

MGW050

Technical specifications

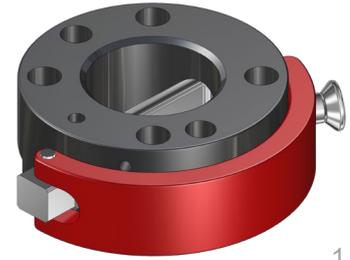


Operating mode:

By rotating the semi-cylindrical bolt by 180°, the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner

Advantages:

- Withstands high loads with low dead weight
- Can be released and closed with one handle
- High repeat accuracy +/- 0.02 mm
- Resilient locking pin secures hand lever against independent releasing
- Holds up to 5,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface acc. to DIN EN ISO 9409-1



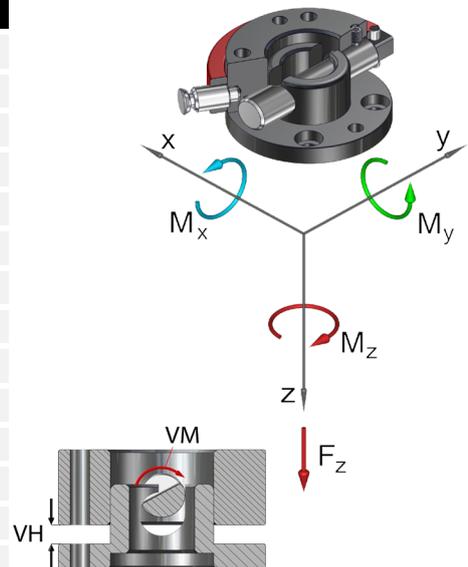
1



2

Technical specifications		MGW050		
Basic material		Al. anod.	VA	St, nitrated
External diameter x Height [mm]		50 x 30		
Pitch circle diameter [mm]		40		
Repeat accuracy +/- [mm]		0,02		
Tension Fz [N]		700	1.100	1.320
Compression -Fz [kN]		48	72	96
Torsion Mz [Nm]		40	60	78
Bending Mx, My [Nm]		50	70	80
Mass [kg]	upper assembly	0,14	0,28	
	lower assembly	0,05	0,13	
Recommended load [kg] *		10	14	16
Locking torque VM [Nm]		1 - 4	2 - 6	
Locking stroke VH [mm]		0 - 5		

* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, double safety



Manual gripper change system Ø50, drilled acc. to ISO...

G-MGW050-2O	upper assembly, Al, anodized
G-MGW050-2O-N	upper assembly, steel, nitrated
G-MGW050-2O-V	upper assembly, VA
G-MGW050-2U	lower assembly, Al, anodized
G-MGW050-2U-N	lower assembly, steel, nitrated
G-MGW050-2U-V	lower assembly, VA

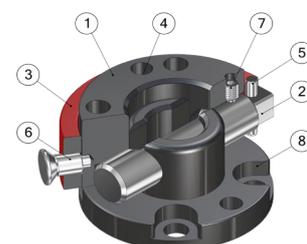
Replacement semi-cylindrical bolt...

EG-MGW050-HB	for MGW050
EG-MGW050-HB-VA	for MGW050, out off VA

Replacement hand lever

EG-MGW050-HH	for MGW050
--------------	------------

Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Hand lever
4	Index pin
5	Cylinder bolt
6	Spring locking pin
7	Setscrew
8	Lower assembly



MGW063

Technical specifications



Operating mode:

By rotating the semi-cylindrical bolt by 180°, the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner

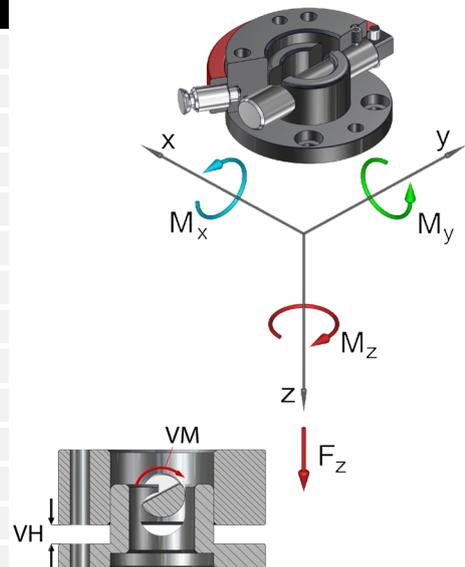
Advantages:

- Withstands high loads with low dead weight
- Can be released and closed with one handle
- High repeat accuracy +/- 0.02 mm
- Resilient locking pin secures hand lever against independent releasing
- Holds up to 5,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface acc. to DIN EN ISO 9409-1
- Optional connection of a Multi energy coupling **MEK**



Technical specifications	MGW063		
Basic material	Al. anod.	VA	St, nitrated
External diameter x Height [mm]	63 x 32		
Pitch circle diameter [mm]	50		
Repeat accuracy +/- [mm]	0,02		
Tension Fz [N]	900	1.500	1.800
Compression -Fz [kN]	89	134	178
Torsion Mz [Nm]	60	80	105
Bending Mx, My [Nm]	70	100	115
Mass [kg]	upper assembly	0,26	0,48
	lower assembly	0,08	0,23
Recommended load [kg] *	16	20	22
Locking torque VM [Nm]	1,5 - 5	3 - 8	
Locking stroke VH [mm]	0 - 6		

* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, double safety



Manual gripper change system Ø63, drilled acc. to ISO...

G-MGW063-2O	upper assembly, Al, anodized
G-MGW063-2O-E	upper assembly, E-Mounting, Al, anodized
G-MGW063-2O-EN	upper assembly, E-Mounting, steel, nitrated
G-MGW063-2O-N	upper assembly, steel, nitrated
G-MGW063-2O-V	upper assembly, VA
G-MGW063-2U	lower assembly, Al, anodized
G-MGW063-2U-E	lower assembly, E-Mounting, Al, anodized
G-MGW063-2U-EN	lower assembly, E-Mounting, steel, nitrated
G-MGW063-2U-N	lower assembly, steel, nitrated
G-MGW063-2U-V	lower assembly, VA

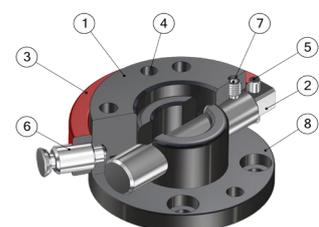
Replacement semi-cylindrical bolt...

EG-MGW063-HB	for MGW063
EG-MGW063-HB-VA	for MGW063, out off VA

Replacement hand lever

EG-MGW063-HH	for MGW063
--------------	------------

Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Hand lever
4	Index pin
5	Cylinder bolt
6	Spring locking pin
7	Setscrew
8	Lower assembly



MGW080

Technical specifications



Operating mode:

By rotating the semi-cylindrical bolt by 180°, the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner

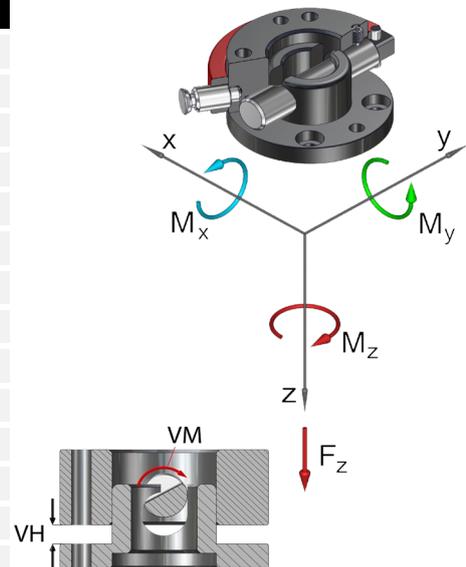
Advantages:

- Withstands high loads with low dead weight
- Can be released and closed with one handle
- High repeat accuracy +/- 0.02 mm
- Resilient locking pin secures hand lever against independent releasing
- Holds up to 5,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface acc. to DIN EN ISO 9409-1
- Optional connection of a Multi energy coupling **MEK**



Technical specifications	MGW080	
Basic material	Al. anod.	St, nitrated
External diameter x Height [mm]	80 x 37	
Pitch circle diameter [mm]	63	
Repeat accuracy +/- [mm]	0,02	
Tension Fz [N]	1.000	3.000
Compression -Fz [kN]	157	313
Torsion Mz [Nm]	80	120
Bending Mx, My [Nm]	100	160
Mass [kg]	upper assembly	0,45
	lower assembly	0,15
Recommended load [kg] *	20	28
Locking torque VM [Nm]	1,5 - 6	3 - 9
Locking stroke VH [mm]	0 - 8	

* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, double safety



Manual gripper change system Ø80, drilled acc. to ISO...

G-MGW080-2O	upper assembly, Al, anodized
G-MGW080-2OE	upper assembly, E-Mounting, Al, anodized
G-MGW080-2OEN	upper assembly, E-Mounting, steel, nitrated
G-MGW080-2O-N	upper assembly, steel, nitrated
G-MGW080-2U	lower assembly, Al, anodized
G-MGW080-2UE	lower assembly, E-Mounting, Al, anodized
G-MGW080-2UEN	lower assembly, E-Mounting, steel, nitrated
G-MGW080-2U-N	lower assembly, steel, nitrated

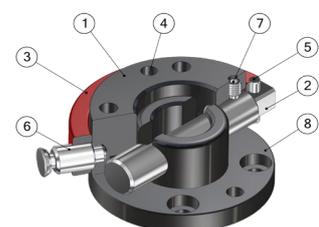
Replacement semi-cylindrical bolt...

EG-MGW080-HB	for MGW080
EG-MGW080-HB-VA	for MGW080, out off VA

Replacement hand lever

EG-MGW080-HH	for MGW080
--------------	------------

Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Hand lever
4	Index pin
5	Cylinder bolt
6	Spring locking pin
7	Setscrew
8	Lower assembly



MGW100

Technical specifications



Operating mode:

By rotating the semi-cylindrical bolt by 180°, the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner

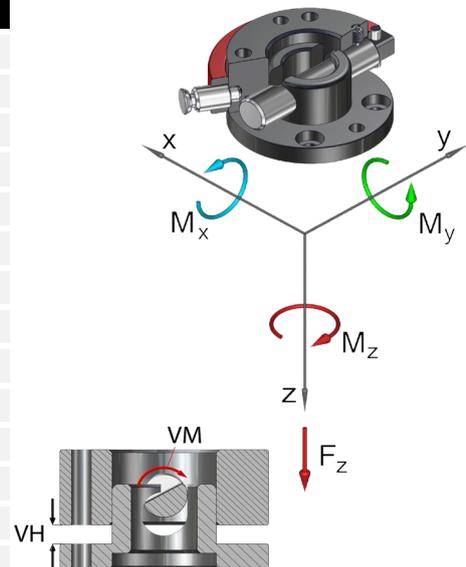
Advantages:

- Withstands high loads with low dead weight
- Can be released and closed with one handle
- High repeat accuracy +/- 0.02 mm
- Resilient locking pin secures hand lever against independent releasing
- Holds up to 5,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface acc. to DIN EN ISO 9409-1
- Optional connection of a Multi energy coupling **MEK**



Technical specifications	MGW100	
Basic material	Al. anod.	St, nitrated
External diameter x Height [mm]	100 x 45	
Pitch circle diameter [mm]	80	
Repeat accuracy +/- [mm]	0,02	
Tension Fz [N]	1.200	4.200
Compression -Fz [kN]	219	439
Torsion Mz [Nm]	110	185
Bending Mx, My [Nm]	130	205
Mass [kg]	upper assembly	0,74
	lower assembly	0,35
Recommended load [kg] *	28	39
Locking torque VM [Nm]	2 – 10	3 – 14
Locking stroke VH [mm]	0 - 8	

* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, double safety



Manual gripper change system Ø100, drilled acc. to ISO...

G-MGW100-2O	upper assembly, Al, anodized
G-MGW100-2OE	upper assembly, E-Mounting, Al, anodized
G-MGW100-2OEN	upper assembly, E-Mounting, steel, nitrated
G-MGW100-2O-N	upper assembly, steel, nitrated
G-MGW100-2U	lower assembly, Al, anodized
G-MGW100-2UE	lower assembly, E-Mounting, Al, anodized
G-MGW100-2UEN	lower assembly, E-Mounting, steel, nitrated
G-MGW100-2U-N	lower assembly, steel, nitrated

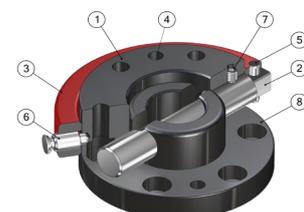
Replacement semi-cylindrical bolt...

EG-MGW100-HB	for MGW100
EG-MGW100-HB-VA	for MGW100, out off VA

Replacement hand lever

EG-MGW100-HH	for MGW100
--------------	------------

Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Hand lever
4	Index pin
5	Cylinder bolt
6	Spring locking pin
7	Setscrew
8	Lower assembly



MGW125

Technical specifications



Operating mode:

By rotating the semi-cylindrical bolt by 180°, the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner

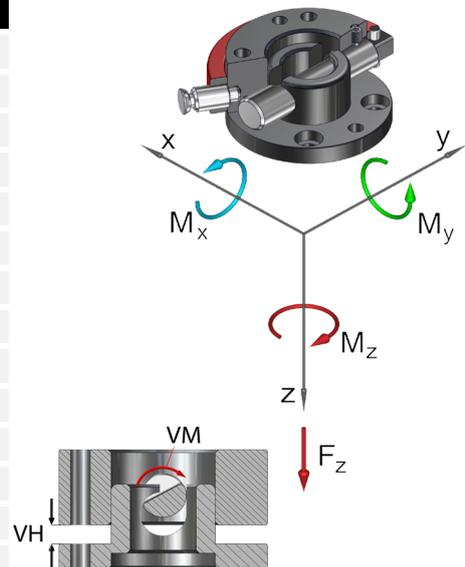
Advantages:

- Withstands high loads with low dead weight
- Can be released and closed with one handle
- High repeat accuracy +/- 0.02 mm
- Resilient locking pin secures hand lever against independent releasing
- Holds up to 5,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface acc. to DIN EN ISO 9409-1
- Optional connection of a Multi energy coupling **MEK**



Technical specifications	MGW125	
Basic material	Al. anod.	St, nitrated
External diameter x Height [mm]	125 x 50	
Pitch circle diameter [mm]	100	
Repeat accuracy +/- [mm]	0,02	
Tension Fz [N]	1.500	5.200
Compression -Fz [kN]	377	754
Torsion Mz [Nm]	150	210
Bending Mx, My [Nm]	180	250
Mass [kg]	upper assembly	1,3
	lower assembly	0,55
Recommended load [kg] *	40	55
Locking torque VM [Nm]	2 – 16	3 – 20
Locking stroke VH [mm]	0 - 8	

* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, double safety



Manual gripper change system Ø125, drilled acc. to ISO...

G-MGW125-2O	upper assembly, Al, anodized
G-MGW125-2OE	upper assembly, E-Mounting, Al, anodized
G-MGW125-2OEN	upper assembly, E-Mounting, steel, nitrated
G-MGW125-2O-N	upper assembly, steel, nitrated
G-MGW125-2U	lower assembly, Al, anodized
G-MGW125-2UE	lower assembly, E-Mounting, Al, anodized
G-MGW125-2UEN	lower assembly, E-Mounting, steel, nitrated
G-MGW125-2U-N	lower assembly, steel, nitrated

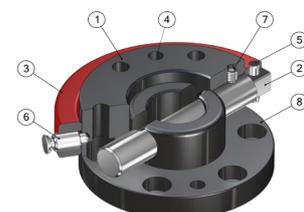
Replacement semi-cylindrical bolt...

EG-MGW125-HB	for MGW125
EG-MGW125-HB-VA	for MGW125, out off VA

Replacement hand lever

EG-MGW125-HH	for MGW125
--------------	------------

Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Hand lever
4	Index pin
5	Cylinder bolt
6	Spring locking pin
7	Setscrew
8	Lower assembly



MGW160

Technical specifications



Operating mode:

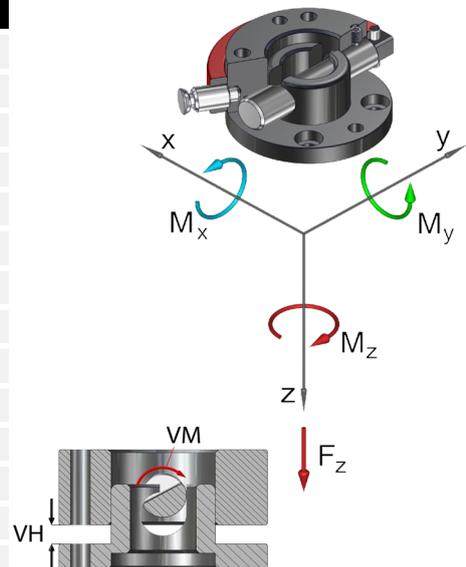
By rotating the semi-cylindrical bolt by 180°, the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner

Advantages:

- Withstands high loads with low dead weight
- Can be released and closed with one handle
- High repeat accuracy +/- 0.02 mm
- Resilient locking pin secures hand lever against independent releasing
- Holds up to 5,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface acc. to DIN EN ISO 9409-1
- Optional connection of a Multi energy coupling **MEK**



Technical specifications		MGW160	
Basic material		Al. anod.	St, nitrated
External diameter x Height [mm]		160 x 70	
Pitch circle diameter [mm]		125	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		2.500	10.000
Compression -Fz [kN]		626	1.252
Torsion Mz [Nm]		250	1.000
Bending Mx, My [Nm]		320	1.000
Mass [kg]	upper assembly	2,8	6,6
	lower assembly	1,3	3,85
Recommended load [kg]		75 *	120 **
Locking torque VM [Nm]		3 - 24	4 - 30
Locking stroke VH [mm]		0 - 10	
* This guideline applies to the following assumptions: Acceleration: 10 m/s ² , gravity distance: 100 mm, double safety			
** This guideline applies to the following assumptions: Acceleration: 10 m/s ² , gravity distance: 250 mm, 1.6 times safety			

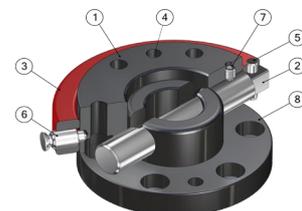


Manual gripper change system Ø160, drilled acc. to ISO...	
G-MGW160-2O	upper assembly, Al, anodized
G-MGW160-2OE	upper assembly, E-Mounting, Al, anodized
G-MGW160-2OEN	upper assembly, E-Mounting, steel, nitrated
G-MGW160-2O-N	upper assembly, steel, nitrated
G-MGW160-2U	lower assembly, Al, anodized
G-MGW160-2UE	lower assembly, E-Mounting, Al, anodized
G-MGW160-2UEN	lower assembly, E-Mounting, steel, nitrated
G-MGW160-2U-N	lower assembly, steel, nitrated

Replacement semi-cylindrical bolt...	
EG-MGW160-HB	for MGW160
EG-MGW160-HB-VA	for MGW160, out off VA

Replacement hand lever	
EG-MGW160-HH	for MGW160

Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Hand lever
4	Index pin
5	Cylinder bolt
6	Spring locking pin
7	Setscrew
8	Lower assembly



G-SHW050

Technical specifications

GRIP

Operating mode:

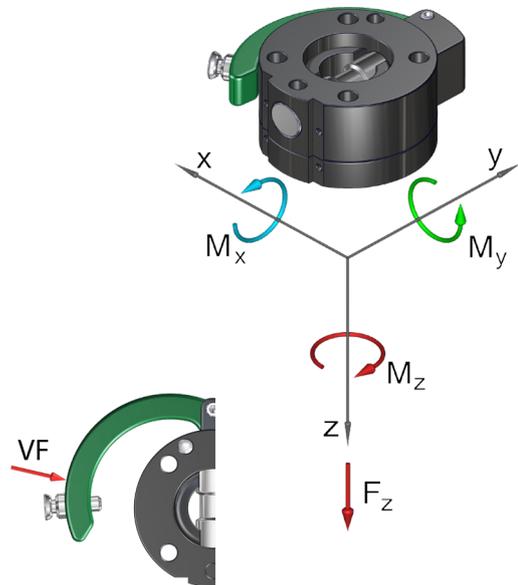
By operating the hand lever on the upper assembly (1), the crossway bolt is displaced radially. The crossway bolt is pressed into the bore of the lower assembly (2).

Advantages:

- Withstands high loads with low dead weight
- Intuitive operation
- Can be released and closed with one handle
- High repeat accuracy +/- 0.02 mm
- Holds up to 5,000 changing cycles
- Interface according to DIN EN ISO 9409-1



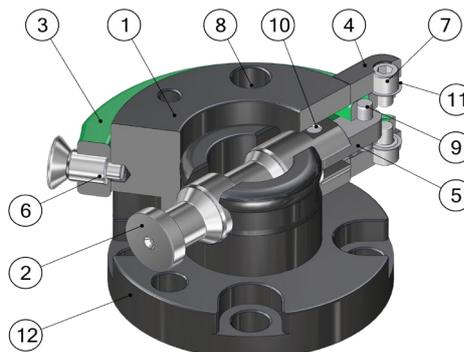
Technical specifications		SHW050
Basic material		Al. anod.
External diameter x height [mm]		50 x 32
Pitch circle diameter [mm]		40
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		540
Compression -Fz [kN]		48
Torsion Mz [Nm]		54
Bending Mx, My [Nm]		50
Mass [kg]	upper assembly	0,13
	lower assembly	0,05
Recommended load [kg]		8* / 12**
Locking force VF [N]		4 - 50
Locking stroke VH [mm]		0 - 0,8
* This guideline applies to the following assumptions: Acceleration: 10 m/s², gravity distance: 100 mm, double safety		
** This guideline applies to the following assumptions: Acceleration: 5 m/s², gravity distance: 100 mm, double safety		



Pos.	Description
1	Upper assembly
2	Crossway bolt (CB)
3	Hand lever
4	Holder
5	Strap pin (SP)
6	Spring locking pin
7	Guiding screw
8	Index pin
9	Cylinder bolt SP
10	Cylinder bolt CB
11	Shim ring
12	Lower assembly

Thrust lever change system Ø50, drilled acc. to ISO...

G-SHW050-2O	upper assembly, Al, anodized
G-SHW050-2U	lower assembly, Al, anodized



G-SHW063

Technical specifications

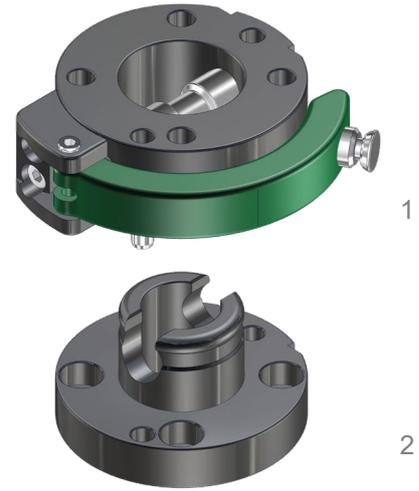


Operating mode:

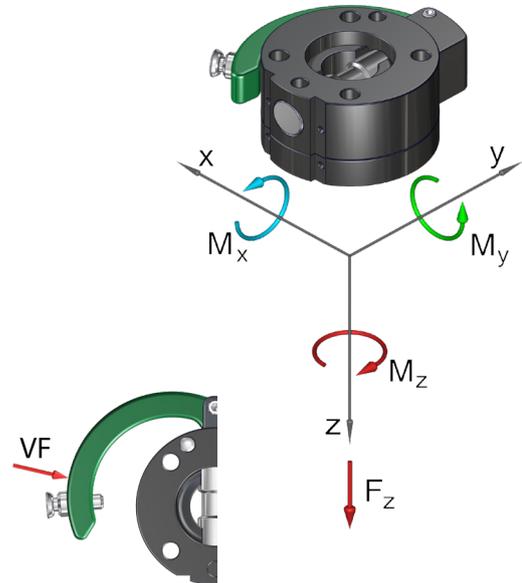
By operating the hand lever on the upper assembly (1), the crossway bolt is displaced radially. The crossway bolt is pressed into the bore of the lower assembly (2).

Advantages:

- Withstands high loads with low dead weight
- Intuitive operation
- Can be released and closed with one handle
- High repeat accuracy +/- 0.02 mm
- Holds up to 5,000 changing cycles
- Optional connection of a power coupling **SEK** for electrical and pneum. ducts
- Interface according to DIN EN ISO 9409-1



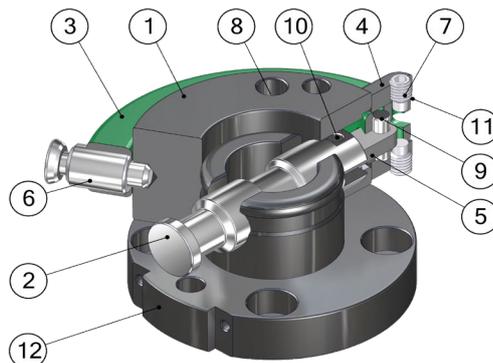
Technical specifications		SHW063
Basic material		Al. anod.
External diameter x height [mm]		63 x 32
Pitch circle diameter [mm]		50
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		700
Compression -Fz [kN]		80
Torsion Mz [Nm]		80
Bending Mx, My [Nm]		70
Mass [kg]	upper assembly	0,25
	lower assembly	0,1
Recommended load [kg]		18* / 24**
Locking force VF [N]		4 - 50
Locking stroke VH [mm]		0 - 1
* This guideline applies to the following assumptions: Acceleration: 10 m/s², gravity distance: 100 mm, double safety		
** This guideline applies to the following assumptions: Acceleration: 5 m/s², gravity distance: 100 mm, double safety		



Pos.	Description
1	Upper assembly
2	Crossway bolt (CB)
3	Hand lever
4	Holder
5	Strap pin (SP)
6	Spring locking pin
7	Guiding screw
8	Index pin
9	Cylinder bolt SP
10	Cylinder bolt CB
11	Shim ring
12	Lower assembly

Thrust lever change system Ø63, drilled acc. to ISO...

G-SHW063-2OE	upper assembly, E-Mount, Al, anodized
G-SHW063-2UE	lower assembly, E-Mount, Al, anodized



G-SHW080

Technical specifications

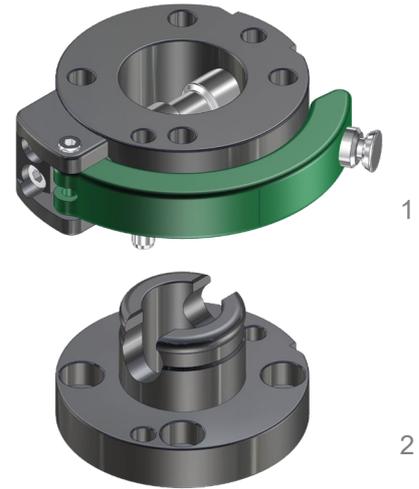


Operating mode:

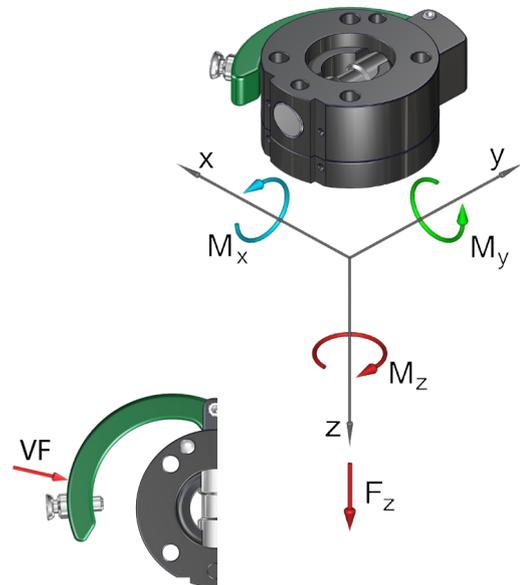
By operating the hand lever on the upper assembly (1), the crossway bolt is displaced radially. The crossway bolt is pressed into the bore of the lower assembly (2).

Advantages:

- Withstands high loads with low dead weight
- Intuitive operation
- Can be released and closed with one handle
- High repeat accuracy +/- 0.02 mm
- Holds up to 5,000 changing cycles
- Optional connection of a power coupling **SEK** for electrical and pneum. ducts
- Interface according to DIN EN ISO 9409-1

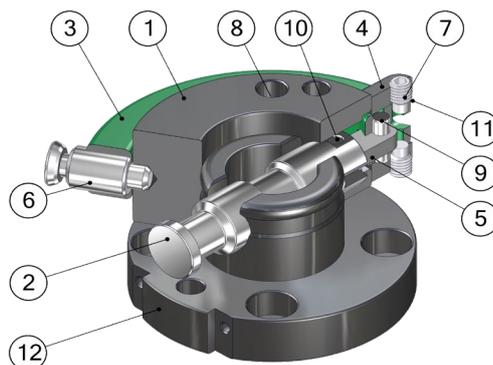


Technical specifications		SHW080
Basic material		Al. anod.
External diameter x height [mm]		80 x 37
Pitch circle diameter [mm]		63
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		800
Compression -Fz [kN]		160
Torsion Mz [Nm]		100
Bending Mx, My [Nm]		100
Mass [kg]	upper assembly	0,41
	lower assembly	0,2
Recommended load [kg]		20* / 28**
Locking force VF [N]		5 - 60
Locking stroke VH [mm]		0 - 1
* This guideline applies to the following assumptions: Acceleration: 10 m/s², gravity distance: 100 mm, double safety		
** This guideline applies to the following assumptions: Acceleration: 5 m/s², gravity distance: 100 mm, double safety		



Pos.	Description
1	Upper assembly
2	Crossway bolt (CB)
3	Hand lever
4	Holder
5	Strap pin (SP)
6	Spring locking pin
7	Guiding screw
8	Index pin
9	Cylinder bolt SP
10	Cylinder bolt CB
11	Shim ring
12	Lower assembly

Thrust lever change system Ø80, drilled acc. to ISO...	
G-SHW080-2OE	upper assembly, E-Mount, Al, anodized
G-SHW080-2UE	lower assembly, E-Mount, Al, anodized



G-SHW100

Technical specifications

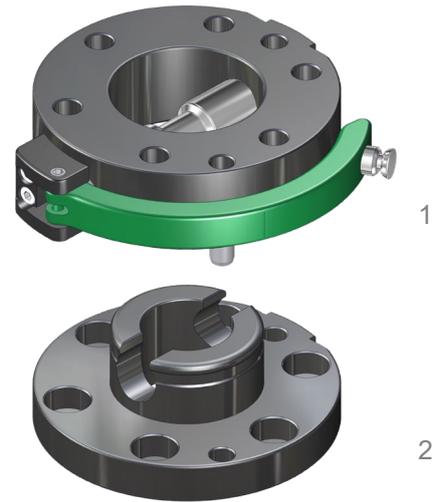


Operating mode:

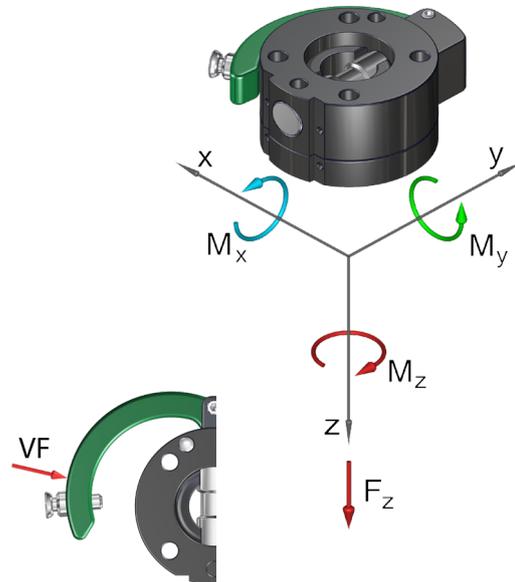
By operating the hand lever on the upper assembly (1), the crossway bolt is displaced radially. The crossway bolt is pressed into the bore of the lower assembly (2).

Advantages:

- Withstands high loads with low dead weight
- Intuitive operation
- Can be released and closed with one handle
- High repeat accuracy +/- 0.02 mm
- Holds up to 5,000 changing cycles
- Optional connection of a power coupling **SEK** for electrical and pneum. ducts
- Interface according to DIN EN ISO 9409-1

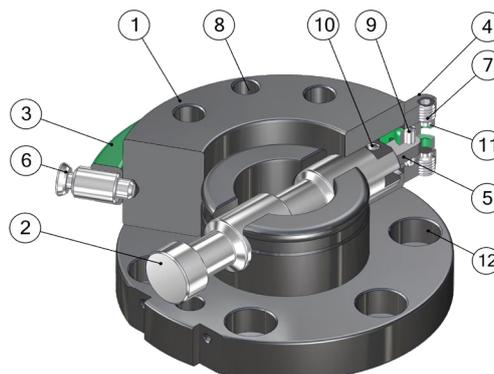


Technical specifications		SHW100
Basic material		Al. anod.
External diameter x height [mm]		100 x 45
Pitch circle diameter [mm]		80
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		1.000
Compression -Fz [kN]		219
Torsion Mz [Nm]		140
Bending Mx, My [Nm]		130
Mass [kg]	upper assembly	0,74
	lower assembly	0,35
Recommended load [kg]		25* / 34**
Locking force VF [N]		6 - 70
Locking stroke VH [mm]		0 - 1
<small>* This guideline applies to the following assumptions: Acceleration: 10 m/s², gravity distance: 100 mm, double safety</small>		
<small>** This guideline applies to the following assumptions: Acceleration: 5 m/s², gravity distance: 100 mm, double safety</small>		



Pos.	Description
1	Upper assembly
2	Crossway bolt (CB)
3	Hand lever
4	Holder
5	Strap pin (SP)
6	Spring locking pin
7	Guiding screw
8	Index pin
9	Cylinder bolt SP
10	Cylinder bolt CB
11	Shim ring
12	Lower assembly

Thrust lever change system Ø100, drilled acc. to ISO...	
G-SHW100-2OE	upper assembly, E-Mount, Al, anodized
G-SHW100-2UE	lower assembly, E-Mount, Al, anodized



G-SHW125

Technical specifications

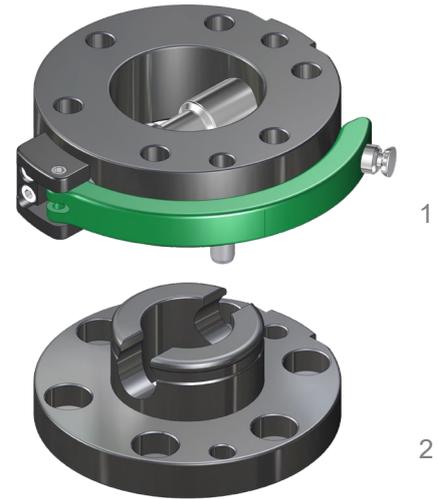
GRIP

Operating mode:

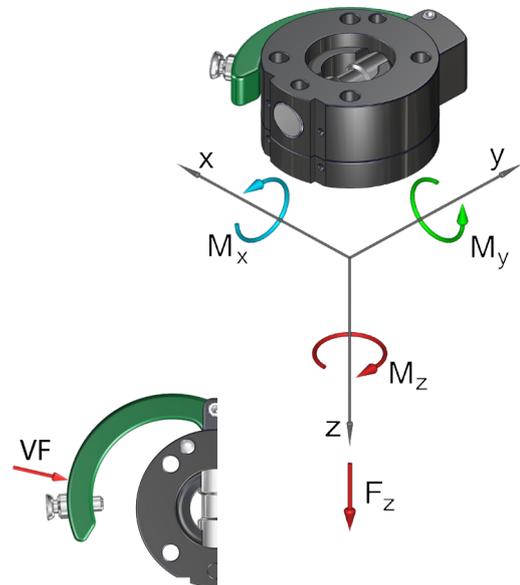
By operating the hand lever on the upper assembly (1), the crossway bolt is displaced radially. The crossway bolt is pressed into the bore of the lower assembly (2).

Advantages:

- Withstands high loads with low dead weight
- Intuitive operation
- Can be released and closed with one handle
- High repeat accuracy +/- 0.02 mm
- Holds up to 5,000 changing cycles
- Optional connection of a power coupling **SEK** for electrical and pneum. ducts
- Interface according to DIN EN ISO 9409-1



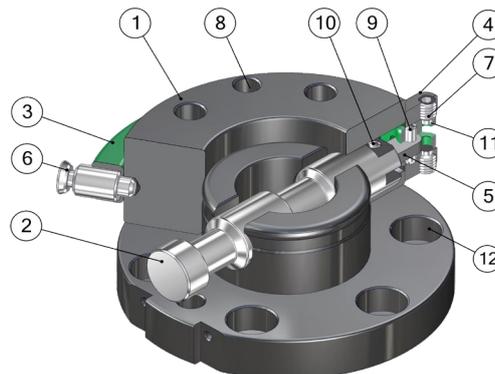
Technical specifications		SHW125
Basic material		Al. anod.
External diameter x height [mm]		125 x 50
Pitch circle diameter [mm]		100
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		1.200
Compression -Fz [kN]		377
Torsion Mz [Nm]		180
Bending Mx, My [Nm]		180
Mass [kg]	upper assembly	1,3
	lower assembly	0,55
Recommended load [kg]		40* / 55**
Locking force VF [N]		8 - 80
Locking stroke VH [mm]		0 - 1
* This guideline applies to the following assumptions: Acceleration: 10 m/s², gravity distance: 100 mm, double safety		
** This guideline applies to the following assumptions: Acceleration: 5 m/s², gravity distance: 100 mm, double safety		



Pos.	Description
1	Upper assembly
2	Crossway bolt (CB)
3	Hand lever
4	Holder
5	Strap pin (SP)
6	Spring locking pin
7	Guiding screw
8	Index pin
9	Cylinder bolt SP
10	Cylinder bolt CB
11	Shim ring
12	Lower assembly

Thrust lever change system Ø125, drilled acc. to ISO...

G-SHW125-2OE	upper assembly, E-Mount, Al, anodized
G-SHW125-2UE	lower assembly, E-Mount, Al, anodized



G-SHW160

Technical specifications

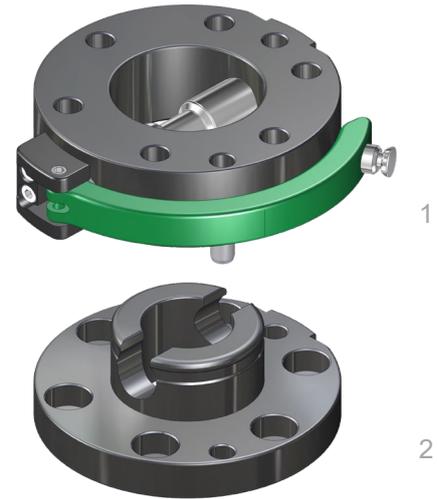
GRIP

Operating mode:

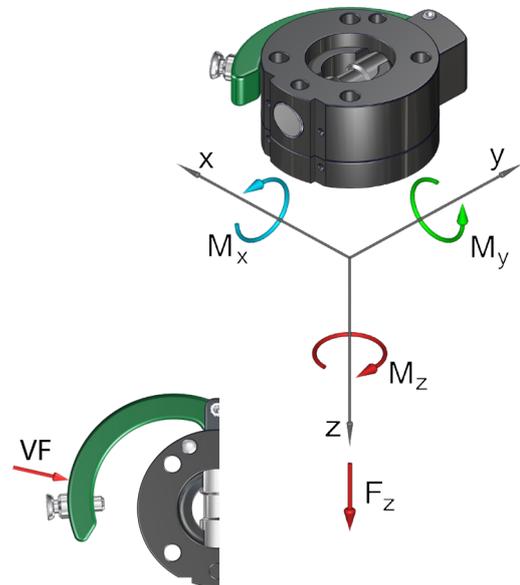
By operating the hand lever on the upper assembly (1), the crossway bolt is displaced radially. The crossway bolt is pressed into the bore of the lower assembly (2).

Advantages:

- Withstands high loads with low dead weight
- Intuitive operation
- Can be released and closed with one handle
- High repeat accuracy +/- 0.02 mm
- Holds up to 5,000 changing cycles
- Optional connection of a power coupling **SEK** for electrical and pneum. ducts
- Interface according to DIN EN ISO 9409-1

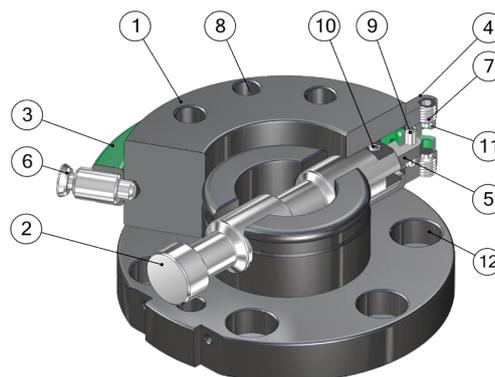


Technical specifications		SHW160
Basic material		Al. anod.
External diameter x height [mm]		160 x 70
Pitch circle diameter [mm]		125
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		2.000
Compression -Fz [kN]		626
Torsion Mz [Nm]		300
Bending Mx, My [Nm]		320
Mass [kg]	upper assembly	2,8
	lower assembly	1,2
Recommended load [kg]		52* / 68**
Locking force VF [N]		10 - 100
Locking stroke VH [mm]		0 - 1
* This guideline applies to the following assumptions: Acceleration: 10 m/s², gravity distance: 100 mm, double safety		
** This guideline applies to the following assumptions: Acceleration: 5 m/s², gravity distance: 100 mm, double safety		



Pos.	Description
1	Upper assembly
2	Crossway bolt (CB)
3	Hand lever
4	Holder
5	Strap pin (SP)
6	Spring locking pin
7	Guiding screw
8	Index pin
9	Cylinder bolt SP
10	Cylinder bolt CB
11	Shim ring
12	Lower assembly

Thrust lever change system Ø160, drilled acc. to ISO...	
G-SHW160-2OE	upper assembly, E-Mount, Al, anodized
G-SHW160-2UE	lower assembly, E-Mount, Al, anodized



G-SWA050

Technical specifications



Operating mode:

By turning the axis, the upper (1) and the lower assembly (2) are locked. The wedge-shaped flanges brace the system in a form-closed manner.

Advantages:

- Reduced height to a minimum
- Very low interference contours
- High repeat accuracy +/- 0,02 mm
- Holds up to 10,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface according to DIN EN ISO 9409-1



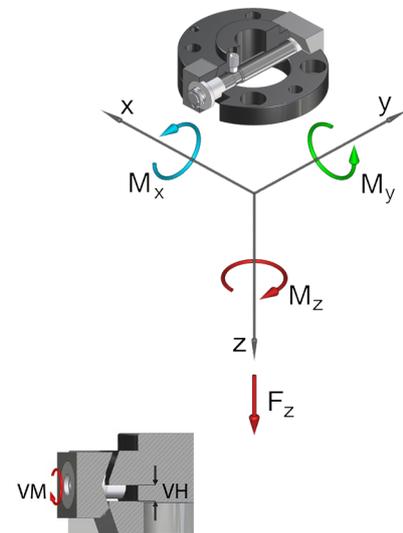
1



2

Technical specifications		SWA050	
Basic material		Al, anod.	St, nitrated
External diameter x height [mm]		50 x 20	
Pitch circle diameter [mm]		40	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		800	920
Compression -Fz [kN]		48	96
Torsion Mz [Nm]		60	70
Bending Mx [Nm]		60	70
Bending My [Nm]		40	48
Mass [kg]	Upper assembly	0,11	0,2
	Lower assembly	0,03	0,1
Recommended load [kg] *		8	9
Locking torque VM [Nm]		16	
Locking stroke VH [mm]		0 - 6	

* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, 2,5 times safety

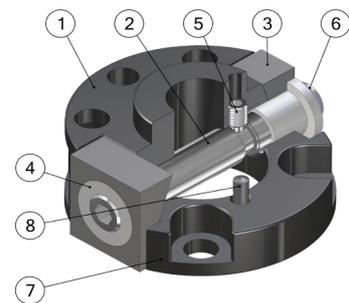


Quick change adapter Ø50, drilled according to ISO...

G-SWA050-2O	upper assembly, Al, anodized
G-SWA050-2O-N	upper assembly, steel, nitrated
G-SWA050-2U	lower assembly, Al, anodized
G-SWA050-2U-N	lower assembly, steel, nitrated

Replacement axis...

EG-SWA050-A	for SWA050
-------------	------------



Pos.	Description
1	Upper assembly
2	Axis
3	Flange
4	Screw nut
5	Setscrew
6	Locking ring
7	Lower assembly
8	Index pin

G-SWA063

Technical specifications

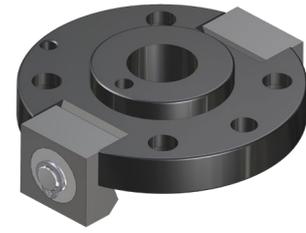


Operating mode:

By turning the axis, the upper (1) and the lower assembly (2) are locked. The wedge-shaped flanges brace the system in a form-closed manner.

Advantages:

- Reduced height to a minimum
- Very low interference contours
- High repeat accuracy +/- 0,02 mm
- Holds up to 10,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface according to DIN EN ISO 9409-1



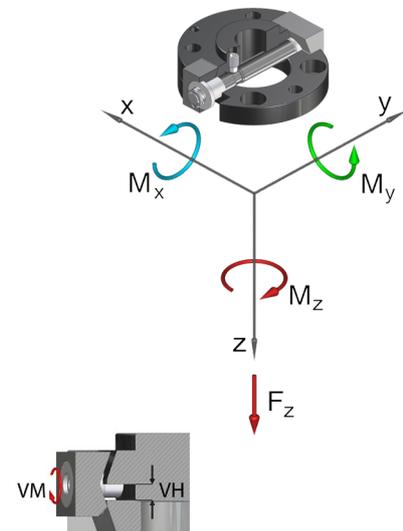
1



2

Technical specifications		SWA063	
Basic material		Al, anod.	St, nitrated
External diameter x height [mm]		63 x 20	
Pitch circle diameter [mm]		50	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		1.000	1.150
Compression -Fz [kN]		89	178
Torsion Mz [Nm]		80	90
Bending Mx [Nm]		70	80
Bending My [Nm]		50	60
Mass [kg]	Upper assembly	0,16	0,35
	Lower assembly	0,05	0,15
Recommended load [kg] *		10	12
Locking torque VM [Nm]		16	
Locking stroke VH [mm]		0 - 6	

* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, 2,5 times safety

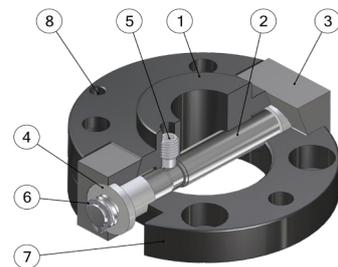


Quick change adapter Ø63, drilled according to ISO...

G-SWA063-2O	upper assembly, Al, anodized
G-SWA063-2O-N	upper assembly, steel, nitrated
G-SWA063-2U	lower assembly, Al, anodized
G-SWA063-2U-N	lower assembly, steel, nitrated

Replacement axis...

EG-SWA063-A	for SWA063
-------------	------------



Pos.	Description
1	Upper assembly
2	Axis
3	Flange
4	Screw nut
5	Setscrew
6	Locking ring
7	Lower assembly
8	Index pin

G-SWA080

Technical specifications

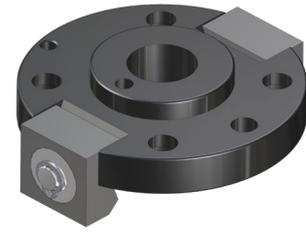


Operating mode:

By turning the axis, the upper (1) and the lower assembly (2) are locked. The wedge-shaped flanges brace the system in a form-closed manner.

Advantages:

- Reduced height to a minimum
- Very low interference contours
- High repeat accuracy +/- 0,02 mm
- Holds up to 10,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface according to DIN EN ISO 9409-1



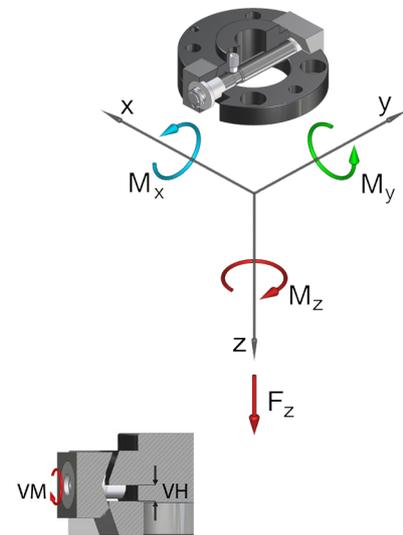
1



2

Technical specifications		SWA080	
Basic material		Al, anod.	St, nitrated
External diameter x height [mm]		80 x 20	
Pitch circle diameter [mm]		63	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		1.200	1.400
Compression -Fz [kN]		157	313
Torsion Mz [Nm]		140	160
Bending Mx [Nm]		120	140
Bending My [Nm]		80	90
Mass [kg]	Upper assembly	0,25	0,5
	Lower assembly	0,1	0,25
Recommended load [kg] *		16	18
Locking torque VM [Nm]		16	
Locking stroke VH [mm]		0 - 6	

* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, 2,5 times safety

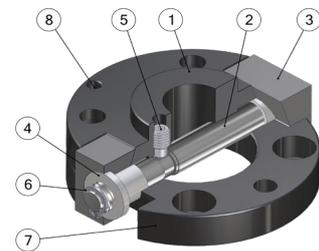


Quick change adapter Ø80, drilled according to ISO...

G-SWA080-2O	upper assembly, Al, anodized
G-SWA080-2O-N	upper assembly, steel, nitrated
G-SWA080-2U	lower assembly, Al, anodized
G-SWA080-2U-N	lower assembly, steel, nitrated

Replacement axis...

EG-SWA080-A	for SWA080
-------------	------------



Pos.	Description
1	Upper assembly
2	Axis
3	Flange
4	Screw nut
5	Setscrew
6	Locking ring
7	Lower assembly
8	Index pin

G-SWA100

Technical specifications

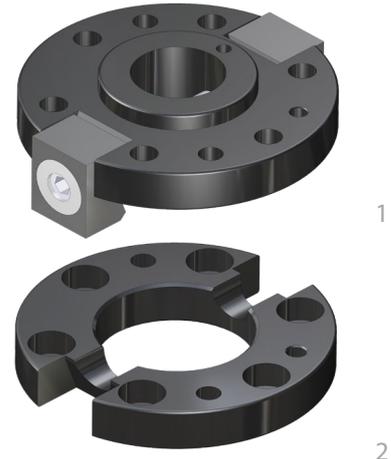


Operating mode:

By turning the axis, the upper (1) and the lower assembly (2) are locked. The wedge-shaped flanges brace the system in a form-closed manner.

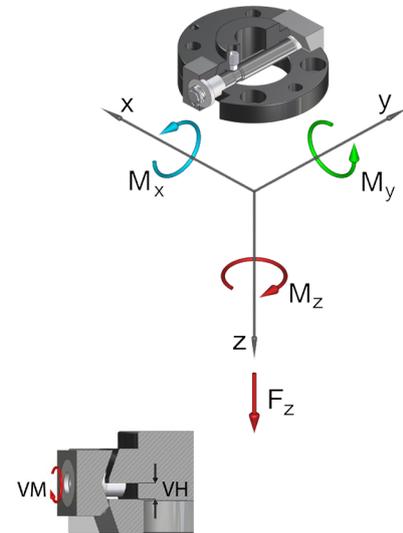
Advantages:

- Reduced height to a minimum
- Very low interference contours
- High repeat accuracy +/- 0,02 mm
- Holds up to 10,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface according to DIN EN ISO 9409-1



Technical specifications		SWA100	
Basic material		Al, anod.	St, nitrated
External diameter x height [mm]		100 x 30	
Pitch circle diameter [mm]		80	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		1.500	1.700
Compression -Fz [kN]		219	439
Torsion Mz [Nm]		200	220
Bending Mx [Nm]		160	185
Bending My [Nm]		110	125
Mass [kg]	Upper assembly	0,55	1,1
	Lower assembly	0,2	0,6
Recommended load [kg] *		22	25
Locking torque VM [Nm]		24	
Locking stroke VH [mm]		0 - 10	

* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, 2,5 times safety

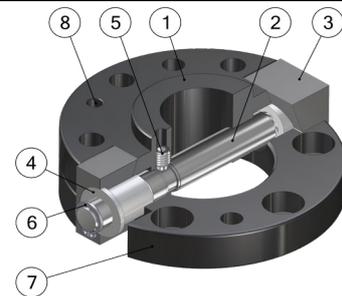


Quick change adapter Ø100, drilled according to ISO...

G-SWA100-2O	upper assembly, Al, anodized
G-SWA100-2O-N	upper assembly, steel, nitrated
G-SWA100-2U	lower assembly, Al, anodized
G-SWA100-2U-N	lower assembly, steel, nitrated

Replacement axis...

EG-SWA100-A	for SWA100
-------------	------------



Pos.	Description
1	Upper assembly
2	Axis
3	Flange
4	Screw nut
5	Setscrew
6	Locking ring
7	Lower assembly
8	Index pin

G-SWA125

Technical specifications



Operating mode:

By turning the axis, the upper (1) and the lower assembly (2) are locked. The wedge-shaped flanges brace the system in a form-closed manner.

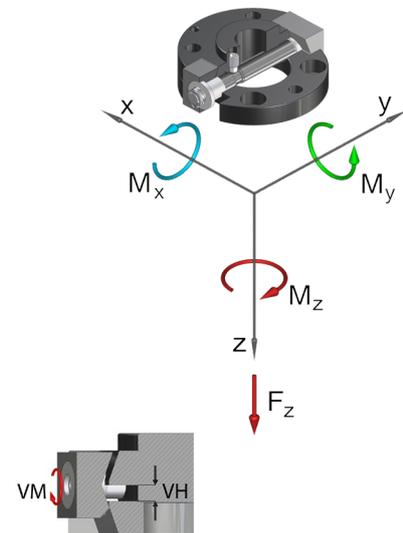
Advantages:

- Reduced height to a minimum
- Very low interference contours
- High repeat accuracy +/- 0,02 mm
- Holds up to 10,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface according to DIN EN ISO 9409-1



Technical specifications		SWA125	
Basic material		Al, anod.	St, nitrated
External diameter x height [mm]		125 x 30	
Pitch circle diameter [mm]		100	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		1.800	2.100
Compression -Fz [kN]		377	754
Torsion Mz [Nm]		300	350
Bending Mx [Nm]		220	250
Bending My [Nm]		150	175
Mass [kg]	Upper assembly	0,8	1,6
	Lower assembly	0,35	1
Recommended load [kg] *		30	35
Locking torque VM [Nm]		36	
Locking stroke VH [mm]		0 - 11	

* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, 2,5 times safety

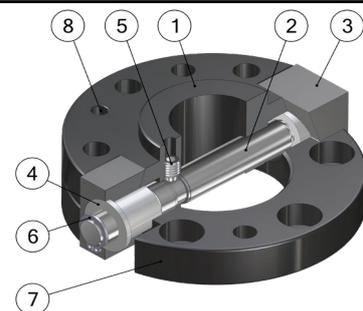


Quick change adapter Ø125, drilled according to ISO...

G-SWA125-2O	upper assembly, Al, anodized
G-SWA125-2O-N	upper assembly, steel, nitrated
G-SWA125-2U	lower assembly, Al, anodized
G-SWA125-2U-N	lower assembly, steel, nitrated

Replacement axis...

EG-SWA125-A	for SWA125
-------------	------------



Pos.	Description
1	Upper assembly
2	Axis
3	Flange
4	Screw nut
5	Setscrew
6	Locking ring
7	Lower assembly
8	Index pin

G-SWA160

Technical specifications

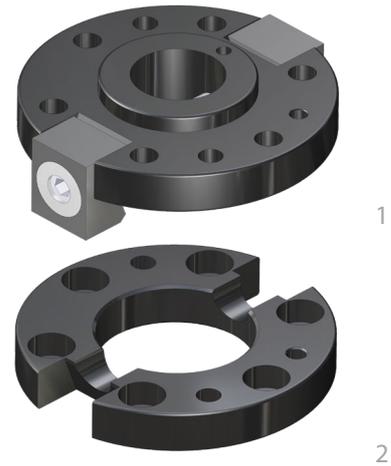


Operating mode:

By turning the axis, the upper (1) and the lower assembly (2) are locked. The wedge-shaped flanges brace the system in a form-closed manner.

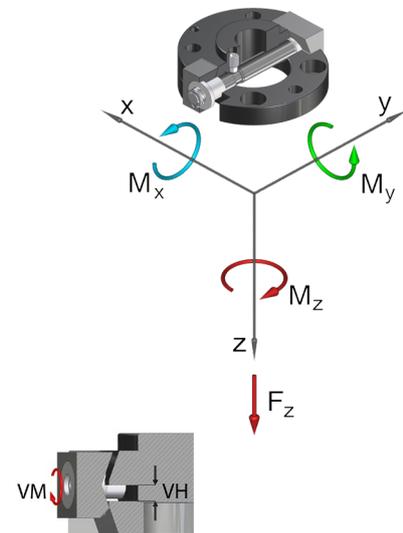
Advantages:

- Reduced height to a minimum
- Very low interference contours
- High repeat accuracy +/- 0,02 mm
- Holds up to 10,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface according to DIN EN ISO 9409-1



Technical specifications		SWA160	
Basic material		Al, anod.	St, nitrated
External diameter x height [mm]		160 x 40	
Pitch circle diameter [mm]		125	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		2.800	3.300
Compression -Fz [kN]		626	1.252
Torsion Mz [Nm]		460	500
Bending Mx [Nm]		350	410
Bending My [Nm]		280	320
Mass [kg]	Upper assembly	1,75	3,5
	Lower assembly	0,8	2
Recommended load [kg] *		56	62
Locking torque VM [Nm]		40	
Locking stroke VH [mm]		0 - 14	

* This guideline applies to the following assumptions:
Acceleration: 10 m/s², gravity distance: 100 mm, 2,5 times safety

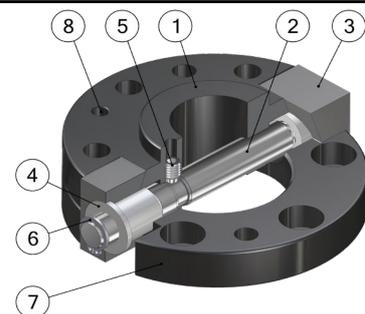


Quick change adapter Ø160, drilled according to ISO...

G-SWA160-2O	upper assembly, Al, anodized
G-SWA160-2O-N	upper assembly, steel, nitrated
G-SWA160-2U	lower assembly, Al, anodized
G-SWA160-2U-N	lower assembly, steel, nitrated

Replacement axis...

EG-SWA160-A	for SWA160
-------------	------------



Pos.	Description
1	Upper assembly
2	Axis
3	Flange
4	Screw nut
5	Setscrew
6	Locking ring
7	Lower assembly
8	Index pin

G-SWS050

Technical specifications



Operating mode:

By rotating the semi-cylindrical bolt by 180° the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner

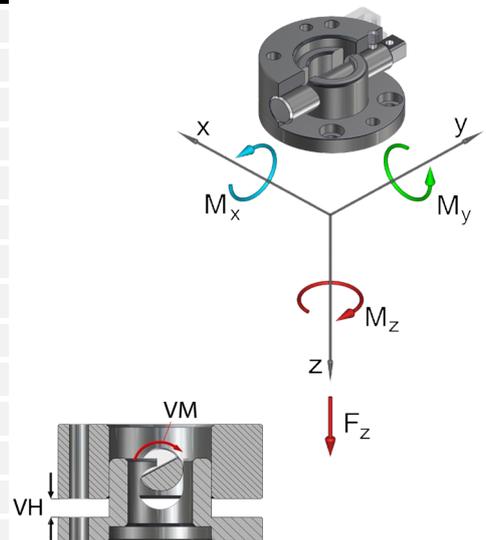
Advantages:

- Cost-effective alternative to the MGW
- Without hand lever, thereby low interference contours
- High repeat accuracy +/- 0,02 mm
- Holds up to 10,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface according to DIN EN ISO 9409-1



Technical specifications		SWS050	
Basic material		steel	steel, nitrated
External diameter x Height [mm]		50 x 30	
Pitch circle diameter [mm]		40	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		700	1.320
Compression -Fz [kN]		72	96
Torsion Mz [Nm]		60	78
Bending Mx, My [Nm]		70	80
Mass [kg]	upper assembly	0,28	
	lower assembly	0,13	
Recommended load [kg] *		14	16
Locking moment VM [Nm]		2 - 6	
Locking stroke VH [mm]		0 - 5	

* This guideline applies to the following assumptions:
Acceleration: 10m/s², gravity distance: 100 mm, double safety



Quick change system Ø50, drilled according to ISO...

G-SWS050-20	upper assembly, steel
G-SWS050-20-N	upper assembly, steel, nitrated
G-MGW050-2U-N	lower assembly, steel, nitrated

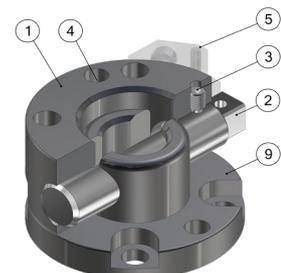
Replacement semi-cylindrical bolt safety...

EG-SWS050-VS2	for SWS050
---------------	------------

Square socket key...

ZG-VKS050-SW08	for SW 08
----------------	-----------

Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Setscrew
4	Index pin
5	Anti-rotation lock (opt.)
9	Lower assembly



G-SWS063

Technical specifications



Operating mode:

By rotating the semi-cylindrical bolt by 180° the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner

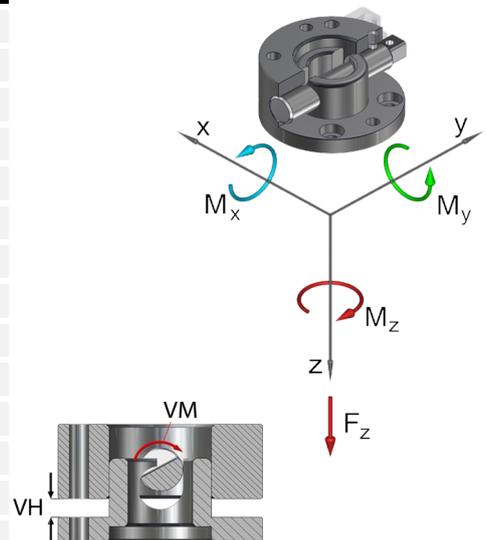
Advantages:

- Cost-effective alternative to the MGW
- Without hand lever, thereby low interference contours
- High repeat accuracy +/- 0,02 mm
- Optional connection of a power coupling MEK for electrical and pneumatical ducts
- Holds up to 10,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface according to DIN EN ISO 9409-1



Technical specifications		SWS063	
Basic material		steel	steel, nitrated
External diameter x Height [mm]		63 x 32	
Pitch circle diameter [mm]		50	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		1.500	1.800
Compression -Fz [kN]		134	178
Torsion Mz [Nm]		80	105
Bending Mx, My [Nm]		100	115
Mass [kg]	upper assembly	0,48	
	lower assembly	0,23	
Recommended load [kg] *		20	22
Locking moment VM [Nm]		3 - 8	
Locking stroke VH [mm]		0 - 6	

* This guideline applies to the following assumptions:
Acceleration: 10m/s², gravity distance: 100 mm, double safety



Quick change system Ø63, drilled according to ISO...

G-SWS063-2O	upper assembly, steel
G-SWS063-2OE	upper assembly, steel, E-Mounting
G-SWS063-2OEN	upper assembly, steel, E-Mounting, nitrated
G-SWS063-2O-N	upper assembly, steel, nitrated
G-MGW063-2UEN	lower assembly, E-Mounting, steel, nitrated
G-MGW063-2U-N	lower assembly, steel, nitrated

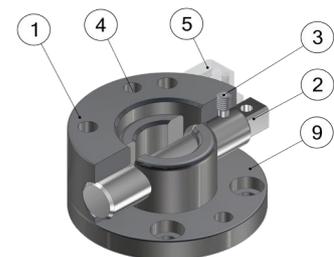
Replacement semi-cylindrical bolt safety...

EG-SWS063-VS2 for SWS063

Square socket key...

ZG-VKS063-SW09 for SW 09

Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Setscrew
4	Index pin
5	Anti-rotation lock (opt.)
9	Lower assembly



G-SWS080

Technical specifications



Operating mode:

By rotating the semi-cylindrical bolt by 180° the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner

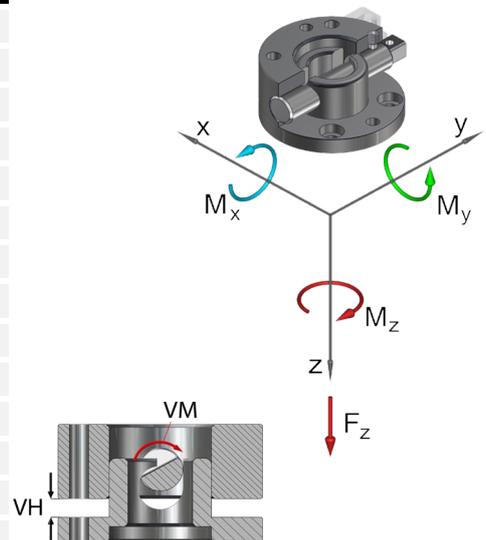
Advantages:

- Cost-effective alternative to the MGW
- Without hand lever, thereby low interference contours
- High repeat accuracy +/- 0,02 mm
- Optional connection of a power coupling MEK for electrical and pneumatical ducts
- Holds up to 10,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface according to DIN EN ISO 9409-1



Technical specifications		SWS080	
Basic material		steel	steel, nitrated
External diameter x Height [mm]		80 x 37	
Pitch circle diameter [mm]		63	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		2.500	3.000
Compression -Fz [kN]		235	313
Torsion Mz [Nm]		100	120
Bending Mx, My [Nm]		140	160
Mass [kg]	upper assembly	0,92	
	lower assembly	0,5	
Recommended load [kg] *		25	28
Locking moment VM [Nm]		3 - 9	
Locking stroke VH [mm]		0 - 8	

* This guideline applies to the following assumptions:
Acceleration: 10m/s², gravity distance: 100 mm, double safety



Quick change system Ø80, drilled according to ISO...

G-SWS080-2O	upper assembly, steel
G-SWS080-2OE	upper assembly, steel, E-Mounting
G-SWS080-2OEN	upper assembly, steel, E-Mounting, nitrated
G-SWS080-2O-N	upper assembly, steel, nitrated
G-MGW080-2UEN	lower assembly, E-Mounting, steel, nitrated
G-MGW080-2U-N	lower assembly, steel, nitrated

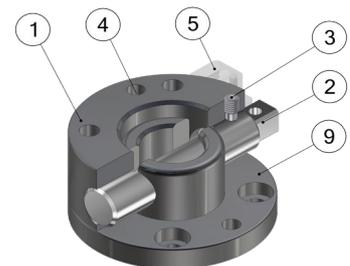
Replacement semi-cylindrical bolt safety...

EG-SWS080-VS2 for SWS080

Square socket key...

ZG-VKS080-SW10 for SW 10

Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Setscrew
4	Index pin
5	Anti-rotation lock (opt.)
9	Lower assembly



G-SWS100

Technical specifications



Operating mode:

By rotating the semi-cylindrical bolt by 180° the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner

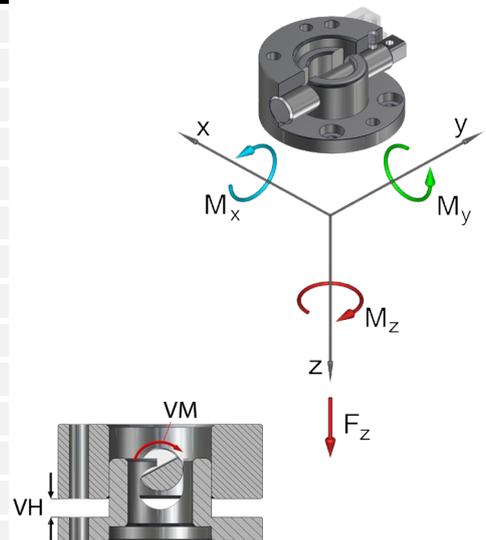
Advantages:

- Cost-effective alternative to the MGW
- Without hand lever, thereby low interference contours
- High repeat accuracy +/- 0,02 mm
- Optional connection of a power coupling MEK for electrical and pneumatical ducts
- Holds up to 10,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface according to DIN EN ISO 9409-1



Technical specifications		SWS100	
Basic material		steel	steel, nitrated
External diameter x Height [mm]		100 x 45	
Pitch circle diameter [mm]		80	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		3.500	4.200
Compression -Fz [kN]		329	439
Torsion Mz [Nm]		140	185
Bending Mx, My [Nm]		180	205
Mass [kg]	upper assembly	1,53	
	lower assembly	1,01	
Recommended load [kg] *		35	39
Locking moment VM [Nm]		3 - 14	
Locking stroke VH [mm]		0 - 8	

* This guideline applies to the following assumptions:
Acceleration: 10m/s², gravity distance: 100 mm, double safety



Quick change system Ø100, drilled according to ISO...

G-SWS100-2O	upper assembly, steel
G-SWS100-2OE	upper assembly, steel, E-Mounting
G-SWS100-2OEN	upper assembly, steel, E-Mounting, nitrated
G-SWS100-2O-N	upper assembly, steel, nitrated
G-MGW100-2UEN	lower assembly, E-Mounting, steel, nitrated
G-MGW100-2U-N	lower assembly, steel, nitrated

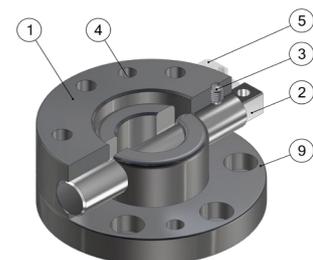
Replacement semi-cylindrical bolt safety...

EG-SWS100-VS2 for SWS100

Square socket key...

ZG-VKS100-SW12 for SW 12

Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Setscrew
4	Index pin
5	Anti-rotation lock (opt.)
9	Lower assembly



G-SWS125

Technical specifications



Operating mode:

By rotating the semi-cylindrical bolt by 180° the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner

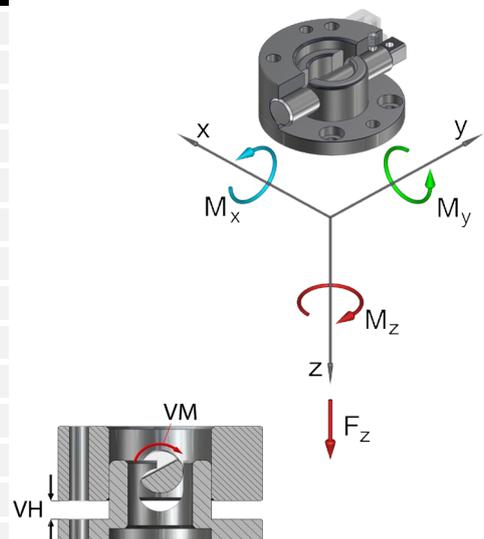
Advantages:

- Cost-effective alternative to the MGW
- Without hand lever, thereby low interference contours
- High repeat accuracy +/- 0,02 mm
- Optional connection of a power coupling MEK for electrical and pneumatical ducts
- Holds up to 10,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface according to DIN EN ISO 9409-1



Technical specifications		SWS125	
Basic material		steel	steel, nitrated
External diameter x Height [mm]		125 x 50	
Pitch circle diameter [mm]		100	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		4.500	5.200
Compression -Fz [kN]		565	754
Torsion Mz [Nm]		180	210
Bending Mx, My [Nm]		220	250
Mass [kg]	upper assembly	2,8	
	lower assembly	1,6	
Recommended load [kg] *		50	55
Locking moment VM [Nm]		3 - 20	
Locking stroke VH [mm]		0 - 8	

* This guideline applies to the following assumptions:
Acceleration: 10m/s², gravity distance: 100 mm, 1,7 times safety



Quick change system Ø125, drilled according to ISO...

G-SWS125-2O	upper assembly, steel
G-SWS125-2OE	upper assembly, steel, E-Mounting
G-SWS125-2OEN	upper assembly, steel, E-Mounting, nitrated
G-SWS125-2O-N	upper assembly, steel, nitrated
G-MGW125-2UEN	lower assembly, E-Mounting, steel, nitrated
G-MGW125-2U-N	lower assembly, steel, nitrated

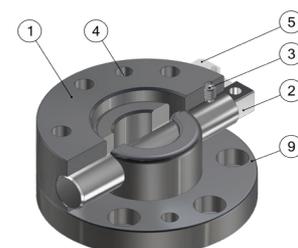
Replacement semi-cylindrical bolt safety...

EG-SWS125-VS2 for SWS125

Square socket key...

ZG-VKS125-SW14 for SW 14

Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Setscrew
4	Index pin
5	Anti-rotation lock (opt.)
9	Lower assembly



G-SWS160

Technical specifications

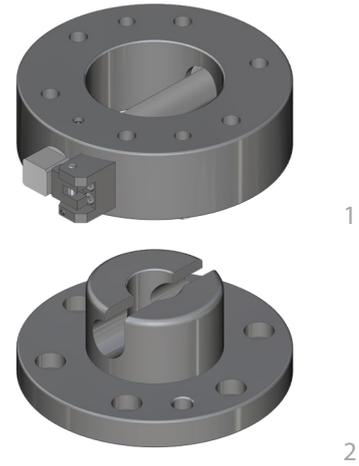


Operating mode:

By rotating the semi-cylindrical bolt by 180° the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner

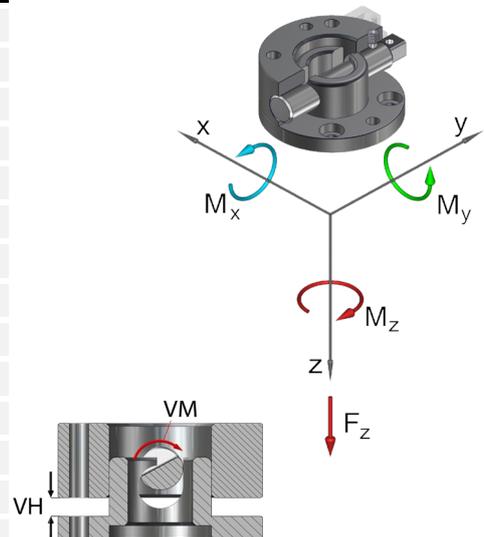
Advantages:

- Cost-effective alternative to the MGW
- Without hand lever, thereby low interference contours
- High repeat accuracy +/- 0,02 mm
- Optional connection of a power coupling MEK for electrical and pneumatical ducts
- Holds up to 10,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface according to DIN EN ISO 9409-1



Technical specifications		SWS160	
Basic material		steel	steel, nitrated
External diameter x Height [mm]		160 x 70	
Pitch circle diameter [mm]		125	
Repeat accuracy +/- [mm]		0,02	
Tension Fz [N]		8.000	10.000
Compression -Fz [kN]		939	1.252
Torsion Mz [Nm]		750	1.000
Bending Mx, My [Nm]		850	1.000
Mass [kg]	upper assembly	6,6	
	lower assembly	3,85	
Recommended load [kg] *		100	120
Locking moment VM [Nm]		4 - 30	
Locking stroke VH [mm]		0 - 10	

* This guideline applies to the following assumptions:
Acceleration: 10m/s², gravity distance: 200 mm, 1,7 times safety



Quick change system Ø160, drilled according to ISO, steel...

G-SWS160-2O	upper assembly, with anti-rotation-protection
G-SWS160-2O-N	upper assembly, nitrated, with anti-rotation-protection
G-SWS160-2OEN	upper assembly, E-Mounting, nitrated, anti-rotation-p.
G-SWS160-2U	lower assembly
G-SWS160-2U-N	lower assembly, nitrated
G-SWS160-2UEN	lower assembly, E-Mounting, nitrated

Replacement semi-cylindrical bolt...

EG-SWS160-HB	for SWS160
--------------	------------

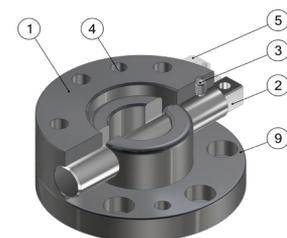
Replacement semi-cylindrical bolt safety...

EG-SWS160-VS2	for SWS160
---------------	------------

Square socket key...

ZG-VKS160-SW20	for SW 20
----------------	-----------

Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Setscrew
4	Index pin
5	Anti-rotation lock
9	Lower assembly



G-SWS160-B02

Technical specifications



Operating mode:

By rotating the semi-cylindrical bolt by 180° the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner

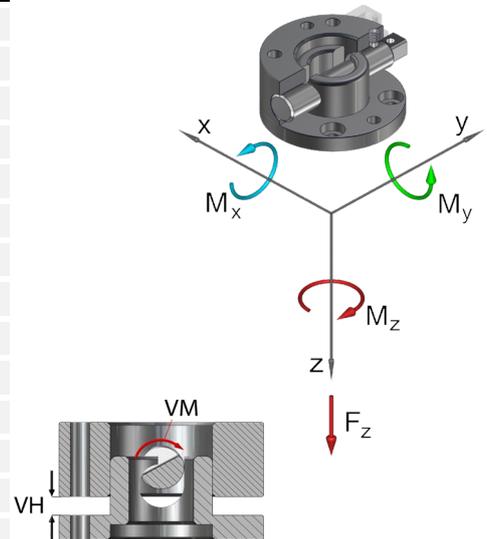
Advantages:

- Reinforced version with pre-centring
- Cost-effective alternative to the MGW
- Without hand lever, thereby low interference contours
- High repeat accuracy +/- 0,02 mm
- Optional connection of a power coupling MEK for electrical and pneumatical ducts
- Holds up to 10,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface according to DIN EN ISO 9409-1



Technical specifications	SWS160-B02	
Basic material	steel	steel, nitrated
External diameter x Height [mm]	160 x 80	
Pitch circle diameter [mm]	125	
Repeat accuracy +/- [mm]	0,02	
Tension Fz [N]	8.000	10.000
Compression -Fz [kN]	939	1.252
Torsion Mz [Nm]	750	1.000
Bending Mx, My [Nm]	950	1.200
Mass [kg]	upper assembly	6,6
	lower assembly	3,85
Recommended load [kg] *	110	130
Locking moment VM [Nm]	4 - 30	
Locking stroke VH [mm]	0 - 10	

* This guideline applies to the following assumptions:
Acceleration: 10m/s², gravity distance: 200 mm, 1,7 times safety



Quick change system Ø160, B02, drilled according to ISO...

G-SWS160-2O/B02	steel, anti-rotation-protection, - pre-centring
G-SWS160-2OEN/B02	E-Mounting, steel, nitrated, with anti-rotation-protection, - pre-centring
G-SWS160-2O-N/B02	steel, nitrated, with anti-rotation-protection, - pre-centring
G-SWS160-2U/B02	lower assembly, steel, with pre-centring
G-SWS160-2UEN/B02	lower assembly, steel, nitrated, with pre-centring, E-Mounting
G-SWS160-2U-N/B02	lower assembly, steel, nitrated, with pre-centring

Replacement semi-cylindrical bolt...

EG-SWS160-HB for SWS160

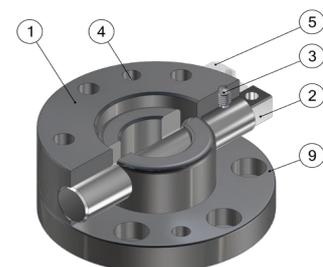
Replacement semi-cylindrical bolt safety...

EG-SWS160-VS2 for SWS160

Square socket key...

ZG-VKS160-SW20 for SW 20

Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Setscrew
4	Index pin
5	Anti-rotation lock
9	Lower assembly



G-SWS200

Technical specifications

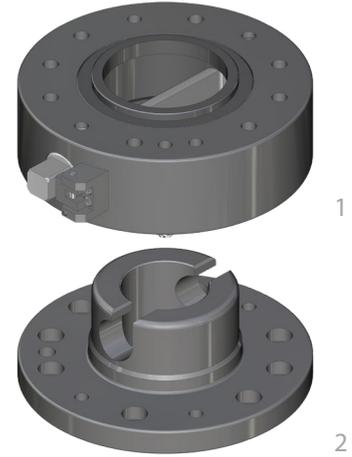


Operating mode:

By rotating the semi-cylindrical bolt by 180° the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner

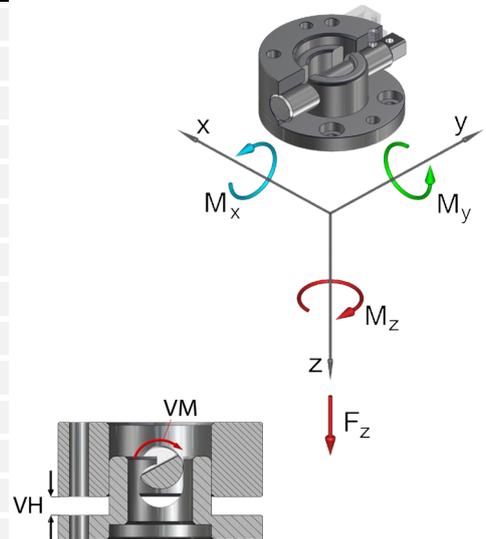
Advantages:

- Cost-effective alternative to the MGW
- Without hand lever, thereby low interference contours
- High repeat accuracy +/- 0,02 mm
- Optional connection of a power coupling MEK for electrical and pneumatical ducts
- Holds up to 10,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface according to DIN EN ISO 9409-1
- Low dead weight due to the combination of steel and aluminum



Technical specifications	SWS200	
Basic material	steel, nitrated + Al	
External diameter x Height [mm]	200 x 85	
Pitch circle diameter [mm]	160	
Repeat accuracy +/- [mm]	0,02	
Tension Fz [N]	14.500	
Compression -Fz [kN]	1.480	
Torsion Mz [Nm]	1.250	
Bending Mx, My [Nm]	1.350	
Mass [kg]	upper assembly	6,4
	lower assembly	6
Recommended load [kg] *	160	
Locking moment VM [Nm]	5 - 35	
Locking stroke VH [mm]	0 - 10	

* This guideline applies to the following assumptions:
Acceleration: 10m/s², gravity distance: 200 mm, 1,7 times safety



Quick change system Ø200...

drilled according to ISO, steel, nitrated, with pre-centring...

G-SWS200-2OEN	upper assembly, E-Mounting, anti-rotation-prot.
G-SWS200-2OEN-M12	for M12, upper assembly, E-Mounting, anti-rotation-protection
G-SWS200-2O-N	upper assembly, anti-rotation-protection
G-SWS200-2O-N-M12	for M12, upper assembly, anti-rotation-protection
G-SWS200-2UEN	lower assembly, E-Mounting
G-SWS200-2UEN-M12	for M12, lower assembly, E-Mounting
G-SWS200-2U-N	lower assembly
G-SWS200-2U-N-M12	for M12, lower assembly

Replacement semi-cylindrical bolt...

EG-SWS200-HB	for SWS200
--------------	------------

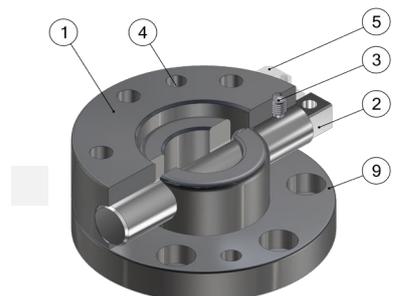
Replacement semi-cylindrical bolt safety...

EG-SWS200-VS2	for SWS200
---------------	------------

Square socket key...

ZG-VKS160-SW20	for SW 20
----------------	-----------

Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Setscrew
4	Index pin
5	Anti-rotation lock
9	Lower assembly



G-SWS250

Technical specifications

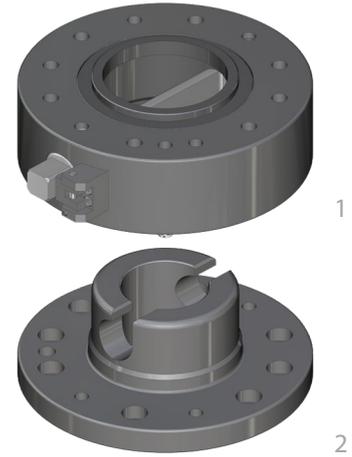


Operating mode:

By rotating the semi-cylindrical bolt by 180° the upper assembly (1) and the lower assembly (2) are braced in a form-closed manner

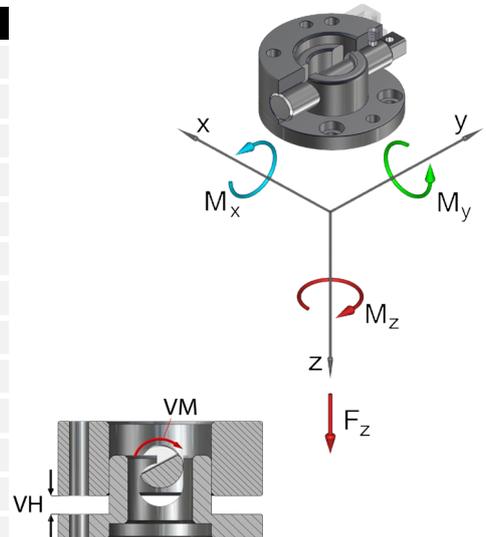
Advantages:

- Cost-effective alternative to the MGW
- Without hand lever, thereby low interference contours
- High repeat accuracy +/- 0,02 mm
- Optional connection of a power coupling MEK for electrical and pneumatical ducts
- Holds up to 10,000 changing cycles
- During locking, the lower assembly is pulled around the locking stroke
- Interface according to DIN EN ISO 9409-1
- Low dead weight due to the combination of steel and aluminum



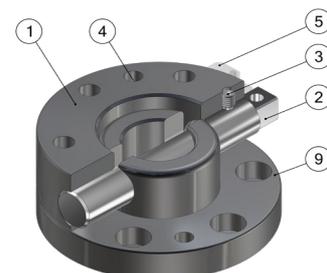
Technical specifications		SWS250
Basic material		steel, nitrated + Al
External diameter x Height [mm]		250 x 104
Pitch circle diameter [mm]		200
Repeat accuracy +/- [mm]		0,02
Tension Fz [N]		18.500
Compression -Fz [kN]		1.950
Torsion Mz [Nm]		1.600
Bending Mx, My [Nm]		1.800
Mass [kg]	upper assembly	11,6
	lower assembly	12,2
Recommended load [kg] *		200
Locking moment VM [Nm]		6 - 40
Locking stroke VH [mm]		0 - 10

* This guideline applies to the following assumptions:
Acceleration: 10m/s², gravity distance: 250 mm, 1,5 times safety



Quick change system Ø250... drilled according to ISO, steel, nitrated...	
G-SWS250-2OEN	upper assembly, E-Mounting, with anti-rotation-protection, - pre-centring
G-SWS250-2O-N	upper assembly, with anti-rotation-protection
G-SWS250-2UEN	lower assembly, E-Mounting, with pre-centring
G-SWS250-2U-N	lower assembly, steel, nitrated
Replacement semi-cylindrical bolt...	
EG-SWS250-HB	for SWS250
Replacement semi-cylindrical bolt safety...	
EG-SWS250-HB	for SWS250
Square socket key...	
ZG-VKS160-SW20	for SW 20

Pos.	Description
1	Upper assembly
2	Semi-cylindrical bolt
3	Setscrew
4	Index pin
5	Anti-rotation lock
9	Lower assembly



G-MEK063

Technical specifications



Operation mode:

The MEK upper assembly (1) is mounted on the MGW or SWS top.

Connect the MEK base (2) to the MGW base.

The MEK is automatically coupled by the mechanical connection of the change system.

Advantages:

Mechanical, pneumatic and electric connections are established simultaneously.

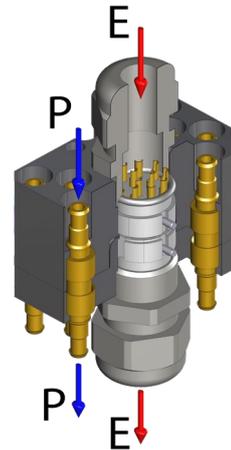
Can withstand 50,000 alternating cycles

Individual wiring

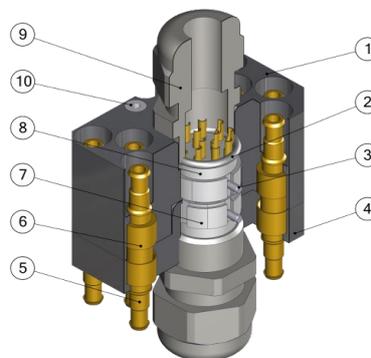
Coding of the interchangeable parts



Technical specifications		MEK063	
Suitable for		MGW063, SWS063	
Pneumatic ducts	number P	4 / 8	
	nominal width NW [mm]	PK2 / PK3 / PK4	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	12	4
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
Mass [kg]	upper assembly	0,11	
	base	0,06	
Protection class (higher requirement only on request)		IP40	



Pos.	Description
1	Upper assembly
2	O-Ring
3	Cylindrical pin
4	Base
5	Female coupling
6	Male coupling
7	Insulation body / bushings
8	Insulation body / pins
9	Screwed cable gland Pg11
10	Mounting screw O



Multi energy coupling Ø63...

G-MEK063-O-4PK2-1E12	upper assembly, 4 x air, ID = 2 mm, electrical connector 12 poles
G-MEK063-O-4PK2-1E4	upper assembly, 4 x air, ID = 2 mm, electrical connector 4 poles
G-MEK063-O-4PK3-1E12	upper assembly, 4 x air, ID = 3 mm, electrical connector 12 poles
G-MEK063-O-4PK3-1E4	upper assembly, 4 x air, ID = 3 mm, electrical connector 4 poles
G-MEK063-O-4PK4-1E12	upper assembly, 4 x air, ID = 4 mm, electrical connector 12 poles
G-MEK063-O-4PK4-1E4	upper assembly, 4 x air, ID = 4 mm, electrical connector 4 poles
G-MEK063-O-8PK2-1E12	upper assembly, 8 x air, ID = 2 mm, electrical connector 12 poles
G-MEK063-O-8PK2-1E4	upper assembly, 8 x air, ID = 2 mm, electrical connector 4 poles
G-MEK063-O-8PK3-1E12	upper assembly, 8 x air, ID = 3 mm, electrical connector 12 poles
G-MEK063-O-8PK3-1E4	upper assembly, 8 x air, ID = 3 mm, electrical connector 4 poles
G-MEK063-O-8PK4-1E12	upper assembly, 8 x air, ID = 4 mm, electrical connector 12 poles
G-MEK063-O-8PK4-1E4	upper assembly, 8 x air, ID = 4 mm, electrical connector 4 poles
G-MEK063-U-4PK2-1E12	base, 4 x air, ID = 2 mm, electrical bushing 12 poles
G-MEK063-U-4PK2-1E4	base, 4 x air, ID = 2 mm, electrical bushing 4 poles
G-MEK063-U-4PK3-1E12	base, 4 x air, ID = 3 mm, electrical bushing 12 poles
G-MEK063-U-4PK3-1E4	base, 4 x air, ID = 3 mm, electrical bushing 4 poles
G-MEK063-U-4PK4-1E12	base, 4 x air, ID = 4 mm, electrical bushing 12 poles
G-MEK063-U-4PK4-1E4	base, 4 x air, ID = 4 mm, electrical bushing 4 poles
G-MEK063-U-8PK2-1E12	base, 8 x air, ID = 2 mm, electrical bushing 12 poles
G-MEK063-U-8PK2-1E4	base, 8 x air, ID = 2 mm, electrical bushing 4 poles
G-MEK063-U-8PK3-1E12	base, 8 x air, ID = 3 mm, electrical bushing 12 poles
G-MEK063-U-8PK3-1E4	base, 8 x air, ID = 3 mm, electrical bushing 4 poles
G-MEK063-U-8PK4-1E12	base, 8 x air, ID = 4 mm, electrical bushing 12 poles
G-MEK063-U-8PK4-1E4	base, 8 x air, ID = 4 mm, electrical bushing 4 poles

G-MEK063-3PM5-1E12

Technical specifications



Operation mode:

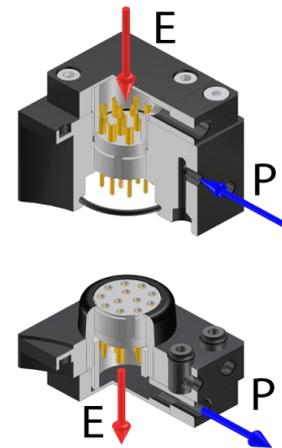
The MEK upper assembly (1) is mounted on the MGW or SWS top.
 Connect the MEK base (2) to the MGW base.
 The MEK is automatically coupled by the mechanical connection of the change system.

Advantages:

- Mechanical, pneumatic and electric connections are established simultaneously.
- Can withstand 50,000 alternating cycles
- Individual wiring
- Coding of the interchangeable parts

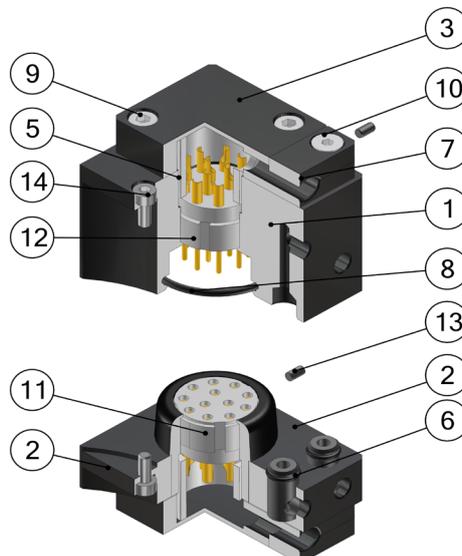


Technical specifications		MEK063	
Suitable for		MGW063, SWS063	
Pneumatic ducts	number P	3	
	nominal width NW [mm]	M5	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	12	4
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
Mass [kg]	upper assembly	0,11	
	base	0,06	
Protection class (higher requirement only on request)		IP40	



Pos.	Description
1	Upper assembly
2	Base
3	Cover
5	Distance bushing
6	O-Ring
7	Strain relief
8	O-Ring
9	Socket head screw
10	Countersunk head screw
11	Electrical bushing
12	Electrical plug
13	Cylindrical pin
14	Mounting screw
15	Cable (optional)

Multi energy coupling Ø63, 6 x air...		
G-MEK063-O-3PM5-1E12	upper assembly, M5 radial, el. plug 12 poles	
G-MEK063-U-3PM5-1E12	base, M5 radial, el. bushing 12 poles	



G-MEK063-6PM5-1E12

Technical specifications

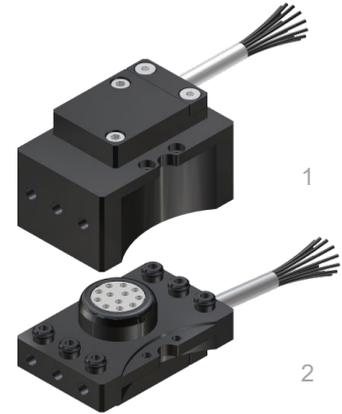


Operation mode:

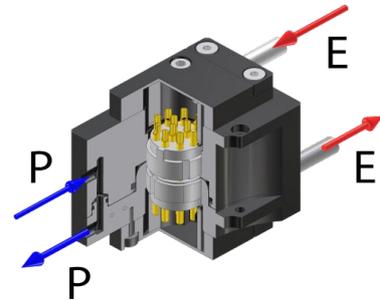
The MEK upper assembly (1) is mounted on the MGW or SWS top.
 Connect the MEK base (2) to the MGW base.
 The MEK is automatically coupled by the mechanical connection of the change system.

Advantages:

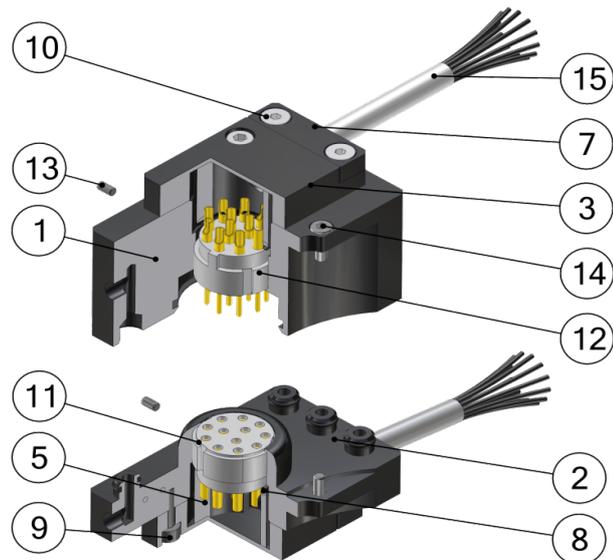
- Mechanical, pneumatic and electric connections are established simultaneously.
- Can withstand 50,000 alternating cycles
- Individual wiring
- Coding of the interchangeable parts



Technical specifications		MEK063	
Suitable for		MGW063, SWS063	
Pneumatic ducts	number P	6	
	nominal width NW [mm]	M5	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	12	4
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
	Mass [kg]	upper assembly	0,11
base		0,06	
Protection class (higher requirement only on request)		IP40	



Pos.	Description
1	Upper assembly
2	Base
3	Cover
5	Distance bushing
6	O-Ring
7	Strain relief
8	O-Ring
9	Socket head screw
10	Countersunk head screw
11	Electrical bushing
12	Electrical plug
13	Cylindrical pin
14	Mounting screw
15	Cable (optional)



Multi energy coupling Ø63...

G-MEK063-O-6PM5	upper assembly, 6 x air, M5 radial
G-MEK063-U-6PM5	base, 6 x air, M5 radial
G-MEK063-O-6PM5-1E12	upper assembly, 6 x air, M5 radial, electrical plug 12 poles
G-MEK063-U-6PM5-1E12	base, 6 x air, M5 radial, electrical bushing 12 poles
G-MEK063-O-6PM5-1E12-M12-300	upper assembly, 6 x air, M5 radial, electrical plug 12 poles, with 300 mm cable, plug M12
G-MEK063-U-6PM5-1E12-M12-300	base, 6 x air, M5 radial, electrical bushing 12 poles, with 300 mm cable , bushing M12

G-MEK063-R

Technical specifications



Operation mode:

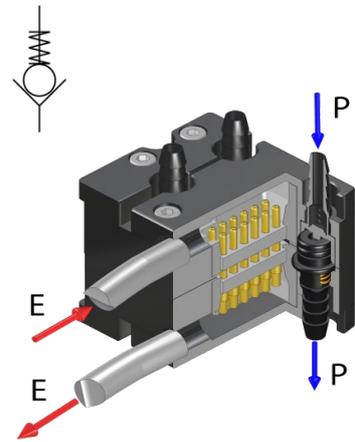
The MEK upper assembly (1) is mounted on the MGW or SWS top.
 Connect the MEK base (2) to the MGW base.
 The MEK is automatically coupled by the mechanical connection of the change system.

Advantages:

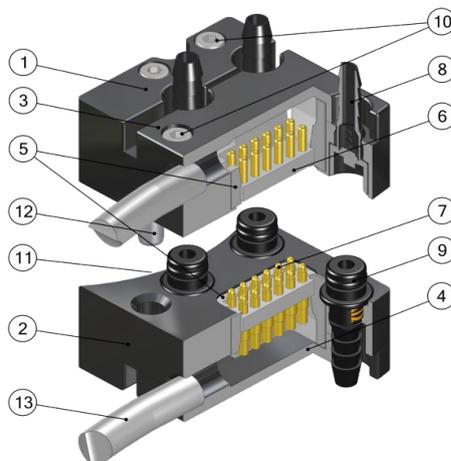
- Mechanical, pneumatic and electric connections are established simultaneously.
- Can withstand 50,000 alternating cycles
- Individual wiring
- Coding of the interchangeable parts
- Improved electrical connection by spring mounted poles
- Automatic closing of pneumatic ducts by integrated check valves



Technical specifications		MEK063-R
Suitable for		MGW063, SWS063
Pneumatic ducts	number P	4
	nominal width NW [mm]	PR4
	operating pressure p [bar]	-1 to 8
Electrical ducts	no. of poles E	12
	rated current per pole I [A]	2
	rated voltage U (max. voltage) [V]	63 (120)
	contact resistance per pole R [mΩ]	<20
	contact durability (cycles)	50.000
Mass [kg]	upper assembly	0,11
	base	0,06
Protection class (higher requirement only on request)		IP40



Pos.	Description
1	Upper assembly
2	Base
3	Upper cover
4	Lower cover
5	Insulation frame
6	Electrical bushing strip
7	Electrical plug strip
8	Female coupling (check valve)
9	Male coupling
10	Mounting screw
11	Mounting screw
12	Index pin
13	Cable (optional)



Multi energy coupling Ø63 with check valve

G-MEK063-O-4PR4	upper assembly, 4 x air, ID = 4 mm
G-MEK063-O-4PR4-1FE12	upper assembly, 4 x air, ID = 4 mm, electric socket (suitable for suspension) 12 poles
G-MEK063-O-4PR4-1FE12-2000OE	upper assembly, 4 x air, ID = 4 mm, electric socket (suitable for suspension) 12 poles, with 2000 mm cable, open end
G-MEK063-O-4PR4-1FE12-300-M12	upper assembly, 4 x air, ID = 4 mm, electric socket (suitable for suspension) 12 poles, with 300 mm cable and M12 circular plug-in connector
G-MEK063-U-4PR4	base, 4 x air (suitable for check valve), ID = 4 mm
G-MEK063-U-4PR4-1FE12	base, 4 x air (suitable for check valve), ID = 4 mm, spring m. electric plug, 12 poles
G-MEK063-U-4PR4-1FE12-2000OE	base, 4 x air (suitable for check valve), ID = 4 mm, spring m. electric plug, 12 poles, with 2000 mm cable, open end
G-MEK063-U-4PR4-1FE12-300-M12	base, 4 x air (suitable for check valve), ID = 4 mm, spring m. electric plug, 12 poles, with 300 mm cable and M12 cylindrical plug-in connector

G-MEK080

Technical specifications



Operation mode:

The MEK upper assembly (1) is mounted on the MGW or SWS top.

Connect the MEK base (2) to the MGW base.

The MEK is automatically coupled by the mechanical connection of the change system.

Advantages:

Mechanical, pneumatic and electric connections are established simultaneously.

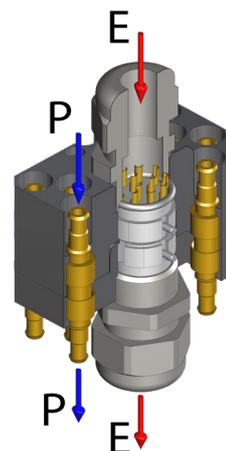
Can withstand 50,000 alternating cycles

Individual wiring

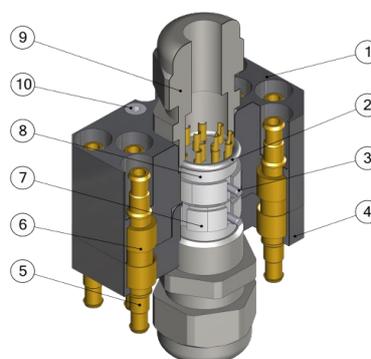
Coding of the interchangeable parts



Technical specifications		MEK080	
Suitable for		MGW080, SWS080	
Pneumatic ducts	number P	4 / 8	
	nominal width NW [mm]	PK2 / PK3 / PK4	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	12	4
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
Mass [kg]	upper assembly	0,15	
	base	0,07	
Protection class (higher requirement only on request)		IP40	



Pos.	Description
1	Upper assembly
2	O-Ring
3	Cylindrical pin
4	Base
5	Female coupling
6	Male coupling
7	Insulation body / bushings
8	Insulation body / pins
9	Screwed cable gland Pg11
10	Mounting screw O



Multi energy coupling Ø80...

G-MEK080-O-4PK2-1E12	upper assembly, 4 x air, ID = 2 mm, electrical connector 12 poles
G-MEK080-O-4PK2-1E4	upper assembly, 4 x air, ID = 2 mm, electrical connector 4 poles
G-MEK080-O-4PK3-1E12	upper assembly, 4 x air, ID = 3 mm, electrical connector 12 poles
G-MEK080-O-4PK3-1E4	upper assembly, 4 x air, ID = 3 mm, electrical connector 4 poles
G-MEK080-O-4PK4-1E12	upper assembly, 4 x air, ID = 4 mm, electrical connector 12 poles
G-MEK080-O-4PK4-1E4	upper assembly, 4 x air, ID = 4 mm, electrical connector 4 poles
G-MEK080-O-8PK2-1E12	upper assembly, 8 x air, ID = 2 mm, electrical connector 12 poles
G-MEK080-O-8PK2-1E4	upper assembly, 8 x air, ID = 2 mm, electrical connector 4 poles
G-MEK080-O-8PK3-1E12	upper assembly, 8 x air, ID = 3 mm, electrical connector 12 poles
G-MEK080-O-8PK3-1E4	upper assembly, 8 x air, ID = 3 mm, electrical connector 4 poles
G-MEK080-O-8PK4-1E12	upper assembly, 8 x air, ID = 4 mm, electrical connector 12 poles
G-MEK080-O-8PK4-1E4	upper assembly, 8 x air, ID = 4 mm, electrical connector 4 poles
G-MEK080-U-4PK2-1E12	base, 4 x air, ID = 2 mm, electrical bushing 12 poles
G-MEK080-U-4PK2-1E4	base, 4 x air, ID = 2 mm, electrical bushing 4 poles
G-MEK080-U-4PK3-1E12	base, 4 x air, ID = 3 mm, electrical bushing 12 poles
G-MEK080-U-4PK3-1E4	base, 4 x air, ID = 3 mm, electrical bushing 4 poles
G-MEK080-U-4PK4-1E12	base, 4 x air, ID = 4 mm, electrical bushing 12 poles
G-MEK080-U-4PK4-1E4	base, 4 x air, ID = 4 mm, electrical bushing 4 poles
G-MEK080-U-8PK2-1E12	base, 8 x air, ID = 2 mm, electrical bushing 12 poles
G-MEK080-U-8PK2-1E4	base, 8 x air, ID = 2 mm, electrical bushing 4 poles
G-MEK080-U-8PK3-1E12	base, 8 x air, ID = 3 mm, electrical bushing 12 poles
G-MEK080-U-8PK3-1E4	base, 8 x air, ID = 3 mm, electrical bushing 4 poles
G-MEK080-U-8PK4-1E12	base, 8 x air, ID = 4 mm, electrical bushing 12 poles
G-MEK080-U-8PK4-1E4	base, 8 x air, ID = 4 mm, electrical bushing 4 poles

G-MEK080-6PM5-1E12

Technical specifications



Operation mode:

The MEK upper assembly (1) is mounted on the MGW or SWS top.

Connect the MEK base (2) to the MGW base.

The MEK is automatically coupled by the mechanical connection of the change system.

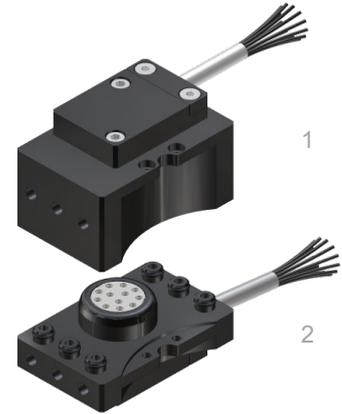
Advantages:

Mechanical, pneumatic and electric connections are established simultaneously.

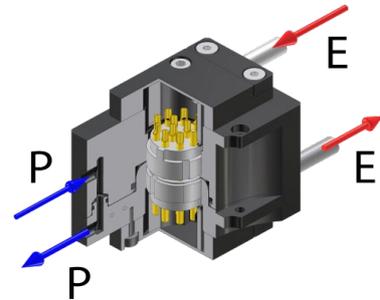
Can withstand 50,000 alternating cycles

Individual wiring

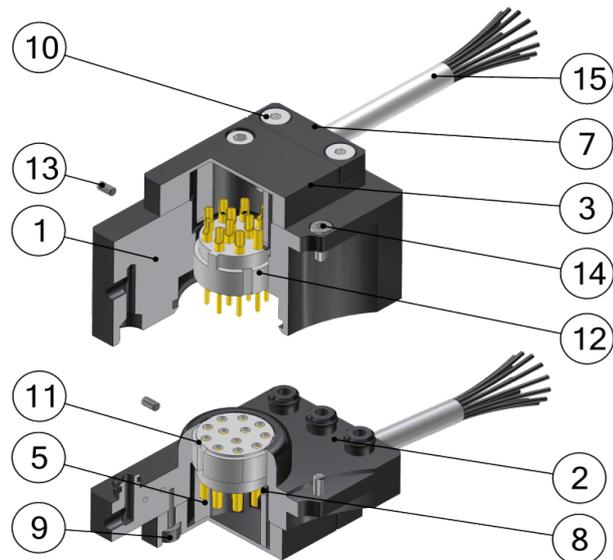
Coding of the interchangeable parts



Technical specifications		MEK080	
Suitable for		MGW080, SWS080	
Pneumatic ducts	number P	6	
	nominal width NW [mm]	M5	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	12	4
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
	Mass [kg]	upper assembly	0,11
base		0,06	
Protection class (higher requirement only on request)		IP40	



Pos.	Description
1	Upper assembly
2	Base
3	Cover
5	Distance bushing
6	O-Ring
7	Strain relief
8	O-Ring
9	Socket head screw
10	Countersunk head screw
11	Electrical bushing
12	Electrical plug
13	Cylindrical pin
14	Mounting screw
15	Cable (optional)



Multi energy coupling Ø80...

G-MEK080-O-6PM5	upper assembly, 6 x air, M5 radial
G-MEK080-U-6PM5	base, 6 x air, M5 radial
G-MEK080-O-6PM5-1E12	upper assembly, 6 x air, M5 radial, electrical plug 12 poles
G-MEK080-U-6PM5-1E12	base, 6 x air, M5 radial, electrical bushing 12 poles
G-MEK080-O-6PM5-1E12-M12-300	upper assembly, 6 x air, M5 radial, electrical plug 12 poles, with 300 mm cable, plug M12
G-MEK080-U-6PM5-1E12-M12-300	base, 6 x air, M5 radial, electrical bushing 12 poles, with 300 mm cable , bushing M12

G-MEK100

Technical specifications



Operation mode:

The MEK upper assembly (1) is mounted on the MGW or SWS top.

Connect the MEK base (2) to the MGW base.

The MEK is automatically coupled by the mechanical connection of the change system.

Advantages:

Mechanical, pneumatic and electric connections are established simultaneously.

Can withstand 50,000 alternating cycles

Individual wiring

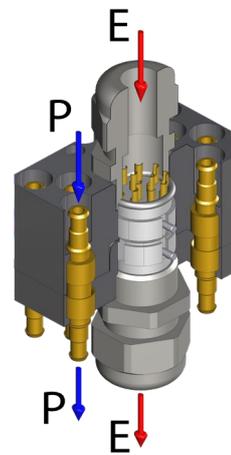
Coding of the interchangeable parts



1

2

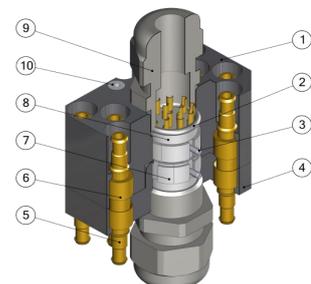
Technical specifications		MEK100	
Suitable for		MGW100, SWS100	
Pneumatic ducts	number P	8	
	nominal width NW [mm]	PK2 / PK3 / PK4	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	12	4
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
Mass [kg]	upper assembly	0,2	
	base	0,13	
Protection class (higher requirement only on request)		IP40	



Multi energy coupling Ø100, 8 x air...

G-MEK100-O-8PK2-1E12	upper assembly, ID = 2 mm, el. connector 12 poles
G-MEK100-O-8PK2-1E4	upper assembly, ID = 2 mm, el. connector 4 poles
G-MEK100-O-8PK3-1E12	upper assembly, ID = 3 mm, el. connector 12 poles
G-MEK100-O-8PK3-1E4	upper assembly, ID = 3 mm, el. connector 4 poles
G-MEK100-O-8PK4-1E12	upper assembly, ID = 4 mm, el. connector 12 poles
G-MEK100-O-8PK4-1E4	upper assembly, ID = 4 mm, el. connector 4 poles
G-MEK100-U-8PK2-1E12	base, ID = 2 mm, electrical bushing 12 poles
G-MEK100-U-8PK2-1E4	base, ID = 2 mm, electrical bushing 4 poles
G-MEK100-U-8PK3-1E12	base, ID = 3 mm, electrical bushing 12 poles
G-MEK100-U-8PK3-1E4	base, ID = 3 mm, electrical bushing 4 poles
G-MEK100-U-8PK4-1E12	base, ID = 4 mm, electrical bushing 12 poles
G-MEK100-U-8PK4-1E4	base, ID = 4 mm, electrical bushing 4 poles

Pos.	Description
1	Upper assembly
2	O-Ring
3	Cylindrical pin
4	Base
5	Female coupling
6	Male coupling
7	Insulation body / bushings
8	Insulation body / pins
9	Screwed cable gland Pg11
10	Mounting screw O



G-MEK100-R

Technical specifications

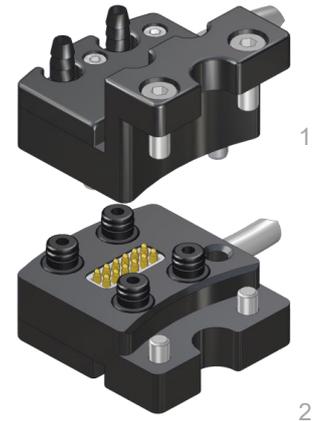


Operation mode:

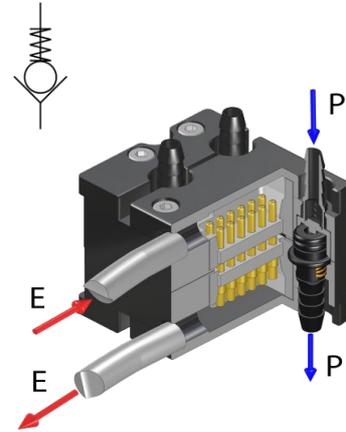
The MEK upper assembly (1) is mounted on the MGW or SWS top.
 Connect the MEK base (2) to the MGW base.
 The MEK is automatically coupled by the mechanical connection of the change system.

Advantages:

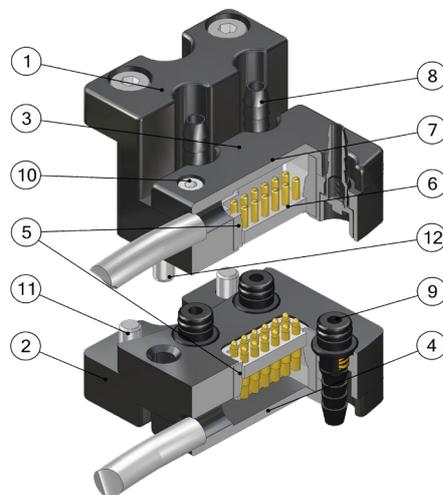
- Mechanical, pneumatic and electric connections are established simultaneously.
- Can withstand 50,000 alternating cycles
- Individual wiring
- Coding of the interchangeable parts
- Improved electrical connection by spring mounted poles
- Automatic closing of pneumatic ducts by integrated check valves



Technical specifications		MEK063-R
Suitable for		MGW100, SWS100
Pneumatic ducts	number P	4
	nominal width NW [mm]	PR4
	operating pressure p [bar]	-1 to 8
Electrical ducts	no. of poles E	12
	rated current per pole I [A]	2
	rated voltage U (max. voltage) [V]	63 (120)
	contact resistance per pole R [mΩ]	<20
	contact durability (cycles)	50.000
Mass [kg]	upper assembly	0,11
	base	0,06
Protection class (higher requirement only on request)		IP40



Pos.	Description
1	Upper assembly
2	Base
3	Upper cover
4	Lower cover
5	Insulation frame
6	Electrical bushing strip
7	Electrical plug strip
8	Female coupling (check valve)
9	Male coupling
10	Mounting screw
11	Mounting screw
12	Index pin
13	Cable (optional)



Multi energy coupling Ø100 with check valve

G-MEK100-O-4PR4	upper assembly, 4 x air, ID = 4 mm
G-MEK100-O-4PR4-1FE12	upper assembly, 4 x air, ID = 4 mm, electric socket (suitable for suspension) 12 poles
G-MEK100-O-4PR4-1FE12-2000OE	upper assembly, 4 x air, ID = 4 mm, electric socket (suitable for suspension) 12 poles, with 2000 mm cable, open end
G-MEK100-O-4PR4-1FE12-300-M12	upper assembly, 4 x air, ID = 4 mm, electric socket (suitable for suspension) 12 poles, with 300 mm cable and M12 circular plug-in connector
G-MEK100-U-4PR4	base, 4 x air (suitable for check valve), ID = 4 mm
G-MEK100-U-4PR4-1FE12	base, 4 x air (suitable for check valve), ID = 4 mm, spring m. electric plug, 12 poles
G-MEK100-U-4PR4-1FE12-2000OE	base, 4 x air (suitable for check valve), ID = 4 mm, spring m. electric plug, 12 poles, with 2000 mm cable, open end
G-MEK100-U-4PR4-1FE12-300-M12	base, 4 x air (suitable for check valve), ID = 4 mm, spring m. electric plug, 12 poles, with 300 mm cable and M12 cylindrical plug-in connector

G-MEK125

Technical specifications



Operation mode:

The MEK upper assembly (1) is mounted on the MGW or SWS top.

Connect the MEK base (2) to the MGW base.

The MEK is automatically coupled by the mechanical connection of the change system.

Advantages:

Mechanical, pneumatic and electric connections are established simultaneously.

Can withstand 50,000 alternating cycles

Individual wiring

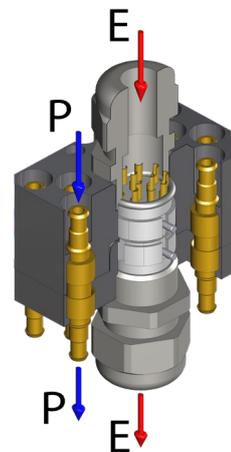
Coding of the interchangeable parts



1

2

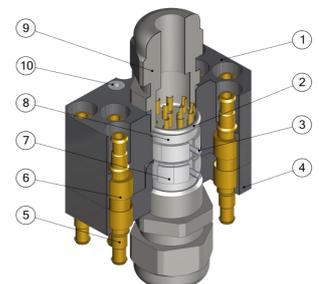
Technical specifications		MEK125	
Suitable for		MGW125, SWS125	
Pneumatic ducts	number P	8	
	nominal width NW [mm]	PK2 / PK3 / PK4	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	12	4
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
Mass [kg]	upper assembly	0,3	
	base	0,15	
Protection class (higher requirement only on request)		IP40	



Multi energy coupling Ø125, 8 x air...

G-MEK125-O-8PK2-1E12	upper assembly, ID = 2 mm, el. connector 12 poles
G-MEK125-O-8PK2-1E4	upper assembly, ID = 2 mm, el. connector 4 poles
G-MEK125-O-8PK3-1E12	upper assembly, ID = 3 mm, el. connector 12 poles
G-MEK125-O-8PK3-1E4	upper assembly, ID = 3 mm, el. connector 4 poles
G-MEK125-O-8PK4-1E12	upper assembly, ID = 4 mm, el. connector 12 poles
G-MEK125-O-8PK4-1E4	upper assembly, ID = 4 mm, el. connector 4 poles
G-MEK125-U-8PK2-1E12	base, ID = 2 mm, electrical bushing 12 poles
G-MEK125-U-8PK2-1E4	base, ID = 2 mm, electrical bushing 4 poles
G-MEK125-U-8PK3-1E12	base, ID = 3 mm, electrical bushing 12 poles
G-MEK125-U-8PK3-1E4	base, ID = 3 mm, electrical bushing 4 poles
G-MEK125-U-8PK4-1E12	base, ID = 4 mm, electrical bushing 12 poles
G-MEK125-U-8PK4-1E4	base, ID = 4 mm, electrical bushing 4 poles

Pos.	Description
1	Upper assembly
2	O-Ring
3	Cylindrical pin
4	Base
5	Female coupling
6	Male coupling
7	Insulation body / bushings
8	Insulation body / pins
9	Screwed cable gland Pg11
10	Mounting screw O



G-MEK160-4P-1E

Technical specifications



Operation mode:

The MEK upper assembly (1) is mounted on the MGW or SWS top.

Connect the MEK base (2) to the MGW base.

The MEK is automatically coupled by the mechanical connection of the change system.

Advantages:

Mechanical, pneumatic and electric connections are established simultaneously.

Can withstand 50,000 alternating cycles

Individual wiring

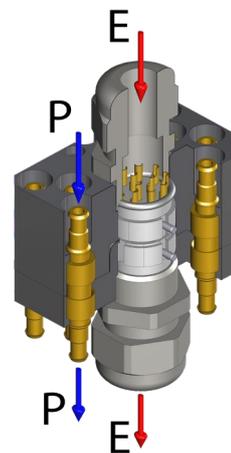
Coding of the interchangeable parts



1

2

Technical specifications		MEK160-4P-1E	
Suitable for		MGW160, SWS160	
Pneumatic ducts	number P	4	
	nominal width NW [mm]	PK6	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	12	4
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
Mass [kg]	upper assembly	0,3	
	base	0,15	
Protection class (higher requirement only on request)		IP40	



Pos.	Description
1	Upper assembly
2	O-Ring
3	Cylindrical pin
4	Base
5	Female coupling
6	Male coupling
7	Insulation body / bushings
8	Insulation body / pins
9	Screwed cable gland Pg11
10	Mounting screw O

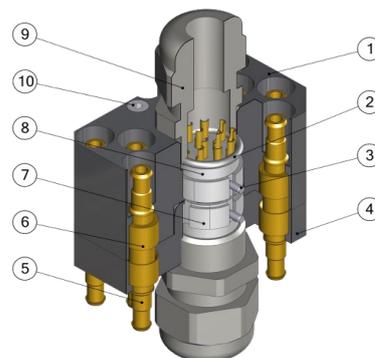
Multi energy coupling Ø160-4P-1E, 4 x air...

G-MEK160-O-4PK6-1E12 upper assembly, ID = 6 mm, el. connector 12 poles

G-MEK160-O-4PK6-1E4 upper assembly, ID = 6 mm, el. connector 4 poles

G-MEK160-U-4PK6-1E12 base, ID = 6 mm, electrical bushing 12 poles

G-MEK160-U-4PK6-1E4 base, ID = 6 mm, electrical bushing 4 poles



G-MEK160-8P-1E

Technical specifications



Operation mode:

The MEK upper assembly (1) is mounted on the MGW or SWS top.

Connect the MEK base (2) to the MGW base.

The MEK is automatically coupled by the mechanical connection of the change system.

Advantages:

Mechanical, pneumatic and electric connections are established simultaneously.

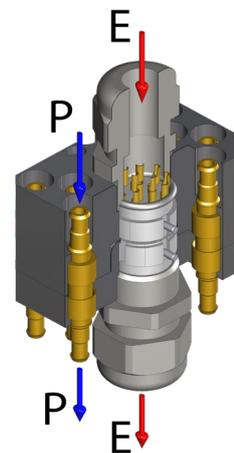
Can withstand 50,000 alternating cycles

Individual wiring

Coding of the interchangeable parts



Technical specifications		MEK160-8P-1E	
Suitable for		MGW160, SWS160	
Pneumatic ducts	number P	8	
	nominal width NW [mm]	PK2 / PK3 / PK4	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	12	4
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
Mass [kg]	upper assembly	0,2	
	base	0,12	
Protection class (higher requirement only on request)		IP40	



Pos.	Description
1	Upper assembly
2	O-Ring
3	Cylindrical pin
4	Base
5	Female coupling
6	Male coupling
7	Insulation body / bushings
8	Insulation body / pins
9	Screwed cable gland Pg11
10	Mounting screw O

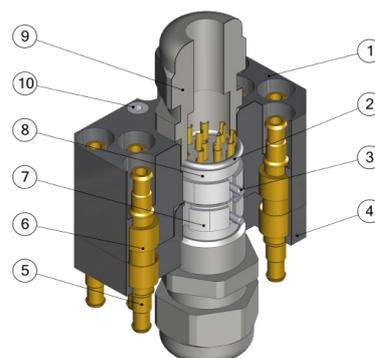
Multi energy coupling Ø160-8P-1E, 8 x air...

G-MEK160-O-8PK4-1E12 upper assembly, ID = 4 mm, el. connector 12 poles

G-MEK160-O-8PK4-1E4 upper assembly, ID = 4 mm, el. connector 12 poles

G-MEK160-U-8PK4-1E12 base, ID = 4 mm, electrical bushing 12 poles

G-MEK160-U-8PK4-1E4 base, ID = 4 mm, electrical bushing 12 poles



G-MEK160-8P-2E

Technical specifications



Operation mode:

The MEK upper assembly (1) is mounted on the MGW or SWS top.

Connect the MEK base (2) to the MGW base.

The MEK is automatically coupled by the mechanical connection of the change system.

Advantages:

Mechanical, pneumatic and electric connections are established simultaneously.

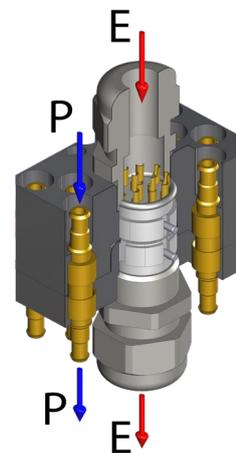
Can withstand 50,000 alternating cycles

Individual wiring

Coding of the interchangeable parts



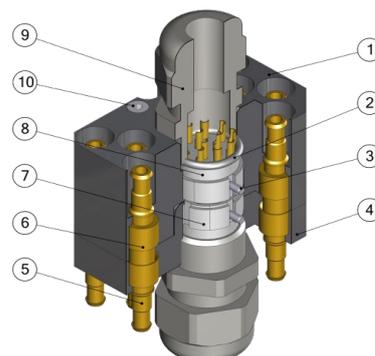
Technical specifications		MEK160-8P-2E	
Suitable for		MGW160, SWS160	
Pneumatic ducts	number P	8	
	nominal width NW [mm]	PK2 / PK3 / PK4	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	2 x 12	2 x 4
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
Mass [kg]	upper assembly	0,3	
	base	0,2	
Protection class (higher requirement only on request)		IP40	



Pos.	Description
1	Upper assembly
2	O-Ring
3	Cylindrical pin
4	Base
5	Female coupling
6	Male coupling
7	Insulation body / bushings
8	Insulation body / pins
9	Screwed cable gland Pg11
10	Mounting screw O

Multi energy coupling Ø160-8P-2E, 8 x air...

G-MEK160-O-8PK4-2E12	upper assembly, ID = 4 mm, 2 x electrical connector 12 poles
G-MEK160-O-8PK4-2E4	upper assembly, ID = 4 mm, 2 x electrical connector 4 poles
G-MEK160-U-8PK4-2E12	base, ID = 4 mm, 2 x electrical bushing 12 poles
G-MEK160-U-8PK4-2E4	base, ID = 4 mm, 2 x electrical bushing 4 poles



G-MEK160-10P-4E

Technical specifications



Operation mode:

The MEK upper assembly (1) is mounted on the MGW or SWS top.

Connect the MEK base (2) to the MGW base.

The MEK is automatically coupled by the mechanical connection of the change system.

Advantages:

Mechanical, pneumatic and electric connections are established simultaneously.

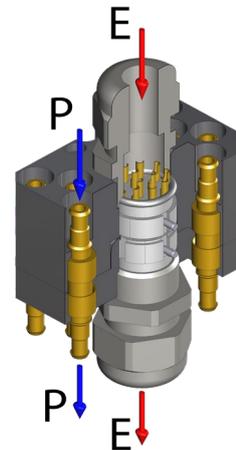
Can withstand 50,000 alternating cycles

Individual wiring

Coding of the interchangeable parts



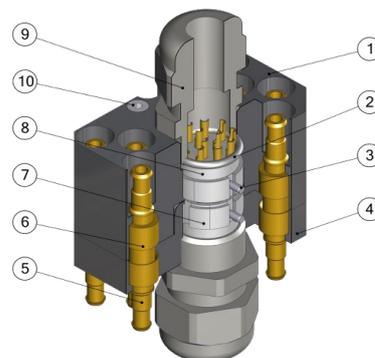
Technical specifications		MEK160-10P-4E	
Suitable for		MGW160, SWS160	
Pneumatic ducts	number P	10	
	nominal width NW [mm]	PK6	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	4 x 12	4 x 4
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
Mass [kg]	upper assembly	0,35	
	base	0,17	
Protection class (higher requirement only on request)		IP40	



Pos.	Description
1	Upper assembly
2	O-Ring
3	Cylindrical pin
4	Base
5	Female coupling
6	Male coupling
7	Insulation body / bushings
8	Insulation body / pins
9	Screwed cable gland Pg11
10	Mounting screw O

Multi energy coupling Ø160-10P-4E, 10x air...

G-MEK160-O-10PK6-4E12	upper assembly, ID = 6 mm, 4x electrical connector 12 poles
G-MEK160-U-10PK6-4E12	base, ID = 6 mm, 4x electrical bushing 4 poles



G-MEK160-4G38

Technical specifications



Operation mode:

The MEK upper assembly (1) is mounted on the MGW or SWS top.

Connect the MEK base (2) to the MGW base.

The MEK is automatically coupled by the mechanical connection of the change system.

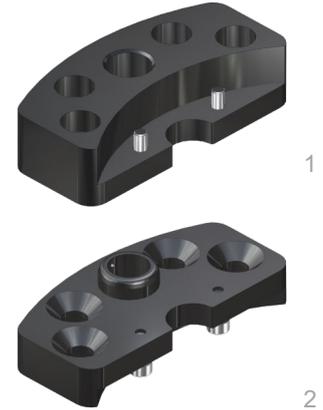
Advantages:

Mechanical and pneumatic connections are established simultaneously.

Can withstand 50,000 alternating cycles

Individual wiring

Coding of the interchangeable parts

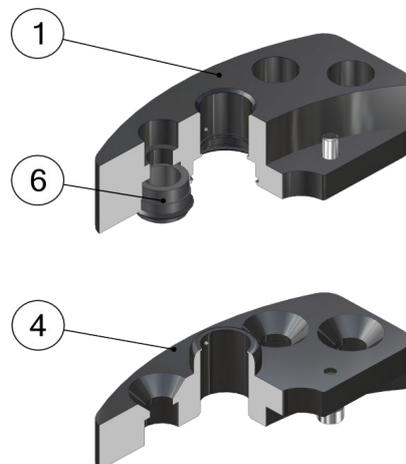


Technical specifications		MEK160-4G3/8
Suitable for		MGW160, SWS160
Pneumatic ducts	number P	4
	nominal width NW [mm]	G3/8
	operating pressure p [bar]	-1 to 8
Mass [kg]	upper assembly	0,35
	base	0,17
Protection class (higher requirement only on request)		IP40



Pos.	Description
1	Upper assembly
4	Base
6	Moulded seal

Multi energy coupling Ø160-4G3/8	
G-MEK160-O-4G3/8	upper assembly, 4 x air, G3/8 radial
G-MEK160-U-4G3/8	base, 4x air, G3/8 radial



G-MEK160-4G38-1E

Technical specifications



Operation mode:

The MEK upper assembly (1) is mounted on the MGW or SWS top.
 Connect the MEK base (2) to the MGW base.
 The MEK is automatically coupled by the mechanical connection of the change system.

Advantages:

Mechanical, pneumatic and electric connections are established simultaneously.

Can withstand 50,000 alternating cycles

Individual wiring

Coding of the interchangeable parts



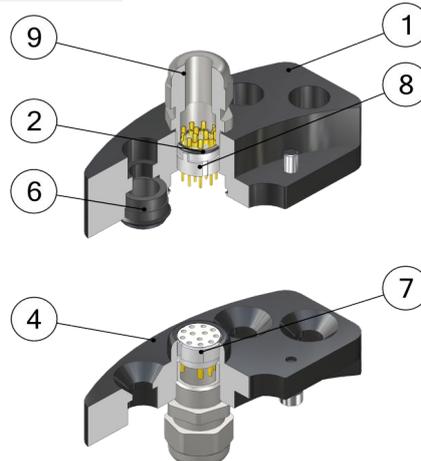
Technical specifications		MEK160-4G3/8-E
Suitable for		MGW160, SWS160
Pneumatic ducts	number P	4
	nominal width NW [mm]	G3/8
	operating pressure p [bar]	-1 to 8
Electrical ducts	no. of poles E	1 x 12
	rated current per pole I [A]	9
	rated voltage U [V]	63
	contact resistance per pole R [mΩ]	3
	contact durability (cycles)	50.000
Mass [kg]	upper assembly	0,35
	base	0,17
Protection class (higher requirement only on request)		IP40



Pos.	Description
1	Upper assembly
2	O-Ring
3	Cylindrical pin
4	Base
6	Moulded seal
7	Insulation body / bushings
8	Insulation body / pins
9	Screwed cable gland Pg11

Multi energy coupling Ø160-4G3/8-1E12

G-MEK160-O-4G3/8-1E12	upper assembly, 4 x air, G3/8 radial, 1 x electrical connector 12 poles
G-MEK160-U-4G3/8-1E12	base, 4 x air, G3/8 radial, 1 x electrical bushing 12 poles



G-MEK200

Technical specifications



Operation mode:

The MEK upper assembly (1) is mounted on the MGW or SWS top.
Connect the MEK base (2) to the MGW base.

The MEK is automatically coupled by the mechanical connection of the change system.

Advantages:

Mechanical, pneumatic and electric connections are established simultaneously.

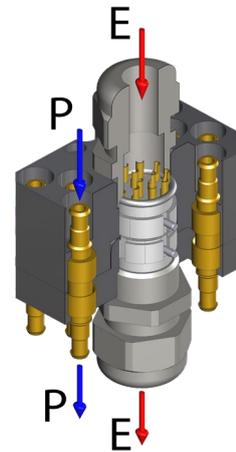
Can withstand 50,000 alternating cycles

Individual wiring

Coding of the interchangeable parts

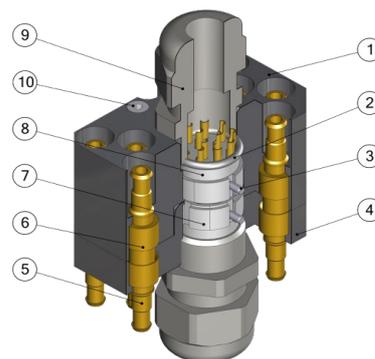


Technical specifications		MEK200	
Suitable for		SWS200	
Pneumatic ducts	number P	22	
	nominal width NW [mm]	PK2 / PK3 / PK4	
	operating pressure p [bar]	-1 to 8	
Electrical ducts	no. of poles E	2 x 12	2 x 4
	rated current per pole I [A]	9	20
	rated voltage U [V]	63	125
	contact resistance per pole R [mΩ]	3	1,3
	contact durability (cycles)	50.000	
Mass [kg]	upper assembly	0,32	
	base	0,3	
Protection class (higher requirement only on request)		IP40	



Pos.	Description
1	Upper assembly
2	O-Ring
3	Cylindrical pin
4	Base
5	Female coupling
6	Male coupling
7	Insulation body / bushings
8	Insulation body / pins
9	Screwed cable gland Pg11
10	Mounting screw O

Multi energy coupling Ø200, 22 x air...	
G-MEK200-O-22PK4-2E12	upper assembly, ID = 4 mm 2 x electrical connector, 12 poles
G-MEK200-O-22PK4-2E4	upper assembly, ID = 4 mm 2 x electrical Connector, 4 poles
G-MEK200-U-22PK4-2E12	base, ID = 4 mm, 2 x electrical bushing, 12 poles
G-MEK200-U-22PK4-2E4	base, ID = 4 mm, 2 x electrical bushing, 4 poles



G-MEK200-8P-1E

Technical specifications



Operation mode:

The MEK upper assembly (1) is mounted on the MGW or SWS top.

Connect the MEK base (2) to the MGW base.

The MEK is automatically coupled by the mechanical connection of the change system.

Advantages:

Mechanical, pneumatic and electric connections are established simultaneously.

Can withstand 50,000 alternating cycles

Individual wiring

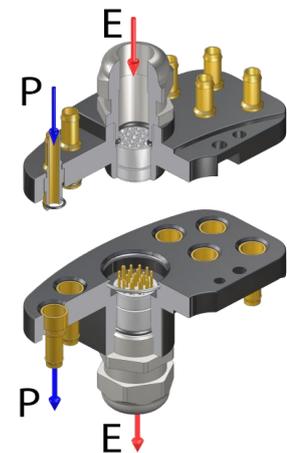
Coding of the interchangeable parts



1

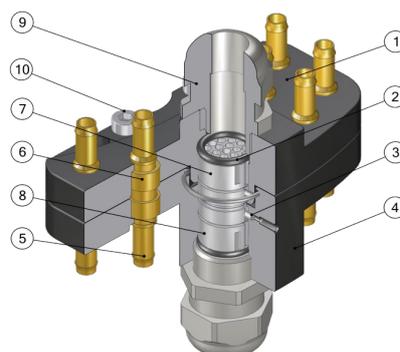
2

Technical specifications		MEK200
Suitable for		SWS200
Pneumatic ducts	number P	8
	nominal width NW [mm]	PK6
	operating pressure p [bar]	-1 to 8
Electrical ducts	no. of poles E	1 x 19
	rated current per pole I [A]	7
	rated voltage U [V]	63
	contact resistance per pole R [mΩ]	3
	contact durability (cycles)	50.000
Mass [kg]	upper assembly	0,24
	base	0,23
Protection class (higher requirement only on request)		IP40



Pos.	Description
1	Upper assembly
2	O-Ring
3	Cylindrical pin
4	Base
5	Female coupling
6	Male coupling
7	Insulation body / bushings
8	Insulation body / pins
9	Screwed cable gland M20
10	Mounting screw O

Multi energy coupling Ø200, 8 x air...		
G-MEK200-O-8Pk6-1E19C-M20	upper assembly, ID = 6 mm, 1 x el. bushing	19 poles, crimp-contacts, numbered
G-MEK200-U-8Pk6-1E19C-M20	base, ID = 6 mm, 1 x electrical connector	19 poles, crimp-contacts, numbered



G-MEK200-12-PK6

Technical specifications



Operation mode:

The MEK upper assembly (1) is mounted on the MGW or SWS top.

Connect the MEK base (2) to the MGW base.

The MEK is automatically coupled by the mechanical connection of the change system.

Advantages:

Mechanical and pneumatic connections are established simultaneously.

Can withstand 50,000 alternating cycles

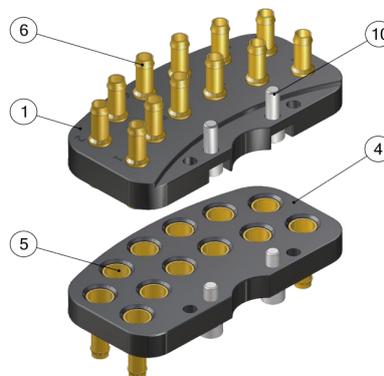


Technical specifications		MEK200
Suitable for		SWS200
Pneumatic ducts	number P	12
	nominal width NW [mm]	PK6
	operating pressure p [bar]	-1 to 8
Mass [kg]	upper assembly	0,24
	base	0,23



Pos.	Description
1	Upper assembly
4	Base
5	Female coupling
6	Male coupling
10	Mounting screw O

Multi energy coupling Ø200...	
G-MEK200-O-12Pk6	upper assembly, 12 x air, ID = 6 mm
G-MEK200-U-12Pk6	base, 12 x air, ID = 6 mm



G-SEK100

Technical specifications

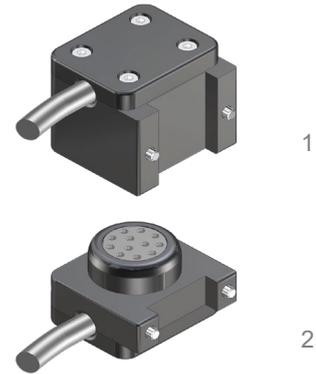


Operating mode:

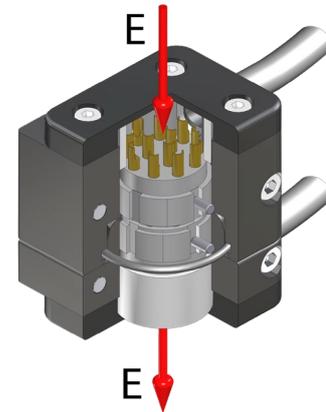
The SEK-upper assembly is mounted on the SHW-upper assembly.
The SEK-lower assembly appropriate on the SHW-lower assembly. The SEK is coupled automatically by the mechanical connection of the exchange system.

Advantages:

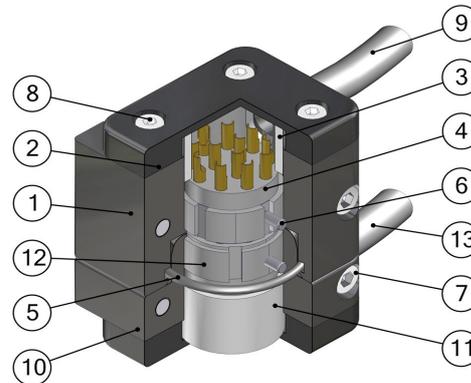
- Mechanical and electric connections are established simultaneously.
- Withstands up to 50,000 changing cycles
- Individual wiring
- Coding of the interchangeable parts



Technical specifications		SEK100	
Basic material	Al, anod.		
Compatible with	SHW 063, 080, 100		
Width x depth x height [mm]	34 x 32 x 29,5		
No. of poles E	12	4	
Rated current per pole I [A]	9	20	
Rated voltage U [V]	63	125	
Contact resistance per pole R [mΩ]	3	1,3	
Contact durability (cycles)	50.000		
Mass [kg]	upper assembly	0,07	
	lower assembly	0,045	
Protection class (higher requirement only on request)	IP40		



Pos.	Description
1	Upper assembly 1E
2	Cap
3	Distance bush upper assembly
4	Insulating body with pins
5	O-Ring
6	Cylindrical pin
7	Mounting screw
8	Screw for Cap
9	Cable on the robot side
10	Lower assembly 1E
11	Distance bush lower assembly
12	Insulating body with bushings
13	Cable on gripper side



Feed regulator electric coupling Ø100 with pneumatic ducts...

G-SEK100-O-1E12-300-M12	upper assembly, electrical plug, 12 poles, cable L= 300 mm, plug M12x1-12 poles
G-SEK100-U-1E12-300-M12	lower assembly, electrical bushing, 12 poles, cable L= 300 mm, bushing M12x1-12 poles
G-SEK100-O-1E12-300-M8	upper assembly, electrical plug, 12 poles, cable L= 300 mm, plug M8-8 poles
G-SEK100-U-1E12-40-M8	lower assembly, electrical bushing, 12 poles, cable L= 300 mm, bushing M8-8 poles
G-SEK100-O-1E4	upper assembly, electrical plug, 4 poles
G-SEK100-U-1E4	lower assembly, electrical bushing, 4 poles

G-SEK100-P

Technical specifications

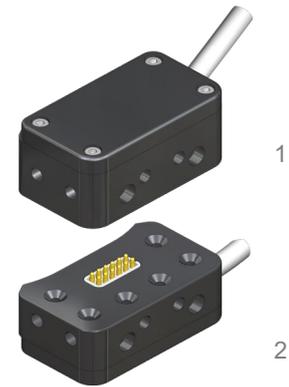


Operating mode:

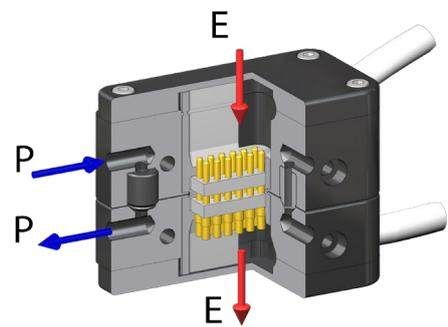
The SEK-P-upper assembly is mounted on the SHW-upper-assembly.
The SEK-P-lower assembly appropriate on the SHW-lower-assembly. The SEK-P is coupled automatically by the mechanical connection of the exchange system.

Advantages:

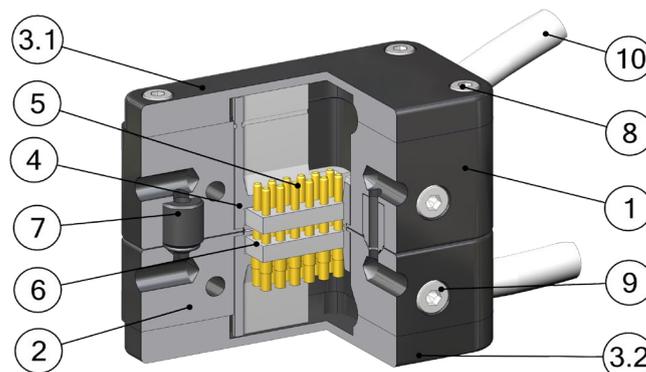
- Mechanical, electric and pneumatic connections are established simultaneously.
- Withstands up to 50,000 changing cycles
- Individual wiring and coding of the interchange parts



Technical specifications		SEK100-P
Basic material		Al, anod.
Compatible with		SHW 063, 080, 100
Width x depth x height [mm]		52 x 33,5 x 45
Signal ducts		12
Rated current per pole I [A]		2
Rated voltage U (max. voltage) [V]		63 (120)
Contact resistance per pole R [mΩ]		20
Number P		6
Operating pressure p [bar]		-1 to 8
Nominal width NW [mm]		M5
Contact durability (cycles)		50.000
Mass [kg]	upper assembly	0,09
	lower assembly	0,08



Pos.	Description
1	Upper assembly
2	Lower assembly
3.1	Upper cap
3.2	Lower cap
4	Insulation frame
5	Electric bushings
6	Electric spring pins
7	Pneumatic sealing
8	Screw
9	Mounting screw
10	Cable (optional)



Feed regulator electric coupling Ø100 with pneumatic ducts...

G-SEK100-O-6PM5-1FE12	upper assembly, 6 pneumatic ducts M5, electric bushings, 12 poles
G-SEK100-O-6PM5-1FE12-2000OE	upper assembly, 6 pneumatic ducts M5, electric bushings, 12 poles, cable L= 2000 mm, open end
G-SEK100-O-6PM5-1FE12-300-M12	upper assembly, 6 pneumatic ducts M5, electric bushings, 12 poles, cable L= 300 mm, plug M12
G-SEK100-U-6PM5-1FE12	lower assembly, 6 pneumatic ducts M5, electric spring pins 12 poles
G-SEK100-U-6PM5-1FE12-2000OE	lower assembly, 6 pneumatic ducts M5, electric spring pins 12 poles, cable L= 2000 mm, open end
G-SEK100-U-6PM5-1FE12-300-M12	lower assembly, 6 pneumatic ducts M5, electric spring pins 12 poles, cable L= 300 mm, bushing M12

G-SEK125

Technical specifications

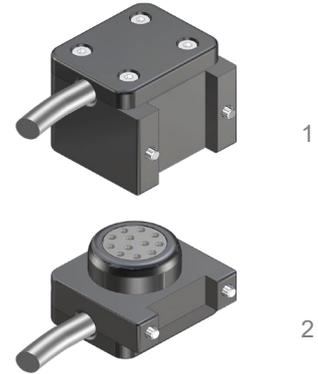


Operating mode:

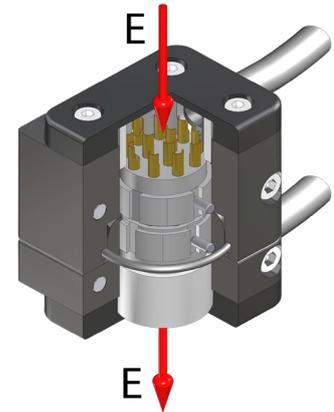
The SEK-upper assembly is mounted on the SHW-upper assembly.
 The SEK-lower assembly appropriate on the SHW-lower assembly.
 The SEK is coupled automatically by the mechanical connection of the exchange system.

Advantages:

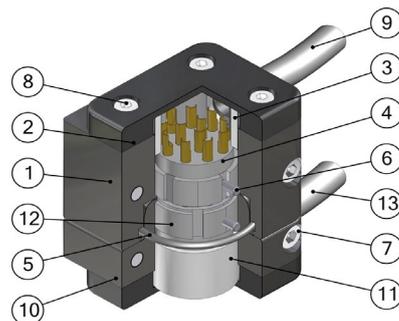
- Mechanical and electric connections are established simultaneously.
- Withstands up to 50,000 changing cycles
- Individual wiring
- Coding of the interchange parts



Technical specifications		SEK125
Basic material		Al, anod.
Compatible with		SHW125
Width x depth x height [mm]		44 x 32 x 29,5
No. of poles E		12 4
Rated current per pole I [A]		9 20
Rated voltage U [V]		63 125
Contact resistance per pole R [mΩ]		3 1,3
Contact durability (cycles)		50.000
Mass [kg]	upper assembly	0,095
	lower assembly	0,057
Protection class (higher requirement only on request)		IP40



Pos.	Description	Feed regulator electric coupling Ø125...	
1	Upper assembly 1E	G-SEK125-O-1E12-300-M12	upper assembly, electrical plug, 12 poles, cable L= 300 mm, plug M12x1-12 poles
2	Cap		
3	Distance bush upper assembly	G-SEK125-U-1E12-300-M12	lower assembly, electrical bushing, 12 poles, cable L= 300 mm, bushing M12x1-12 poles
4	Insulating body with pins		
5	O-Ring		
6	Cylindrical pin		
7	Mounting screw		
8	Screw for Cap		
9	Cable on the robot side		
10	Lower assembly 1E		
11	Distance bush lower assembly		
12	Insulating body with bushings		
13	Cable on gripper side		



G-SEK160

Technical specifications

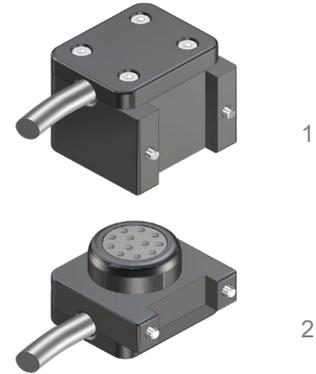


Operating mode:

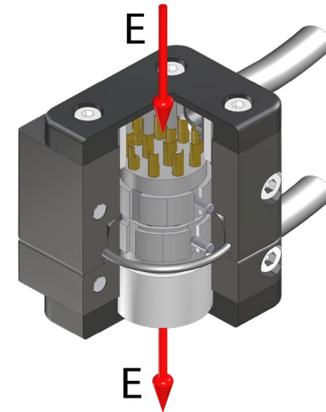
The SEK-upper assembly is mounted on the SHW-upper assembly.
 The SEK-lower assembly appropriate on the SHW-lower assembly.
 The SEK is coupled automatically by the mechanical connection of the exchange system.

Advantages:

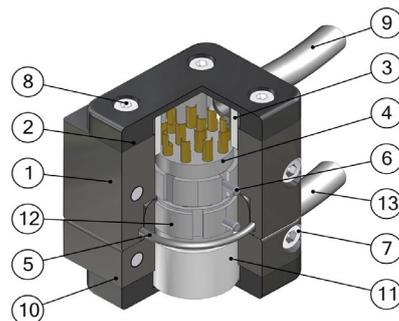
- Mechanical and electric connections are established simultaneously.
- Withstands up to 50,000 changing cycles
- Individual wiring
- Coding of the interchange parts



Technical specifications		SEK160
Basic material		Al, anod.
Compatible with		SHW160
Width x depth x height [mm]		50 x 34 x 31,5
No. of poles E		12 4
Rated current per pole I [A]		9 20
Rated voltage U [V]		63 125
Contact resistance per pole R [mΩ]		3 1,3
Contact durability (cycles)		50.000
Mass [kg]	upper assembly	0,12
	lower assembly	0,083
Protection class (higher requirement only on request)		IP40



Pos.	Description	Feed regulator electric coupling Ø160...	
1	Upper assembly 1E	G-SEK160-O-1E12-300-M12	upper assembly, electrical plug, 12 poles, cable L= 300 mm, plug M12x1-12 poles
2	Cap		
3	Distance bush upper assembly	G-SEK160-U-1E12-300-M12	lower assembly, electrical bushing, 12 poles, cable L= 300 mm, bushing M12x1-12 poles
4	Insulating body with pins		
5	O-Ring		
6	Cylindrical pin		
7	Mounting screw		
8	Screw for Cap		
9	Cable on the robot side		
10	Lower assembly 1E		
11	Distance bush lower assembly		
12	Insulating body with bushings		
13	Cable on gripper side		



G-GI005

Technical specifications



Operating mode:

The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

- Minimum installation size possible
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible

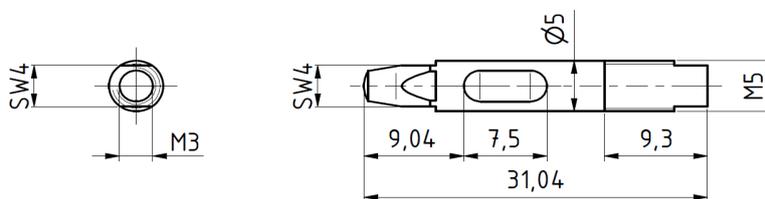
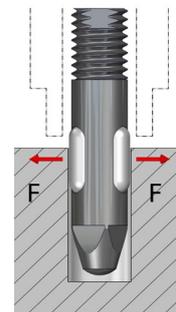
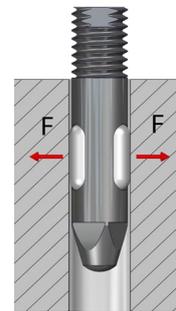


Technical specifications

Technical specifications	GI005
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	4
For bore diameter [mm]	5,1 – 6,0
Allowed component weight [kg]	0,4
Gripper weight [kg]	0.003
Compressed air connection Ø	M3
Assembly Ø	M5
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

Limits of the application range

Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper Ø005...

G-GI005 External diameter 5, screw thread M5

Replacement tube

EG-GI005-S for internal gripper GI005

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

G-GI006

Technical specifications

GRIP

Operating mode:

The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

- Minimum installation size possible
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible

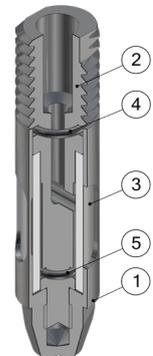
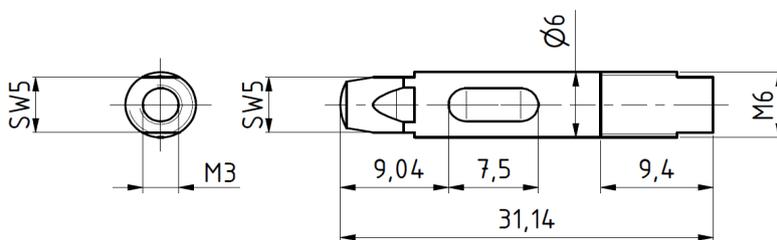
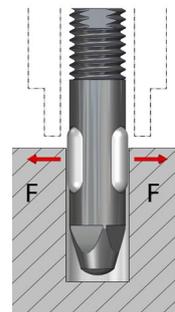
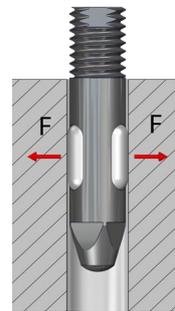


Technical specifications

Technical specifications	GI006
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	5
For bore diameter [mm]	6,1 – 7,0
Allowed component weight [kg]	0,5
Gripper weight [kg]	0.005
Compressed air connection Ø	M3
Assembly Ø	M6
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

Limits of the application range

Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper Ø006...

G-GI006 External diameter 6, screw thread M6

Replacement tube

EG-GI006-S for internal gripper GI006

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

G-GI007

Technical specifications



Operating mode:

The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

- Minimum installation size possible
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible

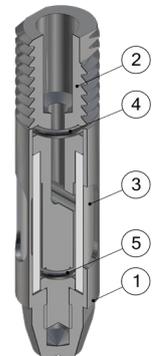
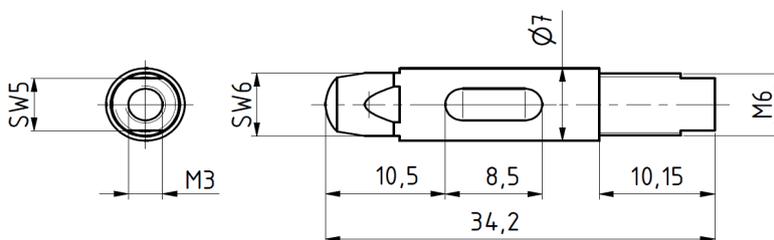
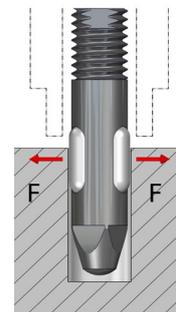
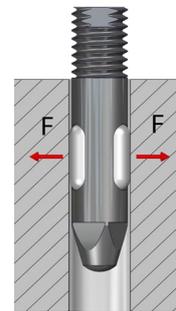


Technical specifications

Technical specifications	GI007
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	7
For bore diameter [mm]	7,1 – 8,0
Allowed component weight [kg]	0,7
Gripper weight [kg]	0.007
Compressed air connection Ø	M3
Assembly Ø	M6
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

Limits of the application range

Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper Ø007...

G-GI007 External diameter 7, screw thread M6

Replacement tube

EG-GI007-S for internal gripper GI007

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

G-GI008

Technical specifications

GRIP

Operating mode:

The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

- Minimum installation size possible
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible

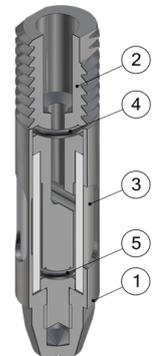
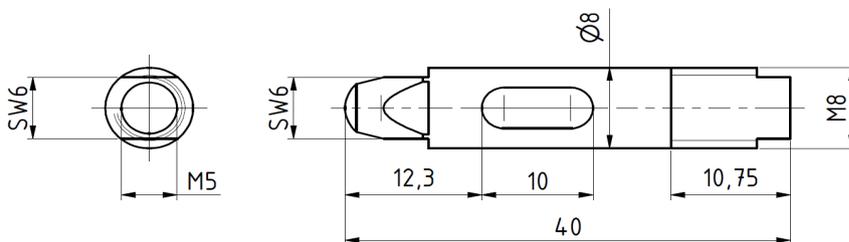
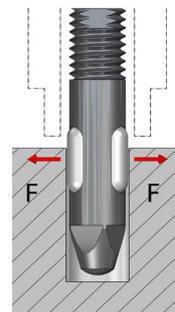
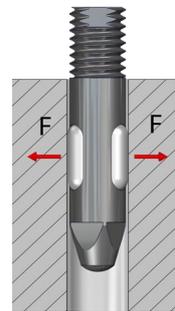


Technical specifications

Technical specifications	G1008
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	17
For bore diameter [mm]	8,1 – 9,0
Allowed component weight [kg]	1,7
Gripper weight [kg]	0.01
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

Limits of the application range

Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper Ø008...

G-GI008 External diameter 8, screw thread M8

Replacement tube

EG-GI008-S for internal gripper GI008

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

G-GI009

Technical specifications

GRIP

Operating mode:

The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

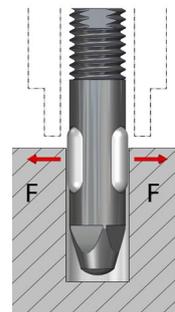
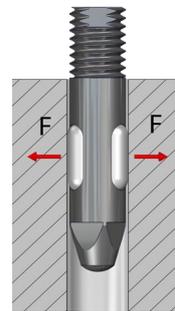
Advantages:

- Minimum installation size possible
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



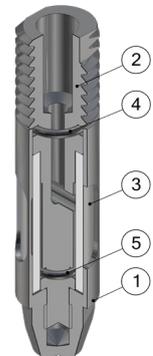
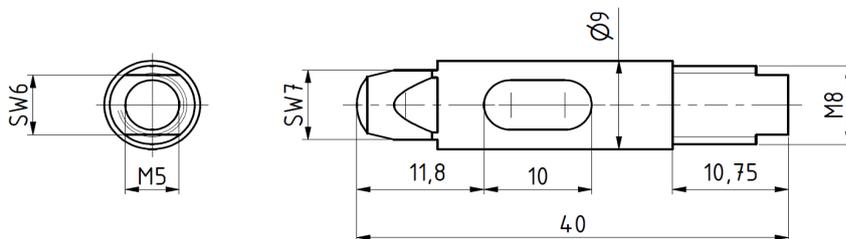
Technical specifications

Technical specifications	GI009
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	17
For bore diameter [mm]	9,1 – 10,0
Allowed component weight [kg]	1,7
Gripper weight [kg]	0.012
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range

Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper Ø009...

G-GI009 External diameter 9, screw thread M8

Replacement tube

EG-GI009-S for internal gripper GI009

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

G-GI010

Technical specifications

GRIP

Operating mode:

The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

- Minimum installation size possible
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible

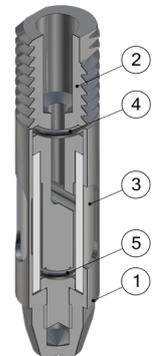
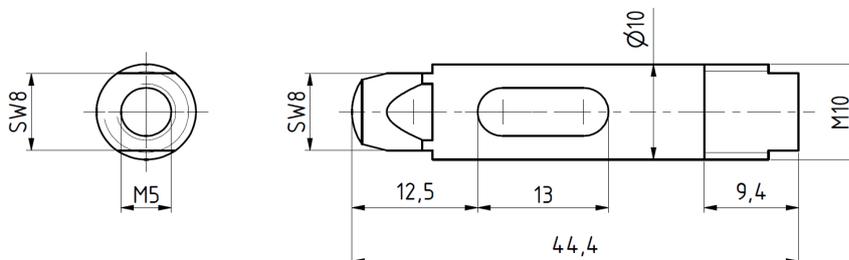
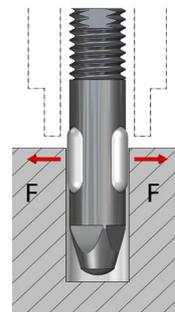
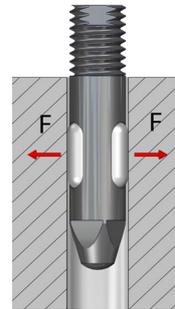


Technical specifications

Technical specifications	GI010
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	20
For bore diameter [mm]	10,1 – 11,0
Allowed component weight [kg]	2
Gripper weight [kg]	0.018
Compressed air connection Ø	M5
Assembly Ø	M10
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

Limits of the application range

Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper Ø010...

G-GI010 External diameter 10, screw thread M10

Replacement tube

EG-GI010-S for internal gripper GI010

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

G-GI011

Technical specifications



Operating mode:

The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

- Minimum installation size possible
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible

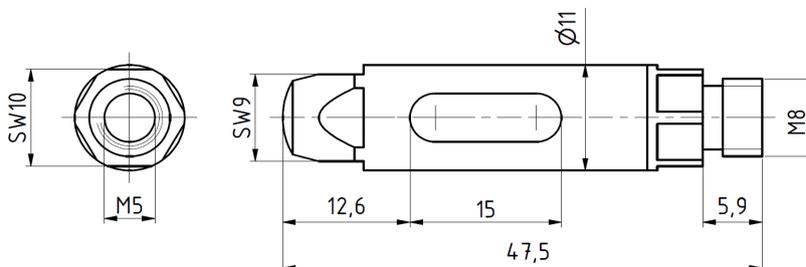
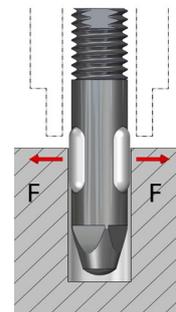
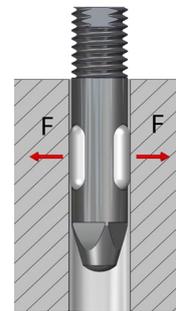


Technical specifications

Technical specifications	GI011
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	25
For bore diameter [mm]	11,1 – 12,0
Allowed component weight [kg]	2,5
Gripper weight [kg]	0,022
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

Limits of the application range

Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper Ø011...

G-GI011 External diameter 11, screw thread M8

Replacement tube

EG-GI011-S for internal gripper GI011

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

G-GI012

Technical specifications

GRIP

Operating mode:

The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

- Minimum installation size possible
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible

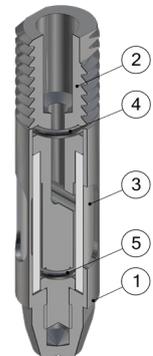
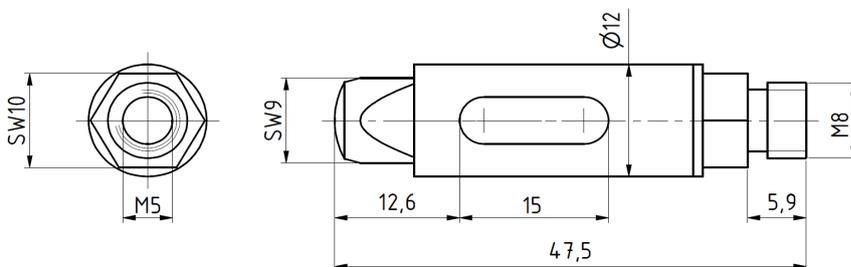
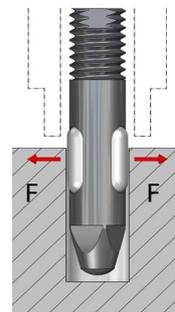
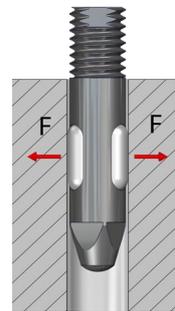


Technical specifications

Technical specifications	GI012
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	30
For bore diameter [mm]	12,1 – 13,5
Allowed component weight [kg]	3
Gripper weight [kg]	0,026
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

Limits of the application range

Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper Ø012...

G-GI012 External diameter 12, screw thread M8

Replacement tube

EG-GI012-S for internal gripper GI012

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

G-GI013

Technical specifications



Operating mode:

The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

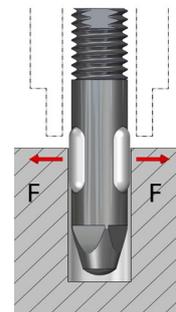
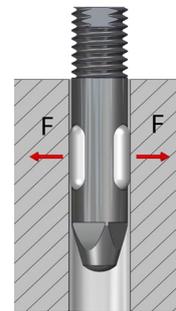
Advantages:

- Minimum installation size possible
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



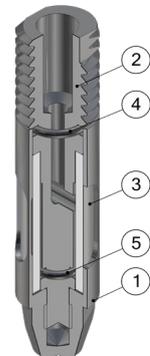
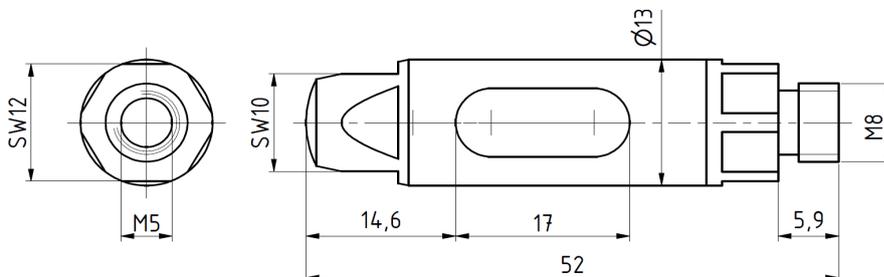
Technical specifications

Technical specifications	GI013
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	40
For bore diameter [mm]	13,1 – 14,5
Allowed component weight [kg]	4
Gripper weight [kg]	0.032
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range

Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper Ø013...

G-GI013 External diameter 13, screw thread M8

Replacement tube

EG-GI013-S for internal gripper GI013

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

G-GI014

Technical specifications



Operating mode:

The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

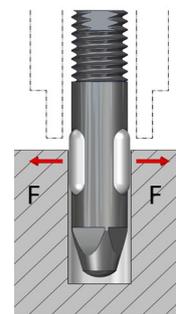
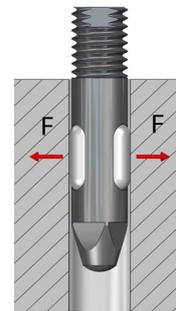
Advantages:

- Minimum installation size possible
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



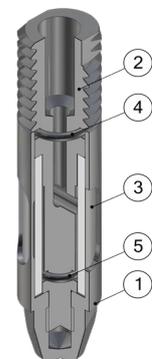
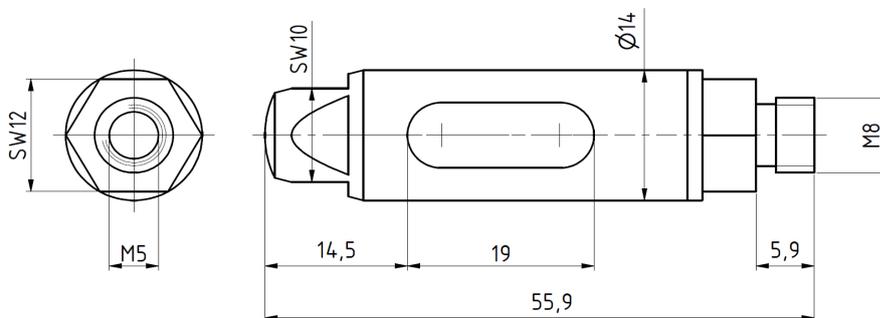
Technical specifications

Technical specifications	GI014
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	45
For bore diameter [mm]	14,1 – 15,5
Allowed component weight [kg]	4,5
Gripper weight [kg]	0.04
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range

Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper Ø014...

G-GI014 External diameter 14, screw thread M8

Replacement tube

EG-GI014-S for internal gripper GI014

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

G-GI015

Technical specifications

GRIP

Operating mode:

The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

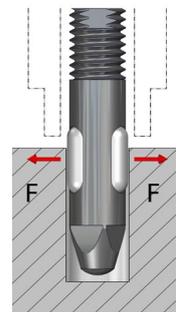
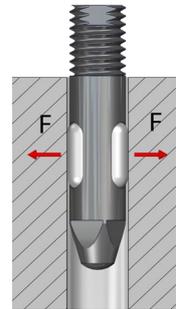
Advantages:

- Minimum installation size possible
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



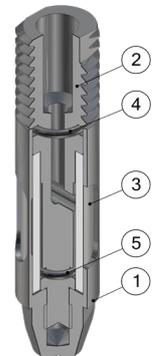
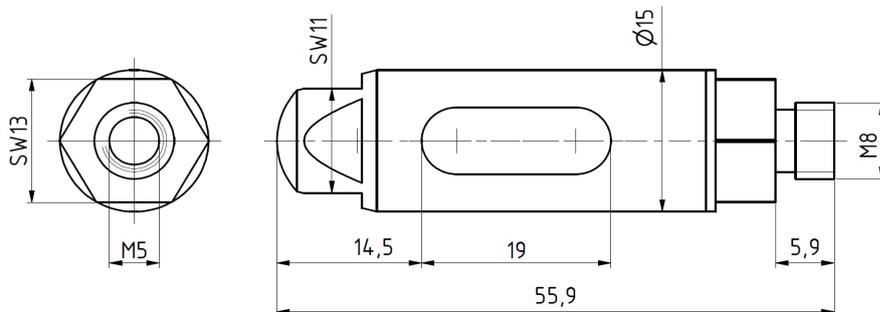
Technical specifications

Technical specifications	GI015
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	45
For bore diameter [mm]	15,1 – 16,5
Allowed component weight [kg]	4,5
Gripper weight [kg]	0.046
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range

Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper Ø015...

G-GI015 External diameter 15, screw thread M8

Replacement tube

EG-GI015-S for internal gripper GI015

Pos. Description

1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

G-GI016

Technical specifications

GRIP

Operating mode:

The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

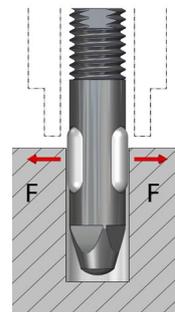
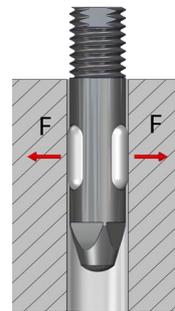
Advantages:

- Minimum installation size possible
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



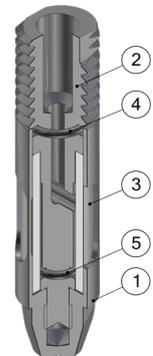
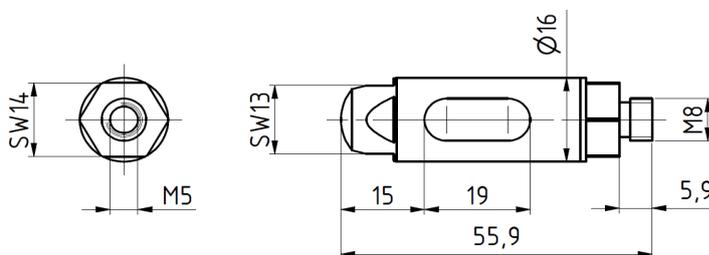
Technical specifications

Technical specifications	GI016
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	50
For bore diameter [mm]	16,1 – 17,5
Allowed component weight [kg]	5
Gripper weight [kg]	0.054
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range

Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper Ø016...

G-GI016 External diameter 16, screw thread M8

Replacement tube

EG-GI016-S for internal gripper GI016

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

G-GI017

Technical specifications



Operating mode:

The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

- Minimum installation size possible
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible

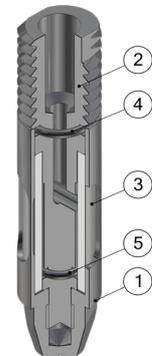
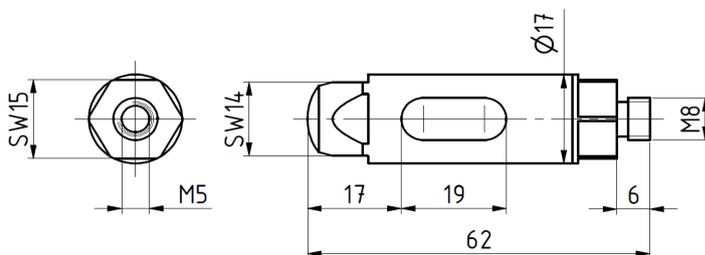
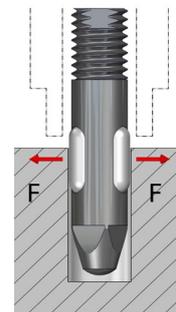
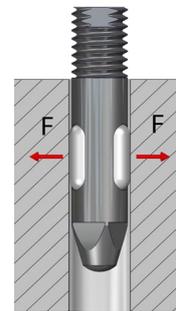


Technical specifications

Technical specifications	GI017
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	50
For bore diameter [mm]	17,1 – 18,5
Allowed component weight [kg]	5
Gripper weight [kg]	0.07
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

Limits of the application range

Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper Ø017...

G-GI017 External diameter 17, screw thread M8

Replacement tube

EG-GI017-S for internal gripper GI017

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

G-GI018

Technical specifications

GRIP

Operating mode:

The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

- Minimum installation size possible
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible

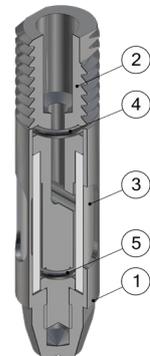
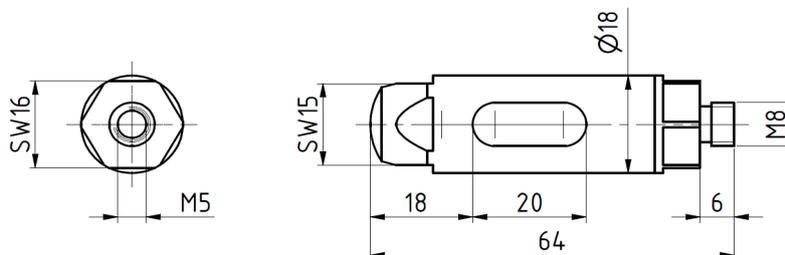
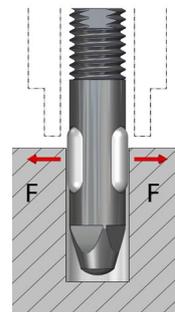
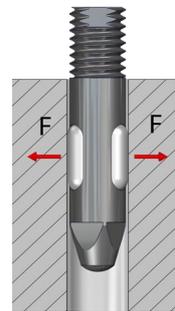


Technical specifications

Technical specifications	GI018
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	50
For bore diameter [mm]	18,1 – 19,5
Allowed component weight [kg]	5
Gripper weight [kg]	0.084
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

Limits of the application range

Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper Ø018...

G-GI018 External diameter 18, screw thread M8

Replacement tube

EG-GI018-S for internal gripper GI018

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

G-GI019

Technical specifications

GRIP

Operating mode:

The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

- Minimum installation size possible
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible

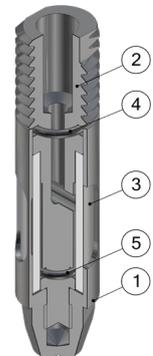
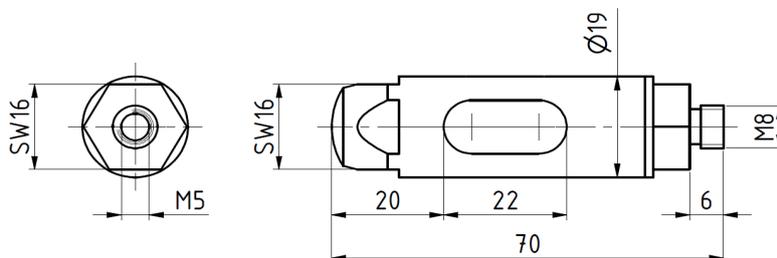
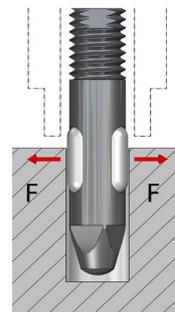
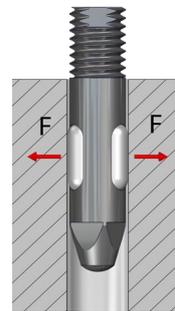


Technical specifications

Technical specifications	GI019
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	60
For bore diameter [mm]	19,1 – 21,0
Allowed component weight [kg]	6
Gripper weight [kg]	0.102
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

Limits of the application range

Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper Ø019...

G-GI019 External diameter 19, screw thread M8

Replacement tube

EG-GI019-S for internal gripper GI019

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

G-GI020

Technical specifications

GRIP

Operating mode:

The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

- Minimum installation size possible
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible

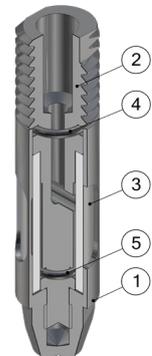
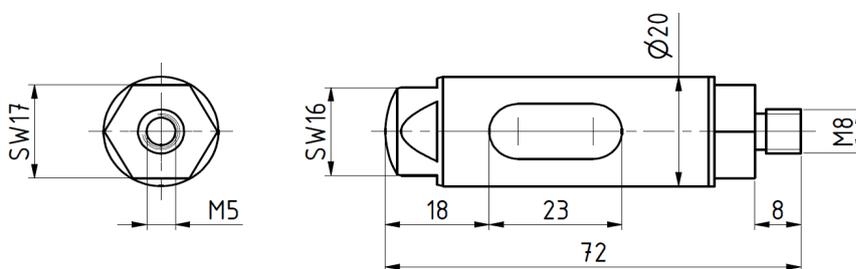
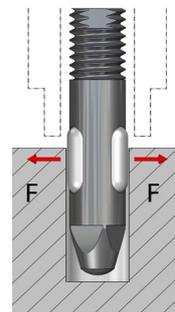
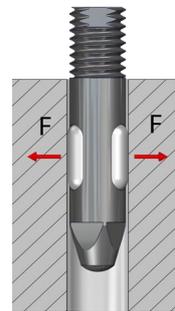


Technical specifications

Technical specifications	GI020
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	60
For bore diameter [mm]	20,1 – 21,5
Allowed component weight [kg]	6
Gripper weight [kg]	0.114
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C

Limits of the application range

Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper Ø2020...

G-GI020 External diameter 20, screw thread M8

Replacement tube

EG-GI020-S for internal gripper GI020

Pos.	Description
1	Hull
2	Mandrel
3	Tube
4	O-ring 1
5	O-ring 2

G-GIS005

Technical specifications



Operating mode:

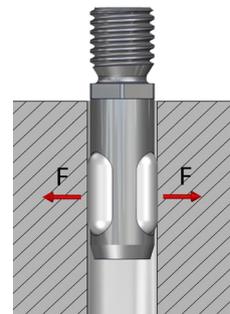
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

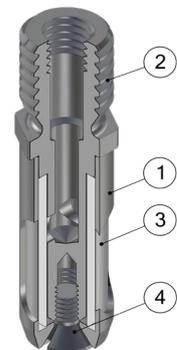
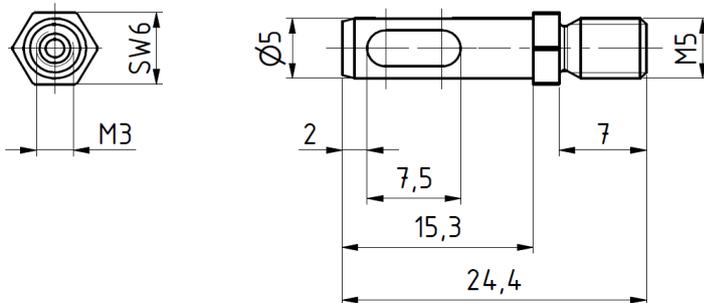
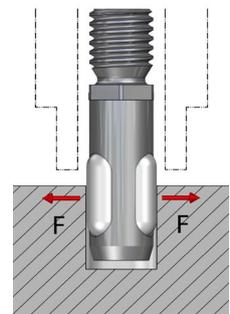
- Minimum installation size possible
- Width across flats for assembly
- Minimum immersion depth
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



Technical specifications	GIS005
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	4
For bore diameter [mm]	5,1 – 6,0
Allowed component weight [kg]	0,4
Gripper weight [kg]	0.003
Compressed air connection Ø	M3
Assembly Ø	M5
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = D _{GIS} +10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper lowering Ø005...	
G-GIS005	External diameter 5, screw thread M5
Replacement tube	
EG-GI005-S	for internal gripper counter bore GIS005

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk scr

G-GIS006

Technical specifications



Operating mode:

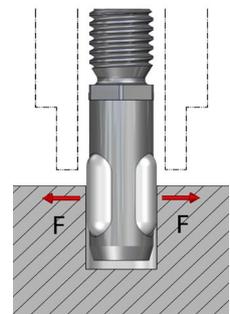
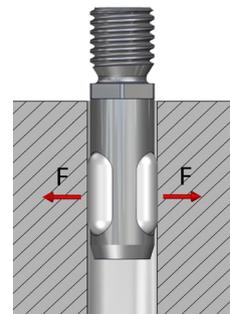
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

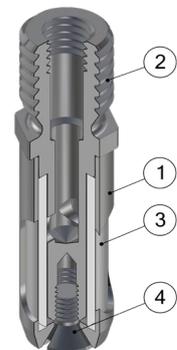
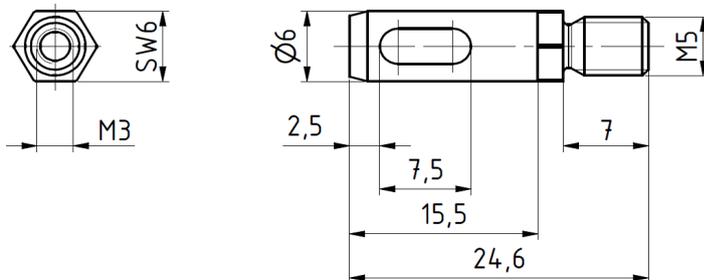
- Minimum installation size possible
- Width across flats for assembly
- Minimum immersion depth
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



Technical specifications	GIS006
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	5
For bore diameter [mm]	6,1 – 7,0
Allowed component weight [kg]	0,5
Gripper weight [kg]	0.003
Compressed air connection Ø	M3
Assembly Ø	M5
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = D _{GIS} +10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper lowering Ø006...	
G-GIS006	External diameter 6, screw thread M5
Replacement tube	
EG-GI006-S	for internal gripper counter bore GIS006

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk scr

G-GIS007

Technical specifications



Operating mode:

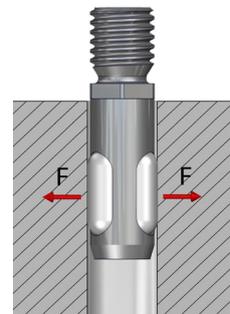
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

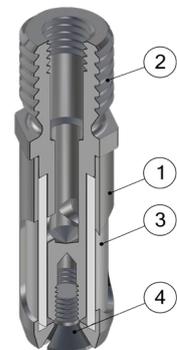
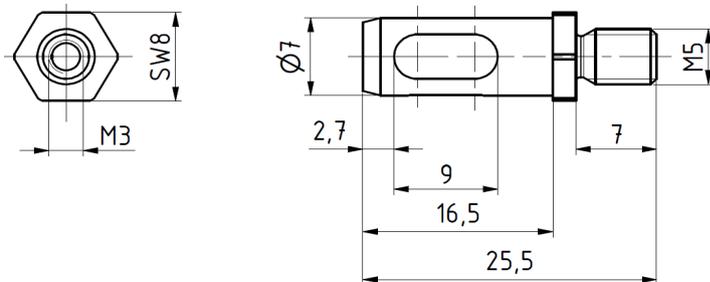
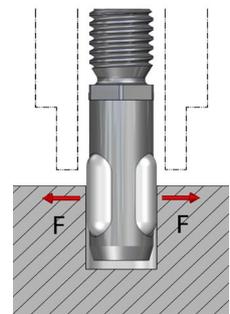
- Minimum installation size possible
- Width across flats for assembly
- Minimum immersion depth
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



Technical specifications	GIS007
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	7
For bore diameter [mm]	7,1 – 8,0
Allowed component weight [kg]	0,7
Gripper weight [kg]	0.005
Compressed air connection Ø	M3
Assembly Ø	M5
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = D _{GIS} +10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper lowering Ø007...	
G-GIS007	External diameter 7, screw thread M5
Replacement tube	
EG-GI007-S	for internal gripper counter bore GIS007

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk scr

G-GIS008

Technical specifications



Operating mode:

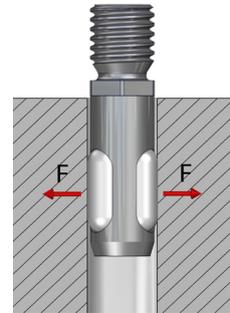
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

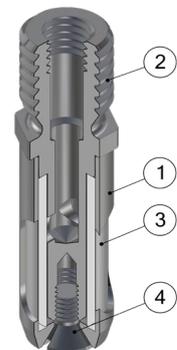
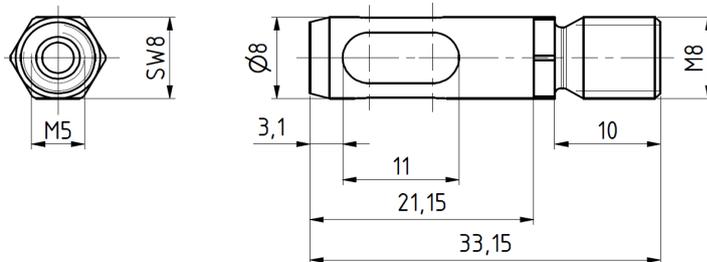
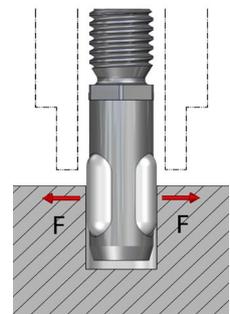
- Minimum installation size possible
- Width across flats for assembly
- Minimum immersion depth
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



Technical specifications	GIS008
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	17
For bore diameter [mm]	8,1 – 9,0
Allowed component weight [kg]	1,7
Gripper weight [kg]	0.008
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = D _{GIS} +10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper lowering Ø008...	
G-GIS008	External diameter 8, screw thread M8
Replacement tube	
EG-GI008-S	for internal gripper counter bore GIS008

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk scr

G-GIS009

Technical specifications



Operating mode:

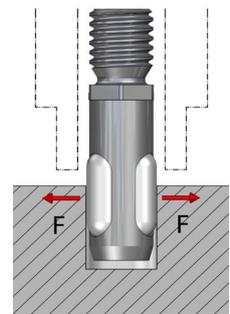
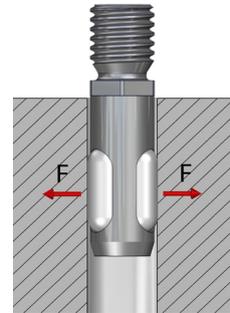
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

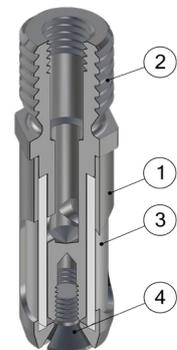
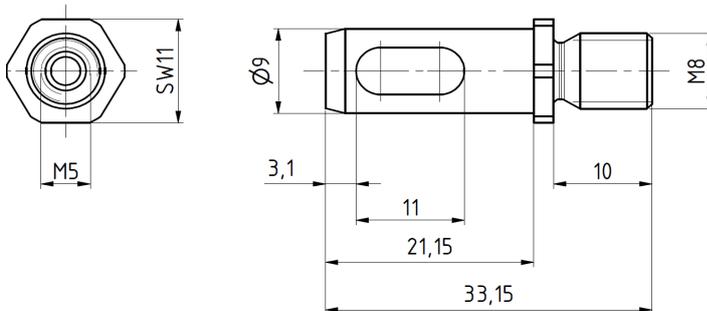
- Minimum installation size possible
- Width across flats for assembly
- Minimum immersion depth
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



Technical specifications	GIS009
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	17
For bore diameter [mm]	9,1 – 10,0
Allowed component weight [kg]	1,7
Gripper weight [kg]	0.01
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper lowering Ø009...	
G-GIS009	External diameter 9, screw thread M8
Replacement tube	
EG-GI009-S	for internal gripper counter bore GIS009

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk scr

G-GIS010

Technical specifications



Operating mode:

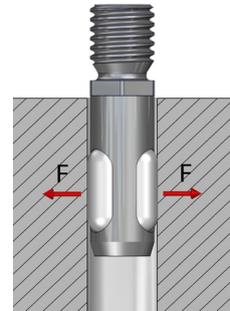
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

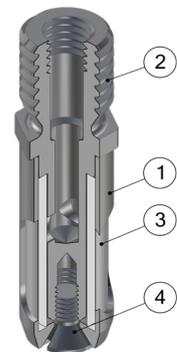
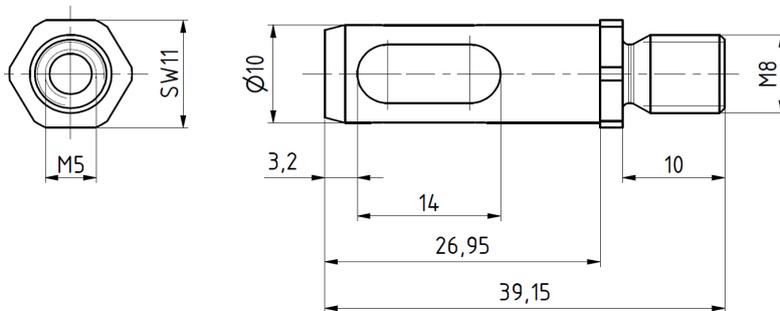
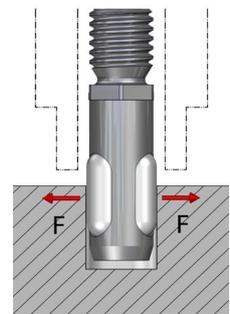
- Minimum installation size possible
- Width across flats for assembly
- Minimum immersion depth
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



Technical specifications	GIS010
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	20
For bore diameter [mm]	10,1 – 11,0
Allowed component weight [kg]	2
Gripper weight [kg]	0.013
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = D _{GIS} +10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper lowering Ø010...	
G-GIS010	External diameter 10, screw thread M8
Replacement tube	
EG-GI010-S	for internal gripper counter bore GIS010

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk scr

G-GIS011

Technical specifications



Operating mode:

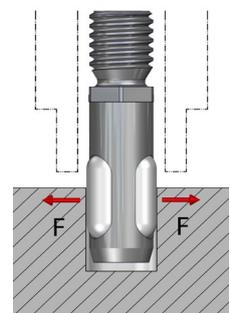
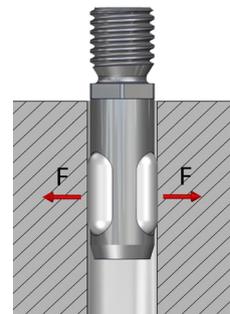
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

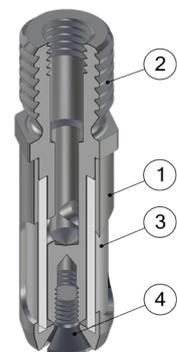
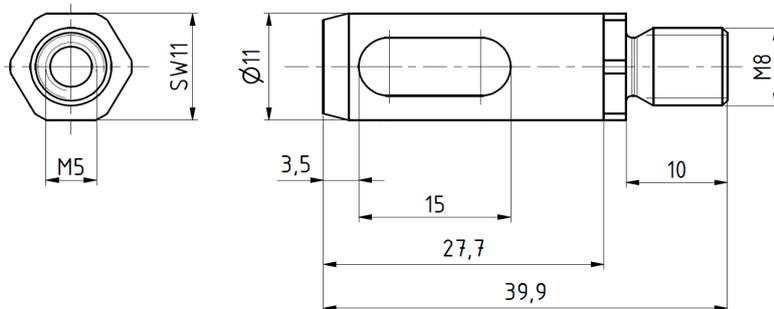
- Minimum installation size possible
- Width across flats for assembly
- Minimum immersion depth
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



Technical specifications	GIS011
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	25
For bore diameter [mm]	11,1 – 12,0
Allowed component weight [kg]	2,5
Gripper weight [kg]	0.016
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper lowering Ø011...	
G-GIS011	External diameter 11, screw thread M8
Replacement tube	
EG-GI011-S	for internal gripper counter bore GIS011

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk scr

G-GIS012

Technical specifications



Operating mode:

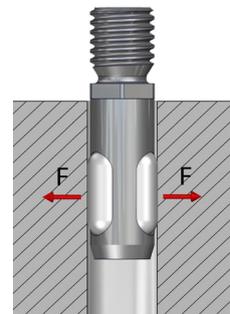
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

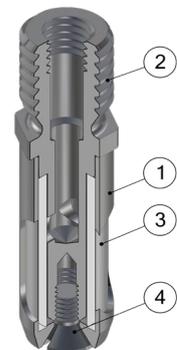
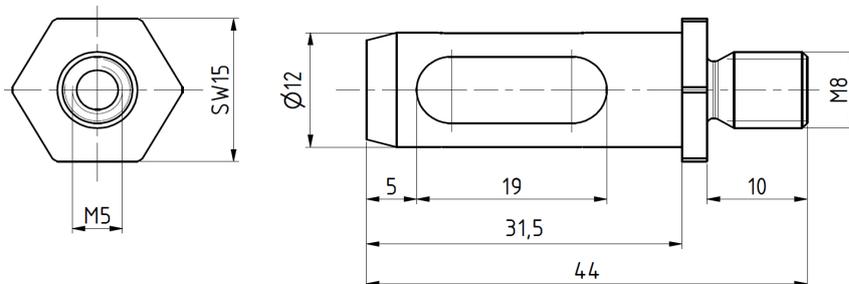
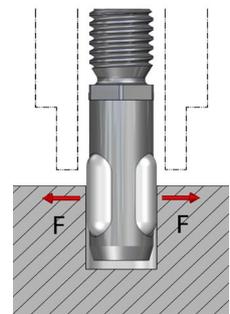
- Minimum installation size possible
- Width across flats for assembly
- Minimum immersion depth
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



Technical specifications	GIS012
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	30
For bore diameter [mm]	12,1 – 13,5
Allowed component weight [kg]	3
Gripper weight [kg]	0.023
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = D _{GIS} +10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper lowering Ø012...	
G-GIS012	External diameter 12, screw thread M8
Replacement tube	
EG-GI012-S	for internal gripper counter bore GIS012

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk scr

G-GIS013

Technical specifications



Operating mode:

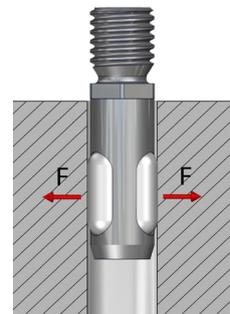
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

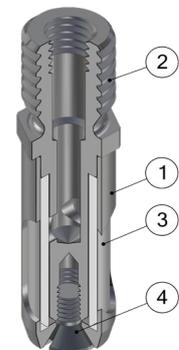
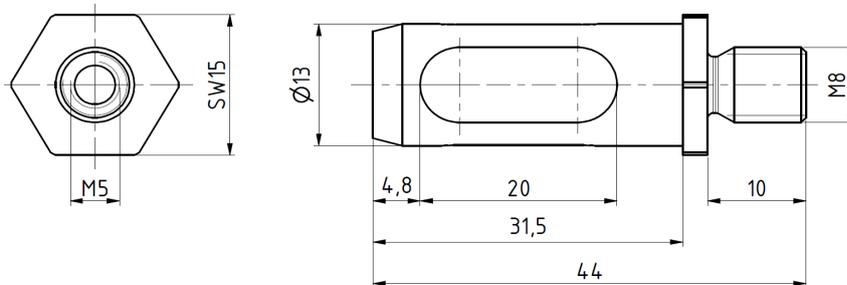
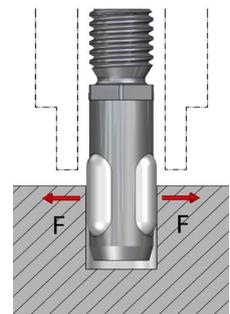
- Minimum installation size possible
- Width across flats for assembly
- Minimum immersion depth
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



Technical specifications	GIS013
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	40
For bore diameter [mm]	13,1 – 14,5
Allowed component weight [kg]	4
Gripper weight [kg]	0.027
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = D _{GIS} +10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper lowering Ø013...	
G-GIS013	External diameter 13, screw thread M8
Replacement tube	
EG-GI013-S	for internal gripper counter bore GIS013

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk scr

G-GIS014

Technical specifications



Operating mode:

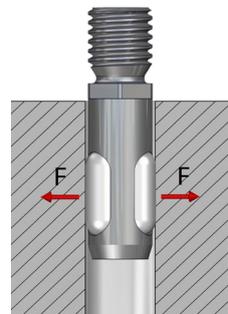
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

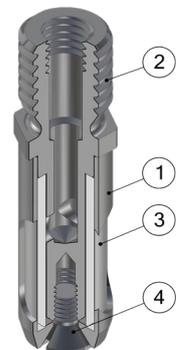
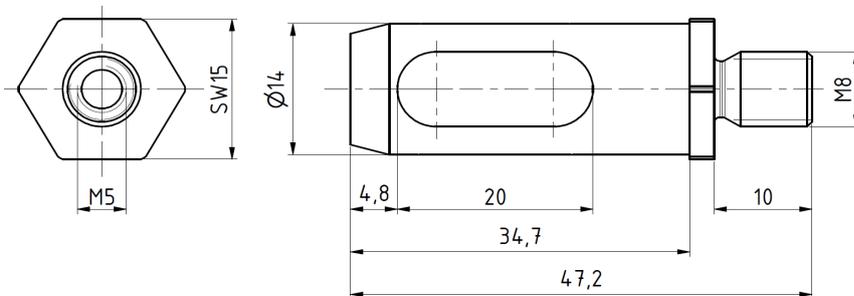
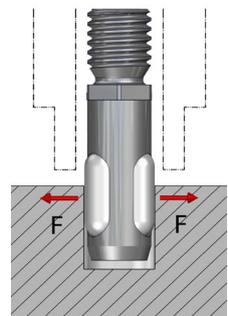
- Minimum installation size possible
- Width across flats for assembly
- Minimum immersion depth
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



Technical specifications	GIS014
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	45
For bore diameter [mm]	14,1 – 15,5
Allowed component weight [kg]	4,5
Gripper weight [kg]	0.034
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper lowering Ø014...	
G-GIS014	External diameter 14, screw thread M8

Replacement tube	
EG-GI014-S	for internal gripper counter bore GIS014

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk scr

G-GIS015

Technical specifications



Operating mode:

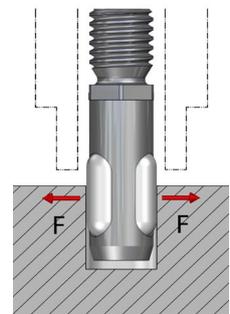
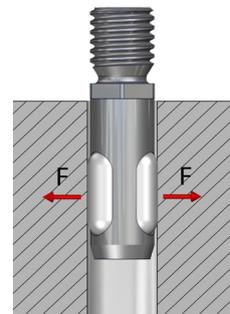
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

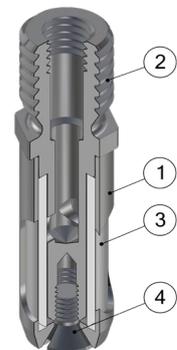
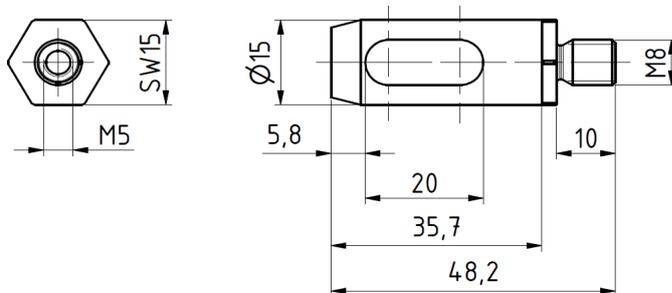
- Minimum installation size possible
- Width across flats for assembly
- Minimum immersion depth
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



Technical specifications	GIS015
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	45
For bore diameter [mm]	15,1 – 16,5
Allowed component weight [kg]	4,5
Gripper weight [kg]	0.04
Compressed air connection Ø	M5
Assembly Ø	M8
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = D _{GIS} +10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper lowering Ø015...	
G-GIS015	External diameter 15, screw thread M8
Replacement tube	
EG-GI015-S	for internal gripper counter bore GIS015

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk scr

G-GIS016

Technical specifications



Operating mode:

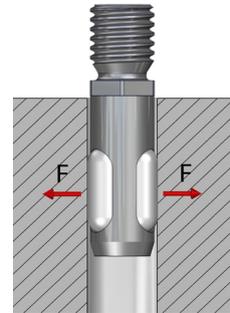
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

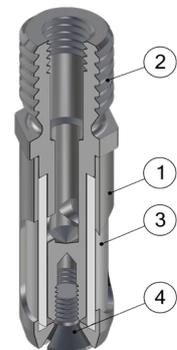
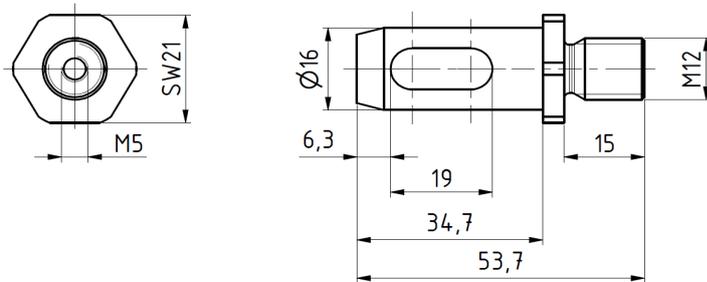
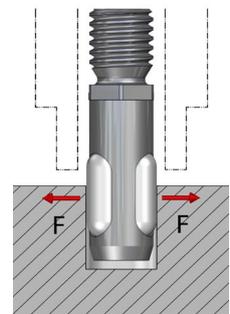
- Minimum installation size possible
- Width across flats for assembly
- Minimum immersion depth
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



Technical specifications	GIS016
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	50
For bore diameter [mm]	16,1 – 17,5
Allowed component weight [kg]	5
Gripper weight [kg]	0.061
Compressed air connection Ø	M5
Assembly Ø	M12
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = D _{GIS} +10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper lowering Ø016...	
G-GIS016	External diameter 16, screw thread M12
Replacement tube	
EG-GI016-S	for internal gripper counter bore GIS016

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk scr

G-GIS017

Technical specifications



Operating mode:

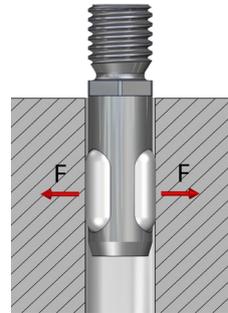
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

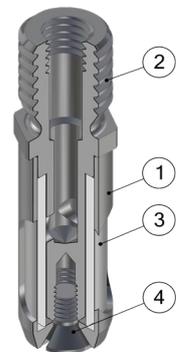
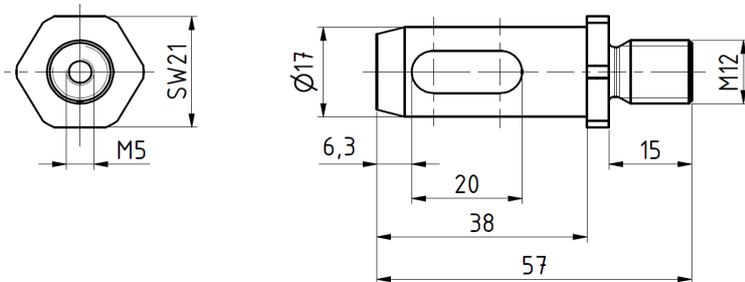
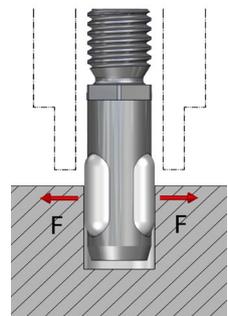
- Minimum installation size possible
- Width across flats for assembly
- Minimum immersion depth
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



Technical specifications	GIS017
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	50
For bore diameter [mm]	17,1 – 18,5
Allowed component weight [kg]	5
Gripper weight [kg]	0.072
Compressed air connection Ø	M5
Assembly Ø	M12
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = D _{GIS} +10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper lowering Ø017...

G-GIS017 External diameter 17, screw thread M12

Replacement tube

EG-GI017-S for internal gripper counter bore GIS017

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk scr

G-GIS018

Technical specifications



Operating mode:

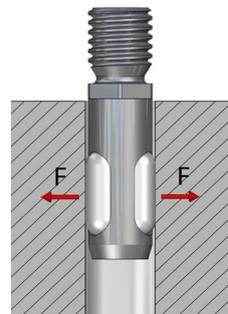
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

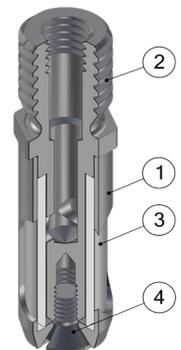
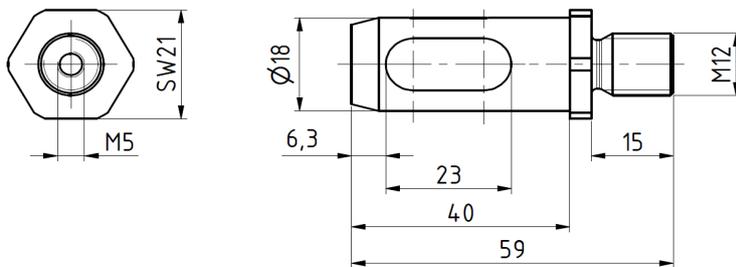
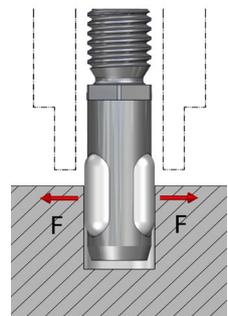
- Minimum installation size possible
- Width across flats for assembly
- Minimum immersion depth
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



Technical specifications	GIS018
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	50
For bore diameter [mm]	18,1 – 19,5
Allowed component weight [kg]	5
Gripper weight [kg]	0.08
Compressed air connection Ø	M5
Assembly Ø	M12
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = DGIS+10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper lowering Ø018...

G-GIS018 External diameter 18, screw thread M12

Replacement tube

EG-GI018-S for internal gripper counter bore GIS018

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk scr

G-GIS019

Technical specifications



Operating mode:

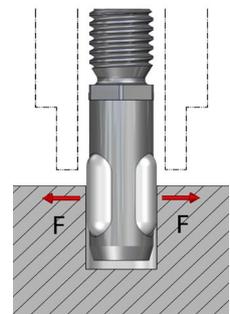
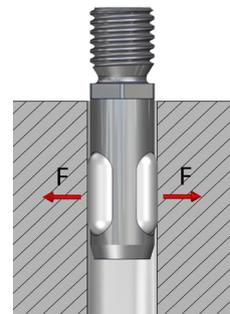
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

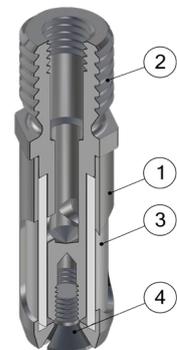
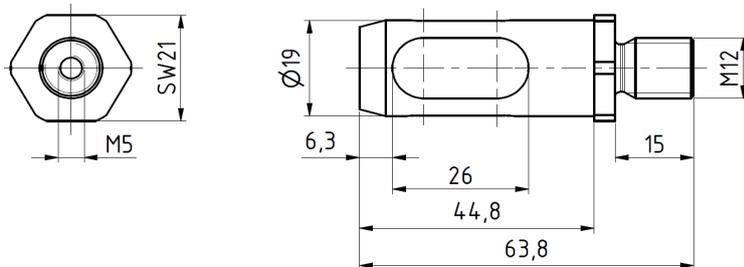
- Minimum installation size possible
- Width across flats for assembly
- Minimum immersion depth
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



Technical specifications	GIS019
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	60
For bore diameter [mm]	19,1 – 21,0
Allowed component weight [kg]	6
Gripper weight [kg]	0.096
Compressed air connection Ø	M5
Assembly Ø	M12
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = D _{GIS} +10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper lowering Ø019...	
G-GIS019	External diameter 19, screw thread M12
Replacement tube	
EG-GI019-S	for internal gripper counter bore GIS019

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk scr

G-GIS020

Technical specifications



Operating mode:

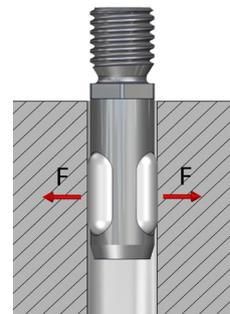
The internal grippers dip into drillings, enlarge their external diameter by expansion of the silicone membrane, under pressure, and thus frictionally engaged hold to the bore wall. When pressure is switched off, the silicone membrane self-reliant retracts into the grippers inside due to its elastic behavior.

Advantages:

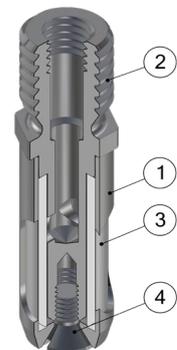
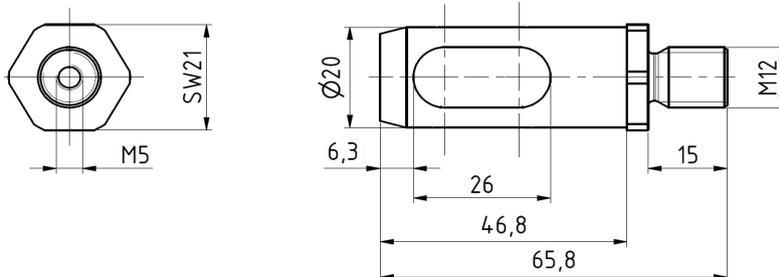
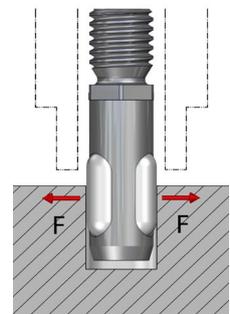
- Minimum installation size possible
- Width across flats for assembly
- Minimum immersion depth
- Low gripper weight
- Simple gripper principle
- Cost-efficient
- Quick membrane replacement possible
- Indirect request via pressure switch in the supply line possible



Technical specifications	GIS020
Working pressure [bar]	3 - 6
Grip force at 6 bar [N]	60
For bore diameter [mm]	20,1 –21,5
Allowed component weight [kg]	6
Gripper weight [kg]	0.11
Compressed air connection Ø	M5
Assembly Ø	M12
Stroke cycles at ideal application conditions	500.000
Membrane material	Silicone rubber
Temperature range	-40° C to 300° C



Limits of the application range	
Minimum immersion depth of the membrane [%]	60
To protect the membrane from damage at low installation depth, use customers hull	DH = D _{GIS} +10%
Reduced grip force, when the membrane is not completely covered	



Internal gripper lowering Ø020...	
G-GIS020	External diameter 20, screw thread M12
Replacement tube	
EG-GI020-S	for internal gripper counter bore GIS020

Pos.	Description
1	Hull
2	Arbor
3	Tube
4	Counter sunk scr

G-GZ050

Technical specifications

GRIP

Operating mode:

The double-acting cylinder is operated by pneum. compressed-air and actuates the power unit. An eccentric mechanism ensures a long service life and a constant gripping moment. In contrast to the parallel gripper, the gripping safety device is only capable of being closed -GS-.

Advantages:

High service life by robust mechanics

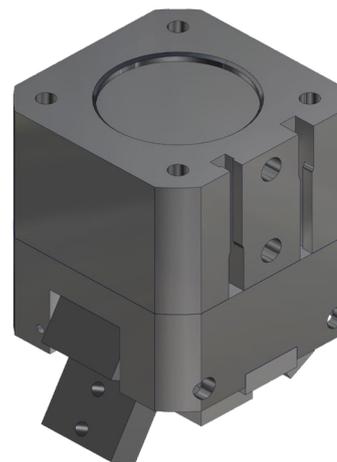
Constant torque over the entire opening and closing range of the fingers

Mechanical interface according to DIN EN ISO 9409-1

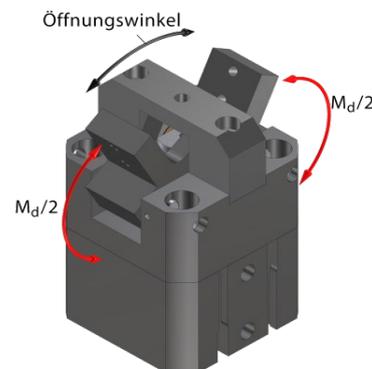
Low dead weight

Optional gripping force safety device "shutting"

Piston position monitoring using inductive proximity switch ZG-RSGU01 / 300-M8



Technical specifications		GZ050
Torque at 6 bar	Md [Nm]	4,9
Md factor	fg [Nm/bar]	0,8
Opening angle		60°
Gripper weight	mg [kg]	0,3
Air consumption	V [ccm]	4,2
Air supply	Pmax = 10 bar	M5
Mounting flange	ISO	4 x M4 - TK ø40



Pos.	Description
1	Cylinder ISO
2	Counter sunk screw, galvanized
3	Piston cover
4	Magnetic ring
5	Sealing ring 1
6	Piston
7	Pressure spring
8	Power unit
9	Sealing ring 2
10	O-Ring
11	Housing
12	Cylindrical pin finger
13	Cylinder screw housing
14	Stop
15	Cylinder screw stop
16	Setscrew power unit
17	Sinter bronze connection
18	Eccentric
19	Finger
20	Cylindrical pin eccentric

Pincer gripper Ø50...

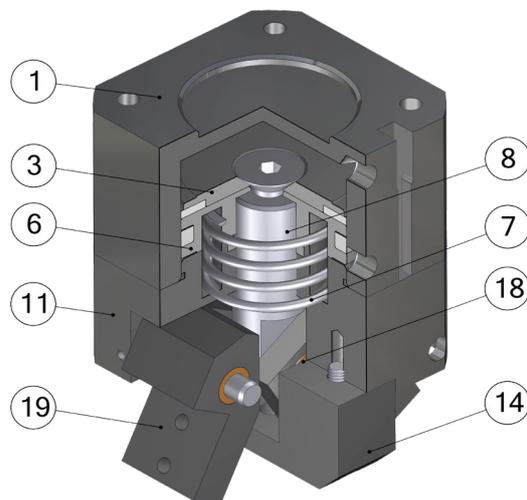
G-GZ050-IGS	ISO-flange gripping force safety device shutting
G-GZ050-IO	ISO-flange without gripping force safety device

Accessories GZ

ZG-RSGU-01	Signal transmitter with LED
ZG-RSGU01-300-M8	Signal transmitter with LED, with M8 plug

Spare Parts GG

EG-GG050-DS	Gasket kit for gripper size 050
-------------	---------------------------------



G-GZ063

Technical specifications

GRIP

Operating mode:

The double-acting cylinder is operated by pneum. compressed-air and actuates the power unit. An eccentric mechanism ensures a long service life and a constant gripping moment. In contrast to the parallel gripper, the gripping safety device is only capable of being closed -GS-.

Advantages:

High service life by robust mechanics

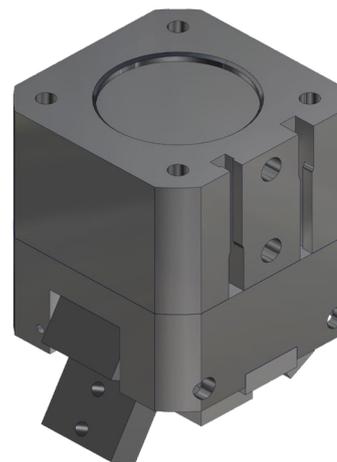
Constant torque over the entire opening and closing range of the fingers

Mechanical interface according to DIN EN ISO 9409-1

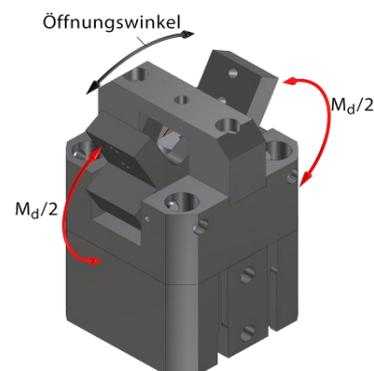
Low dead weight

Optional gripping force safety device "shutting"

Piston position monitoring using inductive proximity switch ZG-RSGU01 / 300-M8



Technical specifications		GZ063
Torque at 6 bar	Md [Nm]	11,4
Md factor	fg [Nm/bar]	1,9
Opening angle		60°
Gripper weight	mg [kg]	0,4
Air consumption	V [ccm]	10
Air supply	Pmax = 10 bar	M5
Mounting flange	ISO	4 x M5 - TK ø50



Pos.	Description
1	Cylinder ISO
2	Counter sunk screw, galvanized
3	Piston cover
4	Magnetic ring
5	Sealing ring 1
6	Piston
7	Pressure spring
8	Power unit
9	Sealing ring 2
10	O-Ring
11	Housing
12	Cylindrical pin finger
13	Cylinder screw housing
14	Stop
15	Cylinder screw stop
16	Setscrew power unit
17	Sinter bronze connection
18	Eccentric
19	Finger
20	Cylindrical pin eccentric

Pincer gripper Ø63...

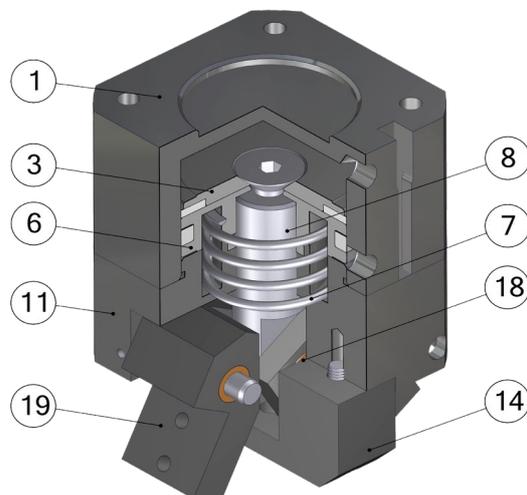
G-GZ063-IGS	ISO-flange gripping force safety device shutting
G-GZ063-IO	ISO-flange without gripping force safety device

Accessories GZ

ZG-RSGU-01	Signal transmitter with LED
ZG-RSGU01-300-M8	Signal transmitter with LED, with M8 plug

Spare Parts GG

EG-GG063-DS	Gasket kit for gripper size 063
-------------	---------------------------------



G-GZ080

Technical specifications

GRIP

Operating mode:

The double-acting cylinder is operated by pneum. compressed-air and actuates the power unit. An eccentric mechanism ensures a long service life and a constant gripping moment. In contrast to the parallel gripper, the gripping safety device is only capable of being closed -GS-.

Advantages:

High service life by robust mechanics

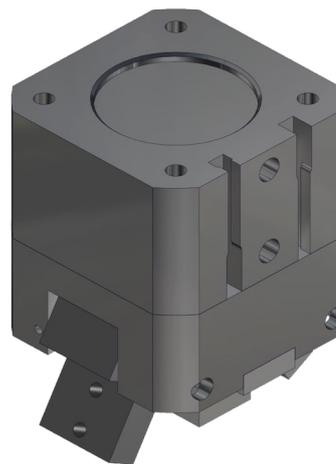
Constant torque over the entire opening and closing range of the fingers

Mechanical interface according to DIN EN ISO 9409-1

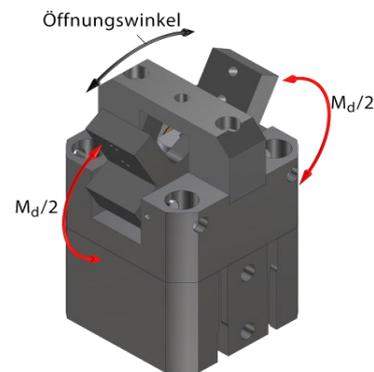
Low dead weight

Optional gripping force safety device "shutting"

Piston position monitoring using inductive proximity switch ZG-RSGU01 / 300-M8



Technical specifications		GZ080
Torque at 6 bar	Md [Nm]	22
Md factor	fg [Nm/bar]	3,6
Opening angle		60°
Gripper weight	mg [kg]	0,9
Air consumption	V [ccm]	19,6
Air supply	Pmax = 10 bar	M5
Mounting flange	ISO	4 x M6 - TK ø63



Pos.	Description
1	Cylinder ISO
2	Counter sunk screw, galvanized
3	Piston cover
4	Magnetic ring
5	Sealing ring 1
6	Piston
7	Pressure spring
8	Power unit
9	Sealing ring 2
10	O-Ring
11	Housing
12	Cylindrical pin finger
13	Cylinder screw housing
14	Stop
15	Cylinder screw stop
16	Setscrew power unit
17	Sinter bronze connection
18	Eccentric
19	Finger
20	Cylindrical pin eccentric

Pincer gripper Ø80...

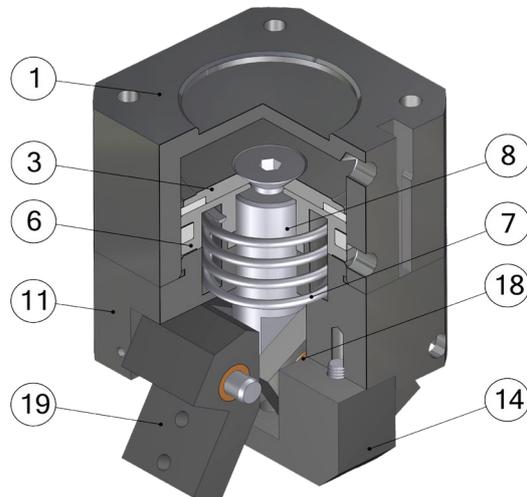
G-GZ080-IGS	ISO-flange gripping force safety device shutting
G-GZ080-IO	ISO-flange without gripping force safety device

Accessories GZ

ZG-RSGU-01	Signal transmitter with LED
ZG-RSGU01-300-M8	Signal transmitter with LED, with M8 plug

Spare Parts GG

EG-GG080-DS	Gasket kit for gripper size 080
-------------	---------------------------------



G-GZ100

Technical specifications

GRIP

Operating mode:

The double-acting cylinder is operated by pneum. compressed-air and actuates the power unit. An eccentric mechanism ensures a long service life and a constant gripping moment. In contrast to the parallel gripper, the gripping safety device is only capable of being closed -GS-.

Advantages:

High service life by robust mechanics

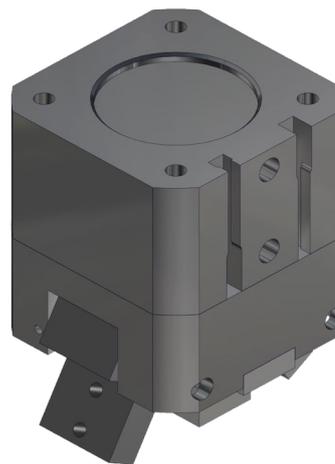
Constant torque over the entire opening and closing range of the fingers

Mechanical interface according to DIN EN ISO 9409-1

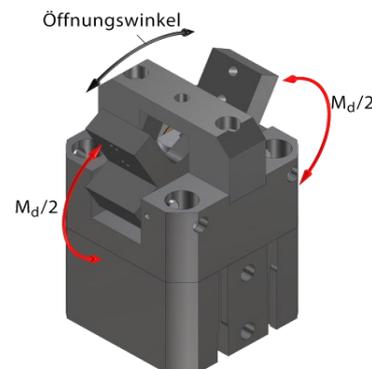
Low dead weight

Optional gripping force safety device "shutting"

Piston position monitoring using inductive proximity switch ZG-RSGU01 / 300-M8



Technical specifications		GZ100
Torque at 6 bar	Md [Nm]	47,6
Md factor	fg [Nm/bar]	7,9
Opening angle		60°
Gripper weight	mg [kg]	1,9
Air consumption	V [ccm]	38,6
Air supply	Pmax = 10 bar	G 1/8
Mounting flange	ISO	4 x M8 - TK ø80



Pos.	Description
1	Cylinder ISO
2	Counter sunk screw, galvanized
3	Piston cover
4	Magnetic ring
5	Sealing ring 1
6	Piston
7	Pressure spring
8	Power unit
9	Sealing ring 2
10	O-Ring
11	Housing
12	Cylindrical pin finger
13	Cylinder screw housing
14	Stop
15	Cylinder screw stop
16	Setscrew power unit
17	Sinter bronze connection
18	Eccentric
19	Finger
20	Cylindrical pin eccentric

Pincer gripper Ø100...

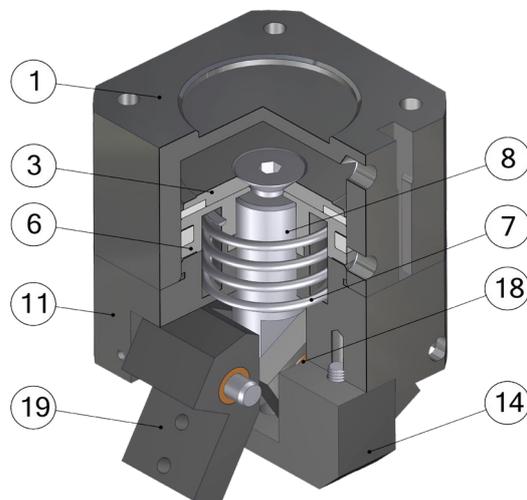
G-GZ100-IGS	ISO-flange gripping force safety device shutting
G-GZ100-IO	ISO-flange without gripping force safety device

Accessories GZ

ZG-RSGU-01	Signal transmitter with LED
ZG-RSGU01-300-M8	Signal transmitter with LED, with M8 plug

Spare Parts GG

EG-GG100-DS	Gasket kit for gripper size 100
-------------	---------------------------------



G-GZ125

Technical specifications

GRIP

Operating mode:

The double-acting cylinder is operated by pneum. compressed-air and actuates the power unit. An eccentric mechanism ensures a long service life and a constant gripping moment. In contrast to the parallel gripper, the gripping safety device is only capable of being closed -GS-.

Advantages:

High service life by robust mechanics

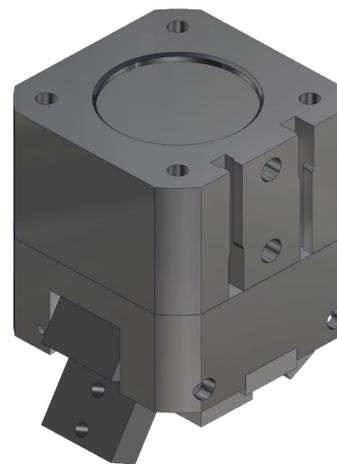
Constant torque over the entire opening and closing range of the fingers

Mechanical interface according to DIN EN ISO 9409-1

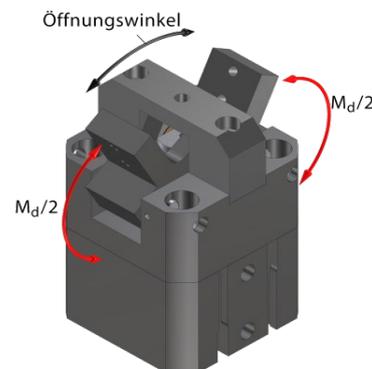
Low dead weight

Optional gripping force safety device "shutting"

Piston position monitoring using inductive proximity switch ZG-RSGU01 / 300-M8



Technical specifications		GZ125
Torque at 6 bar	Md [Nm]	87,5
Md factor	fg [Nm/bar]	14,6
Opening angle		60°
Gripper weight	mg [kg]	3
Air consumption	V [ccm]	70,4
Air supply	Pmax = 10 bar	G 1/8
Mounting flange	ISO	4 x M8 - TK ø100



Pos.	Description
1	Cylinder ISO
2	Counter sunk screw, galvanized
3	Piston cover
4	Magnetic ring
5	Sealing ring 1
6	Piston
7	Pressure spring
8	Power unit
9	Sealing ring 2
10	O-Ring
11	Housing
12	Cylindrical pin finger
13	Cylinder screw housing
14	Stop
15	Cylinder screw stop
16	Setscrew power unit
17	Sinter bronze connection
18	Eccentric
19	Finger
20	Cylindrical pin eccentric

Pincer gripper Ø125...

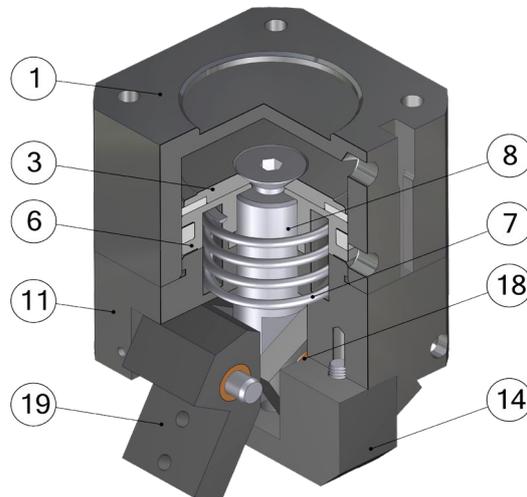
G-GZ125-IGS	ISO-flange gripping force safety device shutting
G-GZ125-IO	ISO-flange without gripping force safety device

Accessories GZ

ZG-RSGU-01	Signal transmitter with LED
ZG-RSGU01-300-M8	Signal transmitter with LED, with M8 plug

Spare Parts GG

EG-GG125-DS	Gasket kit for gripper size 125
-------------	---------------------------------



G-GP050

Technical specifications

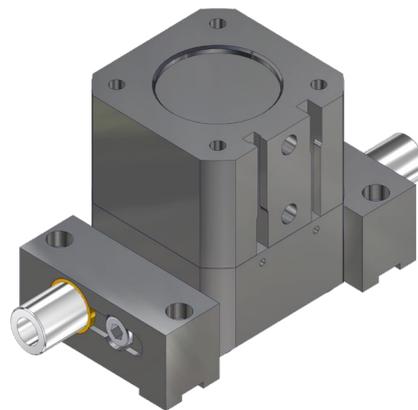


Operating mode:

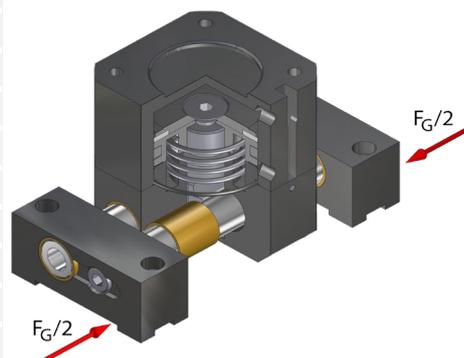
The double-acting cylinder is operated via pneum. compressed air and actuates the power unit. By two angularly arranged springs, which engage in the grooves of the bolts, the vertical is converted into horizontal movement.

Advantages:

- High life span
- Two stroke variants stroke 1 or stroke 2
- Mechanical interface according to DIN EN ISO 9409-12
- Low dead weight
- Optional gripping force safety device "opening" via pressure spring (7)
- Optional gripping force safety device "closing" via pressure spring (7)
- Depending on the mounting, gripping force safety device "closing" or "opening"
- Gripping force safety device
- Piston position detection by means of proximity switch ZG-RSGU01 / 300-M8

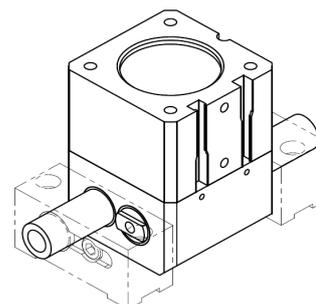


Technical specifications				GP050
Gripping force at 6 bar	FG [N]	stroke 1	opening	650
			shutting	560
		stroke 2	opening	325
			shutting	280
Gripping force factor	fg [N/bar]	stroke 1	opening	108
			shutting	93
		stroke 2	opening	54
			shutting	46,5
Gripping force safety device	FS [N]	stroke 1	min.	340
			max.	480
		Stroke 2	min.	170
			max.	240
System stroke per jaw	h [mm]	stroke 1	3	
		stroke 2	6	
Recommended component weight		mw [kg]	5	
Weight gripper		mg [kg]	0,3	
Air consumption per Hub		V [ccm]	4,2	
Air connection		Pmax = 10 bar	M5	
Mounting flange		ISO	4 x M4 on TK ø40	



Parallel gripper Ø50...

G-GP050-I1-GÖ	ISO-flange, Hub 1 gripping force safety device opening
G-GP050-I1-GS	ISO-flange, Hub 1 gripping force safety device shutting
G-GP050-I1-O	ISO-flange, Hub 1 without gripping force safety device
G-GP050-I2-GÖ	ISO-flange, Hub 2 gripping force safety device opening
G-GP050-I2-GS	ISO-flange, Hub 2 gripping force safety device shutting
G-GP050-I2-O	ISO-flange, Hub 2 without gripping force safety device



G-GP050

Technical specifications

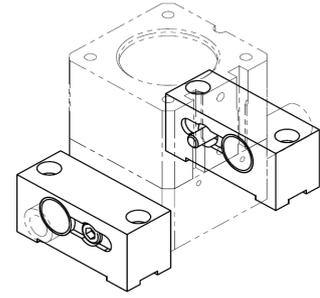
GRIP

Equipment GP

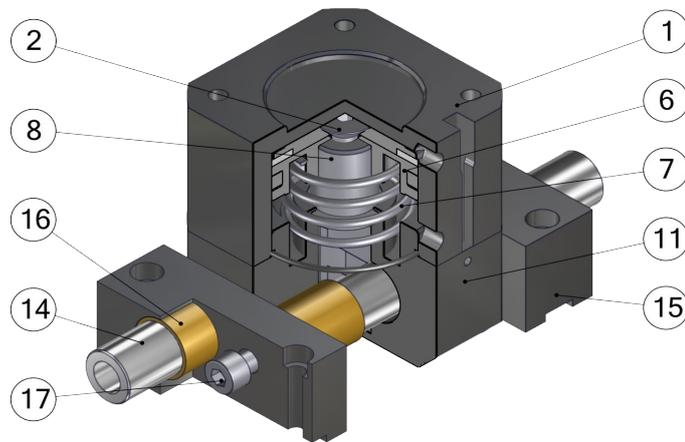
ZG-GP050-UB	Universal jaw for GP050 pair
ZG-RSGU-01	Signal transmitter with LED
ZG-RSGU01-300-M8	Signal transmitter with LED, with M8 plug

Spare parts GG

EG-GG050-DS	Gasket set for gripper size 050
-------------	---------------------------------



Pos.	Description
1	Cylinder ISO
2	Countersunk screw
3	Cap
4	Magnetic ring
5	Quadrat ring 1
6	Cone
7	Compression spring
8	Power unit 1/2
9	Quadrat ring 2
10	O- Ring
11	Housing
12	Cylinder head screw housing
13	Plain bearing bushing housing
14	Bolt 1/2
15	Universal jaw
16	Plain bearing bushing UB
17	Cylinder head screw UB



G-GP063

Technical specifications

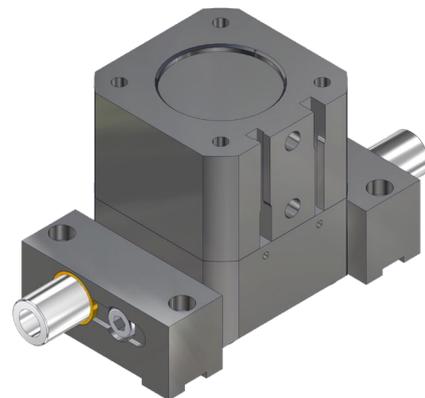


Operating mode:

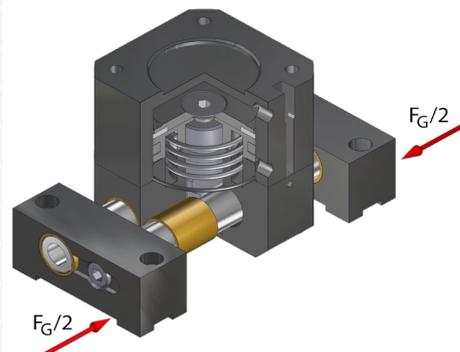
The double-acting cylinder is operated via pneum. compressed air and actuates the power unit. By two angularly arranged springs, which engage in the grooves of the bolts, the vertical is converted into horizontal movement.

Advantages:

- High life span
- Two stroke variants stroke 1 or stroke 2
- Mechanical interface according to DIN EN ISO 9409-12
- Low dead weight
- Optional gripping force safety device "opening" via pressure spring (7)
- Optional gripping force safety device "closing" via pressure spring (7)
- Depending on the mounting, gripping force safety device "closing" or "opening"
- Gripping force safety device
- Piston position detection by means of proximity switch ZG-RSGU01 / 300-M8

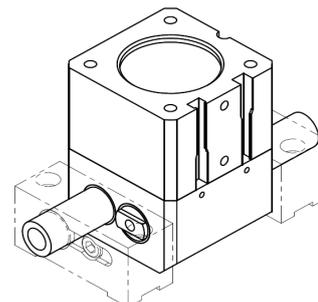


Technical specifications			GP063	
Gripping force at 6 bar	FG [N]	stroke 1	opening	1200
			shutting	1000
		stroke 2	opening	600
			shutting	500
Gripping force factor	fg [N/bar]	stroke 1	opening	200
			shutting	166
		stroke 2	opening	100
			shutting	83
Gripping force safety device	FS [N]	stroke 1	min.	500
			max.	760
		Stroke 2	min.	250
			max.	380
System stroke per jaw	h [mm]	stroke 1	4	
		stroke 2	8	
Recommended component weight		mw [kg]	10	
Weight gripper		mg [kg]	0,4	
Air consumption per Hub		V [ccm]	10	
Air connection		Pmax = 10 bar	M5	
Mounting flange		ISO	4 x M5 on TK ø50	



Parallel gripper Ø63...

G-GP063-I1-GÖ	ISO-flange, Hub 1 gripping force safety device opening
G-GP063-I1-GS	ISO-flange, Hub 1 gripping force safety device shutting
G-GP063-I1-O	ISO-flange, Hub 1 without gripping force safety device
G-GP063-I2-GÖ	ISO-flange, Hub 2 gripping force safety device opening
G-GP063-I2-GS	ISO-flange, Hub 2 gripping force safety device shutting
G-GP063-I2-O	ISO-flange, Hub 2 without gripping force safety device



G-GP063

Technical specifications

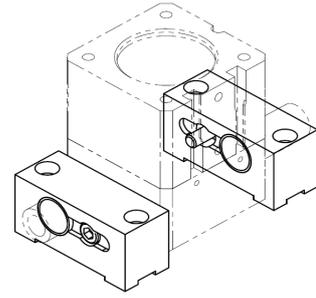
GRIP

Equipment GP

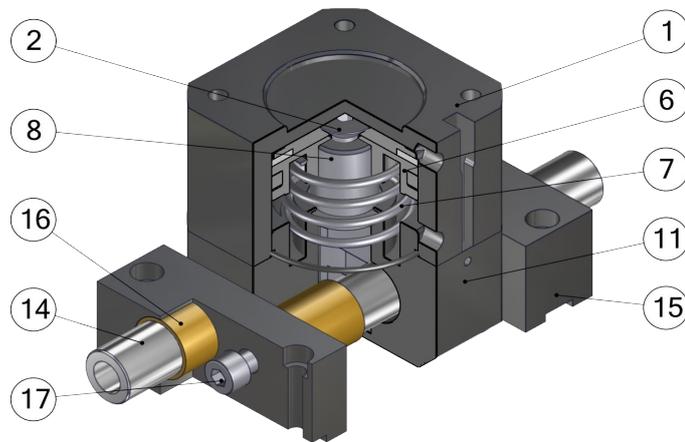
ZG-GP063-UB	Universal jaw for GP050 pair
ZG-RSGU-01	Signal transmitter with LED
ZG-RSGU01-300-M8	Signal transmitter with LED, with M8 plug

Spare parts GG

EG-GG063-DS	Gasket set for gripper size 063
-------------	---------------------------------



Pos.	Description
1	Cylinder ISO
2	Countersunk screw
3	Cap
4	Magnetic ring
5	Quadrat ring 1
6	Cone
7	Compression spring
8	Power unit 1/2
9	Quadrat ring 2
10	O- Ring
11	Housing
12	Cylinder head screw housing
13	Plain bearing bushing housing
14	Bolt 1/2
15	Universal jaw
16	Plain bearing bushing UB
17	Cylinder head screw UB



G-GP080

Technical specifications

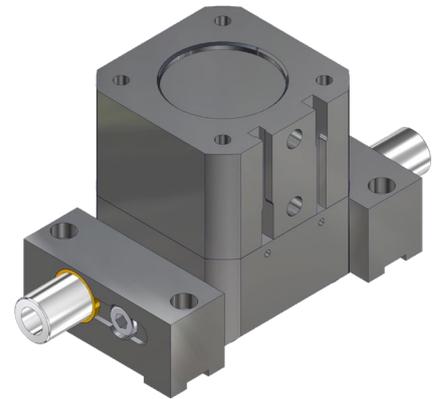


Operating mode:

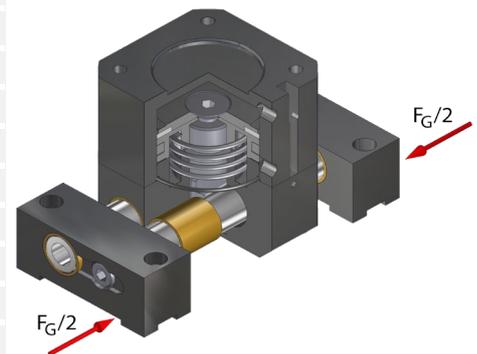
The double-acting cylinder is operated via pneum. compressed air and actuates the power unit. By two angularly arranged springs, which engage in the grooves of the bolts, the vertical is converted into horizontal movement.

Advantages:

- High life span
- Two stroke variants stroke 1 or stroke 2
- Mechanical interface according to DIN EN ISO 9409-12
- Low dead weight
- Optional gripping force safety device "opening" via pressure spring (7)
- Optional gripping force safety device "closing" via pressure spring (7)
- Depending on the mounting, gripping force safety device "closing" or "opening"
- Gripping force safety device
- Piston position detection by means of proximity switch ZG-RSGU01 / 300-M8

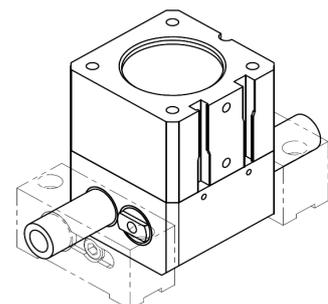


Technical specifications			GP080	
Gripping force at 6 bar	FG [N]	stroke 1	opening	1800
			shutting	1600
		stroke 2	opening	900
			shutting	800
Gripping force factor	fg [N/bar]	stroke 1	opening	300
			shutting	266
		stroke 2	opening	150
			shutting	133
Gripping force safety device	FS [N]	stroke 1	min.	320
			max.	790
		Stroke 2	min.	160
			max.	395
System stroke per jaw	h [mm]	stroke 1	5	
		stroke 2	10	
Recommended component weight		mw [kg]	15	
Weight gripper		mg [kg]	0,9	
Air consumption per Hub		V [ccm]	19,6	
Air connection		Pmax = 10 bar	M5	
Mounting flange		ISO	4 x M6 on TK ø63	



Parallel gripper Ø80...

G-GP080-I1-GÖ	ISO-flange, Hub 1 gripping force safety device opening
G-GP080-I1-GS	ISO-flange, Hub 1 gripping force safety device shutting
G-GP080-I1-O	ISO-flange, Hub 1 without gripping force safety device
G-GP080-I2-GÖ	ISO-flange, Hub 2 gripping force safety device opening
G-GP080-I2-GS	ISO-flange, Hub 2 gripping force safety device shutting
G-GP080-I2-O	ISO-flange, Hub 2 without gripping force safety device



G-GP080

Technical specifications

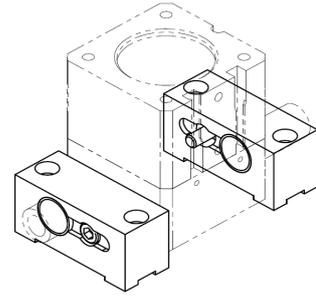
GRIP

Equipment GP

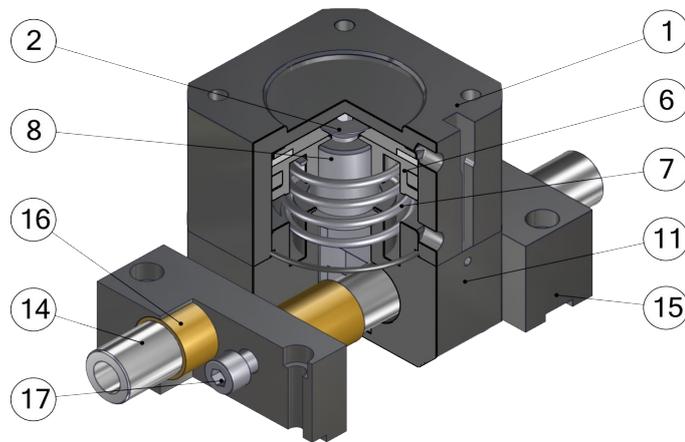
ZG-GP080-UB	Universal jaw for GP050 pair
ZG-RSGU-01	Signal transmitter with LED
ZG-RSGU01-300-M8	Signal transmitter with LED, with M8 plug

Spare parts GG

EG-GG080-DS	Gasket set for gripper size 080
-------------	---------------------------------



Pos.	Description
1	Cylinder ISO
2	Countersunk screw
3	Cap
4	Magnetic ring
5	Quadrat ring 1
6	Cone
7	Compression spring
8	Power unit 1/2
9	Quadrat ring 2
10	O- Ring
11	Housing
12	Cylinder head screw housing
13	Plain bearing bushing housing
14	Bolt 1/2
15	Universal jaw
16	Plain bearing bushing UB
17	Cylinder head screw UB



G-GP100

Technical specifications

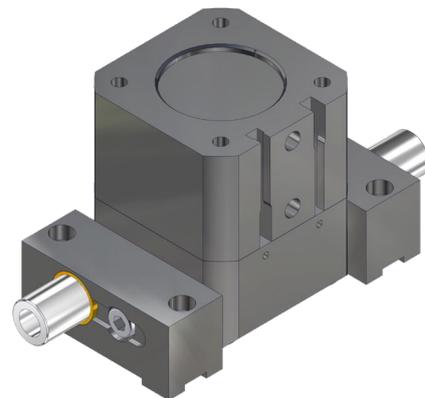


Operating mode:

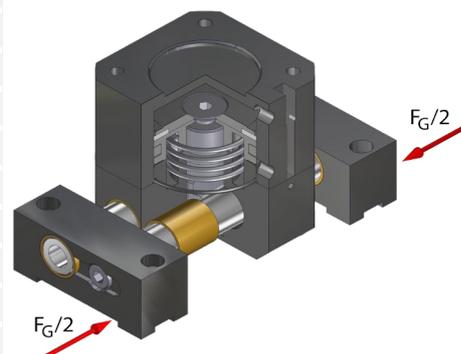
The double-acting cylinder is operated via pneum. compressed air and actuates the power unit. By two angularly arranged springs, which engage in the grooves of the bolts, the vertical is converted into horizontal movement.

Advantages:

- High life span
- Two stroke variants stroke 1 or stroke 2
- Mechanical interface according to DIN EN ISO 9409-12
- Low dead weight
- Optional gripping force safety device "opening" via pressure spring (7)
- Optional gripping force safety device "closing" via pressure spring (7)
- Depending on the mounting, gripping force safety device "closing" or "opening"
- Gripping force safety device
- Piston position detection by means of proximity switch ZG-RSGU01 / 300-M8

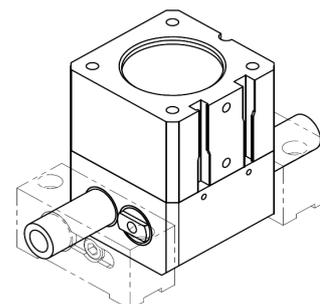


Technical specifications			GP100	
Gripping force at 6 bar	FG [N]	stroke 1	opening	3200
			shutting	2800
		stroke 2	opening	1600
			shutting	1400
Gripping force factor	fg [N/bar]	stroke 1	opening	530
			shutting	466
		stroke 2	opening	265
			shutting	233
Gripping force safety device	FS [N]	stroke 1	min.	770
			max.	1500
		Stroke 2	min.	385
			max.	750
System stroke per jaw	h [mm]	stroke 1	6	
		stroke 2	12	
Recommended component weight		mw [kg]	25	
Weight gripper		mg [kg]	1,9	
Air consumption per Hub		V [ccm]	38,6	
Air connection		Pmax = 10 bar	G 1/8	
Mounting flange		ISO	4 x M8 on TK ø80	



Parallel gripper Ø100...

G-GP100-I1-GÖ	ISO-flange, Hub 1 gripping force safety device opening
G-GP100-I1-GS	ISO-flange, Hub 1 gripping force safety device shutting
G-GP100-I1-O	ISO-flange, Hub 1 without gripping force safety device
G-GP100-I2-GÖ	ISO-flange, Hub 2 gripping force safety device opening
G-GP100-I2-GS	ISO-flange, Hub 2 gripping force safety device shutting
G-GP100-I2-O	ISO-flange, Hub 2 without gripping force safety device



G-GP100

Technical specifications

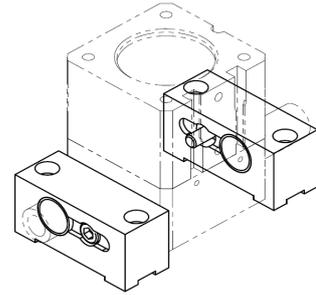
GRIP

Equipment GP

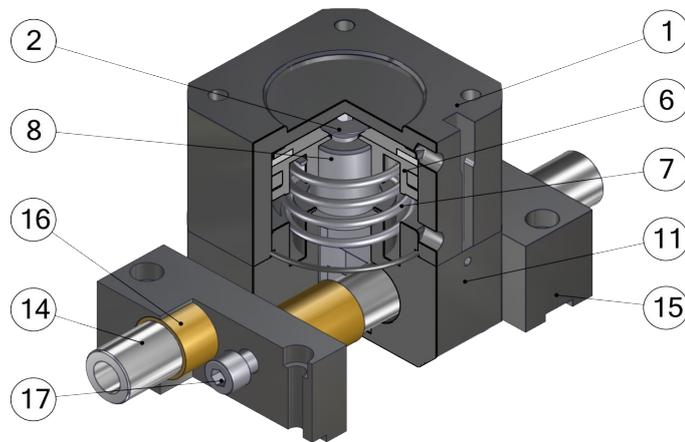
ZG-GP100-UB	Universal jaw for GP050 pair
ZG-RSGU-01	Signal transmitter with LED
ZG-RSGU01-300-M8	Signal transmitter with LED, with M8 plug

Spare parts GG

EG-GG100-DS	Gasket set for gripper size 100
-------------	---------------------------------



Pos.	Description
1	Cylinder ISO
2	Countersunk screw
3	Cap
4	Magnetic ring
5	Quadrat ring 1
6	Cone
7	Compression spring
8	Power unit 1/2
9	Quadrat ring 2
10	O- Ring
11	Housing
12	Cylinder head screw housing
13	Plain bearing bushing housing
14	Bolt 1/2
15	Universal jaw
16	Plain bearing bushing UB
17	Cylinder head screw UB



G-GP125

Technical specifications

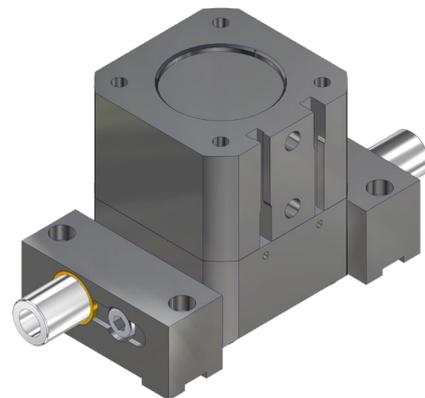


Operating mode:

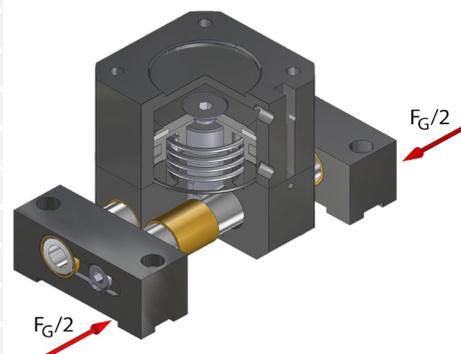
The double-acting cylinder is operated via pneum. compressed air and actuates the power unit. By two angularly arranged springs, which engage in the grooves of the bolts, the vertical is converted into horizontal movement.

Advantages:

- High life span
- Two stroke variants stroke 1 or stroke 2
- Mechanical interface according to DIN EN ISO 9409-12
- Low dead weight
- Optional gripping force safety device "opening" via pressure spring (7)
- Optional gripping force safety device "closing" via pressure spring (7)
- Depending on the mounting, gripping force safety device "closing" or "opening"
- Gripping force safety device
- Piston position detection by means of proximity switch ZG-RSGU01 / 300-M8

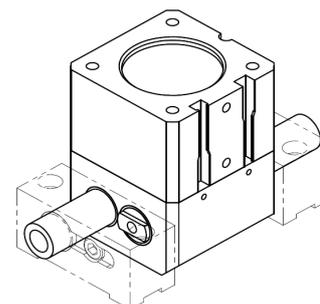


Technical specifications			GP125	
Gripping force at 6 bar	FG [N]	stroke 1	opening	4900
			shutting	4100
		stroke 2	opening	2450
			shutting	2050
Gripping force factor	fg [N/bar]	stroke 1	opening	816
			shutting	683
		stroke 2	opening	408
			shutting	341,5
Gripping force safety device	FS [N]	stroke 1	min.	1100
			max.	2200
		Stroke 2	min.	550
			max.	1100
System stroke per jaw	h [mm]	stroke 1	7	
		stroke 2	14	
Recommended component weight		mw [kg]	40	
Weight gripper		mg [kg]	3	
Air consumption per Hub		V [ccm]	70,4	
Air connection		Pmax = 10 bar	G 1/8	
Mounting flange		ISO	4 x M8 on TK ø100	



Parallel gripper Ø125...

G-GP125-I1-GÖ	ISO-flange, Hub 1 gripping force safety device opening
G-GP125-I1-GS	ISO-flange, Hub 1 gripping force safety device shutting
G-GP125-I1-O	ISO-flange, Hub 1 without gripping force safety device
G-GP125-I2-GÖ	ISO-flange, Hub 2 gripping force safety device opening
G-GP125-I2-GS	ISO-flange, Hub 2 gripping force safety device shutting
G-GP125-I2-O	ISO-flange, Hub 2 without gripping force safety device



G-GP125

Technical specifications

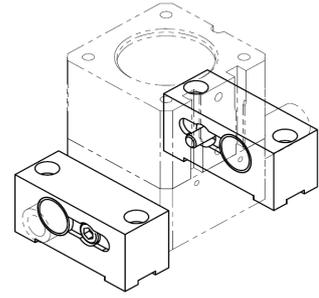
GRIP

Equipment GP

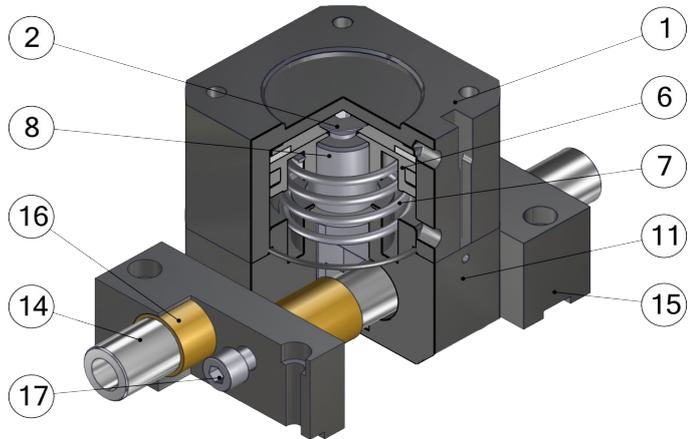
ZG-GP125-UB	Universal jaw for GP050 pair
ZG-RSGU-01	Signal transmitter with LED
ZG-RSGU01-300-M8	Signal transmitter with LED, with M8 plug

Spare parts GG

EG-GG125-DS	Gasket set for gripper size 125
-------------	---------------------------------



Pos.	Description
1	Cylinder ISO
2	Countersunk screw
3	Cap
4	Magnetic ring
5	Quadrat ring 1
6	Cone
7	Compression spring
8	Power unit 1/2
9	Quadrat ring 2
10	O- Ring
11	Housing
12	Cylinder head screw housing
13	Plain bearing bushing housing
14	Bolt 1/2
15	Universal jaw
16	Plain bearing bushing UB
17	Cylinder head screw UB



G-DDF050

Technical specifications

GRIP

Operating mode:

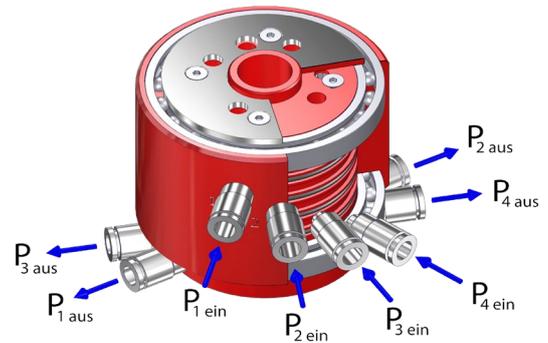
The compressed air is routed through channels inside the DDF. These channels prevent the pneumatic lines from becoming twisted, when the multi swivel is rotated.

Advantages:

- Light and robust
- ISO-flange
- No twisting of the air conduction
- Quick connection of pneumatic tubes
- Interface according to DIN EN ISO 9409-1



Technical specifications	DDF050
Basic material	Al. anod., SS
Medium	Compressed air, filtered oiled und unoiled
Operating pressure range	-1 to 8 bar
Number of ducts	4
Tube external diameter	6 mm
Threaded connection comp. air	M5
Dead weight	690 g
Max. speed	60 / min
Initial torque	1 Nm
Ambient temperature	5 - 40 °C
Mounting flange	according to ISO9409-1



Pos.	Description
1	Flange
2	Ring
3	Disc
4	Piston seal
5	Grooved ball bearing
6	Counter-sunk screw
7	Setscrew
8	Straight connection
9	Fitting Screw

Multi swivel Ø50...

G-DDF050-2-4/NW4 with grooved ball bearing + universal seals 4 x air

Replacement gasket kit...

EG-DDF050-2-DS-4 for 4 x air DDF050 with grooved ball bearing

