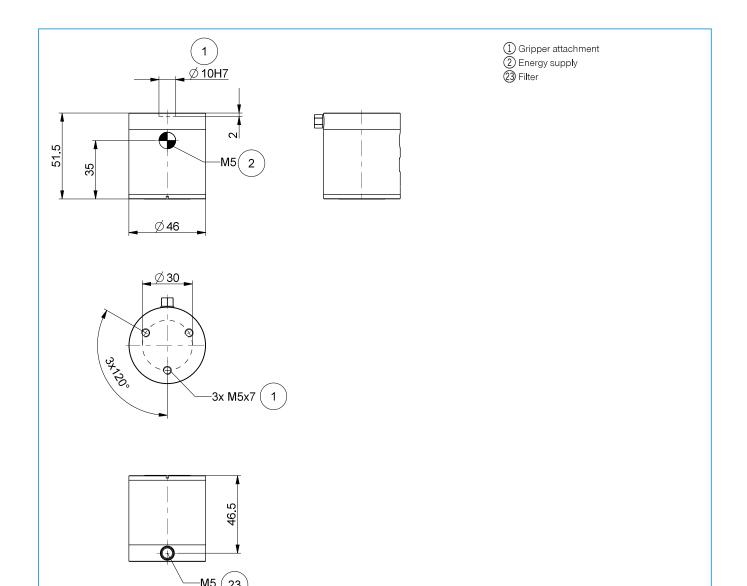
KG40ST



Straight Fittings - Quick Connect Style

GVM5

	Technical Data
Order no.	HM1046NC
Max. adhesive force [N]	65
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm3]	9
Weight [kg]	0.28



▶ PRODUCT SPECIFICATIONS



► INCLUDED IN DELIVERY



Set Screw

C091505129



Dummy plug

CPNEU00536

► RECOMMENDED ACCESSORIES



Centering Disc

ZE15H7X4



Ball Joints

KG60



Ball Joints Steel

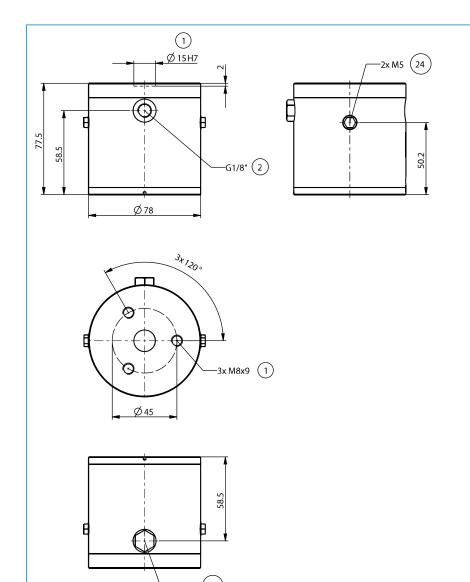
KG60ST



Straight Fittings - Quick Connect Style

GV1-8X6

	► Technical Data
Order no.	HM1078NC
Max. adhesive force [N]	220
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	75
Weight [kg]	1.2



- ① Gripper attachment ② Energy supply ② Filter ② Safety screw / dummy plug

▶ PRODUCT SPECIFICATIONS



► INCLUDED IN DELIVERY



Set Screw

C091505129



Dummy plug

CPNEU00536

► RECOMMENDED ACCESSORIES



Centering Disc

ZE20H7X4



Ball Joints

KG80



Ball Joints Steel

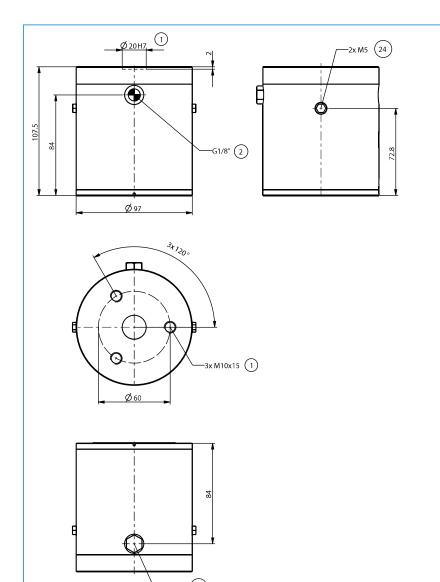
KG80ST



Straight Fittings - Quick Connect Style

GV1-8X6

	► Technical Data
Order no.	HM1097NC
Max. adhesive force [N]	450
Operating pressure min. [bar]	3
Operating pressure max. [bar]	8
Operating temperature min. [°C]	5
Operating temperature max. [°C]	+80
Air volume per cycle [cm³]	250
Weight [kg]	2.2



- ① Gripper attachment ② Energy supply ② Filter ② Safety screw / dummy plug

GRIPPERS FOR SPECIFIC TASKSOVERVIEW OF SERIES



Series GEN9100 516 Series HEM1000 520

NEEDLE GRIPPER SERIES GEN9100

▶ PRODUCT ADVANTAGES



Plug and play

Reduce programming and assembly costs to a minimum with the integrated control system and the 2 position query

Saving energy with pulse control

You only have to supply current briefly when retracting and extending the needle; no energy is required when transporting the workpiece

Smooth stroke configuration

The needle stroke is displayed via a scale. You can smoothly adjust the needle stroke to fit your application

► THE BEST PRODUCT FOR YOUR APPLICATION



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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 impulse <25 ms

3 Position sensing

- integrated Hallsensor
- 2 positions monitorable

4 Status control

- optical LED position display
- Needles retracted, needles extended

5 Stroke adjustment

- infinitely variable
- Can be read off the scale

6 Mounting and positioning

- mounting possible from several sides for versatile positioning

7 Robust, lightweight housing

- Hard-coated aluminum alloy

8 Extending needles

- gripping by penetration

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NEEDLE GRIPPERINSTALLATION SIZE GEN9102

▶ PRODUCT SPECIFICATIONS



► RECOMMENDED ACCESSORIES



Plug-in Connector Straight Cable 10 m -Female M12 KAG1000B8



Plug-in Connector Angled Cable 10 m - Female M12

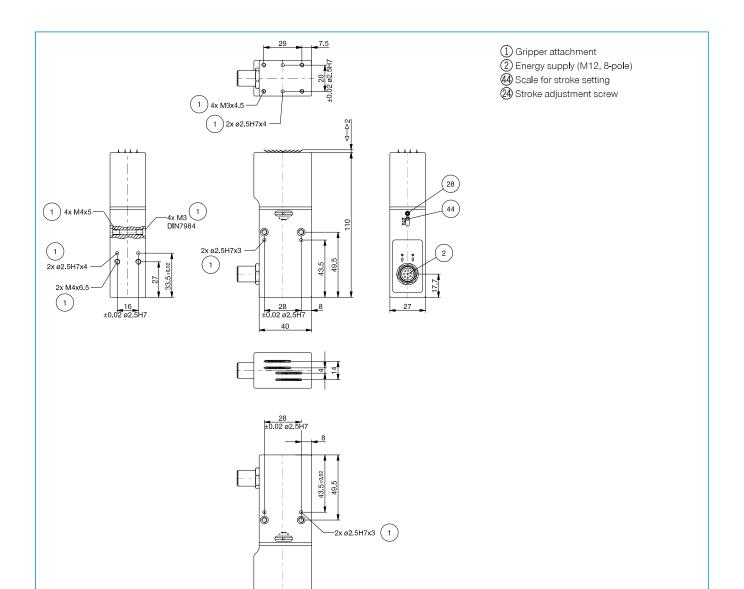
KAW1000B8



Busbox see page 875

ZUBBOX9000-01

	Technical Data
Order no.	GEN9102
Pulse time in extend [ms]	25
Pulse time in retract [ms]	20
Needle stroke adjustable min. [mm]	0
Needle stroke adjustable max. [mm]	2
Current consumption in a stand-by mode [A]	0.02
Current consumption per pulse max. [A]	5
Cycle count max. [cycle/min]	150
Permanent operation cycle count max. [cycle/min]	120
Operating time [ms]	<28
Operating temperature min. [°C]	10
Operating temperature max. [°C]	+50
Debounce time [ms]	10
Noise level [db(A)]	<70
Repetition accuracy +/-[mm]	0.1
Protection to IEC 60529	IP50
Weight [kg]	0.33



MAGNETIC GRIPPER SERIES HEM1000

▶ PRODUCT ADVANTAGES



Plug and play

Reduce your installation effort to a minimum by using the single cable solution and the simple control system via plus and minus buttons

Saving energy with pulse control

You only have to supply current briefly when releasing the workpiece; no energy is required when transporting the workpiece

Secure hold during EMERGENCY STOP

The magnet provides full holding force when it is not powered, preventing the loss of the workpiece if there is a voltage drop

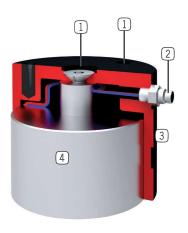
▶ THE BEST PRODUCT FOR YOUR APPLICATION



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BENEFITS IN DETAIL



- (1) Mounting and positioning
 - via centering sleeve and thread
- 2 Energy supply
 - standardized interface M8 round plug
- 3 Robust, lightweight housing
 - Hard-coated aluminum alloy
- 4 Holding solenoid
 - with electrical switch off

TERMS

Adhesive surface: Complete contact surface of the gripper

Adhesive force: refers to 100% coating of the adhesive surface, zero clearance, status at operating temperature on

ST37 steel and compliance with the minimum coating thickness

Minimum coating thickness: Minimum thickness of the workpiece to be gripped to reach the max. adhesive force

Remaining adhesive force: max. 3% of the adhesive force

On-time: the time in which current is supplied to the gripper

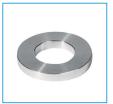
Break time: the time in which no current is supplied to the gripper

Cycle time: On-time + break time

PRODUCT SPECIFICATIONS



► RECOMMENDED ACCESSORIES



Centering Disc

ZE10H7X6



Plug-in connector Straight Cable 5m - Socket M8 KAG500



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

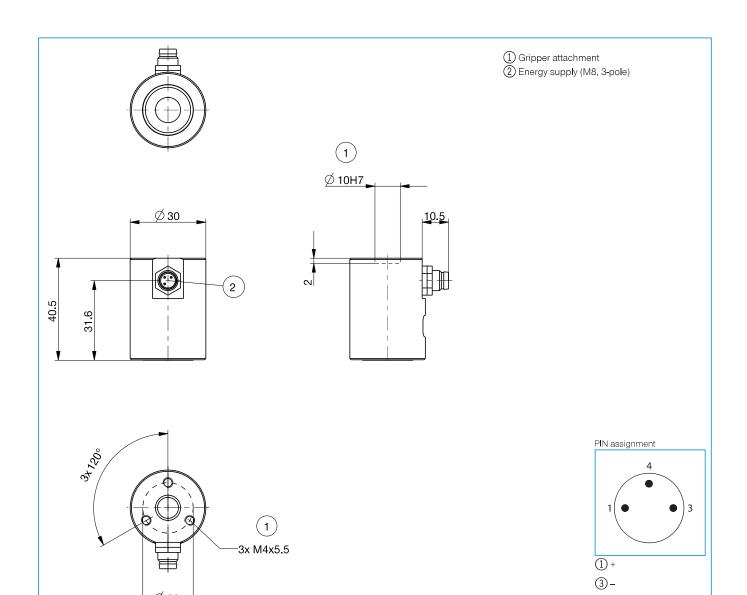
KAW500



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

	► Technical Data
Order no.	HEM1030NC
Max. adhesive force [N]*	40
Minimum coating thickness [mm]	2.5
Max. residual retention force [N]	1.2
Duty cycle max. with a cycle time < 2 min [%]	25
Duty cycle max. with a cycle time < 0.5 min [%]	40
Input power [W]	3.6
Voltage [V]	24
Operating temperature min. [°C]	-25
Operating temperature max. [°C]	+80
Weight [kg]	0.09

*St37-100%, St34 -88%, St 50-81%, St70-75%, GT-65%, 20MnCr5-55%, GG-35%



PRODUCT SPECIFICATIONS



► RECOMMENDED ACCESSORIES



Centering Disc

ZE10H7X6



Ball Joints

KG40



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



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



Plug-in connector customizable Straight -Connector M8

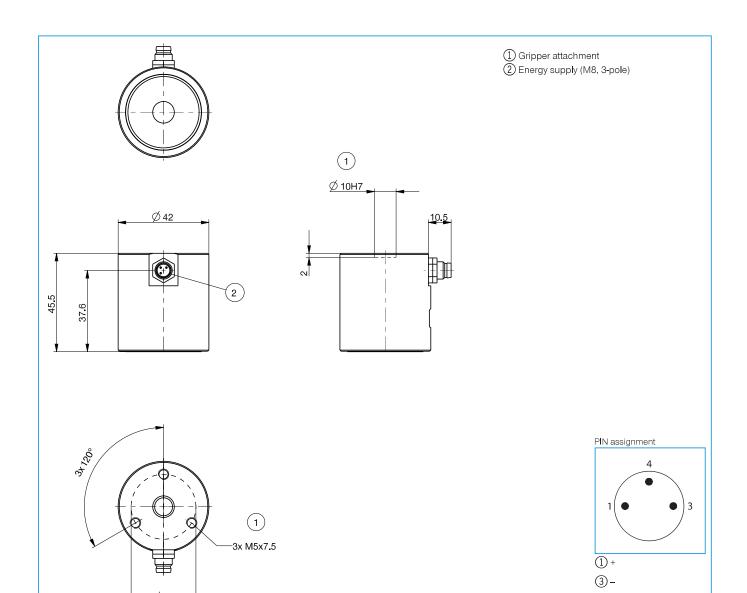
S8-G-3



Plug-in Connector Customizable Angled - Connector M8 S8-W-3

	► Technical Data
Order no.	HEM1042NC
Max. adhesive force [N]*	160
Minimum coating thickness [mm]	3
Max. residual retention force [N]	4.8
Duty cycle max. with a cycle time < 2 min [%]	25
Duty cycle max. with a cycle time < 0.5 min [%]	40
Input power [W]	4.6
Voltage [V]	24
Operating temperature min. [°C]	-25
Operating temperature max. [°C]	+80
Weight [kg]	0.28

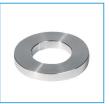
*St37-100%, St34 -88%, St 50-81%, St70-75%, GT-65%, 20MnCr5-55%, GG-35%



PRODUCT SPECIFICATIONS



► RECOMMENDED ACCESSORIES



Centering Disc

ZE10H7X6



Ball Joints

KG60



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



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



Plug-in connector customizable Straight -Connector M8

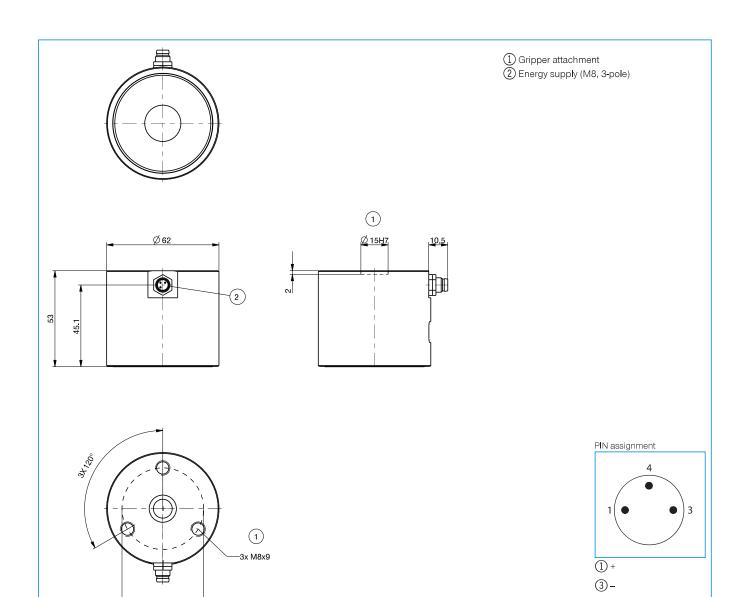
S8-G-3



Plug-in Connector Customizable Angled - Connector M8 **S8-W-3**

	► Technical Data
Order no.	HEM1062NC
Max. adhesive force [N]*	420
Minimum coating thickness [mm]	4.5
Max. residual retention force [N]	12.6
Duty cycle max. with a cycle time < 2 min [%]	25
Duty cycle max, with a cycle time < 0.5 min [%]	40
Input power [W]	9
Voltage [V]	24
Operating temperature min. [°C]	-25
Operating temperature max. [°C]	+80
Weight [kg]	0.66

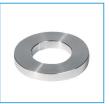
*St37-100%, St34 -88%, St 50-81%, St70-75%, GT-65%, 20MnCr5-55%, GG-35%



PRODUCT SPECIFICATIONS



► RECOMMENDED ACCESSORIES



Centering Disc

ZE10H7X6



Ball Joints

KG80



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

KAG500



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



Plug-in connector customizable Straight -Connector M8

S8-G-3



Plug-in Connector Customizable Angled - Connector M8

S8-W-3

	► Technical Data
Order no.	HEM1080NC
Max. adhesive force [N]*	720
Minimum coating thickness [mm]	6
Max. residual retention force [N]	21.6
Duty cycle max. with a cycle time < 2 min [%]	25
Duty cycle max. with a cycle time < 0.5 min [%]	40
Input power [W]	13.3
Voltage [V]	24
Operating temperature min. [°C]	-25
Operating temperature max. [°C]	+80
Weight [kg]	1.3

^{*}St37-100%, St34 -88%, St 50-81%, St70-75%, GT-65%, 20MnCr5-55%, GG-35%

