



Laser-View Technologies

Smart non-contact measurement solutions for industry

CRANE SENTRY®



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www.laser-view.com

What makes Crane Sentry® Jr. better?

Performance

- ▶ <1 in accuracy
- ▶ Indoor/outdoor use
- ▶ Up to 164 ft (50 m) range
- ▶ 3 Hz measuring rate



Configuration

- ▶ Plug & play set up
- ▶ Simple touch screen
- ▶ Teach or enter set points
- ▶ 3 configurable outputs/laser



Features

- ▶ Connects 2 lasers
- ▶ Class II eye safe visible laser
- ▶ Modular, versatile system
- ▶ No reflector needed



Installation/Maintenance

- ▶ IP 65 protection
- ▶ Low maintenance
- ▶ Quick aim & set installation
- ▶ Error code troubleshooting





CRANE SENTRY JR LASER COLLISION MONITORING SYSTEM

Laser Collision Monitor Controller model CR6202

- ▶ Connects as many as 2 Dimetix laser distance sensors
- ▶ Program set points with simple TEACH button or key in values
- ▶ Available operating modes:
 - Distance minimum/maximum
 - Crane to wall or crane to crane
- ▶ Three configurable outputs per laser; six total outputs for 2 laser configuration
- ▶ Simple color touch screen shows set points, live readings, and error codes
- ▶ 110 VAC/220 VAC single phase power required; laser powered through control box
- ▶ Polycarbonate wall mount sealed enclosure with clear window



Laser Specifications	Imperial	Metric
Measuring range	~1.64 ft to 164 ft	~0.5 m to 50 m
Accuracy @ 2σ (10 Hz)	± 0.125 in	± 3 mm
Repeatability typ.	± 0.019 in	± 0.5 mm
Spot diameter (164 ft./50 m)	0.71 in x 0.32 in	18 mm x 8 mm
Operating temperature	-14°F to 122°F	-10 °C to 50 °C
Max. measuring rate	3 Hz	
Protection rating	IP65	
Laser body	Rugged aluminum construction	
Laser availability (spares)	Stock in USA	
User setup	<ul style="list-style-type: none"> ▶ Graphical touch screen interface ▶ User can set up 3 positions per laser ▶ 6 total positions with 2 lasers ▶ User can set or teach positions 	
Number of sensors	Up to 2	
Hysteresis	User settable	
Visible laser	Yes	
Target	Natural surface	

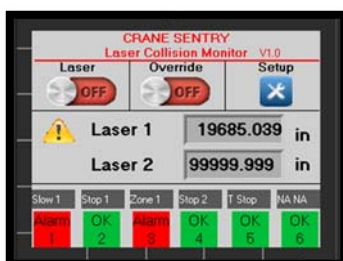


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Crane Sentry Jr. systems feature Dimetix laser distance sensors (Mfg.: Dimetix AG)

- ▶ Measurement accuracy of <1 in at speeds up to 3 Hz
- ▶ Class II visible laser for safe use
- ▶ Up to 164 ft (50 m) range
- ▶ Indoor / outdoor use

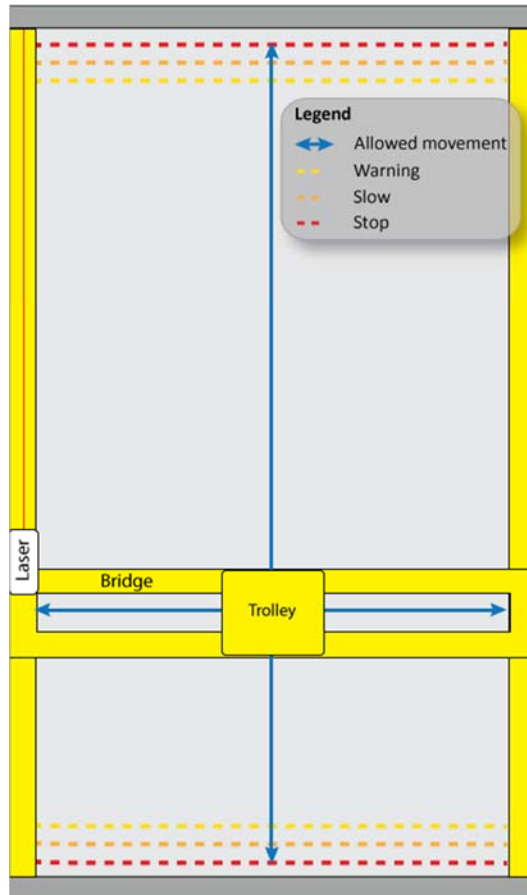




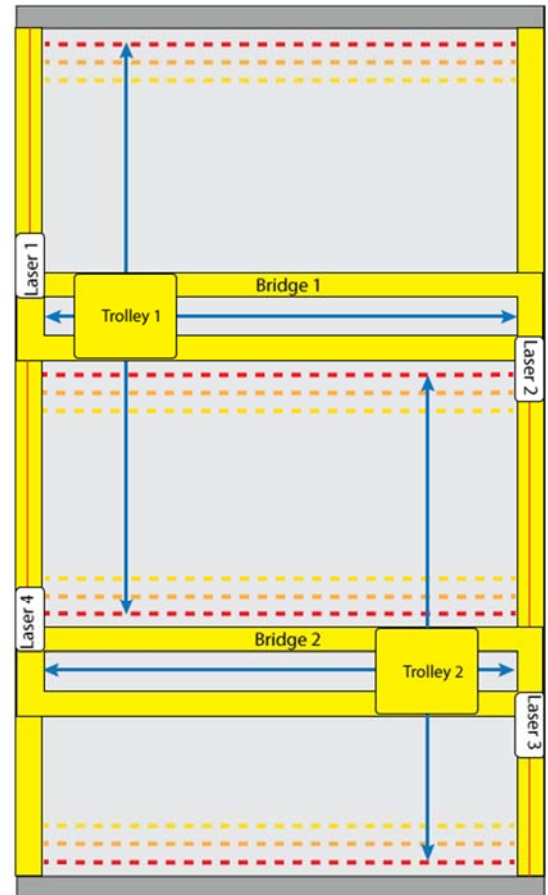
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CRANE SENTRY JR SYSTEM LAYOUT EXAMPLES



Distance minimum/maximum. Using one laser aiming at a fixed target, Crane Sentry Jr controls forward and reverse motion. When crane approaches end limits, the slow speed and end stop alarms are triggered.



Crane to wall or crane to crane. One laser aims at a fixed target, the other laser aims at the second crane. Similar to the first example, when crane approaches a set point limit, the slow speed and stop alarms are triggered.



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CRANE SENTRY JR LASER COLLISION MONITORING SYSTEM



- ▶ (1) Crane Sentry Jr controller
- ▶ (1) or (2) Dimetix laser distance sensor(s)
- ▶ (1) or (2) laser cable sealed connector(s)
- ▶ (1) or (2) two axis alignment bracket(s)



CRANE SENTRY JR CONTROLLER SPECIFICATIONS

Control Specifications	
General	
Power Requirement	0.45 A @ 110 VAC (1.36 A @ 110 VAC for heated lasers)
Serial Inputs	Two RS232 inputs for two Dimetix lasers (19200,7,E,1)
Digital Inputs	
Number of Inputs	7 pnp (source) inputs to override alarms
Input Voltage	17-28.8 VDC; 24 VDC nominal
Input Current	8mA @ 24 VDC
Relay Outputs	
Number of Outputs	8
Type	SPST-NO (Form A)
Life Expectancy	100k operations at maximum load
Rated Current	3A max per output, 8A max per common (2 commons/unit)
Rated Voltage	250 VAC, 30 VDC
Graphic Display	
Type	TFT, LCD display (3.5"; 320 x 240 pixels)
Touchscreen	Resistive, analog
Environmental	
Operating Temp (Control Box)	0°C to 50°C; options for heated and cooled enclosure
Storage Temp	-20°C to 60°C
PLC memory battery backup	7 years typical at 25°C
Expected Life time	5 to 10 years at 25°C
Ingress Protection	IP65/66/NEMA4x
Enclosure Material	Polycarbonate

LOOKING FOR MORE FEATURES AND OPTIONS?

The original Crane Sentry® includes added functions and features:

- ▶ **Additional operation modes**
 - Restricted zone mode
 - Skew mode (requires 2 lasers)
- ▶ **Up to 1640 ft (500 m) range**
- ▶ **Up to 20 Hz max measuring rate**
- ▶ **Optional 8 amp relays**
- ▶ **Heating and cooling options**
- ▶ **No reflector up to 213 ft (65m)**



Please **contact** Laser-View Technologies to request a quote or learn more about the Crane Sentry Jr laser collision monitoring system.

- ▶ **Complete modular system includes up to 2 lasers**
- ▶ **Quick aim & set installation, versatile application**
- ▶ **Intuitive operation, simple troubleshooting**
- ▶ **Rugged industrial package, low maintenance**
- ▶ **Indoor/outdoor operation**
- ▶ **Non-contact, eye-safe laser measurement**



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