

About Animatics

Thank you for using or considering the use of our innovative automation products. Headquartered in California and with offices around the world, Animatics Corporation has a unique approach to motion and machine control that can enable you to leapfrog your global competition. Before you dig into this catalog, we want to bring your attention to two critical areas where Animatics is the world leader:

1. Animatics offers the most highly integrated automation solutions in the industry. Starting with the SmartMotor™, the world's first fully-integrated Servo System, and extending through a large variety of I/O, machine control and actuator products, Animatics offers total solutions with a much smaller footprint and a lower cost, with a simplicity that reduces your machine development and build time – getting you to market faster.
2. With offices in Tokyo, California, New York and Continental Europe, the sun never sets on Animatics while we directly support key customers along with a global network of factory trained Automation Solution Providers; independent companies in your backyard ready to supply and support your Animatics products through the long-haul.

This catalog contains all Class 5 SmartMotor™ products and

Animatics' Actuator line (OEM Dynamics). All of the SmartMotor™ servos in this catalog have the latest feature set and are recommended for new designs. Earlier SmartMotor versions will continue to be sold and supported, but the best functionality and value will be found in the latest versions. Every effort has been made toward backward compatibility and little effort is required to adjust to the newer versions.

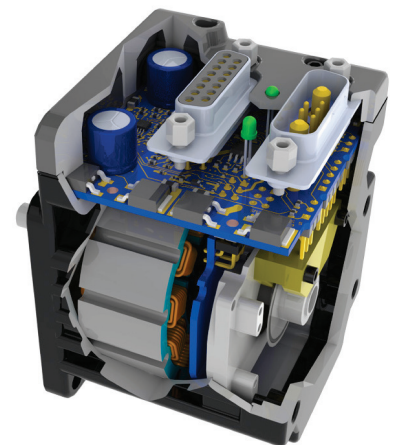
Future products will be released as "Classes" with each Class optimized for different markets, price points and applications exploiting an even greater variety of network protocols, industrial I/O capabilities and environmental sealing options.

Thank you again and welcome to Animatics,
"Defining the Future of Motion Control™".



ANIMATICS®

Defining the Future of Motion Control



Notice: All SmartMotor™, Actuator and Product specifications are subject to change without notice.

Consult Website or Factory for latest data.

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◆ We define the future of motion control by innovation, invention, and a dedication to the highest standards of professionalism and quality in everything we do and in every product that we make.

◆ We invite quality firms to ally with us and to participate in our inventions and innovations for the benefit of the companies that need and use our advanced technology and products.

◆ We invite our customers and users to join with us in the joint development of custom products and systems using our technology.

◆ We commit to providing a fair workplace for our employees. We subscribe to the principle of being a good corporate citizen, a good neighbor, and a protector of our environment.



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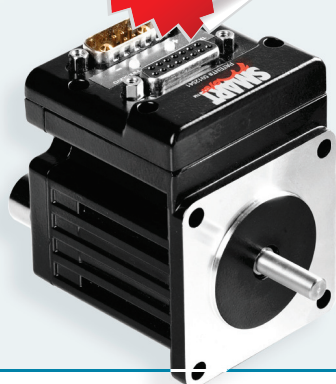
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NEW

from Animatics



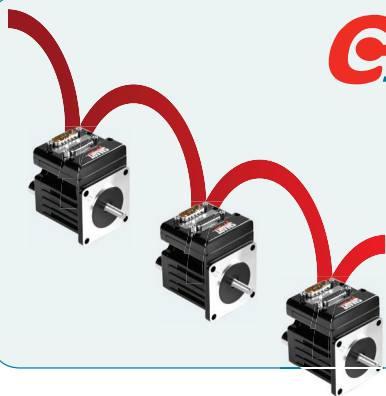
Class 5 SmartMotor™

Delivering significant industry advancements in programmable integrated servo systems

The Class 5 SmartMotor servos have the most advanced motion control feature set of any comparable product on the market and are recommended for designs of the highest caliber.

- 5x faster processing speed
- Expanded math function capability
- Multi-port simultaneous communication
- Stand-alone Linear Interpolation
- Modulo encoder count capabilities
- Dual trajectory path generators

COMBITRONIC™ Communications



- Links up to 120 SmartMotor servos over CAN bus
- Any SmartMotor™ can read, write, control any other SmartMotor
- No explicit communication code is necessary
- Entire machine programs written in the time it would take to program a motion controller to talk to a PLC
- An array of connected SmartMotors become one giant parallel processing system

IP65 Models

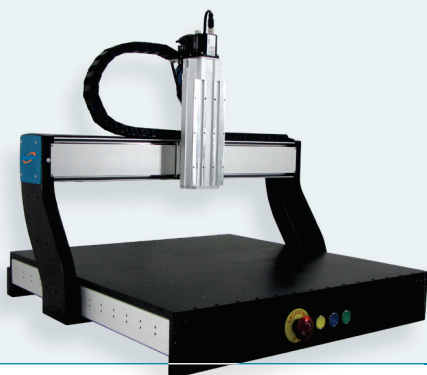
SM34165MT-IP



- IP65 rated sealed servo for harsh environments; optional IP67 available
- 10 channels of configurable 24V I/O
- Configurable LED indication
- Available in NEMA 23 & 34 frame sizes



Table Top Robot



- Number of axes: 2 axes / 3 axes
- High Repeatability: 16 Microns
- Work Envelope: Up to 600mm by 550mm by 250mm
- Load Capability: Up to 45Kg load at 250mm/sec
- Highly Configurable



Not Just a Product

What makes the Animatics SmartMotor by far the most powerful Integrated Motor in the industry is its unique ability to control an entire machine. The SmartMotor is not just a product; it is a byproduct of an innovative design philosophy. The unsurpassed combination of programmability ease, networking capability, highly flexible and expandable I/O, and high power density servo performance is exactly what you should expect from the pioneer and recognized global leader of truly integrated motion control.

The Animatics SmartMotor is a complete, compact, and user-friendly integrated motion control system that actually meets the textbook definition of a robot. Our line of advanced rotary and linear motion control products feature the ability to perform multi-axis motion including stand-alone coordinated motion. While priced similarly to other integrated servos, the SmartMotor brings real-world additional savings to the machine builder by eradicating other expensive and complicated elements in the machine such as PLCs, sensors, I/O blocks, and control cabinets. Additional axes can be easily added in the field, bringing additional processing power, but without parallel growth of existing cabinet size.

This simplicity and ease of use goes beyond just “compactness;” it results in overall reduced machine development time (shortening time-to-market), lower total machine cost, greater field reliability, and simplified machine design and build time, eliminating heavy procurement and support activities.

Will your new machine design be rooted in old 1978 PLC technology or will you take advantage of advanced Animatics SmartTechnology™ to gain a dramatic savings in time and money that will put you miles ahead of your competition? New technology results from new, innovative approaches after careful study of the weakness and limitations of prior methods and technology. By far the greatest benefit of using the SmartMotor is that it lets you trump your competition by getting a dominant product to market weeks or potentially months sooner. Let our global network of factory-trained Automation Solution Providers show you how.

Unparalleled Customer Support

Customer support is a key area where Animatics separates itself from the pack. We offer products at a cost you would think could only come without support, and yet we have a global network of factory trained support engineers dedicated to keeping you productive.

This support network is two-layer. It starts with a direct Animatics office in every major market and time zone, and continues with a second layer of factory-trained engineers employed by our distributors and Automation Solution Providers residing, most likely, in your own backyard.

Our global support network is not just for emergency response. It is also very useful for training and installation assistance. The absolute best thing our network of engineering support can do for you is help you reexamine your machine design with an eye for leveraging the unique features of our integrated motion systems. They can also show you how to approach your design so any part of the machine is serviceable anywhere, any time, by anyone with a screw driver. Leverage this design approach and learn how your customer can enjoy effectively ZERO downtime.

Available Software

SmartMotor Interface (SMI) is your window to the SmartMotor and it is available free-of-charge. It is Microsoft Windows compatible, and together with a desktop or laptop computer

equipped with an RS-232 port, you have everything you need to converse with anywhere from 1 to 100 SmartMotor servos. Smart Select Interface™ (SSI) is a point-and-click configuration tool for programming SmartMotor for various pre-set motion profiles.

What's New

This catalog features the new **Class 5 SmartMotor technology** offering significant industry advancements in programmable integrated servo systems. New modes of operation and capabilities such as stand-alone coordinated motion open up infinite new applications for Animatics' fully integrated motion control solutions.

The new **Combitronic™** high speed transparent communications over CAN bus provides all the benefits of distributed machine control without the traditional limitations and drawbacks. The new line of rugged **IP 65 rated** NEMA 23 and 34 frame DC-input servos provides new solutions for harsh and demanding environments.

Animatics.com Web Site

Download software, check for the latest product information and updates, view literature, product manuals, application videos and ideas, get technical support, and locate your nearest representative on Animatics' user friendly site.

Animatics Institute

Learn essential product, application, and game-changing machine building strategies at the Animatics company headquarters in Santa Clara, California.

Available to a wide variety of customers and potential customers of our innovative rotary and linear solutions, this comprehensive training culminates in hands-on machine building lessons.

Commitment to the Environment & Sustainability

Animatics deeply believes in being a responsible caretaker of our natural environment and conserving scarce resources. The SmartMotor is made in the same shaft and frame dimensions as open-loop step motors, but use a small fraction of the electrical draw because they only use as much power as the load physically needs. Open-loop step motors are always “on,” drawing as many as several amps, just to hold still, causing increased heat generation.

Although step motors have a lower initial purchase cost, the use of large amounts of power from a single step motor will cost hundreds of dollars more in electricity alone through the life of a machine. Selecting a single size 34 SmartMotor instead of a step motor, for example, could spare the release of as many as 10 metric tonnes of CO2 into the atmosphere over its life.

Because SmartMotors are made a fraction of the size of a traditional control system, and with considerably less cabling, the manufacturer who utilizes the SmartMotor consumes far less material. Its self-contained nature means the SmartMotor is better than recyclable; it's reusable. Most machines will reach the end of their useful lives long before the SmartMotor will, and transferring them to another machine is easy because the components are in one integrated component and the cabling is simple.

