

TOOL CHANGERS

SERIES FWR

▶ PRODUCT ADVANTAGES



▶ **Automated tool change without external activation**

In interaction with the storage station, the changer is actuated mechanically during retraction. As a result, no additional power supply is required for the change operation.

▶ **Manual tool change**

The sizes FWR40 and FWR50 can be opened with just one hand. If this is not desired, you can lock the actuation manually.

▶ **Optional media transmission**

Adapt the tool changer to your application. With the energy elements of the WER1000 and WER2000 series, you can transmit a variety of media with standard connections!

▶ THE BEST PRODUCT FOR YOUR APPLICATION



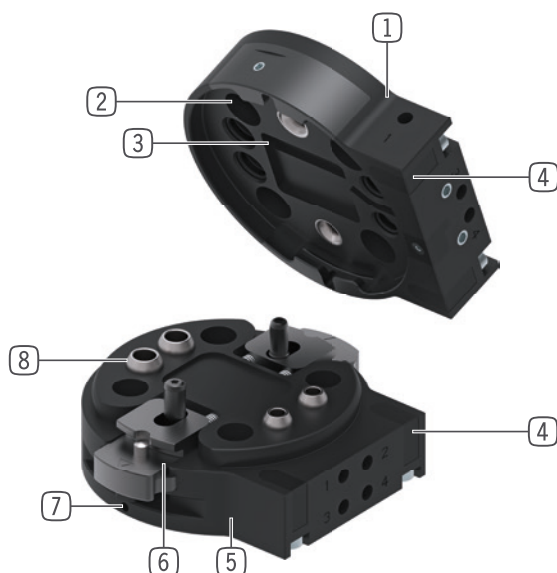
▶ **Our products welcome the challenge!**

Extreme conditions, all over the world—our tried and tested components and systems give you endless possibilities.

Find the best product for your specific use:

www.zimmer-group.com

► BENEFITS IN DETAIL



- ① **Fix part**
 - For robot side assembly
- ② **Connecting flange**
 - partial mounting circle in accordance with EN ISO 9409-1
- ③ **Loose part presence sensing**
 - Via inductive proximity switch
- ④ **Mounting for energy element**
 - Direct connection, without adapter plates
- ⑤ **Loose part**
 - For tool side assembly
- ⑥ **Locking**
 - Manual actuation
 - Automatic actuation via a storage station
- ⑦ **Lock for manual actuation (optional)**
 - Secure against inadvertent loosening
- ⑧ **Integrated air feed-through**
 - Air / vacuum transfer
 - Hoseless control possible

► TECHNICAL DATA

Installation size	Connecting flange according EN ISO 9409-1	Handling weight max.*	Tool weight max.**	Pneumatic energy transfer
		[kg]	[kg]	[Quantity]
FWR40	TK 40	13	5	4
FWR50	TK 50	16	7	4
FWR63	TK 63	20	10	4
FWR80	TK 80	29	12	4

*The **handling weight** is the maximum weight that may be on the tool changer.

Handling weight = end effector + workpiece

The **tool weight is the maximum weight of the end effector that may be in the storage station (without workpiece).

Tool weight = end effector + loose part

► FURTHER INFORMATION IS AVAILABLE ONLINE



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

TOOL CHANGERS

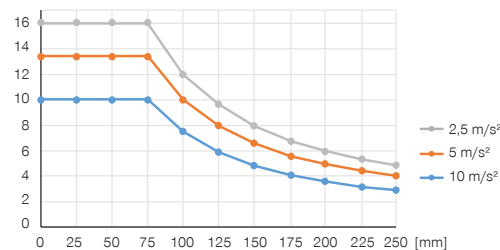
INSTALLATION SIZE FWR50

PRODUCT SPECIFICATIONS



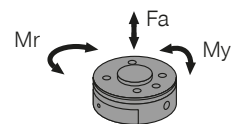
Variable installation position

Shows the maximum handling weight depending on acceleration and lever arm. Does not replace the technical design.



Forces and moments

Shows static forces and moments which may impact on the tool changer.



Mr [Nm]	60
My [Nm]	60
Fa [N]	1200

INCLUDED IN DELIVERY



2 [piece]
Mounting screw
C737903062



2 [piece]
O-Ring
COR0060100



2 [piece]
O-Ring
COR0100100

RECOMMENDED ACCESSORIES



ENERGY SUPPLY



GVM5
Straight Fittings - Quick Connect Style



WV1-8X8
Angled Fittings - Quick Connect Style



CONNECTIONS / OTHER



Energy elements and accessories for tool changers



AFWR1-50-A
Storage station



SENSORS



NJR04-E2SK
Inductive Proximity Switch Cable 0,3 m - Connector M8

RECOMMENDED ACCESSORY STORAGE STATION

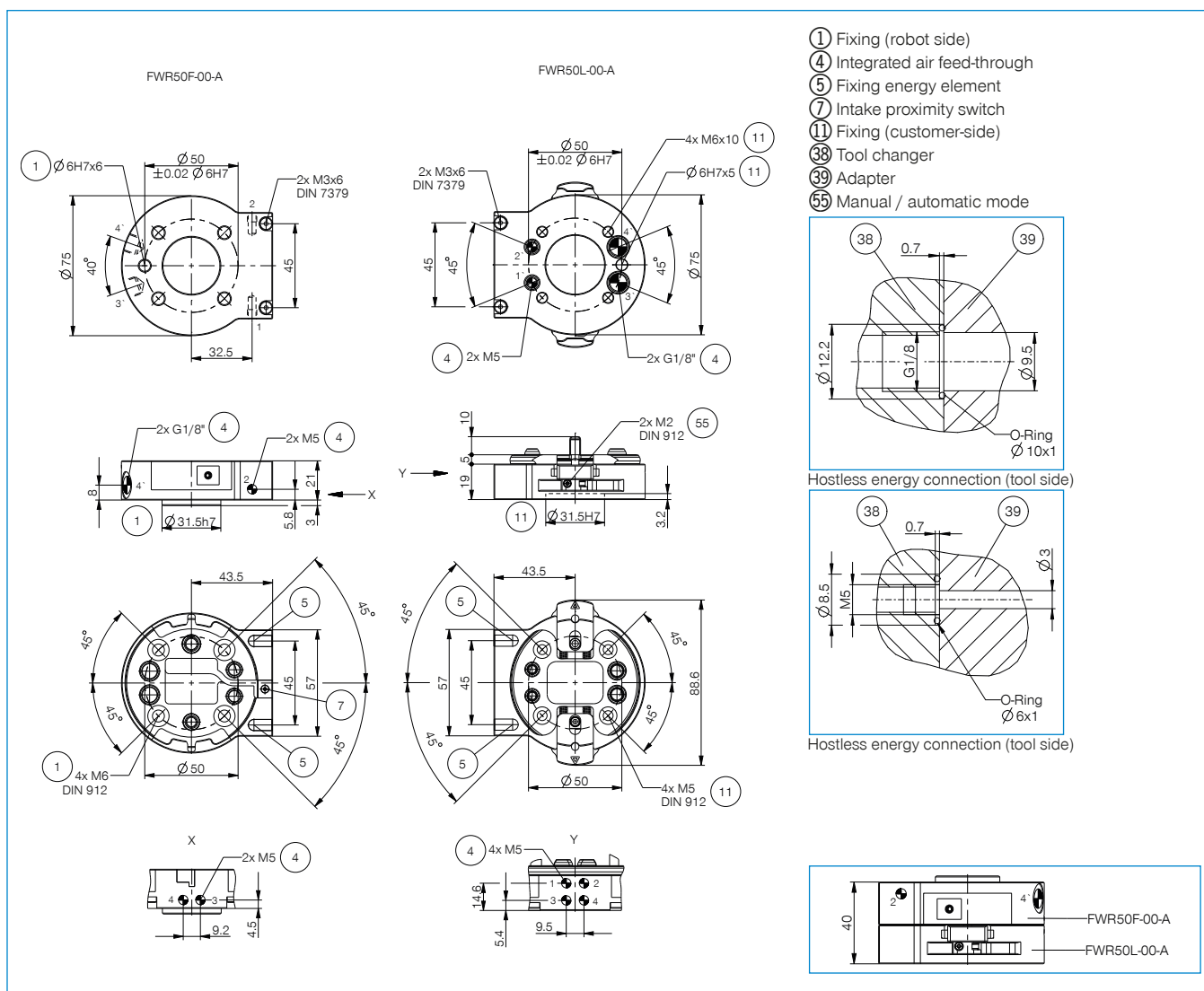


NJ5-E2SK-01
Inductive Proximity Switch Cable 0,3 m - Connector M8

Order no.	► Technical data	
	FWR50F-00-A	FWR50L-00-A
Connecting flange according EN ISO 9409-1	TK 50	TK 50
Handling weight max. [kg]	16	16
Tool weight max. [kg]	7	7
Pneumatic energy transfer [Quantity]	4	4
Flow per connector M5 [l/min]	170	170
Flow per connector G1/8" [l/min]	650	650
Electrical energy transfer	optional	optional
Locking stroke [mm]	0.6	
Repetition accuracy in Z [mm]	0.02	
Repetition accuracy in X, Y [mm]	0.03	
Joining force [N]	0	0
Release force [N]	0	0
Offset at coupling max. in X,Y [mm]	2.0	2.0
Offset at coupling max. in X,Y [°]	1.5	1.5
Tightening force [N]*	70	
Tightening torque [Nm]*	4	
Operating pressure for energy transmission [bar]	-0.6 ... 6	-0.6 ... 6
Operating temperature [°C]	5 ... +80	5 ... +80
Moment of inertia [kgcm ²]	2.41	2.67
Protection to IEC 60529	IP44**	IP44**
Weight [kg]	0.26	0.33

*Note the mating force of the energy elements!

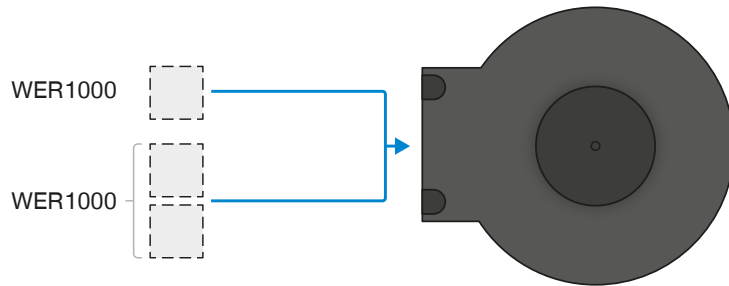
**only in coupled state



ENERGY ELEMENTS FOR TOOL CHANGER

SIZES FWR40 / FWR50

► CONNECTION DIAGRAM



Exception: WER1000FPL04-12-B and WER1000LPL04-12-B cannot be used!