

Question: What advantages does in motion weighing offer over static weighing of railcars?

Answer: In motion weighing provides productivity improvement and increased safety as you are weighing cars without having to uncouple them or stop them on a static scale. Static weighing requires uncoupling of railcars to meet legal for trade requirements.

Question: What is the maximum distance from the rail scale to the 9411E controller?

Answer: The distance is limited to the maximum load cell cable length. For non-hazardous applications, the maximum distance is approximately 900'.

Question: Can CIM scales and the 9411E controller be used in hazardous areas?

Answer: The METTLER TOLEDO 7260 CIM scale can be configured for use in Division 2 hazardous areas. However, the 9411E controller must be placed in a non-hazardous area. The maximum MTX load cell cable length for hazardous areas is 400'. Longer distances are possible when using analog load cells. Contact METTLER TOLEDO for further details. An intrinsically safe barrier, METTLER TOLEDO part # 90657400A, is required.

Question: Can the 9411E controller be remotely configured and controlled?

Answer: You can connect to the 9411E controller via a modem or wireless Ethernet link (using a serial to Ethernet converter) and using custom software, to remotely extract train records. The 9411E controller's configuration can be also be remotely performed via communication with a host PC. Contact METTLER TOLEDO for further details. In addition, scale diagnostics can be performed remotely via the capabilities of the JAGXTREME terminal, which is part of the 9411E controller.

Question: What type and format of data can the 9411E controller output?

Answer: Train reports consisting of train numbers, sequence numbers, car numbers, gross weights, speed, date, and time can be communicated via the RS232 or RS422 host port to a host computer. Test reports showing summary in motion weight data versus entered static weights and compliance with H-44 requirements can also be communicated. A RS 232 printer port is provided for local printed outputs.

Question: How is the 9411E controller connected to AEI (automatic equipment identification) devices?

Answer: An auxiliary serial port is available that enables the 9411E controller to receive a serial string of data from an AEI tag reader, which is located near the scale. The tag data is added to the car weight data record.

Question: What factors determine the maximum speed for weighing railcars within HB-44 accuracy requirements?

Answer: The most important factors are:

- Scale and approach, which should be installed to meet AAR Handbook requirements.
- Railcars (wheels and couplers) that are in good condition so that there are no flat spots on the wheels or dragging brakes.
- A smooth train operation, in which there is no excess tension or compression at the couplers because of the train accelerating or decelerating as it crosses the scale.

- Weighing materials that are not of low viscosity require special consideration.
- For non-North American applications, widely varying axle-to-axle and axle-to-coupler spacing require special consideration.

Question: What OIML certifications do the 9411E and 7260CIM have?

Answer: The 9411E and 7260CIM have not been submitted for OIML certification, however, the JagXtreme complies with OIML, and customers have achieved OIML R106 Class 0.5 approval for individual cars, and Class 0.2 approval for trains at speeds up to 6 kmh.

Question: What factors need to be considered when dealing with applications in which trains reverse direction (rollback) during the weighing process?

Answer: Rollback during the weighing process typically only occurs in load-out operations such as you would find at coal mine operations. The 9411E controller's software detects when a train has reversed direction, interrupts the railcar weighing, and tracks the train's reverse movement. When the train has recovered (when it is back to its original position prior to when it reversed direction) the 9411E continues the weighing process. The wheel detector position is non-standard. Contact METTLER TOLEDO for further details. Maximum weighing speeds may be reduced. Load-out operations typically involve train speeds of less than 1 mph.

Question: Can the 9411E controller work in an unattended mode?

Answer: Yes, the 9411E controller can be set up to weigh automatically, or it can be configured to require an operator to press F1 before a train is weighed.

Question: Are traffic lights required when using the 9411E controller?

Answer: No. Traffic lights are optional. They can be used to give the train engineer a signal if he/she is approaching the scale at a higher than recommended weighing speed. A signal lamp can also be used to signal the engineer that one or more of the train's cars is over a maximum weight threshold.

Question: How many wheel detector sensors are required for CIM weighing using the 9411E controller?

Answer: Typically, four wheel detectors are required. However, if traffic lights for speed monitoring are used, six (single direction) or eight (dual direction) wheel detectors are required. With software modifications, it is possible to use only two wheel detectors, although maximum weighing speed may be reduced.

Question: Can other brands of wheel detectors be used?

Answer: Yes, provided that the wheel detector output provides a contact closure. The wheel detector should be designed for use in railcar applications.

Question: Can a 9411E controller be used to retrofit another brand of scale instrument?

Answer: Yes, the 9411E controller can be used with scales having either analog or digital load cells.

Question: What is the typical CIM weighbridge length?

Answer: The typical length is 12.5'. Longer weighbridges can be used for uncoupled weigh in motion applications, possibly allowing for weighing uncoupled railcars at higher speeds.

Question: What is the maximum recommended speed for crossing the CIM scale when cars are not being weighed?

Answer: In order to minimize scale wear and reduce maintenance requirements it is recommended that trains cross the scale at speeds no greater than 10 mph, whether they are being weighed or not being weighed.