

CMK ELECTRO POWER PVT LTD.

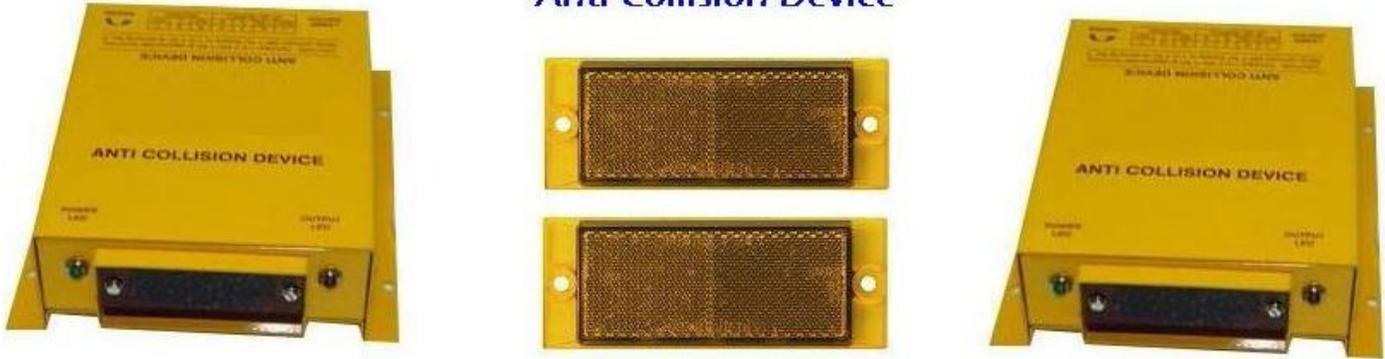
"Cmk house" Sorathiya park, street-2, Nr: Bapashitaram Chowk, Mavdi Bypass Road, Rajkot-360004 (Gujarat). Contact : +91-8000617876/9510454988 • E-mail : cmk.electro@gmail.com

GST TIN : 24091806307, CST TIN: 24591806307 ECC NO: AAEECC8908QEM001

Complete Solution for Electrical, Electronics & Material Handling Equipments

ANTI COLLISION DEVICE

Anti Collision Device



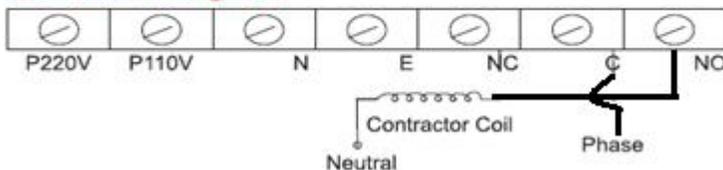
One Set

The Anti-collision system of CMK ELECTROPOWER PVT LTD is a safety device to avoid collision of two electric overhead travelling cranes working on the same rails.

TERMINAL STRIP CONNECTIONS :

- | | |
|--|--|
| 1. P - Phase 220V AC | } CAUTION : Connect 110V / 220V AC at appropriate terminals. Never connect 220V AC supply to 110V AC terminal No. 2 |
| 2. P - Phase 110V AC | |
| 3. N - Neutral | |
| 4. E - Earth | |
| 5. NC - OUTPUT - Normally closed contact | |
| 6. C - OUTPUT - Common | |
| 7. NO - OUTPUT - Normally open contact | |

Connection Diagram :-



For one pair of cranes one sets of anti-collision systems are required (see above image)

Each set consists of an Emitter/sensor module and a Reflector.

The System works on the principle of retro-reflective infrared waves. It consists of an emitter and sensor module and a special reflector. The emitter emits the infrared waves in the direction of the reflector. The reflector reflects these infrared waves back to the sensor. The sensor senses the presence of these reflected infrared waves and activities an alarm signal and stops/reduces the speed of the cranes.

Thus if the two cranes are away from each other then the reflected waves will not reach the sensor and the cranes operate normally. The sensing distance is adjustable between 3 to 10 meters. The anti collision system is specially designed for the crane application and is suitable for the continuous duty.

An ISO 9001:2008 Certified Company

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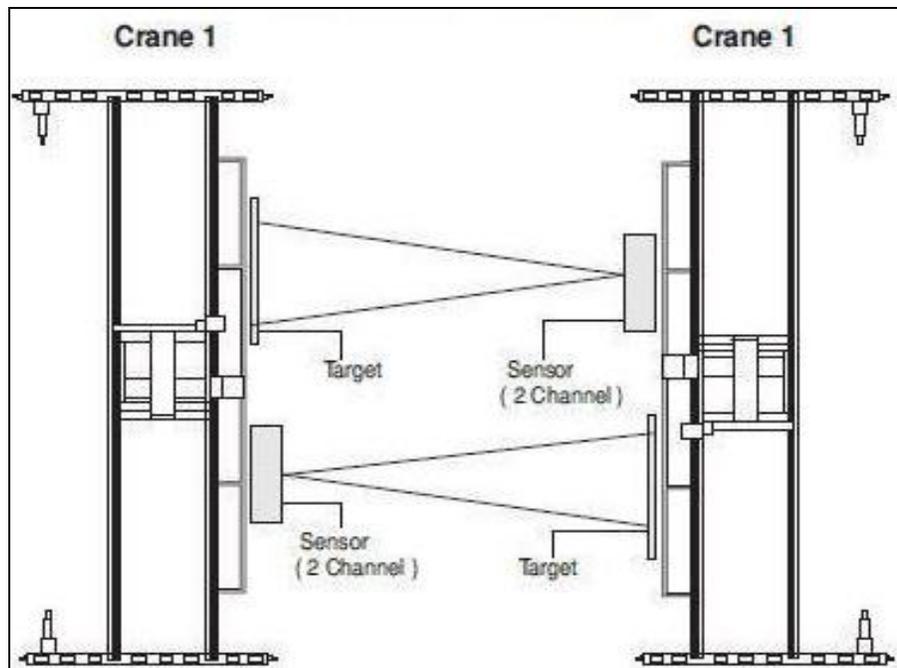
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Installation Procedure:

- 1) Mount the Transmitter/Emitter Unit (control Unit) on one crane as shown in the below figure.
- 2) Connect power supply as shown in the connection diagram.
- 3) Press the laser switch and mark the place for the reflector. Mount the Reflector on the second crane.
- 4) Similarly follow the procedure to mount the control unit and Reflector for the other crane.
- 5) Connect the relay contact as shown in the figure. The anti-collision device works like an LT limit switch.



Range Adjustment:

1. When the two cranes are out of the range of the anti-collision device, the relay contact will remain ON.
2. Keep the Required Distance between the two cranes at which the cranes will stop. Rotate the Potentiometer to adjust the Range.
3. Clockwise Rotation of this Pot increases the range whereas anticlockwise rotation decreases it.

Note: For Effective range regularly clean the reflector and front acrylic cover of control unit.