

## Tower Cranes Anti-Collision, Boundary and Zone Protection System

### Wireless 1 Minute Uploading

- Changing of the crane's new increased height within a minute.
- Adding more cranes to the same site will not affect other cranes operation.
- Changing of stopping distance and etc.
- Track extension

### Contactless Magnetic Angle Sensor

- Highly accurate! Reduces installation time and maintenance free.
- No mechanical contact compared to the use of mechanical gear coupling to measure the rotation of the crane's slewing swing angle.

### Self-diagnostic Test Every 2 Seconds

- Any error would be shown on the monitor in front of the crane operator. He can then inform his supervisor to seek the service personnel's attention immediately.
- System error, crane non operational safety feature. Disallowing unsafe crane operations to hamper the overall anti collision protection within the same site.

### Autonomous Operation

- Allows all cranes in the same anti-collision control zone to work autonomously but maintaining real-time interactive movements control with all the other cranes.
- During overtime and maintenance work, TAC-3000 allows those cranes not in operation to power down while allowing the operating cranes to maintain the anti-collision and zone protection functions. Systems without this capability would require all cranes to be powered up in order to maintain their anti-collision functions or by by-passing the system for the operating cranes.

### Pre-installation & Commissioning Preparation

Allow basic and commonly ready crane data to be input in advance to minimize commissioning time on site.

- Digitizing site plan / layout with crane's location
- Crane's dimension and height etc.

### Dual processors Central Processing Unit

Dual processors Central Processing Unit combined with superior embedded software that computes the anti-collision and protection functions flawlessly and reliably in real-time.

### 128-bit Data Encryption

128-bit data encryption incorporated into software with a USB dongle and together with the main CPU, builds a high security measure for the wireless upload.

### Anti-tampering Function

Prevents unauthorized practice

### Easy Installation

Requires only about 1 to 1½ days for 2 or 3 crane installations and commissioning.

### Lightning Surge Isolator

- Protect and minimize the electronics equipment from damages by lightning strikes.
- Minimize down-time.

### Radio System

Radio system is a special designed mesh radio with high bandwidth transceiver that can handle very large volume of data for transmission in a very much shorter time.