

# APC Control Unit

by Unipart Rail



As part of an integrated control system, the automatic control unit manages a received signal when the vehicle approaches and exits the neutral section of the track, through the use of track mounted magnets and the vehicle mounted APC receiver. The automatic controller unit will issue a control signal to either trip the on-board circuit breaker upon entering and close upon leaving the neutral section. This is done to ensure the integrity of the power network distribution system either side of the neutral section and prevent possible damage to the vehicle. The automatic control unit can be universally mounted within the vehicle cab or underneath the vehicle.

### Railway Standards Compliancy

- EN 50155 Electronic Equipment used on rolling stock for railway applications.
- IEC 61373 Rolling Stock equipment – Shock and Vibration test.
- EN 50121-3-2 Electromagnetic compatibility for railway applications.
- BS EN 45545 Railway applications. Fire protection on railway vehicles.
- IEC 60529 European standard describes the protection class (IP-code).
- NR/L2/ELP/21088 General Maintenance Parameters for Overhead Line Electrification Equipment.
- NR/GN/ELP/27010 Business Process Document – Guidance for compatibility between electric trains and electrification systems Issue 2 December 2005.

Characteristics	
<b>Power Supply</b>	110vDC
<b>Circuit breaker output</b>	Normally closed and normally open volt free contacts, rated 110v/1A DC
<b>Protection</b>	IEC 60529, IP65
<b>Connectors</b>	MIL-C-5015 with a Contact layout 22-14 with 16 gauge connectors.
<b>On Train Monitoring Recorder (OTMR) output</b>	1. Circuit breaker output (high during power changeover)
	2. Receiver 'South' output (high when a receiver 'South' input is present)
<b>Status LEDs</b>	1. Circuit breaker output (illuminated during power changeover)
<b>Rated OTMR output</b>	2. No circuit breaker output (illuminated during normal running)
	3. OTMR circuit breaker output
	4. OTMR Receiver 'South' output
	5. Receiver 'South' input
	6. Receiver 'North' input
	Volt free contacts rated at 110V and 50mA DC
<b>Operating Temperature</b>	-25°C - 70°C
<b>Shock &amp; Vibration</b>	IEC 61373, Category I, Class B Body mounted
<b>Outer Material</b>	Cast Aluminium, painted to meet BS476 Part 7 Class I for surface spread of flame
<b>Weight</b>	2.5 kg
<b>Mounting</b>	4 x M6 Threaded inserts, Mounting inside vehicle cab or integrated into an equipment rack

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