

PE® SAM™

PE® SAM™ 1 & 2 Crane Anti-Sway/Swing Control

Why wait for a crane's load to stop swinging after a run; when you can eliminate the sway before it begins! With PE® SAM™ (Swing Amplitude Manager™), anti-sway control your crane has a significantly faster and safer operation. Power Electronics® International, Inc.® has always been at the forefront of crane safety in motor control equipment. Our patented swing control methods are no exception. Increase safety with the best and easiest to implement swing control system. Choose from two versions that are both onboard our Ultra Series™ drives and ready to run (unlock via code).

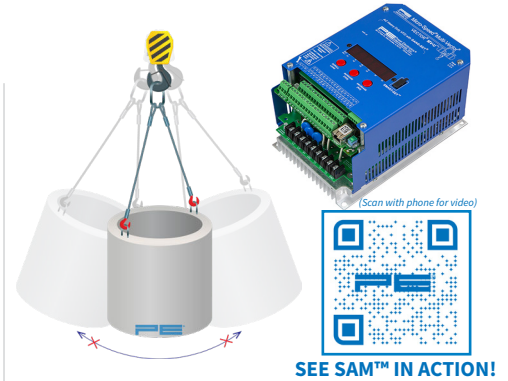
Benefits & Applications

- **Optimized for any crane system** (hoist/bridge/trolley, gantry, boom, tower, etc.) and eliminates virtually all load swing due to travel motion
- **The hoist is operational (up and down)** even while the load moves in any travel/horizontal motion
- **Built into PE® Ultra Series™ drives**, no add-ons or equipment to install
- **Only true sensorless anti-sway system on the market.** No sensors, encoders, or zone sensors, and no additional circuitry or devices needed
- **Quick Set-up:** Install a standard PE® Ultra Series™ drive and get up and running in minutes with the flip of a switch
- **Easy to Use:** You don't need an expert to operate your crane!
- **Get more work done safely!** Decrease operation time because the load has no swing from start to finish, with fine positioning at the end of the run

Versions Available

- **PE® SAM™ 1 (no sensors at all):** PE® manufactures the only VFD with a true open-loop swing control option. PE® SAM™ 1 effectively eliminates most load swing at all rope lengths. SAM™ 1 can also be used with contactor controlled hoists as well as speed controlled hoists. Our truly open-loop swing control sets us apart in that the operator can maneuver the hoist up or down actively at any point during a run while retaining the benefits of no swing. No other open-loop/sensorless anti-sway system comes close to the PE® Ultra Series™ drives' high level of performance and ease-of-use. Our proprietary algorithms prevent harmful load swing on multiple hoists on the same bridge/trolley - even with hoist movement during any horizontal motions!
- **PE® SAM™ 2 (Use with PE® MV-Ultra™ hoist drive):** This version is similar to PE® SAM™ 1 but even better! Utilizing the MV-Ultra™ hoist drive, PE® SAM™ 2 is the absolute gold standard for crane movement. PE® MV-Ultra™ hoist drives communicate detailed information to the travel motions (i.e., bridge/trolley PE® MX-Ultra™ drives). This enables an even more effective swing control with super-fast acceleration and decelerations. This option also allows the hoist to raise and lower actively during a run without swing. PE® SAM™ 2 is recommended when MV-Ultra™ drives are on a hoist without a load brake and MX-Ultra™ drives on the travel motions.

Upgrade your crane/hoist with PE® UL approved panels customized for you application. CALL TODAY!



Available With

- **Micro-Speed® MX-Ultra™ VFD:** Open-loop drive (for travel motion, horizontal applications, and hoists with an internal mechanical load brake or a self-locking worm gear)
- **Micro-Speed® Multi-Vector® Ultra™ VFD (MV-Ultra™):** Closed-loop drive (for hoists without a mechanical load brake and travel motions requiring precise speed control of up to 6000:1)

Easy to Activate

- Onboard and unlockable via code provided by PE®, after installation

Did You Know?

- To eliminate sway for bridge and/or trolley motion, use a PE® Ultra Series™ drive with SAM™ 1 or 2
- MX-Ultra™ drives with SAM™ 1 do not require a hoist drive
- Have two or more hoists at varying heights on the same motion? An Ultra Series™ drive with PE® SAM™ 2 active will eliminate the swing of all suspended loads due to travel movement!

Patented Technology

- PE® is the originator of sensorless swing control inside VFD's with **US Patent No. 5,960,969**
- With years of research and development, PE® SAM™ is now the most advanced crane anti-sway control system in the world

MORE ABOUT PE®

Our Company

Dedicated to Quality, Safety, and Reliability

Power Electronics® International, Inc.® began in Chicago, Illinois in 1969 with designing VFDs and cycloconverters. Later, PE® became one of the early pioneers of solid-state AC motor soft-start controls and crane/hoist variable speed equipment. Unlike other brands, all PE® equipment is designed, engineered, and manufactured in our centrally located production facility near Chicago, Illinois, not far from O'Hare International Airport.

Today PE® manufactures Micro-Speed® VFDs, Smooth-Move® reduced torque control units, and custom control panels for all industries. Find PE® products in overhead cranes, hoists, trolleys, bridges, dams, pumps, fans, monorails, conveyors, and other industrial applications. Over the years, PE® has gathered a team of electronic and mechanical engineers and physicists to fulfill all your project requirements.

Since 1969, PE® has maintained the highest product quality and reliability standards set by our founder, Victor J. Habisohn.

Our Founder

Victor J. Habisohn (1931-2013)

US Navy Veteran and former electronic engineer who ran the NASA sponsored, Apollo spacecraft electronic central timing system project. It was an essential part of the Apollo Command Module and Lunar Module which landed on the moon in 1969. The design of the Central Timing Equipment was so robust that it survived splashdown and subsequently reutilized on other Apollo missions. Victor's high-reliability design for the spacecraft used the first integrated circuits ever developed which paved the way for modern miniaturized computers and electronics.

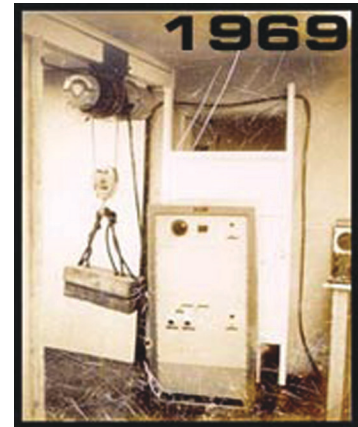
Victor applied the concept of robust electronics for reliability and safety to all PE® drives and equipment. PE® products are at their core, built to last. With high temperature hardened circuitry and high vibration resistant all American steel frames. Power Electronics® International, Inc.® continues Victor's legacy of robust, highly reliable, and easy-to-use electrical equipment.

Find PE® Equipment in...

- Overhead Crane & Hoist
- Bridge & Trolley
- Monorails
- Conveyors
- Elevators
- Automation
- Controls & Control Panels
- Fans & Pumps
- Dams & Bridges
- Food Handling
- All Industries and Applications

Join Our Many Satisfied Customers

- General Electric Co.
- NASA
- Tesla, Inc.
- US Navy
- US Army
- US Airforce
- ArcelorMittal
- Georgia-Pacific, LLC.
- Nucor Steel
- Boeing Aircraft
- TimkenSteel Corp.
- US Army Corps of Engineers
- Kimberly-Clark Corp.
- Lockheed Martin Corp.
- SeaWorld
- Duke Energy Corp.
- Alcoa Corporation
- Ford Motor Company
- General Motors
- Sikorsky Aircraft
- Deere & Company
- Chrysler Corp.
- Georgia Aquarium
- US Steel Corp.
- Kruger, Inc.
- And Many More!



First VFD for hoists in 1969!



Victor J. Habisohn pictured with the first prototype of the Central Timing Equipment used on all Apollo missions including the moon landing.

