

CRANE AUTOMATION AT STEEL WORKSHOP

ANTI COLLISION

The Radar based DISTER[®] is used for anticollision system between Overhead Bridge cranes travelling on the same runway. The Micro wave sensors detect the opposite cranes and allow 2 distance programs: one for slow down the crane, one for stop.



Arck Sensor products will:

 Increase safety for materials and equipment

Accurate and Robust:

The patented sensor technology, its specific design and ruggedness are approved for severe environments; ambient light immunity.

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ANTI-COLLISION



Arck Sensor is a French company specialized in optical measurement in harsh industrial environments. Our mission is to provide the most robust and accurate sensors for container ports and heavy industries in the frame of automation and safety concerns.

Since 1998, Arck Sensor has been constantly improving its technology to deliver long term solutions for major container terminals and metal industry companies, worldwide.

OUR EXPERTISE IN CRANE AUTOMATION AT STEEL WORKSHOP

Load Movement Measurement

Area Restriction

- Anti-Collision



System presentation

DISTER[®] is a Radar working in the frequency range from 24,000 – 24,250 GHz. The antenna characteristics is 11° (+/- 5,5°) vertical and horizontal. The device is able to detect moving and stationary objects up to a distance

from 40m. The adjustable distance is in 1m steps from 4 to 40m.

How does it work?

The radar has a self test checking routine. After power on and during operation this program will check all functions of the system. Failures will be reported. DISTER[®] has three opencollectors, one for slow down the crane, one for stop. The third output can be used as open collector or as analog output. The programming tool allows the adjustments of the following parameters: - Sensitivity

- Sensitivity
- Polarity of outputs
- Threshold for slowing distance
- Threshold for stop distance.

DISTER[®] must not be used for personal safety or emergency off functions



Option:

You can increase your level of safety using a relaying system between the cranes in order to create a redundancy . Working principle for a Class 3 safety system (following norms EN1050 and EN954-1) – Redundancy on E and S:



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