



TDA-205 - Interface Adapter for ZERO Speed Wheel Detectors:

Zero Speed wheel detection is the most advanced technology for rail vehicle detection available today. The newer Zero Speed detection sensor design uses active signal processing to generate a constant detection of rail vehicle wheels moving from 0 mph to an excess of 120 mph. Using the other method of magnetic (passive) technology sensors depends on wheel movement for detection. The passive method can lead to missed axles and inaccurate counts on low speed moves. Passive sensors are also susceptible to false axle events caused by increased EMF noise generated by newer locomotives. In contrast, the zero speed detectors are not affected by low speeds and have extreme immunity to EMF noise transmissions.



TDA-205 Includes adjustment and indicators for wheel presence, sensor null and sensor reset.

Why use a TDA-205? Comet developed the TDA-205 to **improve detection operations** by providing more accurate axle counts, **minimize upgrade costs** by retaining legacy system investments, and **mitigate safety risks** by reducing track exposure with wayside calibration.

How? The TDA-205 interfaces directly between the Frauscher Zero Speed Wheel Detectors and wayside systems. Our interface adapter processes the Zero speed sensor output signal to emulate a Magnetic (passive) based Wheel Detector signal into any legacy wayside system – AEI, HBD, HWD, etc. This upgrade protects legacy system investments by taking advantage of Zero Speed operation without the need to replace a complete wayside system. With the TDA205 installed in the off-track equipment enclosure and connected to a Frauscher detector, calibration of the sensor is accomplished from the enclosure without fouling the track.

KEY Features:

- ✓ Direct interface for Frauscher (Single and Dual) segment detectors
- ✓ **Dual Outputs to support 2 independent wayside systems simultaneously such as HBD, HWD, AEI, etc.**
- ✓ Manual initiation of Frauscher Sensor Calibration off track (No need to foul the rail)
- ✓ Balance Indication / Wheel Detector Activity LEDs
- ✓ Manual Null of A and B Segments
- ✓ Sensor failure detection
- ✓ Supports Speeds over 120MPH
- ✓ Enhanced wheel detector signal filtering to virtually eliminate axle count errors
- ✓ 12/24 Volt DC operation



TDA-205 - Typical Configurations

