

Case Study – Railways & Metro

Customer: Indian Railway & Metro

Application: Viaduct & Pit Lightning Junction Box

Customer pain point

- The customer faced several challenges in selecting the right junction box solution.
- Difficulty in finding good quality polycarbonate (PC) enclosures at a competitive price
- Requirement for customized solutions with shorter lead time to meet project deadlines
- Concerns about durability and performance in harsh outdoor environments
- Requirement for proper IP protection at cable entry points.

Requirement:

- Protection against dust, water, and harsh outdoor conditions
- Resistance to UV radiation, corrosion, and impact
- Safe and secure cable termination system
- Suitable for installation in exposed and vibration-prone environments



Solution Supplied

- Polycarbonate Enclosure (IP67 rated)
- Equipped with terminal blocks for organized wiring with Integrated earthing provision for safety.
- Polyamide Cable Glands (IP68 rated) for secure cable entry & exit
- High-quality polycarbonate material ensuring UV resistance and durability

Benefits Achieved

- Superior Protection: IP67 enclosure and IP68 glands ensured complete protection against dust and water.
- Enhanced Safety: Proper earthing reduced electrical hazards
- Long Service Life: Polycarbonate body provided excellent resistance to UV, corrosion, and impact
- Reliable Performance: Maintained performance in extreme outdoor and high-vibration conditions
- Ease of Installation: Pre-fitted terminals and glands reduced installation time and effort
- Low Maintenance: Durable construction minimized maintenance requirements

Conclusion

The supplied junction box solution successfully met the stringent requirements of railway and metro lighting systems. With its high protection rating, durable construction, and integrated safety features, it ensured reliable and long-term performance in demanding outdoor environments.

