

Location Transponder

AT5831

The AT5831 Location Transponder works seamlessly with TransCore's AI1831 Interrogator to provide data to a train's onboard Absolute Positioning System (APRS).

Packaged in a weatherproof Xenoy UV-stabilized case, this transponder is designed to function in harsh and fire-sensitive environments.

The AT5831 Location Transponder is mounted to the trackbed. Customer-specified fixed data is stored in the transponder. The AI1831 Location Interrogator, which is mounted to the train's undercarriage, retrieves the stored information and updates the train's host computer system.

The AT5831 Location Transponder receives power from the AI1831 Interrogator through an induction link as the transponder is read, eliminating the need for batteries.



Features

- ▶ Compatible with AI1831 Location Interrogator and AP4431 Programmer/Tester
- ▶ No battery – powered through induction coupling
- ▶ Weatherproof and UV-stabilized case designed for harsh and fire-sensitive environments

Applications

- ▶ Automatic train control
- ▶ Emergency braking systems
- ▶ Positive train control
- ▶ Moving block train control

AT5831 Location Transponder

COMMUNICATIONS

Frequency Range

2445 to 2455 MHz

15 MHz, 125 kHz

Polarization

Length parallel to sleeper (perpendicular to rail)

SOFTWARE FEATURES

Data Memory

Stores up to 768 bits

POWER REQUIREMENTS

Power Source

125 kHz Inductive link (no battery)

PHYSICAL

Dimensions

Size: 32 x 15 x 6 cm (12.6 x 5.9 x 2.4 in)

Weight: 1.5 kg (3.4 lbs)

Case Material

Weatherproof Xenoy, UV-stabilized

Meets LUL flammability requirements

Mounting Surface

Non-metallic or metallic

Mounting Method

Mounts directly to any flat trackbed surface using M12 x 30 mm (0.47 x 1.18 in) or equivalent bolts

ENVIRONMENTAL

Operating Temperature

-30°C to +70°C (-22°F to +158°F)

Humidity

95% condensing

Shock and Vibration

Designed for trackbed environment

STANDARDS

Meets London Underground Limited (LUL) flammability and nontoxic smoke emissions requirements

British Railways Board/Railway Industry Association RIA13 and RIA20

IP67 Dust Ingress/Water Immersion (1m of immersion)

PROGRAMMING

Can be programmed to customer specifications at the factory, or programmed by the user in the field, using TransCore's AP4431 Programmer/Tester

OPTIONS

Custom Colors

Contact TransCore Sales Support for color options

Laser Etch

Customer specified data can be laser-etched into transponder case

ACCESSORIES

AP4431 Programmer/Tester

Contains serial interface logic for connection to host PC

AP4431 Programmer Package

Turnkey field programming package that combines laptop PC with AP4431 programmer and TransCore's APR programming software

MODEL PART NUMBER

13-5831-NNN

For more information:

Sales Support

800.923.4824

Technical Support

505.856.8007

transcore.com

