

AT5117 Externally Powered Signal Tag

Features

- ▶ Compliant with ATA/ISO/AAR compatible reader systems
- ▶ Harsh environment durability
- ▶ Unlimited service life
- ▶ Powered by AC or DC
- ▶ Half-frame tag with 10 six-bit characters
- ▶ Weather-resistant tag case



The AT5117 Externally Powered Signal Tag, also called the Signal Transponder, is a single radio-frequency (RF), contact-programmable, externally powered field disturbance device designed for rail traffic monitoring.

The tag connects to a rail signal light via an interface cable and can be used as a backup system to verify the status of the signal light.

The tag can be powered with AC or DC power supplies. The AT5117 tag comes with a 3-foot (0.9-m), 2-wire interface cable for connecting to a power supply. The conductor leads are left bare for connecting to a terminal strip, microcomputer, or power supply.

AT5117 Externally Powered Signal Tag

COMMUNICATIONS

Frequency Range

902 to 928 MHz

Typical Working Range

Determined by reader

Polarization

Parallel with longer side

TIMING

On Timing

The Signal Tag is functional and ready for interrogation by the reader within 60 ms of receiving external power. See Power Source for power requirements.

Off Timing

After the Signal Tag has been powered up for 10 seconds or more, and the power is discontinued, the tag is functional and can be interrogated by the reader for an additional 170 ms to 320 ms. See Power Source for power requirements.

POWER REQUIREMENTS

Power Source

Externally powered through wire interface

AC: 5V to 10V RMS at 50-60 Hz

DC: 5V to 24V at £5 mA

LIFE EXPECTANCY

Service Life

Unlimited

PHYSICAL

Dimensions

Size: 9.3 x 2.4 x 0.8 in. (23.6 x 6.1 x 2 cm)

Weight: 7.9 oz (225 g) including cable

Case Material

Weather-resistant, polycarbonate, UV-stabilized case that is sealed

Mounting Surface

Fastener Mounting: Can be mounted directly to any flat, smooth metal surface using bolts, screws, or blind rivets.

Backplate Mounting: If the mounting surface is nonmetallic or is irregular, the tag must be mounted to a metal backplate that is attached to the surface where the tag is to be mounted.

Tape Mounting: For applications where the integrity of the mounting surface cannot be compromised, the tag can be mounted on a flat, smooth surface using double-sided tape.

Mounting Method

Bolts, rivets, screws, TIR fasteners, or double-sided tape

Interface Cable

AT5117 Externally Powered Signal Tag comes hardwired with a jacketed, two-conductor, twisted-pair 3-foot (0.9-m) interface cable.

ENVIRONMENTAL

Operating Temperature

-40°F to +158°F (-40°C to +70°C)

Storage Temperature

-67°F to +185°F (-55°C to +85°C)

Humidity

0 to 95% noncondensing @86°F (30°C) during operation

Vibration Tolerance

5 to 20 Hz, sine wave, 0.2-inch peak-to-peak

20 to 200 Hz, 4.2 G peak

Shock Tolerance

10-G terminal peak sawtooth, 11-ms duration, 3 axes

OPTIONS

Labeling

Identification information and/or custom logos or organization name can be marked on tag case. Model number and ID number can be indelibly marked on tag case top surface.

ACCESSORIES

Mounting Tape

Double-sided polyurethane foam tape is available in 36-yard (33-m) rolls or tag-length segments.

For more information:

Call **800.923.4824** (Sales Support) **505.856.8007** (Technical Support)

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