

TOOL CHANGER

TKX-030



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).

- + Manual, electric and pneumatic robot side
- + Easy teaching due to long guide pins
- + Highest moment load capacity in its class enables maximum speeds
- + Easily exchangeable pneumatic seals for compressed air and vacuum

IPR – Intelligent Peripherals for Robots GmbH

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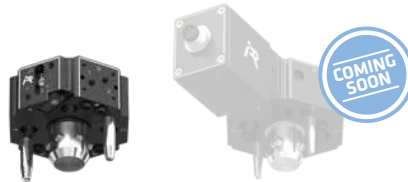
Proven functional principle –
successful for 30 years and further
improved with optimized kinematics
for maximum locking force.



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

| | TKP-030 | TKE-030 | TKM-030 | TKT-030 |
|---|--|--------------|-----------------------|--------------|
| Item no. | 150301250 | 150301476 | 150301378 | 150301246 |
| Attachment | robot side | robot side | robot side | tool side |
| Type of actuation | pneumatic | electric | manual | - |
| Recommended payload | 30 kg | | | |
| Max. tensile/compressive force | 6.000 N | | | |
| Max. moment Mx, My | 300 Nm | | | |
| Max. moment Mz | 815 Nm | | | |
| Repeatability | 0.02 mm | | | |
| Number of mounting surfaces | 5 | 5 | 4 | 5 |
| Number of pneumatic/ vacuum feedthroughs | 6 | 6 | 4 | 6 |
| Connection type internal bushings | M5 | | | |
| Weight | 0.58 kg | - | 0.66 kg | 0.41 kg |
| Locking/unlocking time | 0.4 s | - | application-dependent | - |
| Energy required for locking/unlocking | 4 to 8 bar | - | application-dependent | - |
| Self-hold | Stainless steel pressure spring | - | Kinematics | - |
| Optional sensors | Status query (locked/ unlocked/ presence mold side by means of attachment module) | | | - |
| Connection flange | ISO 9409-1-50-4-M6 | | | |
| Outer diameter (base body) | 90 mm | | | |
| Height (base body) | 31 mm | | | |
| Protection class | IP 54 | | | |
| Max. axis deviation in X/Y direction | +/- 1.6 mm | | | |
| Max. offset while locking | 0.8 mm | | | |
| Coupling way | 25.5 mm | | | |
| Air consumption per cycle | 0.087 l | - | - | - |
| Ambient temperature | +5 to +80 °C | +5 to +55 °C | +5 to +80 °C | +5 to +80 °C |

All data apply at 6 bar nominal operating pressure.

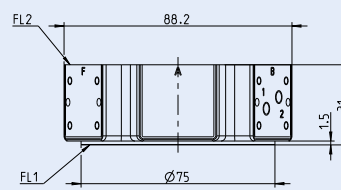
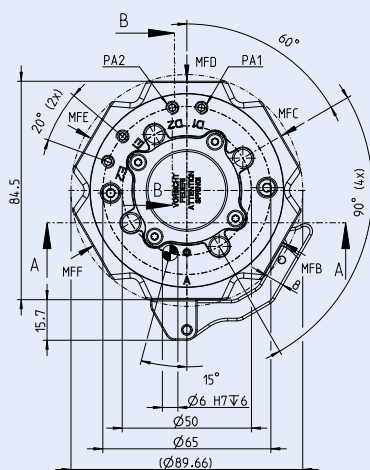
Sensor kits can be ordered separately as an option.

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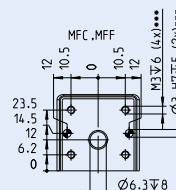
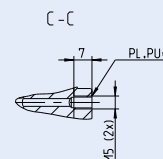
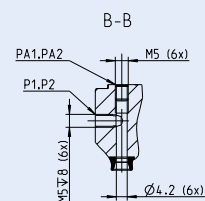
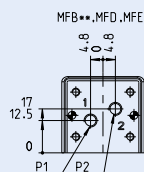
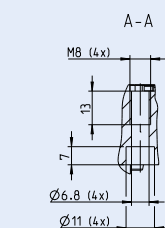
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| | |
|-------------|--|
| FL1 | MOUNTING SURFACE |
| FL2 | DOCKING SURFACE |
| MFB,MFC-MFF | MOUNTING SURFACE B-F F. OPT. MODULE |
| P1,P2,P3 | AIR CONNECTION 1/2/3 ON MFB**,MFC-MFF |
| PA1,PA2,PA3 | AIR CONNECTION 1/2/3 ALTERNATIVE F. MFB**,MFC-MFF |
| PL | AIR CONNECTION LOCK |
| PU | AIR CONNECTION UNLOCK |
| * | NOT FOR TKE,TKM |
| ** | NOT FOR TKM |
| *** | FOR ALL MOUNTING SURFACES EXCEPT A |
| | |
| | OPTION |
| S1 | SENSOR LOCKING (UNLOCKED)** / TKE ALWAYS INSTALLED |
| S2 | SENSOR LOCKING (LOCKED) / TKE ALWAYS INSTALLED |
| S3 | SENSOR TOOL SIDE PRESENT, ON FL2 |



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