

**INGENIA**  
passion for motion

APPLICATIONS  
**ROBOTICS**

## PRECISE MOTION CONTROL

Ingenia not only acts as a servo drive supplier but also as a design partner that will help you integrate and design extremely reliable servo drives that seamlessly fit form and function at the right cost and time.

- ✓ Robotic Arms and Joints
- ✓ Humanoid Exoskeletons
- ✓ Pick and Place Machines
- ✓ Mobile Platforms
- ✓ Force Feedback Systems
- ✓ Medical Robotics

### 0-150 ARMS

#### ADVANCED HEAT DISSIPATION

We combine the latest technologies in heat transfer simulation, hardware design and control algorithms, to design servo drives that are highly efficient and cost-effective.

### EtherCAT & CANopen

#### HIGH-SPEED BUS FOR CONTROL

For centralized and distributed motion control systems network efficiency, determinism and synchronization are crucial. EtherCAT and CANopen come as standard on Ingenia drives.

### 40 kHz

#### RESPONSIVE CONTROL

Our control schemes are ready to be adapted for single application needs. Fast update rates, high bandwidth and an outstanding precision are common features shared in all our designs.



#### POWER REGENERATION

Ingenia servo drives are designed for regeneration. Our technology protects the batteries by isolating the power stage when overvoltages occur while always keeping the control logics enabled.



#### MULTI-PLATFORM LIBRARIES

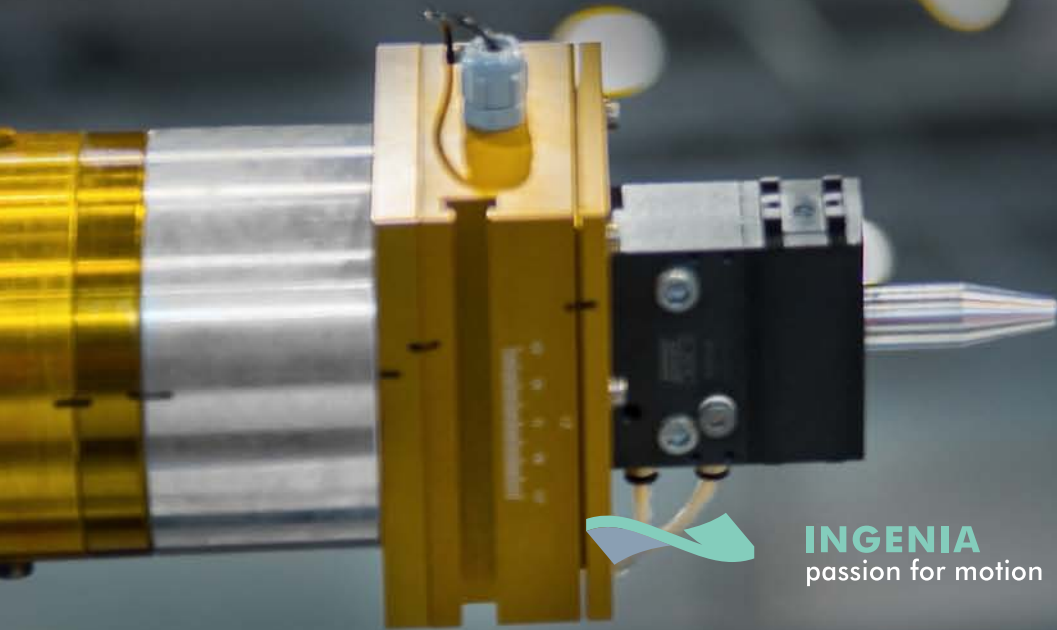
Ingenia Windows and Linux compatible libraries allow our users to create applications to interface with our servo drives on cost-efficient platforms like Raspberry Pi or embedded PCs.



#### VERSATILITY

Our designs are compact and modular to offer maximum integration possibilities. Design multiple power stages for a single core board is a common practice in our designs for the robotics field.





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