TOOL CHANGER



Modularity taken to the limit 3 drives - compatible and interchangeable

The new TKX product family revolutionizes the world of robot automation: Three drive technologies with endless application possibilities. In typical industrial applications as well as for use with light-weight robots and stationary applications, the new tool changers are the best choice. From now on, you can use a single system to equip every robot in your production interchangeable and fully flexible. The universal tool side can be coupled with each of the three robot sides (pneumatic, electric, manual).

- Simple teaching thanks to large coupling path and contact-free locking
- Highest moment load capacity in its class enables maximum speeds
- Easily exchangeable pneumatic seals for compressed air and vacuum



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Proven functional principle -

successful for 30 years and further improved with optimized kinematics for maximum locking force.

Changing with 24 V – no pneumatics necessary, therefore especially suitable for light-weight robots, cobots and environments without compressed air.



Change in the blink of an eye no power supply necessary, therefore especially suitable for applications with low replacement cycles.

Technical data

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	TKP-080	TKE-080	TKM-080	TKT-080
Part no.	150301055	150301117	150301177	150301056
Attachment	robot side	robot side	robot side	tool side
Type of actuation	pneumatic	electric	manual	-
Recommended payload	80 kg			
Max. tensile/compressive force	53,000 N			
Max. moment Mx, My	2,030 Nm			
Max. moment Mz	1,700 Nm			
Repeatability	0.02 mm			
Number of mounting surfaces	5	5	4	5
Number of pneumatic/ vaccum feed-throughs	6	6	4	6
Connection thread internal feed-throughs	G1/8" (NW6)			
Weight	1.4 kg	1.77 kg	1.41 kg	0.79 kg
Locking/unlocking time	0.2 s	1.7 s	user-specific	-
Required energy to lock/unlock	4 to 8 bar	24 V / 1.2 A	user-specific	-
Self-locking	Stainless steel spring	Mechanical self-locking	Kinematics	-
Integrated sensors	Status query (locked/unlocked/tool side presence) -			
Mounting flange	ISO 9409-1-80-6-M8			
Outer diameter (body)	120 mm			
Height (body)	38 mm			
Protection class	IP 54			
Max. axis deviation, X/Y	+/- 1.75 mm			
Max. angle deviation from Z	+/-1.3°			
Max. distance while locking	1.6 mm			
Coupling path	35 mm			
Air consumption per cycle	0.027 l			
Operating temperature	+5 to +80 °C			

All data apply at 6 bar nominal operating pressure.

Calculation basis of recommended payload:

$$m = \frac{M_a}{a \cdot l \cdot S}$$

The occurring moment must not be higher than the maximum permissible moment per axis (see technical data).

m = Payload

M_a = Moment in the application (here: Mz = 1,700 Nm)

- $a = Application acceleration (here: <math>a = 15 + 10 = 25 \text{ m/s}^2$)
- I = Distance from tool changer to center of mass (here: 425 mm)
- S = Safety factor (here: 2)



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Technical drawings



TKE-080 | Robot side electric







For inquiries, please contact: T +49 7262 9239-100 oder info@iprworldwide.com

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TKT-080 | Tool side



Transmission modules Optimum supply of your tools

Standardized modules with the latest technology enable the transmission of a wide variety of media. You have the choice between electric, pneumatic and hydraulic versions which are available for each tool changer. Our highlight: The new bus module for Ethernet-based fieldbuses up to 1 Gbit.



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