

# EXPERT OPERATOR™

Manipulate payloads in a swing-free manner. Expert Operator™ permits both novice and expert operators to reduce payload swing by 85-95%.



## PRINCIPLE OF OPERATION

Expert crane operators skillfully time crane maneuvers in order to quickly eliminate sway. Expert Operator is a hardware module that intercepts pendent commands – converts them into expert commands – and then issues the modified commands to motor drives. Cable sway is eliminated, permitting all operators to perform like experts. Download the Expert Operator crane simulator for a virtual test drive at [www.camotion.com](http://www.camotion.com).



## BENEFITS AT A GLANCE

**PRODUCTIVITY** Hundreds of operator studies demonstrate that cycle time improves by 10% to 40%

**PRECISION** Accurate load placement is simple because operators focus on positioning rather than swing correction

**SAFETY** Load sway prevention reduces risk of equipment damage and personal injury

**SERVICE LIFE** Maintenance costs and downtime are reduced by decreasing mechanical and structural stress

**PERSONNEL** Novice operators perform as well as experienced counter parts, reducing the need for extensive training

## FEATURES AT A GLANCE

**SWAY SUPPRESSION** over entire hoist range, even with complicated rigging configurations

**SENSORLESS** technology does not require encoders, zone sensors, or other length measurement

**SEAMLESS** integration into existing hardware platform. 1-Day installation time, typical

**SIMPLE** graphical configuration software aids setup and commissioning

**COMPATIBLE** with existing VFDs, radio and tethered pendants with continuous or multi-step functionality

## CASE STUDY

Boeing, a world-wide manufacturer of aircrafts, implemented Expert Operator technology at their St. Louis assembly plant, where cranes are used extensively for production.

Boeing conducted an independent study to assess the benefits of the technology. Four operators drove cranes with and without the technology installed.

Expert Operator reduced payload collisions by 94%.

**“made it a lot easier”**  
-operator 1 (experienced)

**“it was easier to anticipate stopping”**  
-operator 2 (novice)

**“incredible, quickly builds confidence”**  
-operator 3 (crane operator trainer)

**“it felt much safer”**  
-operator 4 (novice)

## SPECIFICATIONS

Control Input	2-5 Speed multi-step, discrete*
Control Output	Uni-polar analog. 0 – 10 VDC. 2x discrete, direction Uni-polar analog. 4 – 20 mA. 2x discrete, direction Uni-polar analog. 0 – 20 mA. 2x discrete, direction Bi-polar analog. ±10 VDC. 1x discrete, run
Auxiliary Input Req.	2x discrete*
Temperature Range	0° – 60° Celsius**
Relative Humidity	10% – 95% ***
Electrical Supply	120/230 VAC, 50 Hz or 60-Hz
Enclosure	NEMA 12. Hinged wall mount. 14x12x6 (in), 305x356x152 (mm), (HxWxD)
* Discrete input signal accommodation: 120/230 VAC, 24 VDC, or 48 VDC	
** -25° – 60° Celsius available upon request	
*** 5%° – 95% available upon request	
Order Description	EO-0311-12 (120/230 VAC Control Input) EO-0311-24 (24 VDC Control Input) EO-0311-48 (48 VDC Control Input)