



## **Tool Changers**

*pneumatic*

**SOMMER**  
*automatic*





## Tool Changer

Ord. no.	Handling weight recommended* [kg]	Pneumatic Connectors [pieces]	Page
Product Information			6
WW50F	10	4	10
WW50L	-	4	10
WW80F	20	6	12
WW80L	-	6	12
WW100F	20	12	14
WW100L	-	12	14
WW120F - F	40	9	16
WW120F - B/99	80	9	16
WW120L - B	-	9	16
WW180F - B	180	6	18
WW180L - B	-	6	18
WW220F	180	16	22
WW220L	-	16	22
WW250F	500	optional	24
WW250L	-	optional	24
Energy elements for WW120-B and WW180-B			20
Plug connector for WW50-WW100 and WW220			26
Energy elements for WW250			27
Storage station for WW50 - WW120-B			28



## Tool Coupling

Ord. no.	Handling weight recommended* [kg]	Weight [g]	Page
Product Information			32
WK50F	4	240	34
WK50L	-	170	34



## Manuel Changer

Ord. no.	Handling weight recommended* [kg]	Weight [g]	Page
Product Information			38
HWR80F	100	620	40
HWR80L	-	340	40





# ***Tool Changers***

*pneumatic*



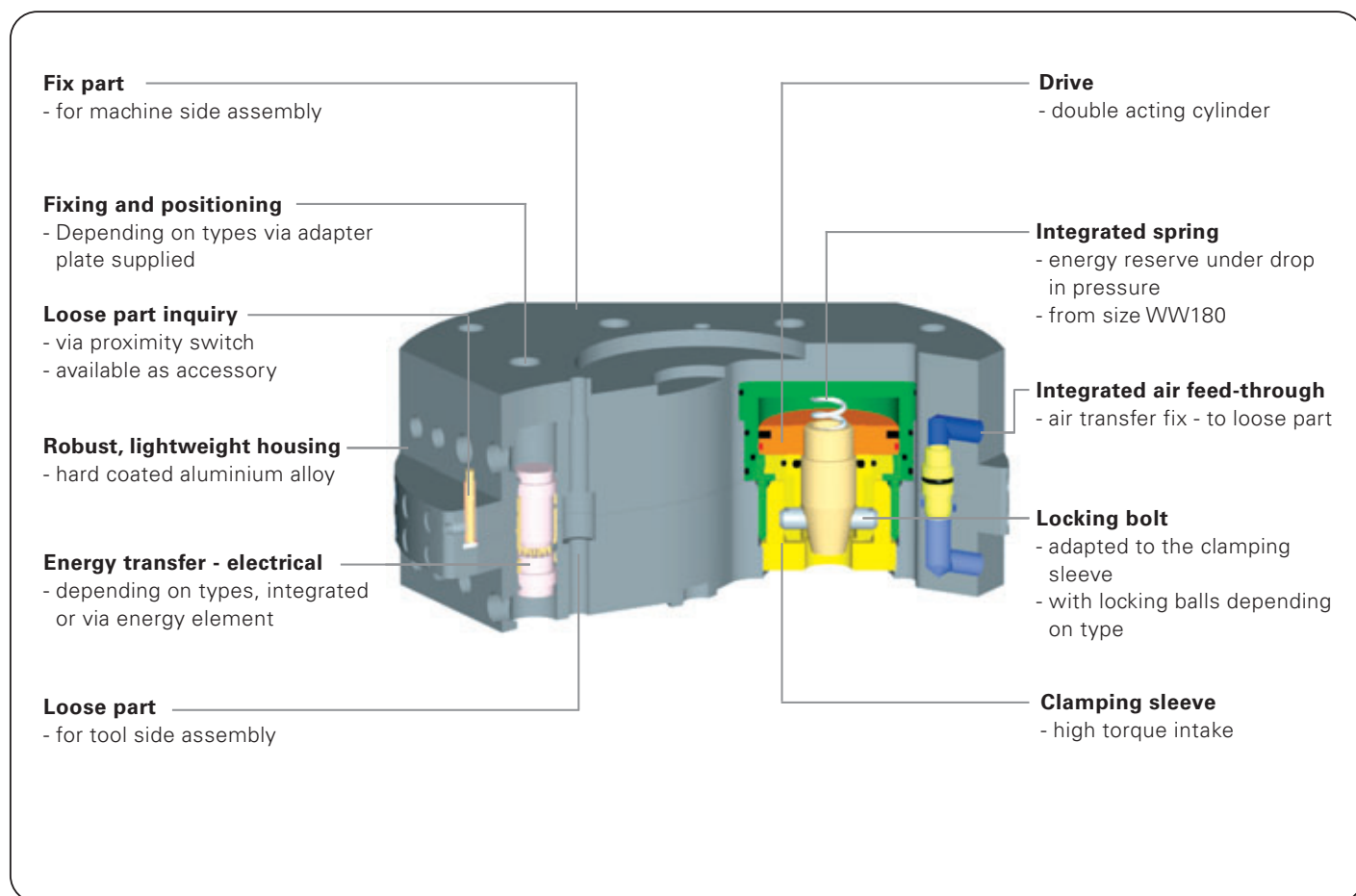
*WW50 up to WW250*

# Tool Changer

## Features

- High force and torque intake
- Self limitation under drop in pressure
- Up to 24 pneumatic feed-through possible and up to 60 electrical signals transferable

## Functional diagram





## Terms

<b>Handling weight:</b>	guide value, when dimensioning, the force and moment loads must be observed
<b>Locking stroke:</b>	distance covered by the loose part during locking
<b>Cycle:</b>	changing procedure
<b>Maintenance:</b>	maintenance free up to 1 Mio. cycle (please see the owner's manual for conditions, download from <a href="http://www.sommer-automatic.com">www.sommer-automatic.com</a> ) <ul style="list-style-type: none"> <li>• long maintenance intervals keep costs down</li> <li>• long durability</li> </ul>

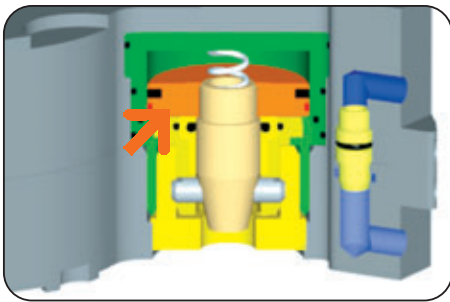
## Model

<b>F:</b>	Fix part, machine side assembly
<b>L:</b>	Loose part, tool assembly
<b>-99:</b>	Locking via locking pins

Order no.	Recommended handling weight* [kg]	Pneumatic energy transfer [quantity]	Electrical energy transfer [number of pins]
WW50F	10	4	5
WW50L	-	4	5
WW80F	20	6	16
WW80L	-	6	16
WW100F	20	12	16
WW100L	-	12	16
WW120F - F	40	9	optional
WW120F - B-99	80	9	optional
WW120L - B	-	9	optional
WW180F - B	180	6	optional
WW180L - B	-	6	optional
WW220F	180	16	20
WW220L	-	16	20
WW250F	500	optional	optional
WW250L	-	optional	optional

\* Moment loads must be observed!

# Tool Changer

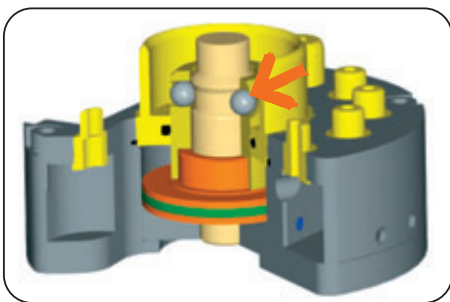


## Locking drive

**Double acting pneumatic cylinder**

**(With integrated pressure spring from size WW180)**

- Process safe
- Safeguarded locking force under drop in pressure via mechanical self limitation
- additional via pressure spring

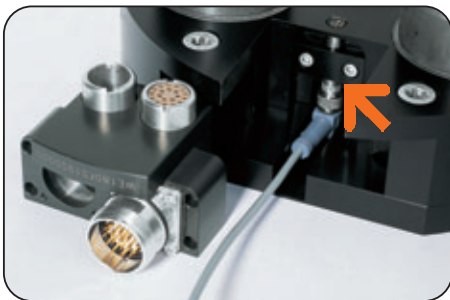


## Locking mechanics

**positive connection via locking balls**

**(by indexing both adapted to the clamping sleeve from size WW120/99)**

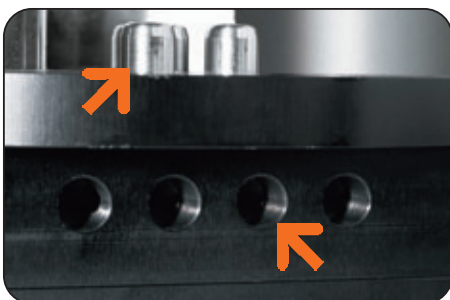
- Highest torque intake due to line contact (from size WW120/99)
- Self limitation under drop in pressure



## Sensing

**Direct position sensing of loose part via proximity switch**

- Process safe
- No additional interference contour



## Air transfer

**Up to 24 pneumatic feed-through**

- Energy supply for application on the loose part
- Vacuum suitable





## Electrical transfer

### Up to 20 signals transferable in series

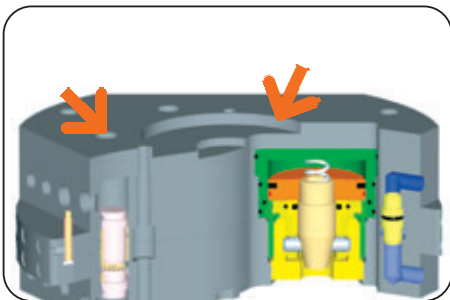
- No additional interference contours, as integrated into housing
- Upgradeable to up to 60 transferable signals (see page 26)
- Coding possible



## Energy element

### available for size WW120-B, WW180-B and WW250

- Standardised and packaged
- Short set up time for maintenance work
- Available as accessory



## Machine connection

### via adapter plate supplied, direct connection depending on size

- Simple and cost-effective connection to design
- Centring disc available as accessory



## Storage station

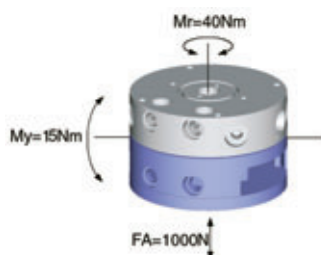
### Available as accessory for tool changers WW50 to WW120-B

- Standardised, cost-saving solution
- Easy assembly

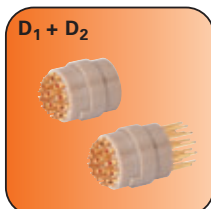
# Tool Changer

## Forces and Moments

Max allowable static forces and moments in locked situation



## Included in the delivery



Plug connector  
male/female 5-pole  
Order no. 0B-305CNL (F)  
Order no. 0B-305CNA (L)

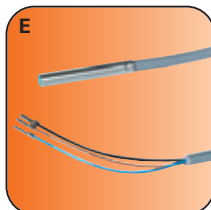


Assembly tool  
Order no. MW0002 (F)

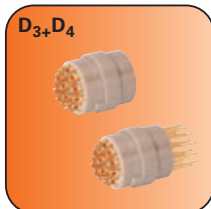
## Accessory list



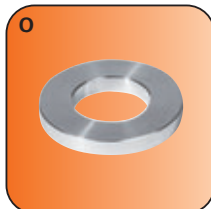
Pneumatic fittings  
Order no. GVM5



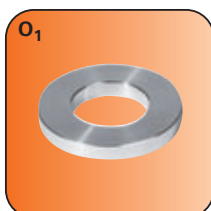
Proximity switch  
Order no. NJ3-E2-01



Plug connector  
Order no. see S. 26



Centring disc  
Order no. ZE20H7x4

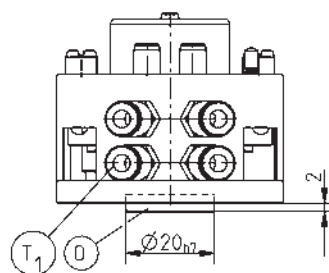


Centring disc  
Order no. ZE12H7x4

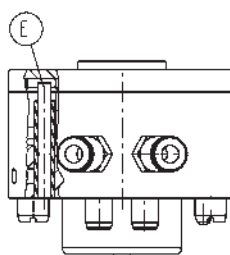
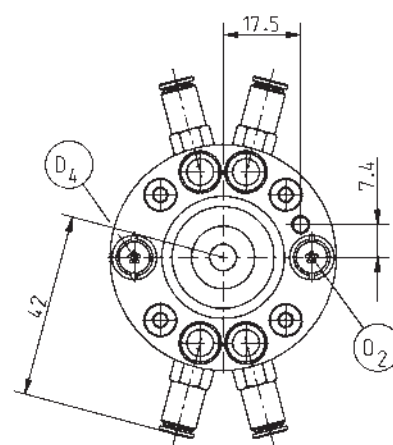
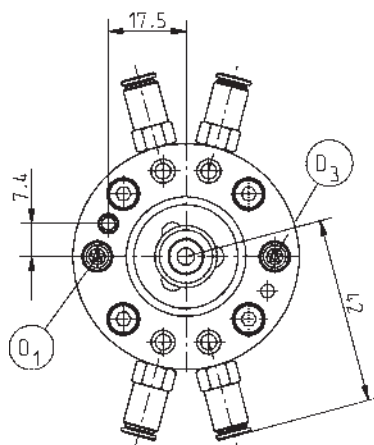
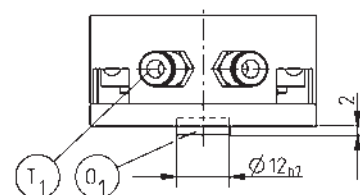


Plug 3-pole  
Order no. S12-G-3

Accessories WW50F



Accessories WW50L



Subject to change without prior notice

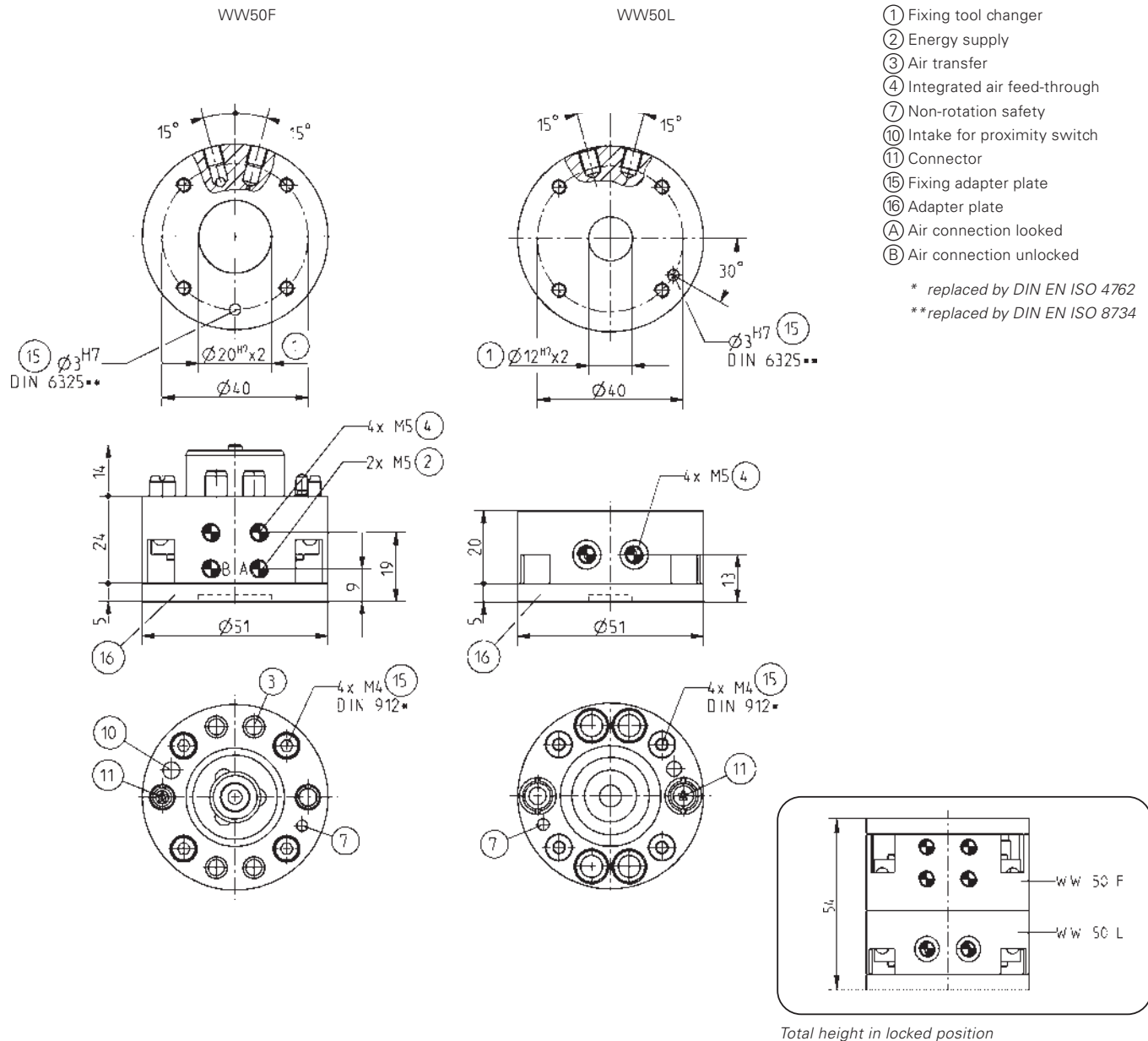
Order no.:	WW50F	WW50L
Locking stroke [mm]*:	4	-
Recommended handling weight [kg]**:	10	-
Self limitation when locking:	mech.	mech.
Electrical energy transfer 5 pole***:	1x	1x
Electrical energy transfer (freely usable):	1x	1x
Pneumatic energy transfer M5:	4x	4x
Min./max. operating pressure [bar]:	4/8	-
Repeatability +/- [mm]:	0,02	0,02
Air volume per cycle [cm³]:	6	-
Min./max. operating temperature [°C]:	5/80	5/80
Weight [g]:	240	170

All data measured at 6 bar

\* at max. deviation of 1.5 mm

\*\* Moment loads must be observed!

\*\*\* Included in the delivery (see page 26)

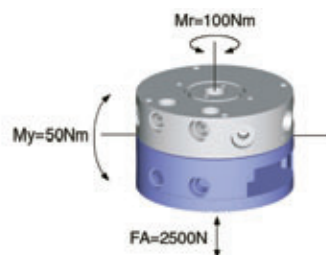


Subject to change without prior notice

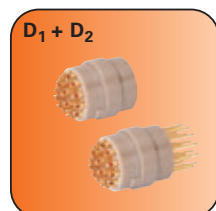
# Tool Changer

## Forces and Moments

Max allowable static forces and moments in locked situation



## Included in the delivery



Plug connector  
16-pole  
Order no. 2B-316CNL (F)  
Order no. 2B-316CNA (L)



Assembly tool  
Order no. MW003 (F)

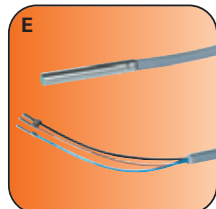
## Accessory list



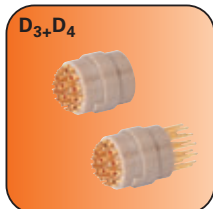
Pneumatic fittings  
Order no. GVM5



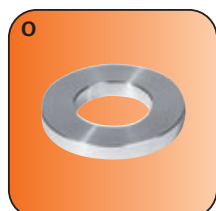
Pneumatic fittings  
Order no. WVM5-01



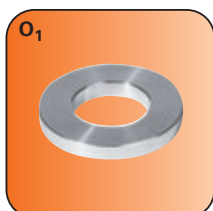
Proximity switch  
Order no. NJ3-E2-01



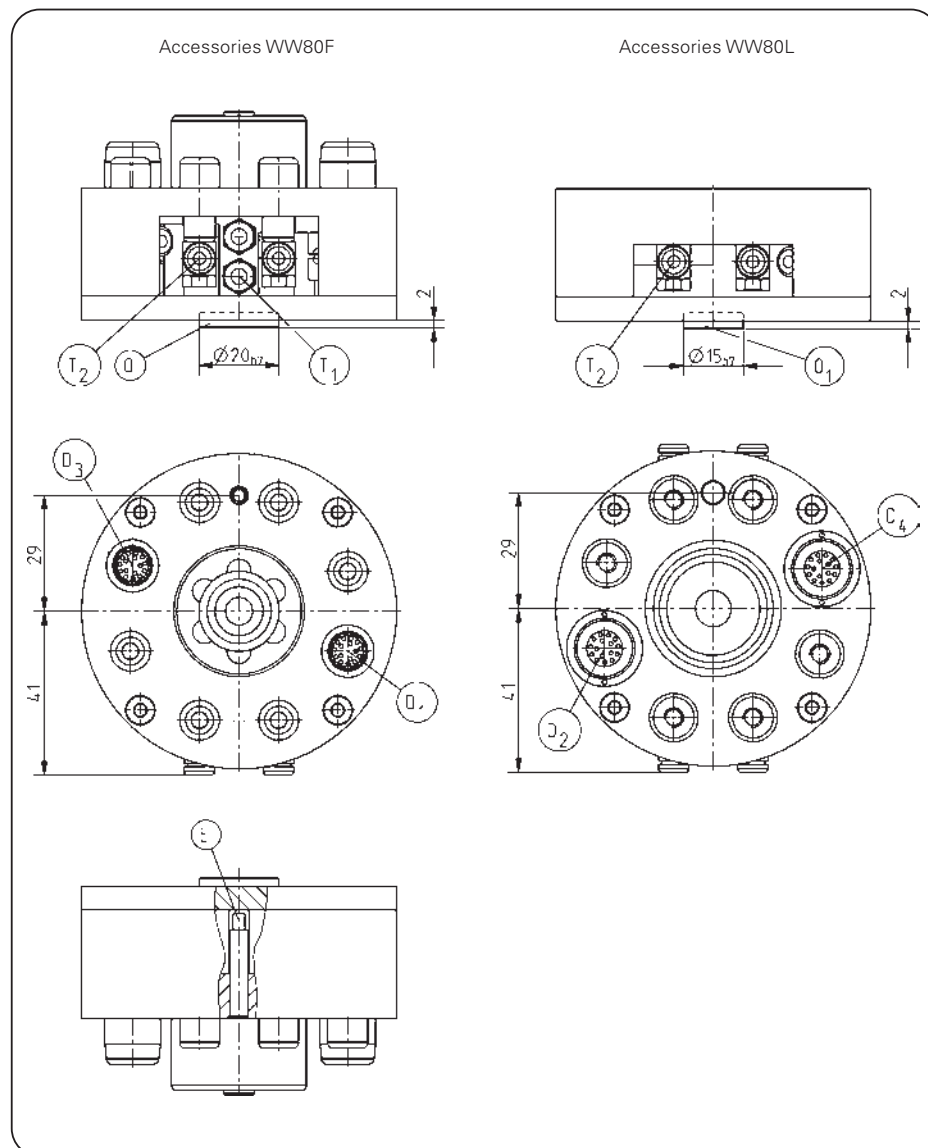
plug connector  
Order no. see S. 26



Centring disc  
Order no. ZE20H7x4



Centring disc  
Order no. ZE15H7x4



Subject to change without prior notice

*All data measured at 6 bar*  
*\* at max. diviation of 1.5 mm*  
*\*\* Moment loads must be observed!*  
*\*\*\* Included in the delivery (see page 26)*

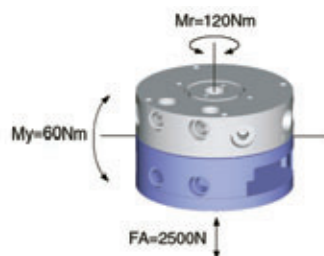


Total height in locked position

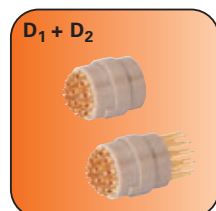
# Tool Changer

## Forces and Moments

Max allowable static forces and moments in locked situation



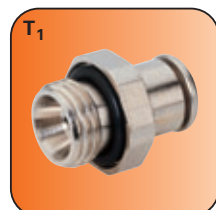
## Included in the delivery



Plug connector  
16-pole  
Order no. 2B-316CNL (F)  
Order no. 2B-316CNA (L)



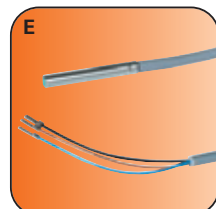
Assembly tool  
Order no. MW0003 (F)



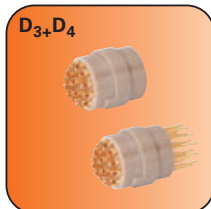
Pneumatic fittings  
Order no. GVM5



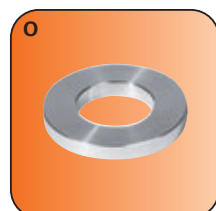
Pneumatic fittings  
Order no. WVM5



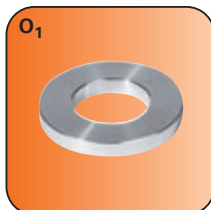
Proximity switch  
Order no. NJ3-E2-01



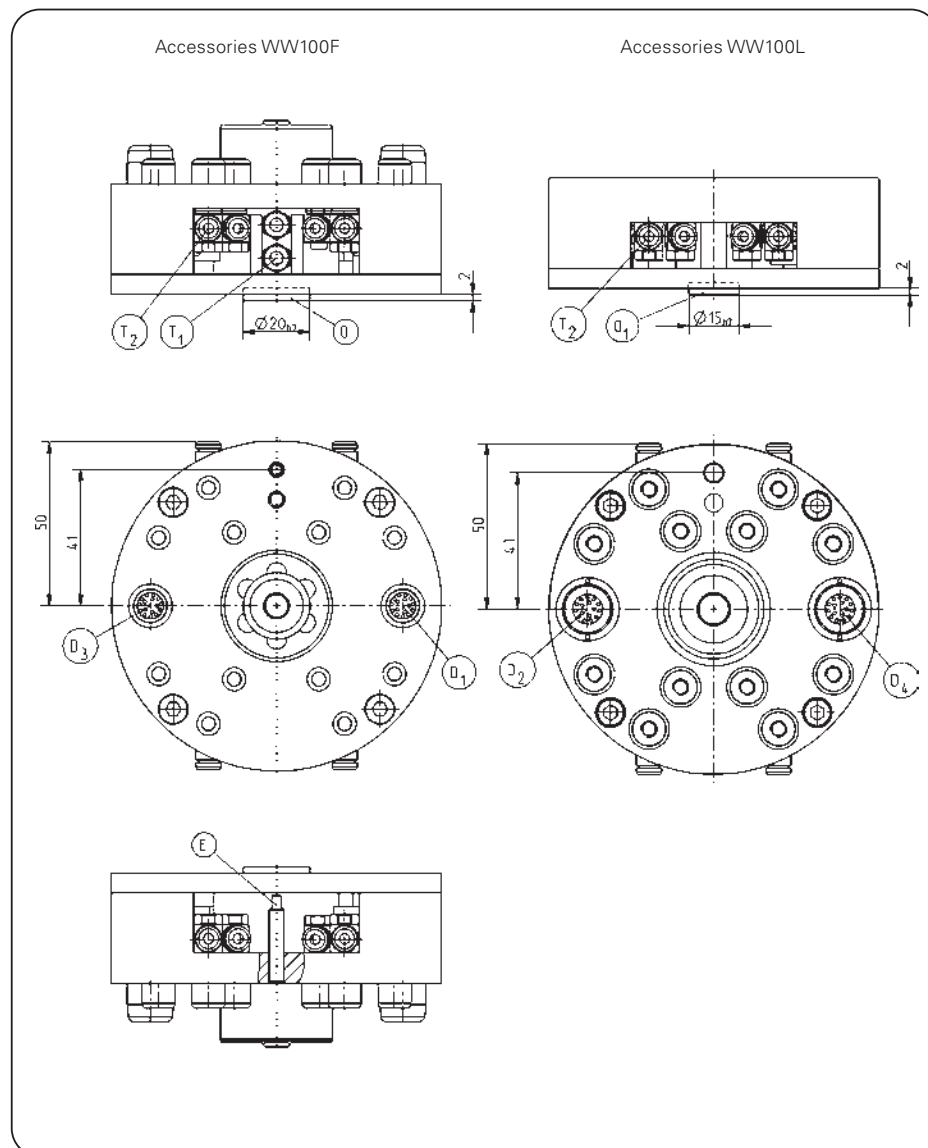
Plug connector  
Order no. see S. 26



Centring disc  
Order no. ZE20H7x4



Centring disc  
Order no. ZE15H7x4



Subject to change without prior notice



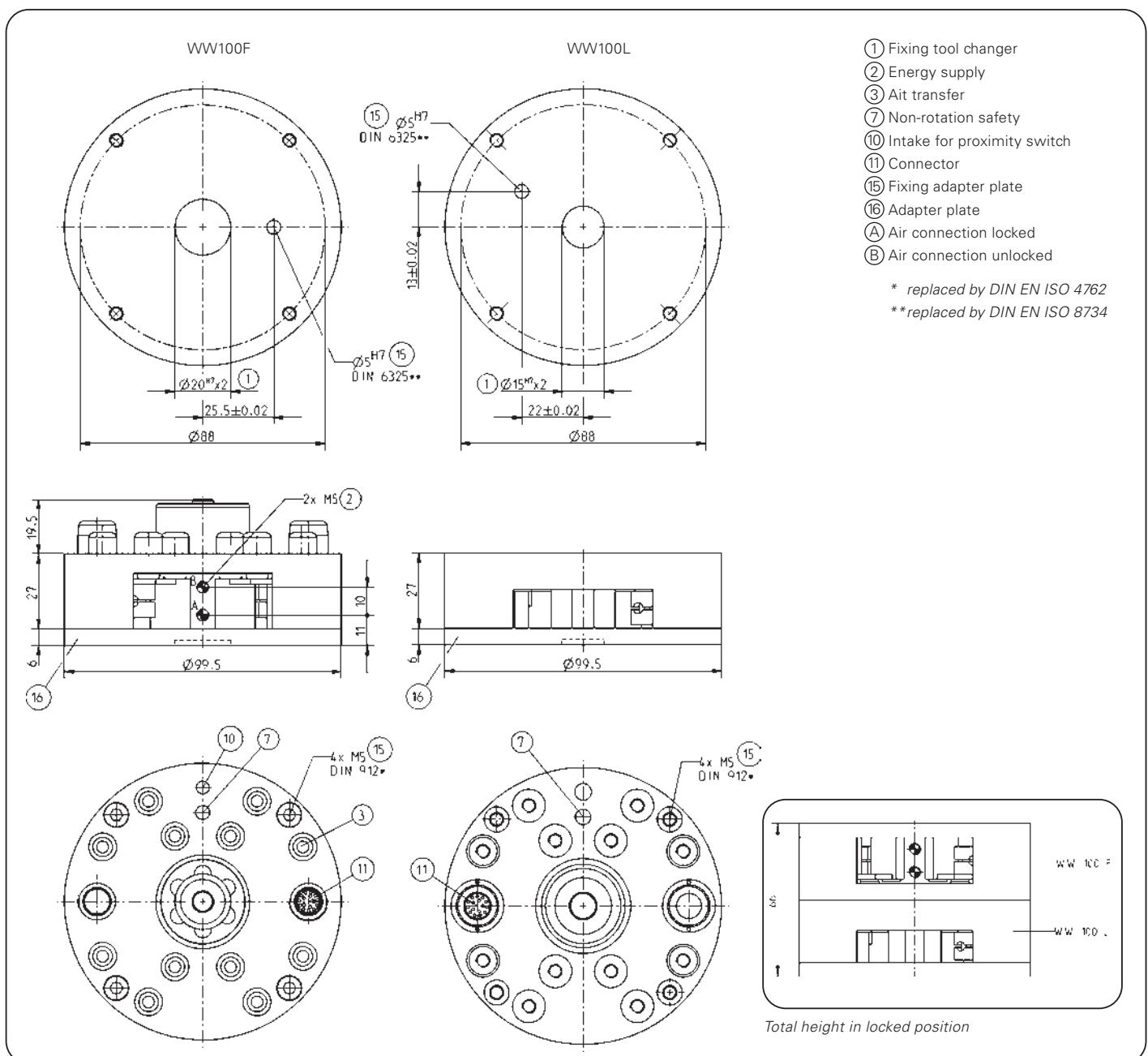
Order no.:	WW100F	WW100L
Locking stroke [mm]*:	6	-
Recommended handling weight [kg]**:	20	-
Self limitation when locking:	mech.	mech.
Electrical energy transfer 16-pole***:	1x	1x
Electrical energy transfer (freely usable):	1x	1x
Pneumatic energy transfer M5:	12x	12x
Min./max. operating pressure [bar]:	4/8	-
Repeatability +/- [mm]:	0,02	0,02
Air volume per cycle [cm³]:	11	-
Min./max. operating temperature [°C]:	5/80	5/80
Weight [g]:	670	540

All data measured at 6 bar

\* at max. deviation of 1.5 mm

\*\* Moment loads must be observed!

\*\*\* Included in the delivery (see page 26)

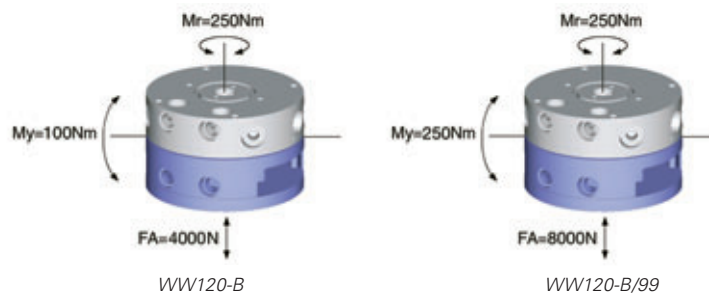


Subject to change without prior notice

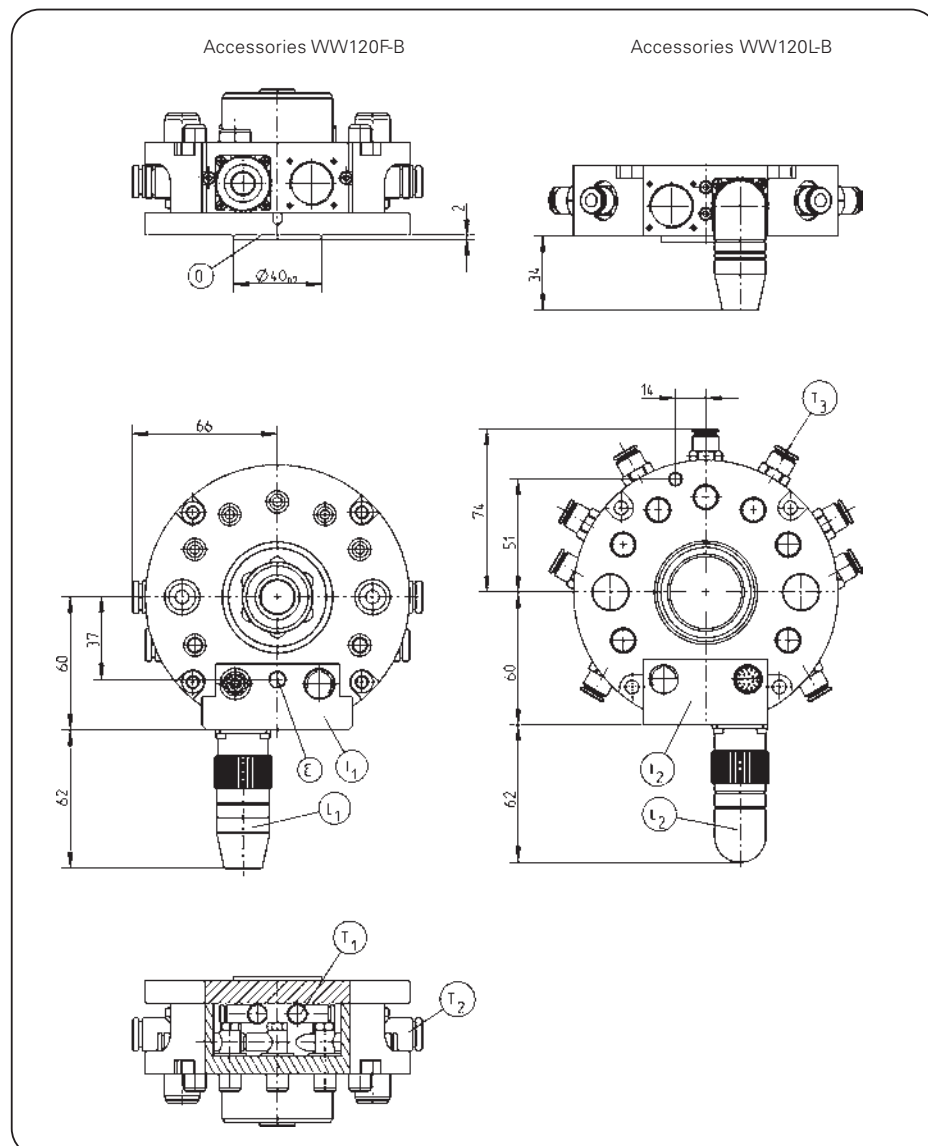
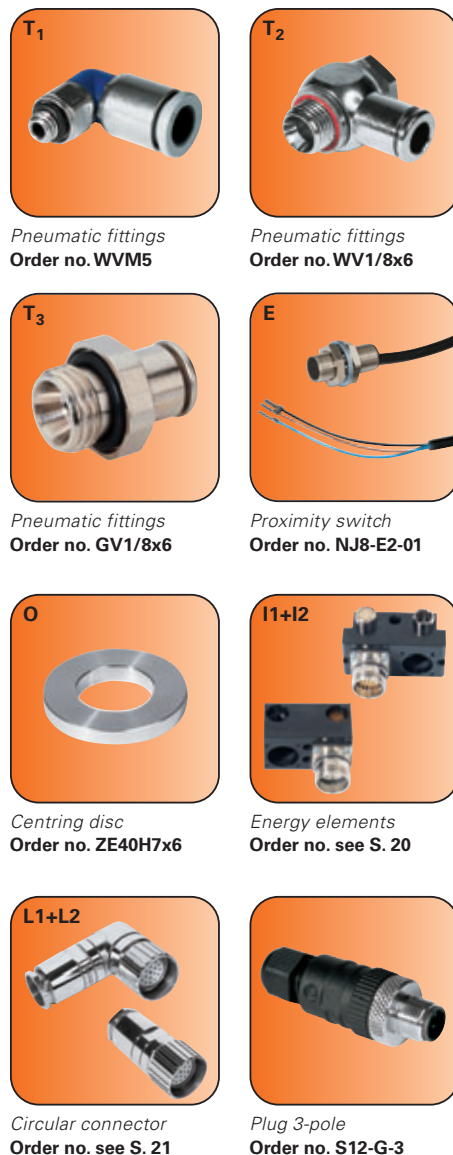
# Tool Changer

## Forces and Moments

Max allowable static forces and moments in locked situation

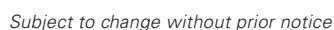


## Accessory list



Subject to change without prior notice

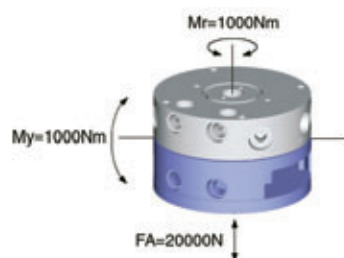
*All data measured at 6 bar*  
*\* at max. diviation of 1.5 mm*  
*\*\* Moment loads must be observed!*  
*\*\*\* Included in the delivery (see page 26)*



# Tool Changer

## Forces and Moments

Max allowable static forces and moments in locked situation



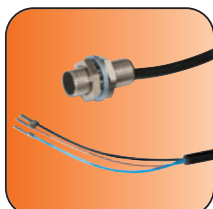
## Accessory list



Pneumatic fittings  
Order no. GV1/8x6



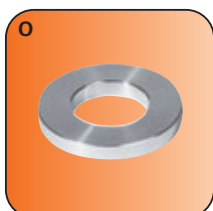
Proximity switch  
Order no. NJ8-E2S-05



Proximity switch  
Order no. NJ8-E2-01



Energy elements  
Order no. see S. 20



Centring disc  
Order no. ZE25H7x6



Circular connector  
Order no. see S. 21

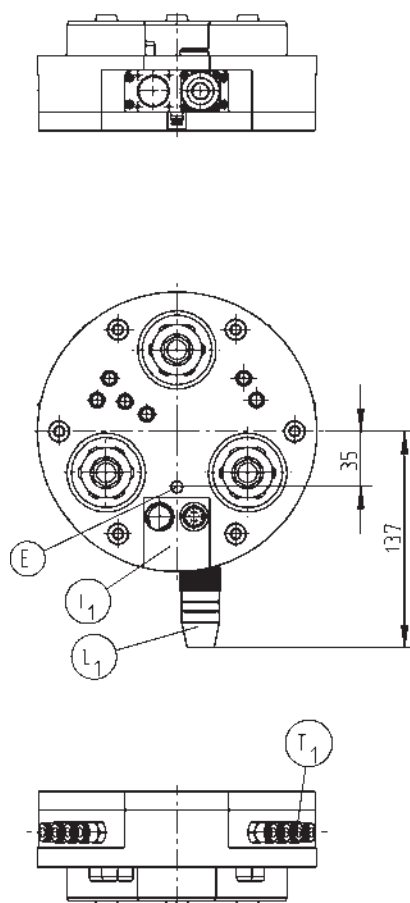


Cable angled plug  
Order no. KAW500

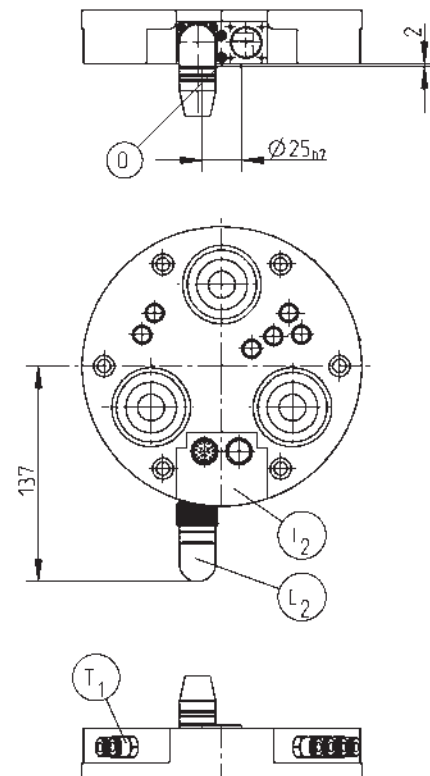


Plug 3-pole  
Order no. S12-G-3

Accessories WW180F-B



Accessories WW180L-B



Subject to change without prior notice

**Order no.:**

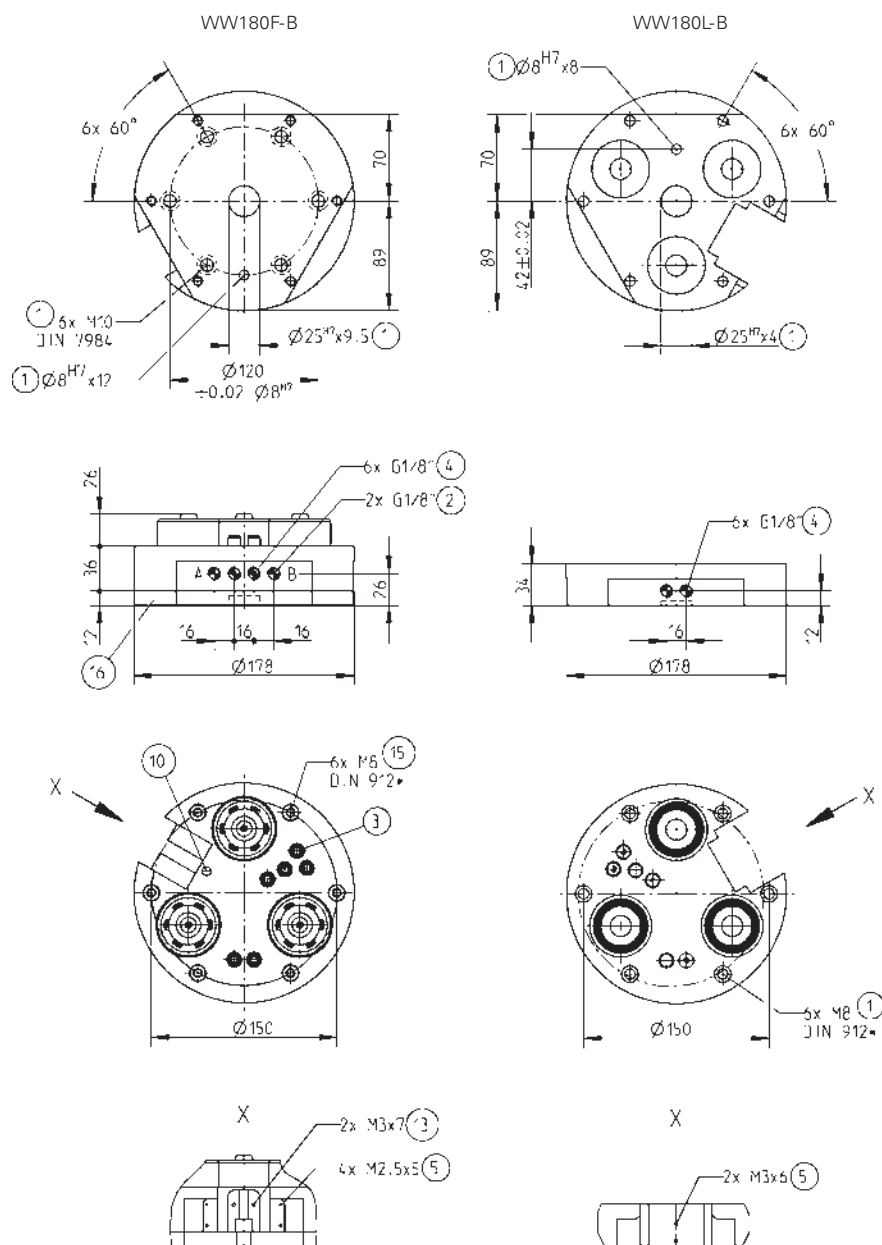
	<b>WW180F-B</b>	<b>WW180L-B</b>
Locking stroke [mm]*:	1,5	-
Recommended handling weight [kg]**:	180	-
Self limitation when locking:	mech.	mech.
Electrical energy transfer***:	optional	optional
Pneumatic energy transfer 1/8" + M5:	6	6
Min./max. operating pressure [bar]:	4/8	-
Repeatability +/- [mm]:	0,02	0,02
Air volume per cycle [cm³]:	90	-
Min./max. operating temperature [°C]:	5/80	5/80
Weight [kg]:	3,7	2,1

All data measured at 6 bar

\* at max. deviation of 1.5 mm

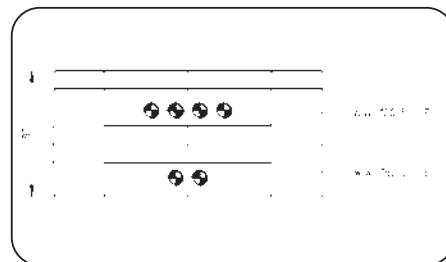
\*\* Moment loads must be observed!

\*\*\* Included in the delivery (see page 26)



- ① Fixing tool changer
- ② Energy supply
- ③ Air transfer
- ④ Integrated air feed-through
- ⑤ Fixing energy element
- ⑩ Intake for proximity switch
- ⑬ Mounting block connection
- ⑮ Fixing adapter plate
- ⑯ Adapter plate
- Ⓐ Air connection locked
- Ⓑ Air connection unlocked

\* replaced by DIN EN ISO 4762



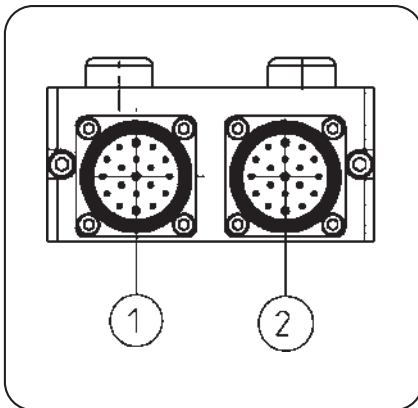
Total height in locked position

Subject to change without prior notice

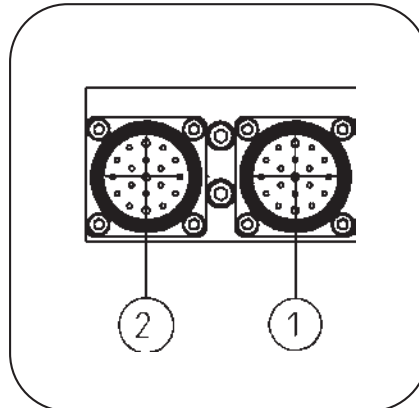
# Energy *elements*

WW-B

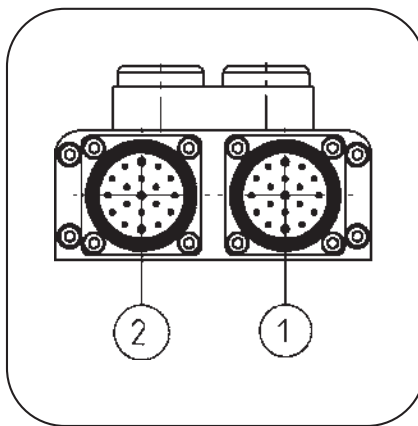
Order example:



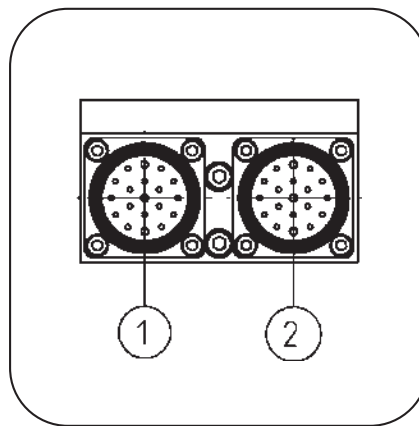
WE120FS19S19



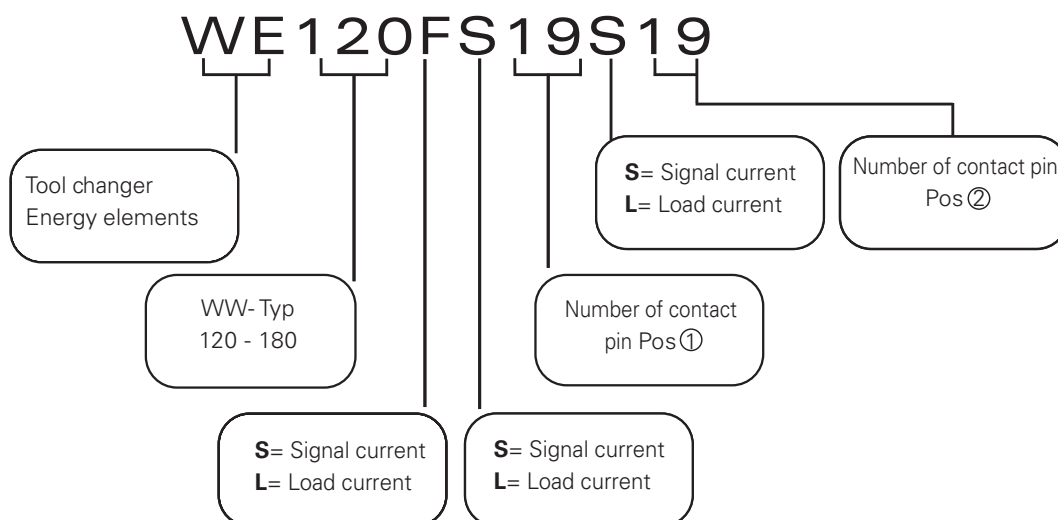
WE120LS19S19



WE180FS19S19



WE180LS19S19





## Energy elements WE for WW120-B and WW180-B

Technical data for energy elements with integrated signal current (complete mounted and soldered)

Current typ	Number of contact pins Pos.1*	Nominal current [A]		Operating voltage ** [V]		Current typ	Number of contact pins Pos. 2*	Nominal current [A]		Operating voltage ** [V]	
Order no.		WE120	WE180	WE120	WE180	Order no.		WE120	WE180	WE120	WE180
<b>S</b>	<b>07</b>	15	17	300							
<b>S</b>	<b>12</b>	9	12	300							
<b>S</b>	<b>19</b>	6	8	150							
<b>S</b>	<b>07</b>	15	17	300		<b>S</b>	<b>07</b>	15	17	300	
<b>S</b>	<b>12</b>	9	12	300		<b>S</b>	<b>12</b>	9	12	300	
<b>S</b>	<b>12</b>	9	12	300		<b>S</b>	<b>07</b>	15	17	300	
<b>S</b>	<b>19</b>	6	8	150		<b>S</b>	<b>19</b>	6	8	150	
<b>S</b>	<b>19</b>	6	8	150		<b>S</b>	<b>12</b>	9	12	300	
<b>S</b>	<b>19</b>	6	8	150		<b>S</b>	<b>07</b>	15	17	300	

Technical data for energy elements with integrated load current and signal current (complete mounted and soldered)

Current typ	Number of contact pins Pos.1*	Nominal current [A]		Operating voltage ** [V]		Current typ	Number of contact pins Pos. 2*	Nominal current [A]		Operating voltage ** [V]	
Order no.		WE120	WE180	WE120	WE180	Order no.		WE120	WE180	WE120	WE180
<b>L</b>	<b>06</b>	17	24	600							
<b>L</b>	<b>06</b>	17	24	600		<b>L</b>	<b>06</b>	17	24	600	
<b>S</b>	<b>07</b>	15	17	300		<b>L</b>	<b>06</b>	17	24	600	
<b>S</b>	<b>12</b>	9	12	300		<b>L</b>	<b>06</b>	17	24	600	
<b>S</b>	<b>19</b>	6	8	150		<b>L</b>	<b>06</b>	17	24	600	

L= Load current with 6 pins 6 (5+PE)

\* see order example

\*\* Indicated for user grounding, 60 V without grounding

## Assembly tool



Order no.

MW004

MW005

suitable for WE120

suitable for WE180

### Remark:

Assembly tool will be needed for maintenance work.

## Circular connector



Straight fix part:

Order no.

RSTVLM23G**06**B

RSTVSM23G**07**B

RSTVSM23G**12**B

RSTVSM23G**19**B

Straight loose part:

Order no.

RSTVLM23G**06**S

RSTVSM23G**07**S

RSTVSM23G**12**S

RSTVSM23G**19**S



Angle fix part:

Order no.

RSTVSM23W**07**B

RSTVSM23W**12**B

RSTVSM23W**19**B

Angle loose part:

Order no.

RSTVSM23W**07**S

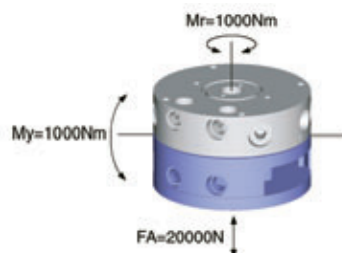
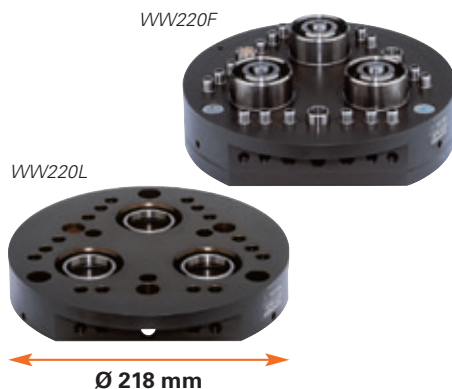
RSTVSM23W**12**S

RSTVSM23W**19**S

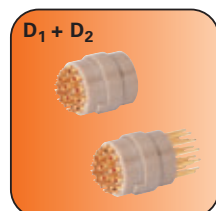
# Tool Changer

## Forces and Moments

Max allowable static forces and moments in locked situation



## Included in the delivery

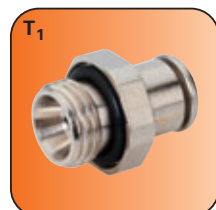


Plug connector  
5-pole  
Order no. 4B-320L (F)  
Order no. 4B-320A (L)

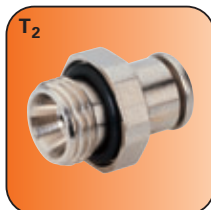


Assembly tool  
Order no. MW0005 (F)

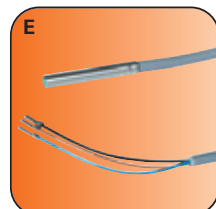
## Accessory list



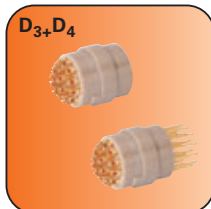
Pneumatic fittings  
Order no. GV1/8x6



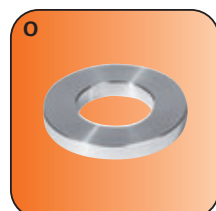
Pneumatic fittings  
Order no. GV1/4x8



Proximity switch  
Order no. NJ3-E2-01



Plug connector  
Order no. see S. 26

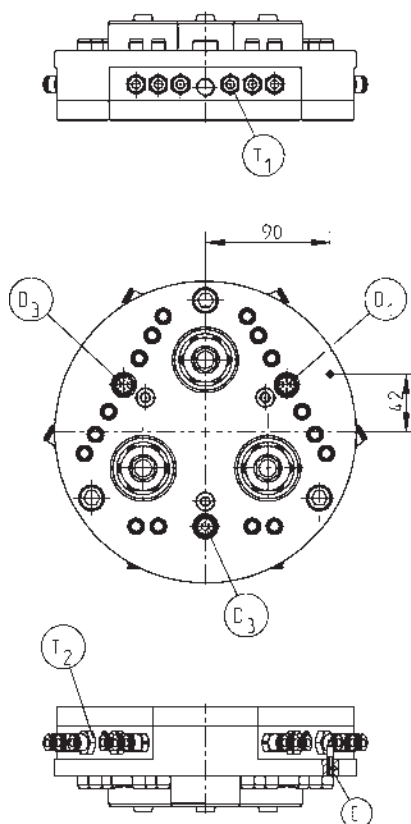


Centring disc  
Order no. ZE25H7x6

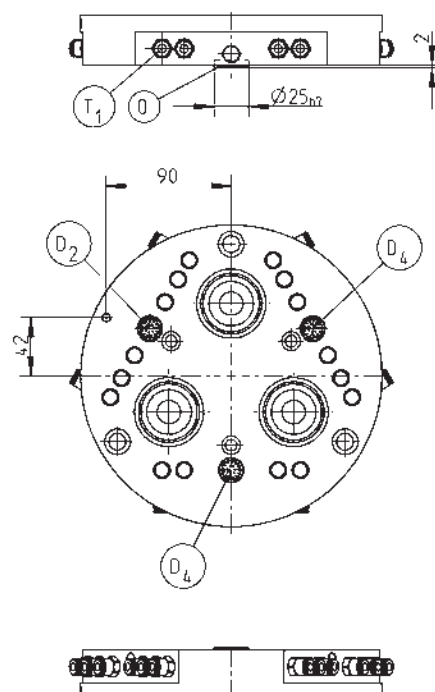


Plug 3-pole  
Order no. S12-G-3

## Accessories WW220F



## Accessories WW220L



Subject to change without prior notice

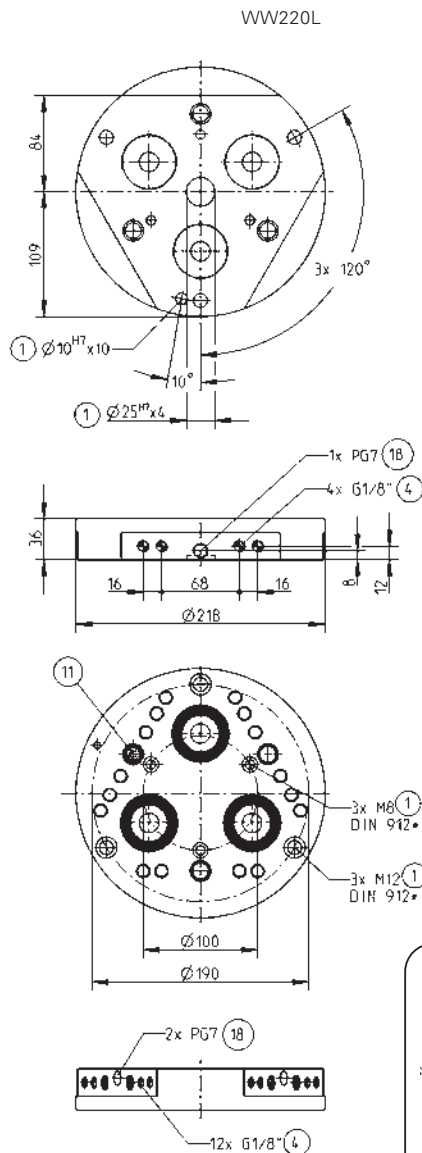
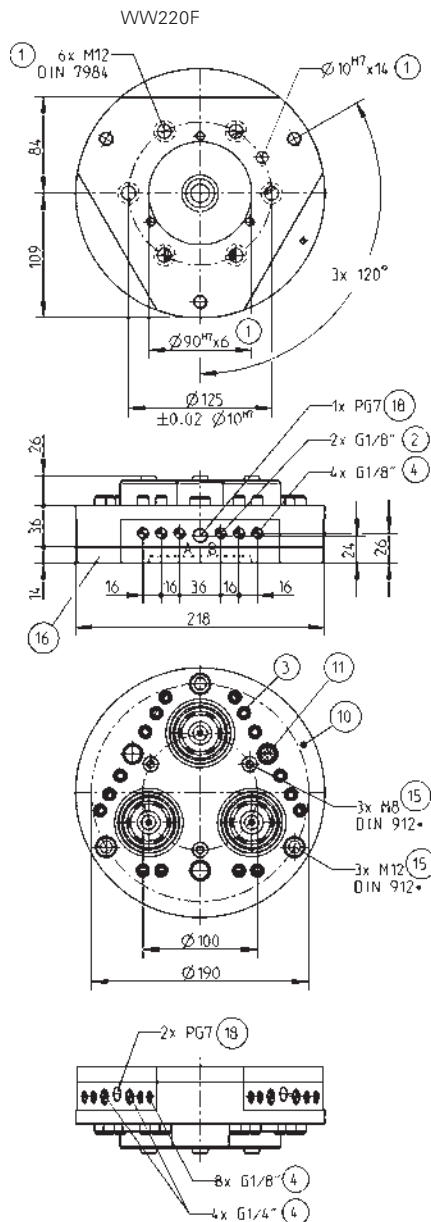
Order no.:	WW220F	WW220L
Locking stroke [mm]*:	1,5	-
Recommended handling weight [kg]**:	180	-
Self limitation when locking:	mech.	mech.
Electrical energy transfer 20-pole***:	1x	1x
Electrical energy transfer (freely usable):	1x	1x
Pneumatic energy transfer M5:	4 + 12	4 + 12
Min./max. operating pressure [bar]:	4/8	-
Repeatability +/- [mm]:	0,02	0,02
Air volume per cycle [cm³]:	90	-
Min./max. operating temperature [°C]:	5/80	5/80
Weight [kg]:	5,2	3,1

All data measured at 6 bar

\* at max. deviation of 1.5 mm

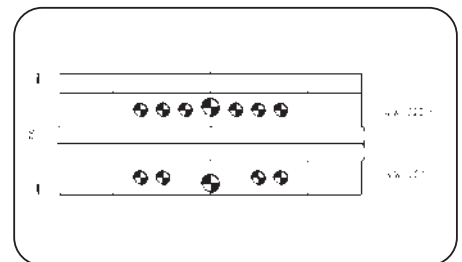
\*\* Moment loads must be observed!

\*\*\* Included in the delivery (siehe page 26)



- ① Fixing tool changer
- ② Energy supply
- ③ Air transfer
- ④ Integrated air feed-through
- ⑩ Intake for proximity switch
- ⑪ Connector
- ⑮ Fixing adapter plate
- ⑯ Adapter plate
- ⑰ Connection thread strain relief
- Ⓐ Air connection locked
- Ⓑ Air connection unlocked

\* replaced by DIN EN ISO 4762



Subject to change without prior notice

# Tool Changer

WW250F



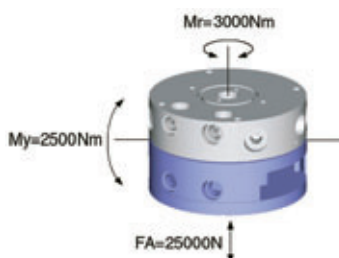
WW250L



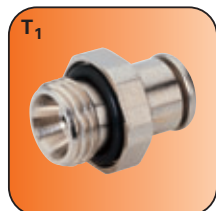
Ø 248 mm

## Forces and Moments

Max allowable static forces and moments in locked situation



## Accessory list



Pneumatic fittings  
Order no. GV1/4x8

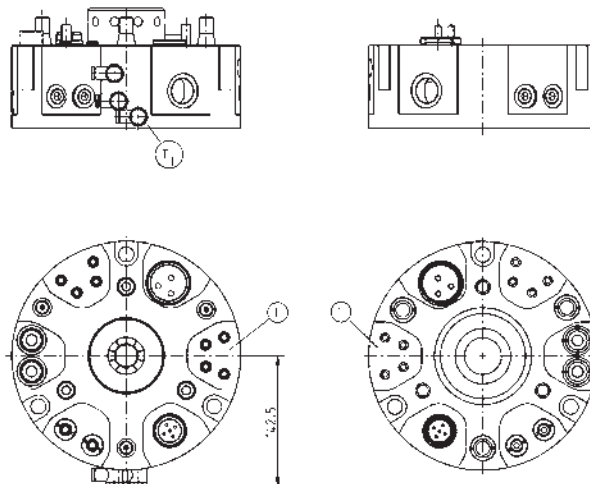


Energy elements  
Order no. see S. 27

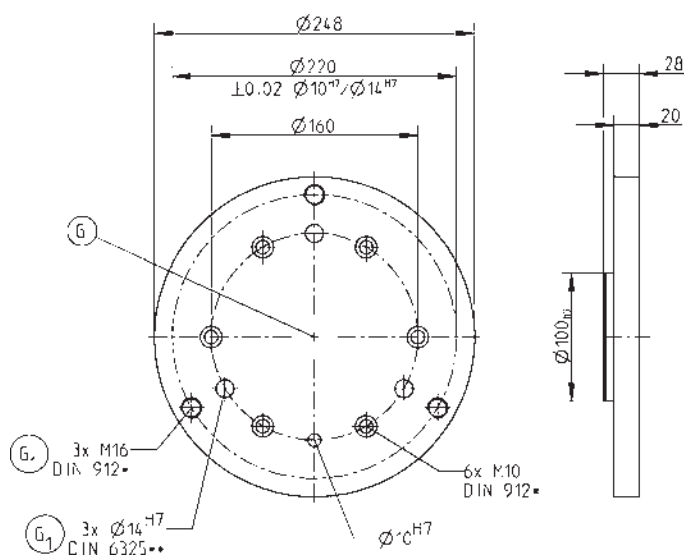


Adapter plate  
Order no. APWW250F

## Accessories

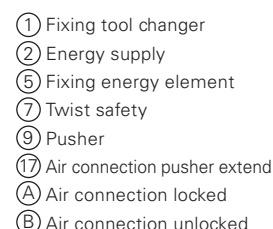


## Adapter plate

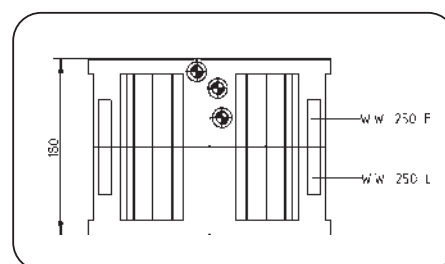


Subject to change without prior notice

*All data measured at 6 bar*  
*\* at max. diviation of 1.5 mm*  
*\*\* Moment loads must be observed!*  
*\*\*\* see page 27*



\* replaced by DIN EN ISO 4762



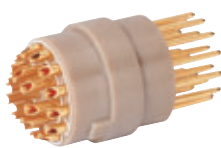
Total height in locked position

# Tool Changer

## Plug connector



CNL: Socket for fix part



CNA: Socket for loose part

Order no.:	0B-302CNL	0B-302CNA	0B-303CNL	0B-303CNA	0B-304CNL	0B-304CNA	0B-305CNL
Nominal current [A]:	10	10	8	8	7	7	6,5
Operating voltage AC [kV]:	0,46	0,46	0,42	0,42	0,46	0,46	0,26
Operating voltage DC [kV]:	0,66	0,66	0,60	0,60	0,66	0,66	0,40
Number of cntact pins:	2	2	3	3	4	4	5
Suitable for:	WW50F	WW50L	WW50F	WW50L	WW50F	WW50L	WW50F

Order no.:	0B-305CNA	2B-302CNL	2B-302CNA	2B-303CNL	2B-303CNA	2B-304CNL	2B-304CNA
Nominal current [A]:	6,5	30	30	17	17	15	15
Operating voltage AC [kV]:	0,26	0,70	0,70	0,56	0,56	1,00	1,00
Operating voltage DC [kV]:	0,40	1,00	1,00	0,83	0,83	1,30	1,30
Number of cntact pins:	5	2	2	3	3	4	4
Suitable for:	WW50L	WW80F + WW100F	WW80F + WW100L	WW80F + WW100F	WW80L + WW100L	WW80L + WW100L	WW80L + WW100L

Order no.:	2B-305CNL	2B-305CNA	2B-307CNL	2B-307CNA	2B-312CNL	2B-312CNA	2B-316CNL
Nominal current [A]:	14	14	11	11	7	7	6
Operating voltage AC [kV]:	0,86	0,86	0,50	0,50	0,56	0,56	0,50
Operating voltage DC [kV]:	1,20	1,20	0,73	0,73	0,83	0,83	0,73
Number of cntact pins:	5	5	7	7	12	12	16
Suitable for:	WW80F + WW100F	WW80L + WW100L	WW80F + WW100F	WW80L + WW100L	WW80F + WW100F	WW80L + WW100L	WW80F + WW100F

Order no.:	2B-316CNA	2B-319CNL	2B-319CNA	4B-304CNL	4B-304CNA	4B-306CNL	4B-306CNA
Nominal current [A]:	6	5	5	30	30	24	24
Operating voltage AC [kV]:	0,50	0,46	0,46	0,93	0,93	0,93	0,93
Operating voltage DC [kV]:	0,73	0,66	0,66	1,30	1,30	1,30	1,30
Number of cntact pins:	16	19	19	4	4	6	6
Suitable for:	WW80L + WW100L	WW80F + WW100F	WW80L + WW100L	WW220F	WW220L	WW220F	WW220L

Order no.:	4B-310CNL	4B-310CNA	4B-312CNL	4B-312CNA	4B-316CNL	4B-316CNA	4B-320CNL
Nominal current [A]:	17	17	7,5	7,5	10	10	8
Operating voltage AC [kV]:	0,70	0,70	0,50	0,50	1,00	1,00	0,70
Operating voltage DC [kV]:	1,00	1,00	0,70	0,70	1,40	1,40	1,00
Number of cntact pins:	10	10	12	12	16	16	20
Suitable for:	WW220F	WW220L	WW220F	WW220L	WW220F	WW220L	WW220F

Order no.:	4B-320CNA	4B-330CNL	4B-330CNA
Nominal current [A]:	8	5	5
Operating voltage AC [kV]:	0,70	0,46	0,46
Operating voltage DC [kV]:	1,00	0,66	0,66
Number of cntact pins:	20	30	30
Suitable for:	WW220L	WW220F	WW220L

## Inductive switch:



Order no.:	NJ3-E2-01
Current [mA]:	50
Nominal switching gap [mm]:	0.6
Diameter [mm]:	4.5





## Energy elements for WW250

### electrical

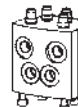


Order no.:	WE250FS104	WE250LS104	WE250FS106	WE250LS106
Suitable for:	WW250F	WW250L	WW250F	WW250L
Number of contact pins:	4+PE	4+PE	6+PE	6+PE
Nominal current [A]:	27	27	27	27
Operating voltage AC [V]:	400	400	400	400
Weight [kg]:	0,6	0,6	0,6	0,6

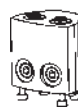


Order no.:	WE250FS115	WE250LS115	WE250FS2	WE250LS2
Suitable for:	WW250F	WW250L	WW250F	WW250L
Number of contact pins:	15+PE	15+PE	2+PE	2+PE
Nominal current [A]:	16	16	135	135
Operating voltage AC [V]:	250	250	550	550
Weight [kg]:	0.6	0.6	0.6	0.6

### fluid



Order no.:	WE250FP1	WE250LP1	WE250FP2	WE250LP2
Suitable for:	WW250F	WW250L	WW250F	WW250L
Connection:	4 x G1/4"	4 x G1/4"	4 x G1/8"	4 x G1/8"
Energy supply air:	yes	yes	yes	yes
Energy supply hydr./water:	no	no	no	no
Weight [kg]:	0.7	0.7	0.7	0.7



Order no.:	WE250FH2DL *	WE250LH2DL *	WE250FH2D **	WE250LH2D **
Suitable for:	WW250F	WW250L	WW250F	WW250L
Connection:	2 x G3/8"	2 x G3/8"	2 x G3/8"	2 x G3/8"
Energy supply air:	no	no	no	no
Energy supply hydr./water:	yes	yes	yes	yes
Weight [kg]:	0.9	0.9	0.9	0.9

### Empty element



Order no.:	WE250N
Suitable for:	WW250F
Energy supply air:	no
Energy supply hydr./water:	no
Weight [kg]:	0,8

### Sensing



Order no.:	WE250A ***
Suitable for:	WW250F+L
Weight [kg]:	0.4

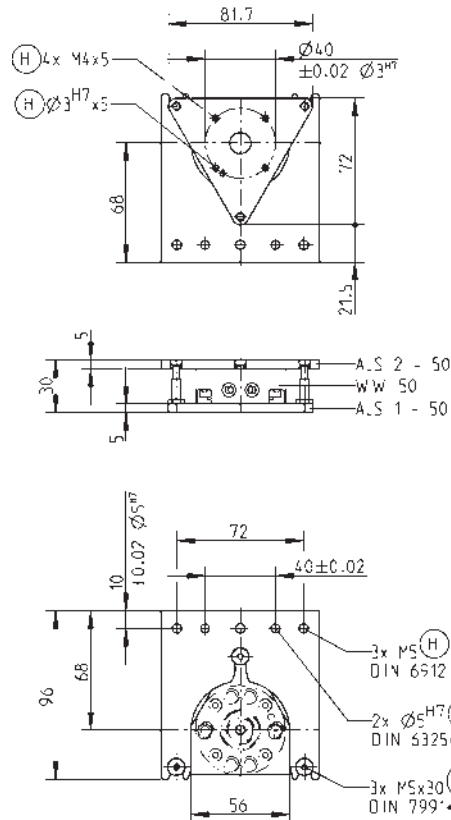
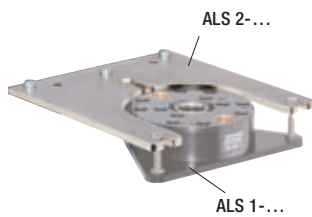
#### Accessories

Sensing loose part:	Order no. NJ12-E2S
Sensing locked:	Order no. MFS12MS
Sensing unlocked:	Order no. MFS12MS

- \* Coupling under pressure 0-10 bar possible  
 \*\* Coupling under pressure 10-300 bar possible  
 \*\*\* for sensing of the loose part, the WE250N is required

# Storage station

ALS1-50  
ALS2-50

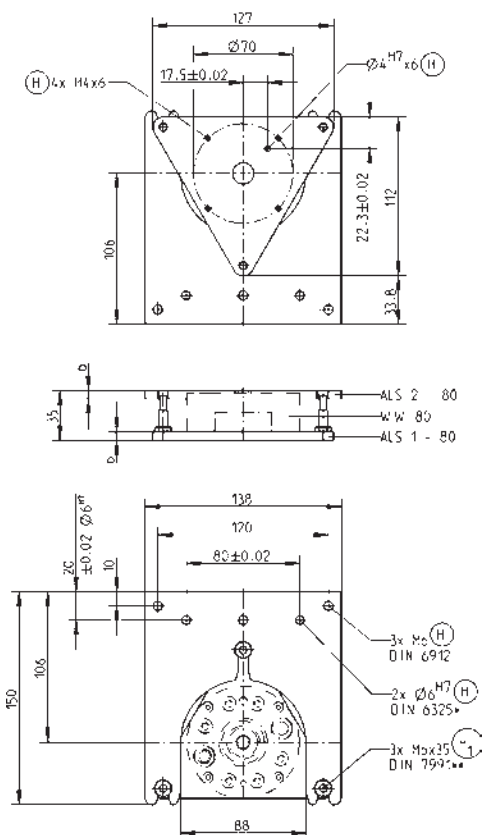


- (H) Fixing ALS
- (H) Screws included in the delivery ALS1-50

\* replaced by DIN EN ISO 28734  
\*\* replaced by DIN EN ISO 10642

**Order no.:**  
ALS1-50  
ALS2-50  
suitable for WW50

ALS1-80  
ALS2-80



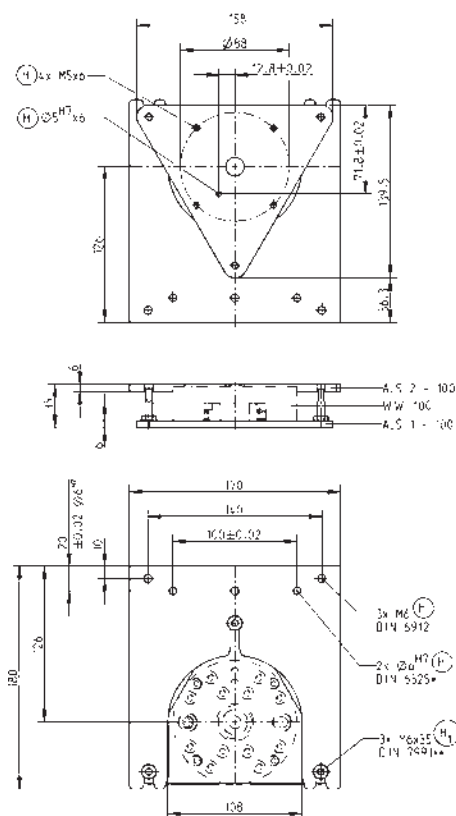
- (H) Fixing ALS
- (H) Screws included in the delivery ALS1-80

\* replaced by DIN EN ISO 28734  
\*\* replaced by DIN EN ISO 10642

**Order no.:**  
ALS1-80  
ALS2-80  
suitable for WW80

Subject to change without prior notice

ALS1-100  
ALS2-100

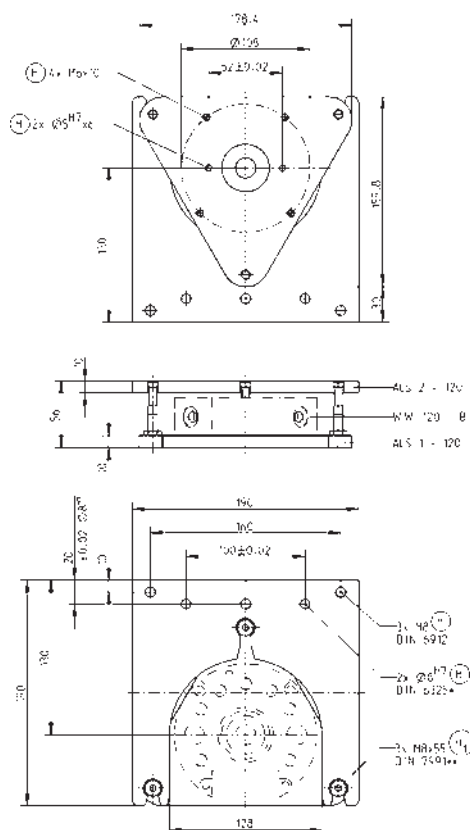


- (H) Fixing ALS
- (H) Screws included in the delivery  
ALS1-100

\* replaced by DIN EN ISO 28734  
\*\*replaced by DIN EN ISO 10642

**Order no.:**  
ALS1-100  
ALS2-100  
suitable for WW100

ALS1-120  
ALS2-120



- (H) Fixing ALS
- (H) Screws included in the delivery  
ALS1-120

\* replaced by DIN EN ISO 28734  
\*\*replaced by DIN EN ISO 10642

**Order no.:**  
ALS1-120  
ALS2-120  
suitable for WW120-B



# ***Tool Coupling***

*pneumatic*



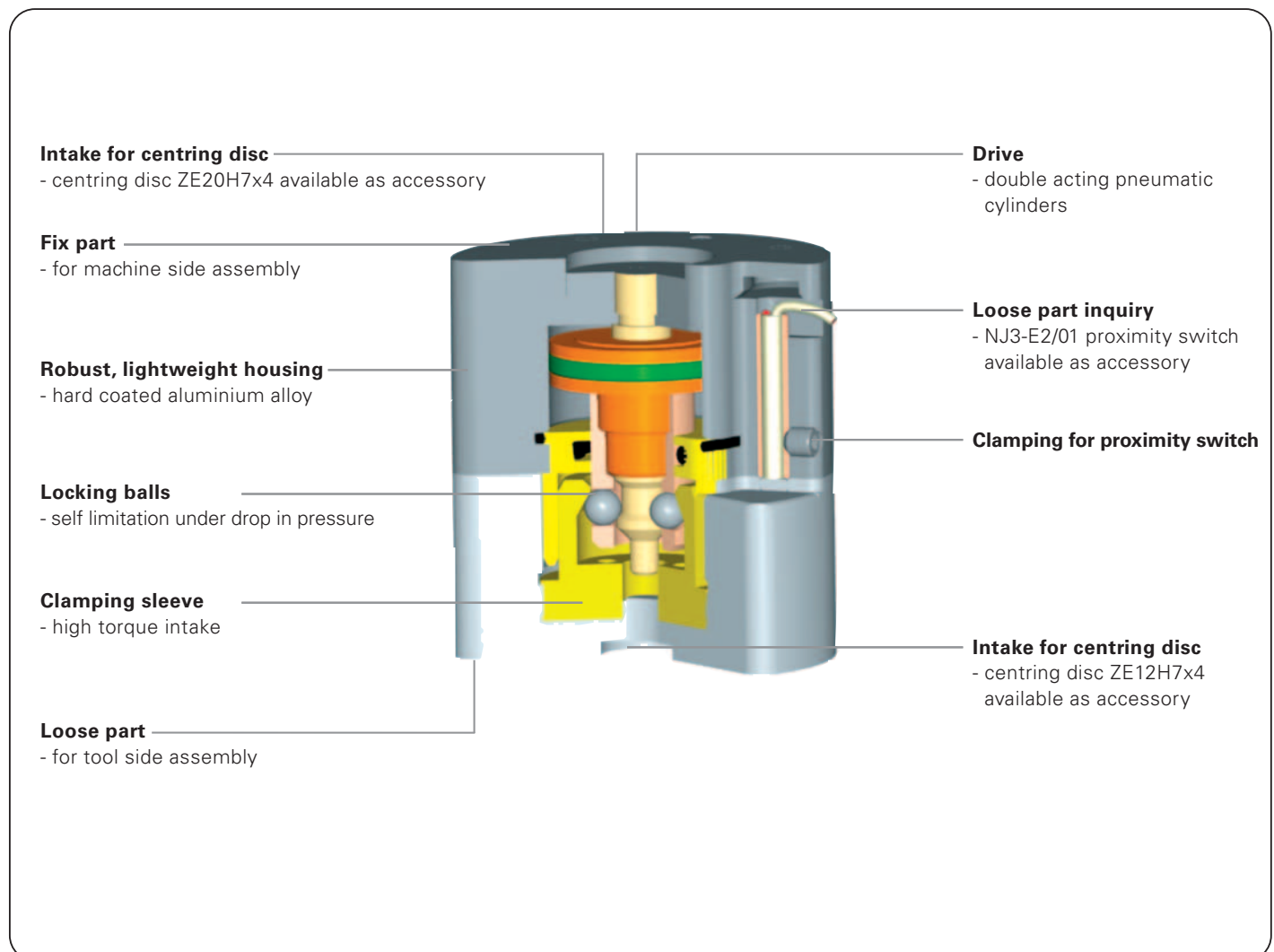
WK50

# Tool Coupling

## Features

- Cost-effective tool coupling, without electrical transfer
- Self limitation under drop in pressure
- Adapter plate included in delivery

### Functional diagram





## Terms

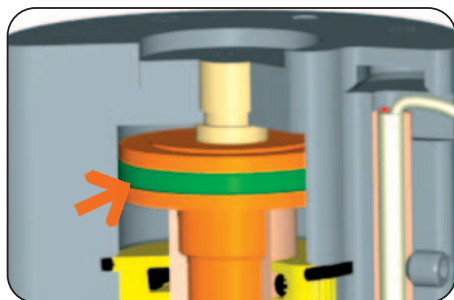
<b>Handling weight:</b>	guide value, when dimensioning, the force and moment loads must be observed
<b>Locking stroke:</b>	distance covered by the loose part during locking
<b>Cycle:</b>	changing procedure
<b>Maintenance:</b>	maintenance free bis 1 Mio. cycle (please see the owner's manual for conditions, download from <a href="http://www.sommer-automatic.com">www.sommer-automatic.com</a> ) <ul style="list-style-type: none"> <li>• long maintenance intervals keep costs down</li> <li>• long durability</li> </ul>

## Model

<b>F:</b>	Fix part, maschine side assembly
<b>L:</b>	Loose part, tool side assembly

Order no.	Recomented Handlings weight* [kg]	Weight [g]
WK50F	4	240
WK50L	-	170

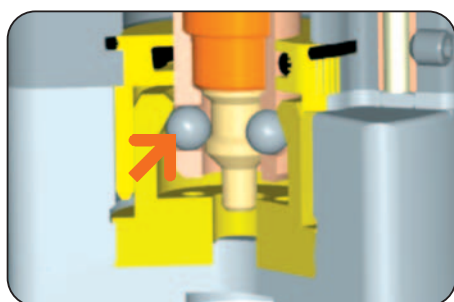
\* Moment loads must be observed!



### Locking drive

#### double acting pneumatic cylinder

- Process safe
- Safeguarded locking force under drop in pressure via mechanical self limitation



### Locking mechanics

#### possitive connection via locking balls

- High force and torque intake
- Self limitation under drop in pressure



### Machine connection

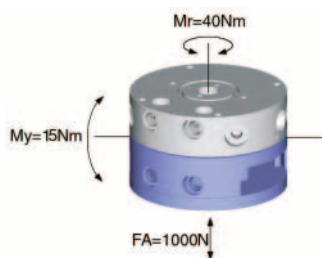
#### via adapter plate supplied

- Simple and cost-effective connection to design
- Centring discs available as accessory

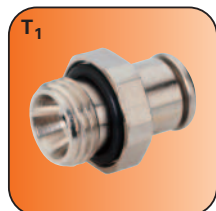
# Tool Coupling

## Forces and Moments

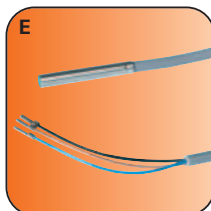
Max allowable static forces and moments



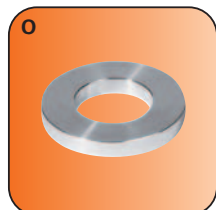
## Accessory list



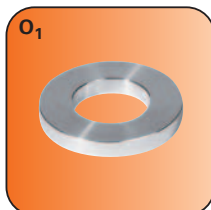
Pneumatic fittings  
Order no. GVM5



Proximity switch  
Order no. NJ3-E2-01



Centring disc  
Order no. ZE20H7x4

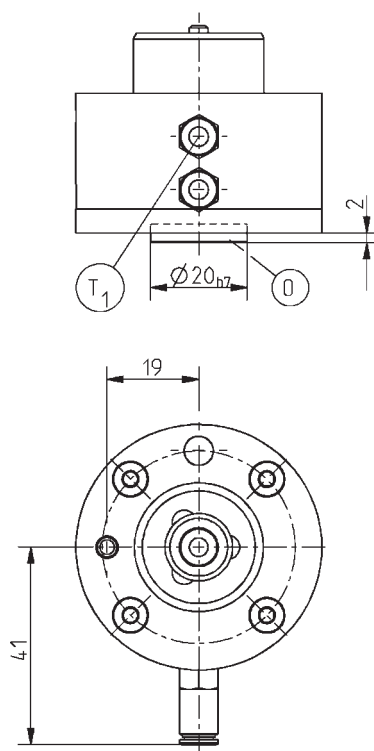


Centring disc  
Order no. ZE12H7x4

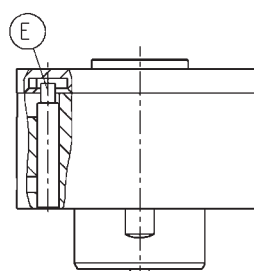
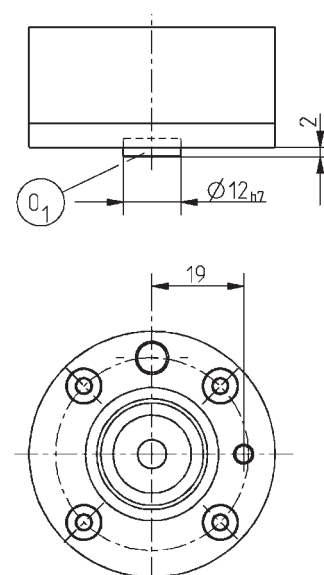


Plug 3-pole  
Order no. S12-G-3

Accessories WK50F



Accessories WK50L



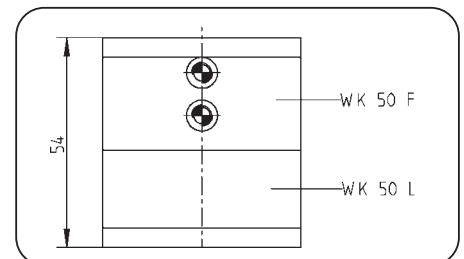
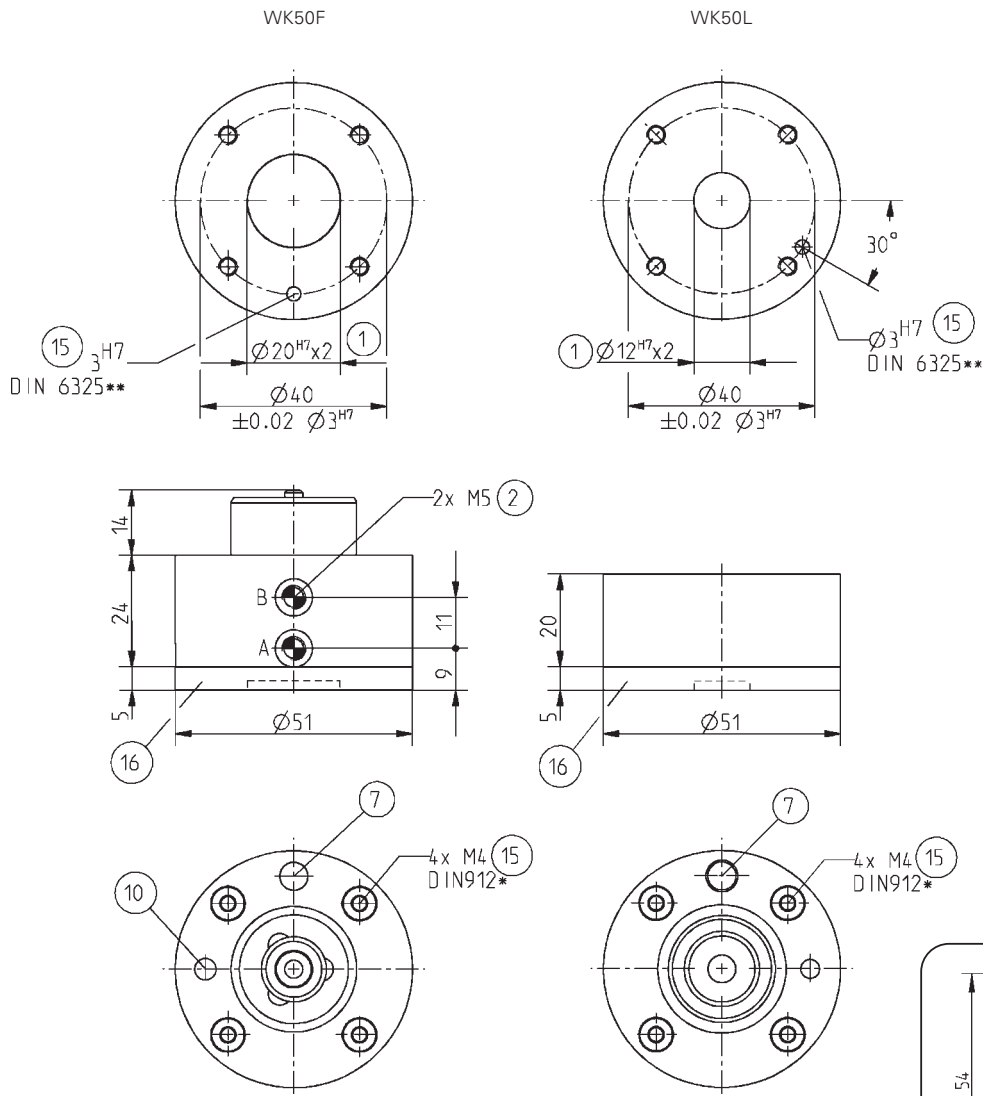
Subject to change without prior notice

Order no.:	WK50F	WK50L
Locking stroke [mm]*:	4	-
Recommended handling weight [kg]**:	10	-
Self limitation when locking:	mech.	mech.
Min./max. operating pressure [bar]:	4/8	-
Repeatability +/- [mm]:	0,02	0,02
Min./max. operating temperature [°C]:	5/80	5/80
Weight [g]:	240	170

All data measured at 6 bar

\* at max. deviation of 1.5 mm

\*\* Moment loads must be observed!



Total height in locked position



# *Manuel Changer*



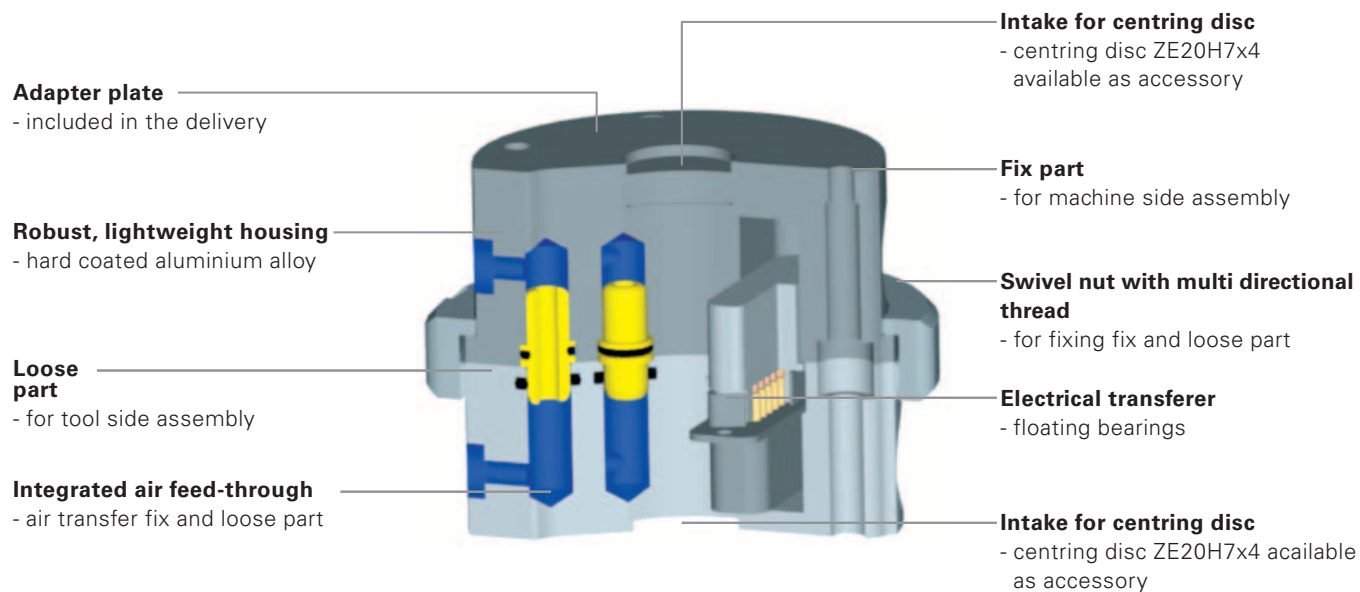
*HW80*

# Manuel Changer

## Features

- Easy handling
- Adapter plate included in delivery
- Mass-produced, integrated power and air connection

## Functional diagram



## Terms

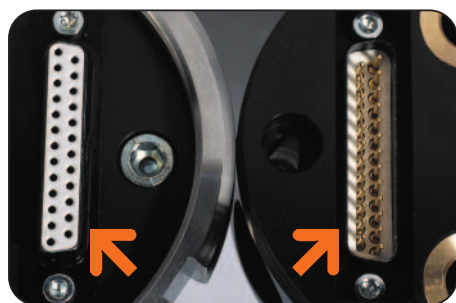
<b>Handling weight:</b>	guide value, when dimensioning, the force and moment loads must be observed
<b>Locking stroke:</b>	distance covered by the loose part during locking
<b>Cycle:</b>	changing procedure
<b>Maintenance:</b>	maintenance free

## Model

<b>F:</b>	Fix part, maschine side assembly
<b>L:</b>	Loose part, tool side assembly

Order no.	Recomended Handlings weight* [kg]	Weight [g]
HW80F	100	620
HW80L	-	340

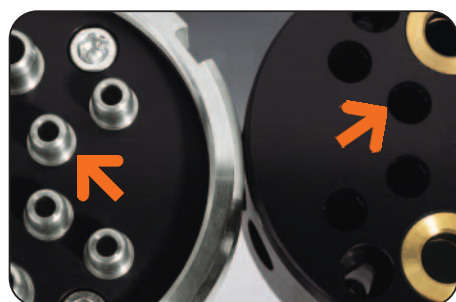
\* Moment loads must be observed!



### Electrical transfer

#### 25 signals transferable in series

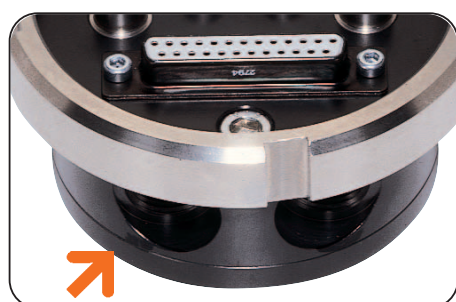
- Floating bearing sub D plug connector
- No additional interference contours, as integrated into housing



### Air transfer

#### 6 pneumatic feed-through

- Energy supply for application on the loose part
- Vacuum suitable



### Machine connection

#### Fix part via adapter plate supplied Loose part has direct screw on option

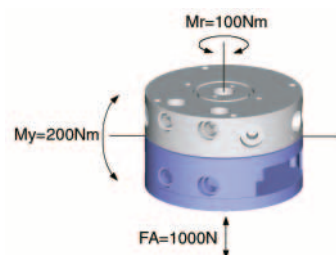
- Simple and cost-effective connection to design
- Centring discs available as accessories



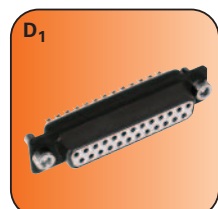
# Manuel Changer

## Forces and Moments

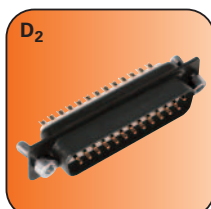
Max allowable static forces and moments



## Included in the delivery

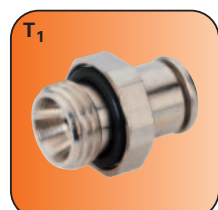


Sub-D plug connector  
25-pole  
Order no. CODUB00250

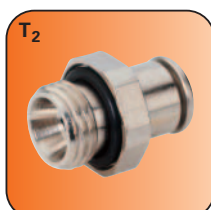


Sub-D plug connector  
25-pole  
Order no. CODUS00250

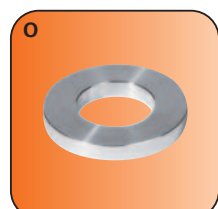
## Accessory list



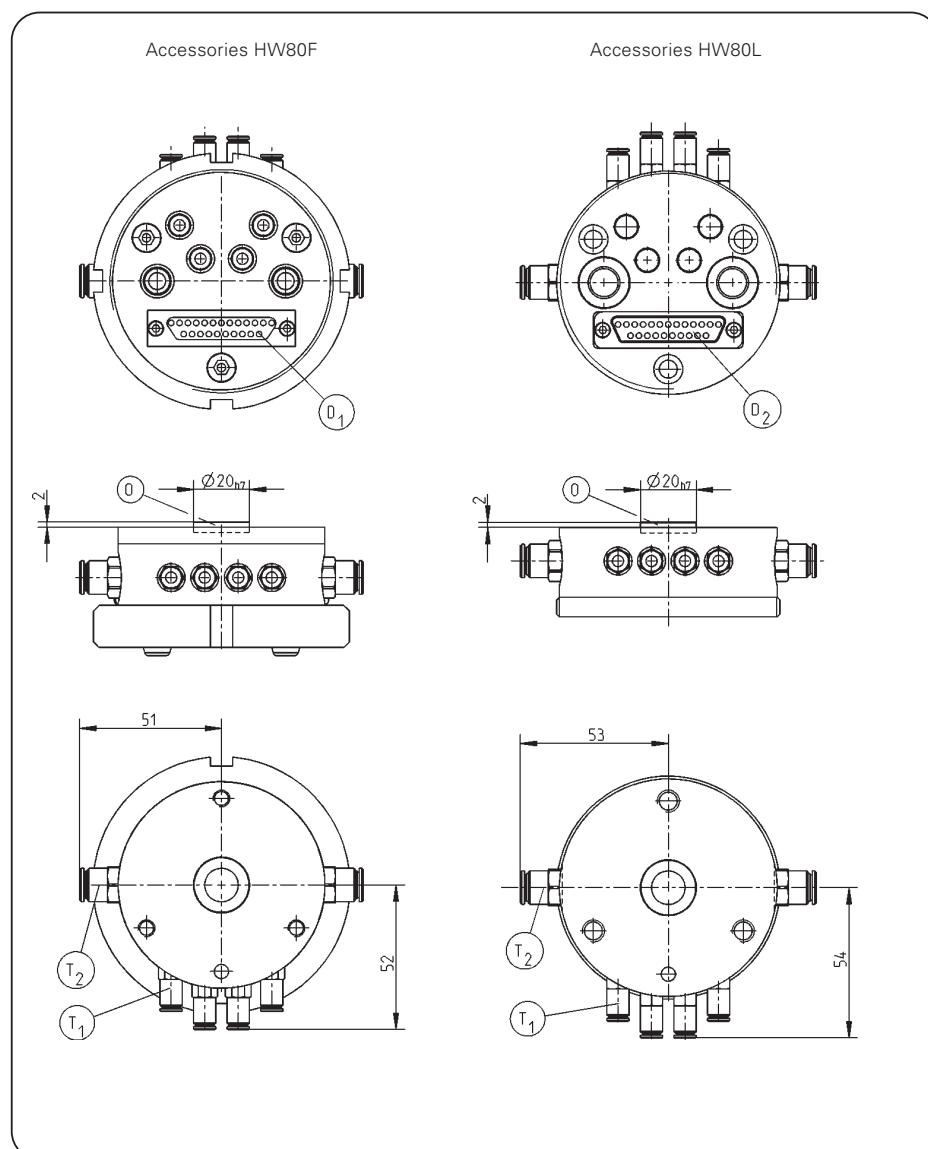
Pneumatic fittings  
Order no. GVM5



Pneumatic fittings  
Order no. GVM1/8x6



Centring disc  
Order no. ZE20H7x4

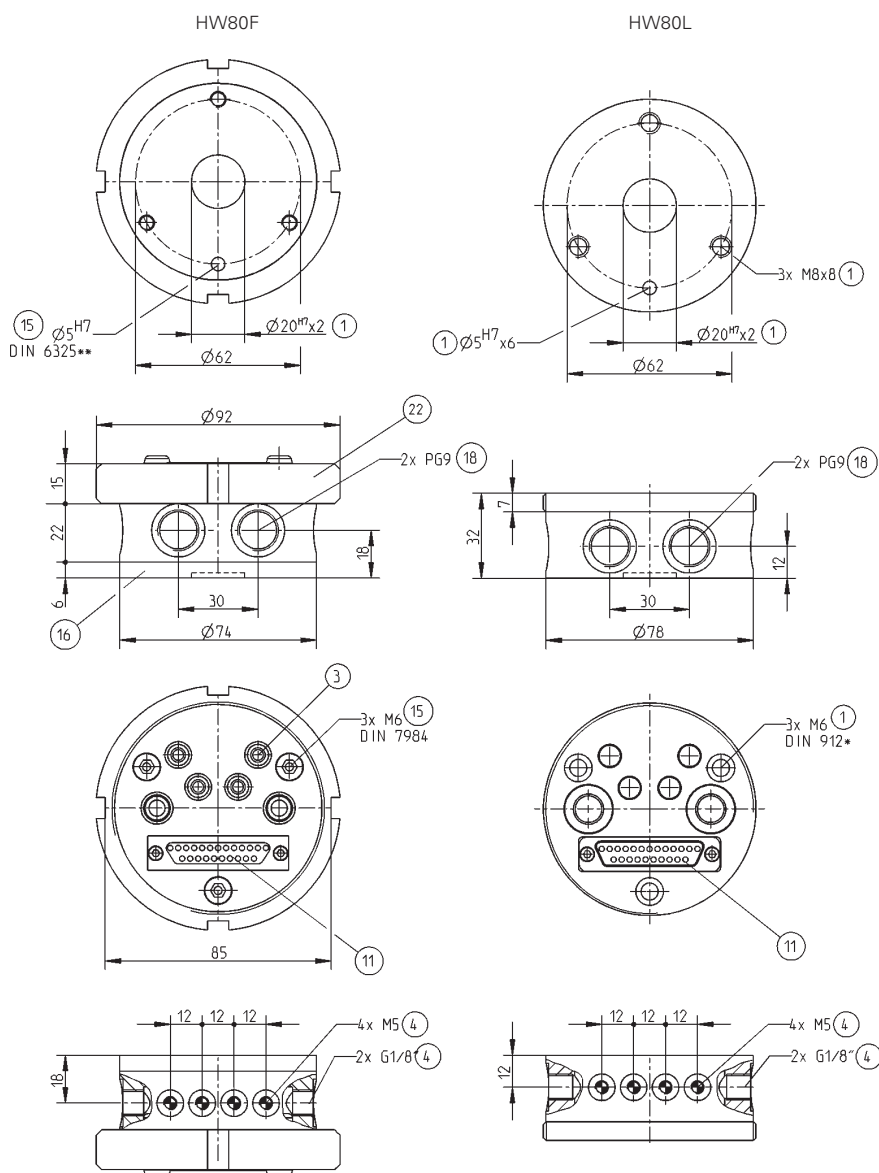


Subject to change without prior notice

Order no.:	HW80F	HW80L
Recommended handling weight [kg]*:	100	-
Electrical energy transfer 25 pole**:	1x	1x
Nominal current [A]:	5	
Operating voltage [V]:	60	
Pneumatic energy transfer M5 + 1/8" [quantity]:	4 + 2	4 + 2
Min./max. operating pressure [bar]:	4/8	-
Repeatability +/- [mm]:	0,02	0,02
Min./max. operating temperature [°C]:	5/80	5/80
Weight [g]:	620	340

\* Moment loads must be observed!

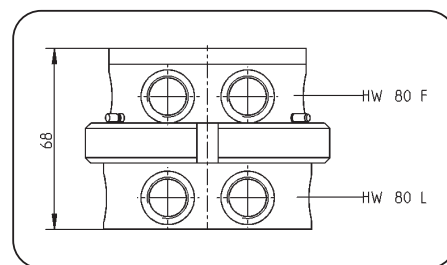
\*\* Included in the delivery



- ① Fixing manuel changer
- ② Energy supply
- ③ Air feed-through
- ④ Integrated air feed-through
- ⑪ Sub-D Connector
- ⑮ Fixing adapter plate
- ⑯ Adapter plate
- ⑳ Swivel nut
- ⑱ Connection thread strain relief

\* replaced by DIN EN ISO 4762

\*\* replaced by DIN EN ISO 8734



Total height in locked position

Subject to change without prior notice



➤ <b>Grippers</b> <i>pneumatic</i>	01
➤ <b>Grippers</b> <i>electrical</i>	02
➤ <b>Grippers</b> <i>hydraulic</i>	03
➤ <b>Grippers</b> <i>Special</i>	04
➤ <b>Grip &amp; Rotate Modules</b> <i>pneumatic</i>	05
➤ <b>Separators</b>	06
➤ <b>Swivel Units</b> <i>pneumatic</i>	07
➤ <b>Swivel Units</b> <i>electrical</i>	08
➤ <b>Swivel Units</b> <i>hydraulic</i>	09
➤ <b>Rotation Jaws</b> <i>pneumatic</i>	10
➤ <b>Axial Compensation Modules</b>	11
➤ <b>Tool Changers</b>	12
➤ <b>Robotics Accessories</b>	13
➤ <b>Linear Cylinders</b>	14
➤ <b>Shock Absorber</b>	15
➤ <b>Air Vane Motors</b>	16
➤ <b>Rotary Cylinders</b>	17
➤ <b>Vacuum Components</b>	18
➤ <b>Accessorios</b>	19