



ENGINEERING SPECIFICATIONS

SnapStream Wireless Scale System for Inclusion with Vehicle Scale Specifications



INSTRUMENTATION:

The scale shall be equipped with a wireless Load Cell Management System capable of communicating wirelessly with a weight indicator display unit.

The wireless load cell management system shall be capable of operating with up to sixteen (16) strain gauge load cells.

The wireless load cell management system shall be listed on its own NTEP Certificate of Conformance and certified for use in Class III /IIIL applications with a N_{MAX} of 10,000 divisions.

The wireless load cell management system shall independently digitize the output of each load cell, identify each load cell allowing the display of the output of each load cell in the scale, assign independent calibration factors to each load cell and provide a total of all calibrated load cell inputs in a single load receiver.

The wireless load cell management system shall transmit load cell weight information wirelessly with a weight indicator display unit up to one mile away utilizing 802.15.4 Zigbee® protocol running at a frequency of 2.4 GHz.

The wireless load cell management system shall operate from a voltage of from 12 to 24 volts with a maximum current draw of 1 ampere. Power shall be supplied by either a 115 / 230 VAC power supply or from a solar panel and batteries.

The wireless load cell management system shall have a minimum sensitivity of 0.3 microvolts per scale division for commercial applications.

The wireless load cell management system shall have a minimum sample rate of 60 samples per second and allow the selection of other sample rates as desired.

The wireless load cell management system shall operate over a minimum temperature range of -25 to +40 degrees C (-13 to 104 degrees F).

The wireless load cell management system shall be housed in a single stainless steel box with a minimum environmental rating of NEMA 4X (IP65). The cover of the box shall be retained with manual snap closures. Screws are not allowed.

The wireless load cell management system shall provide a minimum of 12 VDC load cell excitation voltage with current capacity sufficient to power sixteen (16) 350-ohm strain gauge load cells.

The wireless load cell management system shall have a minimum internal resolution of 1 part in 16,777,216.

The wireless load cell management system shall be manufactured in the USA and shall be of the same manufacturer of the scale weighbridge, load cells and weight display to ensure compatibility among the modules comprising the complete scale.

The wireless load cell management system shall include diagnostic features that can be accessed from the weight indicator that will allow the display of individual load cell outputs and enable load cell faults to be quickly identified and isolated.

The wireless load cell management system shall be capable of operating with different models of weight indicator allowing the selection of display size and operating features required for the specific application.

The wireless load cell management system shall be a Cardinal SnapStream Wireless system or equivalent.