

AUMOTMotion Servopositioning





THE UNION OF EXPERIENCES AND COMPETENCIES A NEW LEVEL OF EXCELLENCE IN EDUCATION!

EXXER arises from the merger of two companies passionate about **technology**, **innovation**, and **education**.

With the purpose of offering increasingly excellent tools to assist in technological education, we believe that the combination of practical and theoretical teaching makes a difference in accelerating human and global development.



ECHNOLOGY • INNOVATION • EDUCATION





In the construction of machines and industrial equipment that require precise and controlled movement, servomotors and servodrivers are used. Servomotors are motors that allow precise control of position, speed, and/or torque, incorporating elements such as encoders and resolvers for this task. Servodrivers, in turn, are electronic devices necessary for the control of these complex motors.

The AUMOT series was developed to meet the training needs in these important automation technologies. The models in the series allow studying the applications of servomotors in both rotary and linear movements.

The AUMOT series offers kits that allow exploring this technology in a practical and safe manner.

Equipped with a programmable servodriver (softPCL function), they allow the creation of applications from the simplest to the most complex, as well as communication in industrial networks.

Software and applications complement the didactic solution, ensuring greater effectiveness through a more dynamic and modern learning experience.

All kits in this series come with comprehensive educational material focused on competency-based teaching and easy use by educators.

We have complete solutions for the training and updating of educators, ensuring the maximum use of kit resources.

Consult our specialists for more information and detailed technical characteristics of each equipment in the series.





MAIN SKILLS AND COMPETENCIES

- Configure and parameterize the servomotor driver through the built-in HMI;
- Program the servodrive in ladder logic;
- Understand and apply closed-loop speed control in the servomotor:
- Understand and apply closed-loop control with torque control of the servomotor:
- Understand and apply closed-loop linear positioning control;
- Understand and apply closed-loop rotary positioning control;
- Configure servodriver commands using digital and analog controls;





TECHNOLOGICAL ASPECTS

The SWA series servomotors from WEG are AC servomotors with rare earth magnet rotors (neodymium-iron-boron). These feature feedback through a resolver and thermal protection.

The servoconverter (servodrive) SCA06 comes with positioning blocks, free programming software, and CANopen communication included in the standard version. Additionally, it includes the SoftPLC function, allowing for the development of integrated programs and complex logic.





Considering the usability and the learning process of each student, educational solutions have been developed and designed with benefits and distinctive features for users.

MAIN BENEFITS

- Protected components;
- Industrial devices;
- Complete system;

MAIN DIFFERENTIALS

- Safety features;
- Augmented Reality;
- Educational material;



DEVICE CONFIGURATION

PRODUCTS	DESCRIPTIONS	OPTIONS	DEVELOPMENT TOOLS	APPLICATIONS
AUMOT2000-L21-001	Servopositioning Bench	Linear Guide	WPS – WEG Programming Suite	Exxer App AugmentedRealitγ (AR) Animation
AUMOT2000-L21-002	Servopositioning Bench	Rotary	WPS – WEG Programming Suite	Exxer App Augmented Realitγ (AR) Animation



FEATURES

With modular configuration, safety compliant with NR-12, includes development software, protection of main components and educational material.

AUMOT2000-L21-001

Servopositioning Bench – Linear



Configurations

- Carbon steel structure with electrostatic paint;
- Brake wheels;
- Compliance with safety standards.

DIMENSIONS	
Height	1150mm
Width	1200mm
Depth	
Weight	130Kg

ELECTRICAL FEATURES	
Power Supply	Single-phase 220V AC 50/60Hz
Connections	





With modular configuration, safety compliant with NR-12, includes development software, protection of main components, and educational material.

AUMOT2000-L21-002

Servopositioning Bench – Rotary



Configurations

- Natural anodized aluminum back closure;
- Carbon steel structure with electrostatic paint;
- TS-type front panel with indelible identification;

DIMENSIONS	
Height	330mm
Width	650mm
Depth	
Weight	25Kg

ELECTRICAL FEATURES

Power Supply	Cingle phace	2201/ 10 50/404

Power Supply: Single-phase 220V AC 50/60Hz

Connections: 4mm safety terminals



DEVELOPMENT TOOLS

Our educational solutions are complemented by the professional development tools and software necessary for the comprehensive training of the student.







USAGE

Guidance on the recommended use of the kit

In "teams," define the optimal and maximum number of students expected per kit.

Usage can be "intensive," therefore, 1 kit per working team, or "occasional/shared," meaning it is not used all the time, and therefore, we can have a smaller number of kits than teams, which should be indicated, again, the optimal number to the maximum number.

PARTNUMBER	DESCRIPTION	TEAM (STUDANT/KIT)	USAGE
AUMOT2000	Servopositioning Bench	3 a 4	1 Kit for 3 teams

INFRASTRUCTURE

Electrical 1 single-phase outlet

CONECTIVITY	
Ethernet Connections per Workstation	2 Ethernet ports (for the computer and for the kit)
WiFi Network	-
Internet access	Recommended
Computer	Required; according to the minimum configuration of the programs



The didactic kits come with comprehensive educational material with a practical focus, presenting proposals for practices aimed at developing skills and competencies.

In addition to the User Manual, which includes information on operation and maintenance, the Student Guide is provided with proposals for practical activities to be carried out with the kit, and the Educator's Guide with answers to proposed activities and guidance for the didactic use of the kit. Additionally, video tutorials are offered to assist in the easy mastery of development tools and the use of the kit.

All this content is available digitally on our site in the Educator Portal.





SKILLS AND COMPETENCIES

Robot Features

- Configure and parameterize the servomotor driver through the built-in HMI;
- Program the servodrive in ladder logic;
- Understand and apply closed-loop speed control in the servomotor;
- Understand and apply closed-loop control with torque control of the servomotor;
- Understand and apply closed-loop linear positioning control;
- Understand and apply closed-loop rotary positioning control;
- Configure servodriver commands using digital and analog controls.





A current educational solution is not complete without software and applications. Along with the kits in this series, exclusive licenses are provided for PC and mobile applications that complement and enhance the use of the kits.

Exxer App

FDUCATIONAL ANIMATION

- Augmented reality animations that present the main devices in sections and their assembly/disassembly process.
- Visualization of operating principles
- Animations that aid in understanding the involved physical processes and the application of technology









As important as didactic resources and tools is teacher training. We have a complete package of solutions to meet your training and updating needs.

Quick Start and Tutorials

Quick Start is a quick video guide to getting to know, test, and operate the product. Tutorials are videos that teach common procedures needed in classes using the kit.

Technical Delivery

In the technical delivery, our specialists present the product, its features, maintenance and safety precautions, and operate it together with the customers.

Operational Training

The goal of operational training is to make instructors capable of using the kit. The didactic materials of the kit are presented, and some proposed practices are carried out. It also includes all activities from the technical delivery.

Technological Training

Technological training is a deeper study of technology and applied concepts. These courses do not focus on the kits but on technical topics and competencies for teacher updating.



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