

TOOL CHANGER

TKX-016



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-016 | TKM-016 | TKT-016 |
|---|--|-----------------------|--------------|
| Item no. | 150301249 | 150301379 | 150301245 |
| Attachment | robot side | robot side | tool side |
| Type of actuation | pneumatic | manual | - |
| Recommended payload | | 16 kg | |
| Max. tensile/compressive force | | 6,000 N | |
| Max. moment Mx, My | | 260 Nm | |
| Max. moment Mz | | 770 Nm | |
| Repeatability | | 0.02 mm | |
| Number of mounting surfaces | 5 | 4 | 5 |
| Number of pneumatic/ vacuum feedthroughs | 6 | 4 | 6 |
| Connection type internal bushings | | M5 | |
| Weight | 0.48 kg | 0.55 kg | 0.31 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) | | 80 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 +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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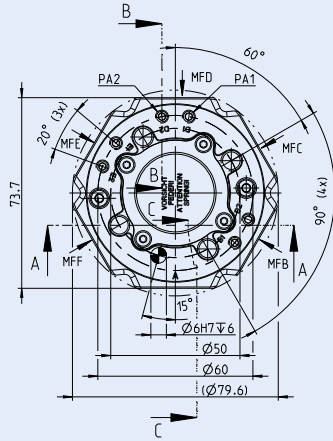
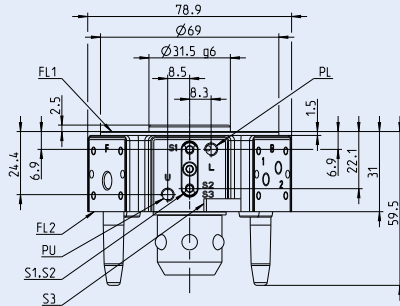
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Technical drawings

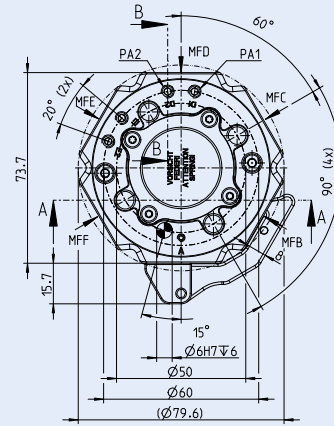
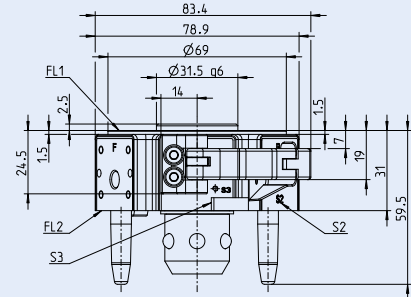
TKP | PNEUMATIC

TKP-016 | Robot side pneumatic



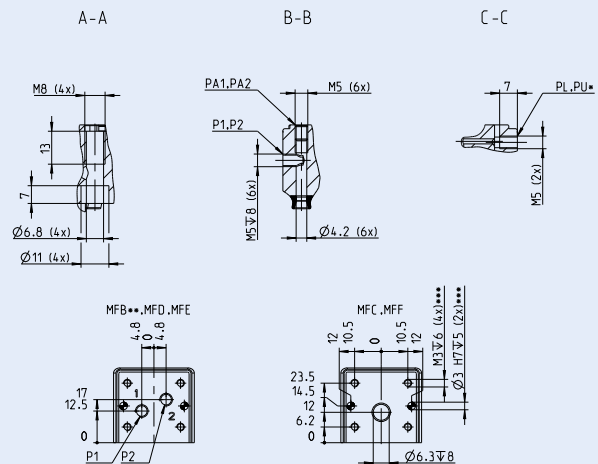
TKM | MANUAL

TKE-016 | Robot side manual



Valid for all variants:

| | |
|-------------|--|
| 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 |



For inquiries, please contact:

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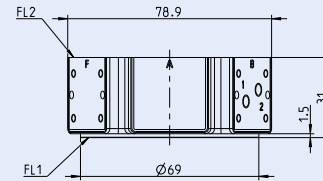
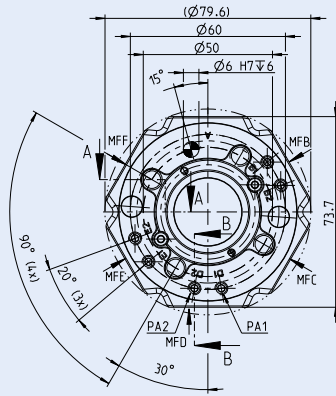
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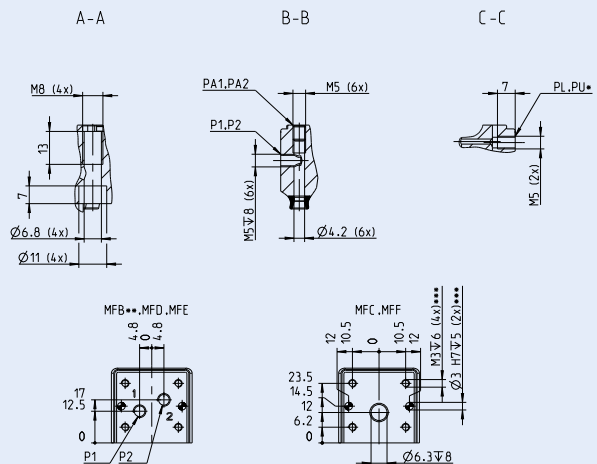
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TKT-016 | Tool side



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