

# FAIRBANKS<sup>®</sup>

## S C A L E S



## 2000 SERIES WIM

### COUPLED WEIGH-IN-MOTION RAILROAD TRACK SCALE

The proven reliability of Fairbanks' 2000 Series Railroad Track Scale combined with coupled weigh-in-motion technology for accurate, expedited railroad car weighing.

# 2000 SERIES WIM

## COUPLED WEIGH-IN-MOTION RAILROAD TRACK SCALE

*Reduces weighing costs, increases operational safety and productivity!*

When using a static railroad car weighing process, it typically takes up to 10 minutes to uncouple and weigh each car, and additional personnel are required on site to manually oversee the work. Fairbanks 2000 Series Weigh-in-Motion Scale can complete the same weighing processes in a fraction of the time with no additional personnel, resulting in significant savings for train weighing operations.

### HOW DOES THE 2000 SERIES WIM SCALE WORK?

As a train moves over the modular, above-ground 2000 Series WIM Scale at 3 to 4 mph, wheel sensors and RFID tag readers go into action to activate the scale, capture the railroad car weight, record the date and time, and scan the railroad car ID tag. The entire process is accomplished in seconds, then repeats for the next car, then the next, and so on, until all the train's cars have been processed.

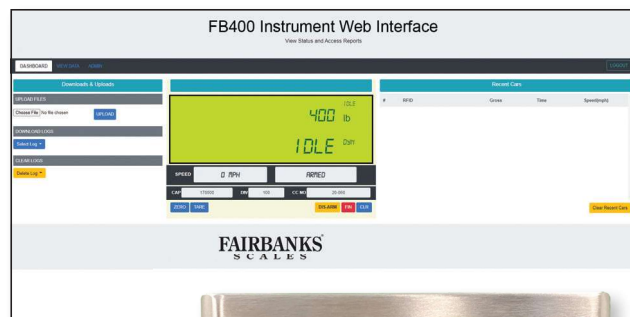
### EVERYTHING YOU NEED FOR IN-MOTION RAIL WEIGHING

The 2000 Series WIM Scale comes with all the components needed to dynamically, and more efficiently, process trains and manage railroad car weight data. Here's what's included:

- NTEP approved, 85 ton capacity weigh-in-motion scale platform
- NTEP and AAR approved Fairbanks FB400 scale instrument with integrated web interface
- Two (2) TransCore® RFID tag readers
- Two (2) wheel sensors
- Two (2) pole kits

### FB400 INSTRUMENT WITH USER INTERFACE

Each 2000 Series WIM Scale is shipped with a Fairbanks FB400 Instrument that meets all NTEP and AAR requirements. The FB400 is easy to operate and continuously reports through a user-friendly PC web interface that features customizable user preferences. Scale data integration into most customer ERP systems is possible. Individual ERP compatibility is explored and determined during the project's discovery and quoting process.



*Through the FB400's user interface, settings and reporting options can be customized to maximize efficiencies in any operation.*



*The FB400 features a stainless steel NEMA 4X enclosure with desktop/wall mount bracket.*





The weigh-in-motion system includes two heavy-duty aluminum pole kits which are installed adjacent to the rail line, on either side of the scale. Each pole is used to position a TransCore® RFID railroad car tag reader (top of pole facing train) and support two secure aluminum cabinets that store the power supply and communication components for the attached tag reader and system wheel sensors.

### **CAN I RETROFIT AN EXISTING SCALE WITH WIM TECHNOLOGY?**

Fairbanks has the unique ability to retrofit an existing scale (static or weigh-in-motion) with 2000 Series WIM technology and retain the AAR/NTEP legal-for-trade status of the scale. No other weighing solutions provider has the technology to offer this service. Find out if a scale conversion is right for your operation. Call Fairbanks and one of our scale professionals will inspect your existing scale and rail, and prepare a conversion package that addresses only what you need, rather than taking a “one-size-fits-all” approach.

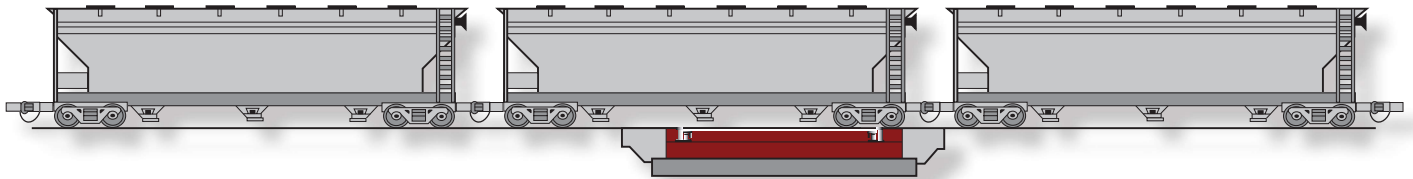
### **STURDY, MODULAR CONSTRUCTION**

By anchoring the rail directly on steel I-beam girders, the 2000 Series WIM Scale offers a sturdier platform than can be achieved by unsupported rail-spanning cross beams. Coupling the sturdy design with checking, to keep the platform square, the 2000 Series is a solid floating platform. The scale's decks are fully covered with removable steel plates for safety and to ensure fully-protected and fully-accessible load cells and electronics. Like all Fairbanks designs, the 2000 Series WIM features an open bottom that eliminates corrosion caused by trapped moisture.

### **REDUCED MAINTENANCE AND OPERATIONAL COSTS**

Eliminating the underground pit from the scale design has tremendous advantages for rail scale operators looking to safely save time and money. Confined space regulations don't apply to the 2000 Series WIM, so up-time is rarely interrupted. Standard maintenance is safely, quickly, and easily accomplished above grade.

## **2000 Series In-Motion Coupled Railroad Car Weighing**



Unlike static scale operations in which railroad cars have to be uncoupled prior to weighing, Fairbanks 2000 Series WIM Scale captures the precise weight of individual cars while the freight train is rolling over the scale at a pace of 3 to 4 mph. This in-motion system eliminates the time-consuming work of uncoupling and recoupling each car, as well as potential dangers to the personnel needed on site to do the manual work.

### **ACCURATE, RELIABLE ROCKER COLUMN LOAD CELLS**

Think for a moment about the extraordinary mass and intense shocks produced by repetitive rail car traffic. The unrelenting intensity of rail weighing applications makes it imperative for track scale customers to rely on a time-tested and field-proven load cell, like Fairbanks' 110,000 pound capacity rocker column.

The heart of the 2000 Series WIM Railroad Track Scale, this robust, fully-electronic load cell has delivered reliable, accurate weighments for decades in the most demanding rail applications. It features air-tight moisture protection, an industry leading IP69K enclosure rating, and Armour Guard stainless cable jacketing to protect its conductors.



Fairbanks' heavy-duty rail scale load cell features a true hermetic seal at its cable entry point and is constructed of 100 percent stainless steel.

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## COUPLED WEIGH-IN-MOTION RAILROAD TRACK SCALE

Weighing Solutions for the World Since 1830

Fairbanks.com

### SCALE SPECIFICATIONS

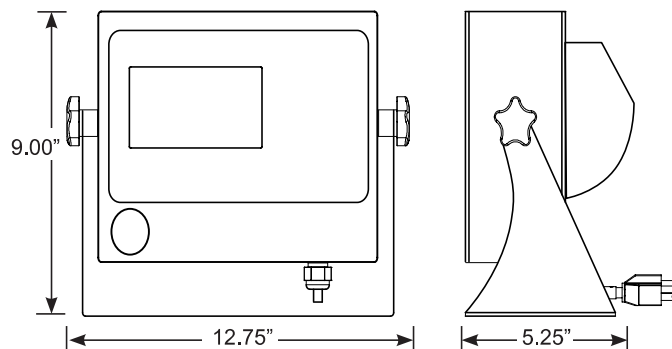
Sectional capacity . . . . . 85 tons per section  
 Nominal capacity . . . . . 85 tons  
 Module construction . . . . . Welded steel I-beam, open bottom understructure  
 Load cell data:  
 Capacity . . . . . 110,000 lbs  
 Type . . . . . Rocker column  
 Material . . . . . Stainless steel  
 Protection . . . . . IP69K complete hermetic seal with glass-to-metal header at cable entry  
 Resistance . . . . . 1,000 ohms  
 Output . . . . . 2.0 mV/V  
 Approvals . . . . . NTEP CC# 97-078, Factory Mutual  
 Shipping weight . . . . . 5,500 lbs per module  
 Approaches . . . . . 75' minimum concrete, each end  
 Design rating . . . . . Cooper E-80 loading  
 Included with each  
 WIM scale purchase . . . . . FB400 Instrument with integrated web interface  
     Two (2) TransCore® RFID tag readers  
     Two (2) wheel sensors  
     Two (2) pole kits  
 Approval . . . . . NTEP CC# 01-016

### FB400 INSTRUMENT SPECIFICATIONS

Enclosure . . . . . Stainless steel desktop/wall mount NEMA 4X  
 Processor . . . . . 32-bit 400 MHz  
 Memory . . . . . 64 MB SDRAM  
 Onboard storage . . . . . 64 MB Flash  
 Number of scales . . . . . One (1)  
 Display characters . . . . . Primary display - 1.1" character height  
     Secondary display - 0.7" character height  
 Units . . . . . lb, kg, t  
 Keypad . . . . . 0-9, Decimal point, Enter, 9 Control keys  
 Excitation voltage . . . . . 7.4 VDC  
 Load cell interface . . . . . Analog  
 Load cells . . . . . 16 350 ohm cells or 16 1000 ohm cells  
 Outputs . . . . . One (1) RJ45 Ethernet TCP/IP port  
     One (1) RS232C bidirectional port  
     One (1) USB port/host (full hub support)  
     One (1) RS485 transmit only port  
 Power requirements . . . . . 100 or 240 VAC; 50/60 Hz  
 Clock . . . . . Real time clock, 24 or 12-hour am/pm,  
     Date (month/day/year)  
 Display resolution . . . . . 10,000 divisions commercial  
 Capacity . . . . . Programmable to 999,999  
 Humidity . . . . . 0 to 100% non-condensing  
 Accuracy . . . . . Class III/IIIL  
 Approval . . . . . NTEP CC# 20-060

### DIMENSIONS

Desktop/Wall Mount NEMA 4X Enclosure



Your Fairbanks Scales Authorized Representative is:

Call toll-free for the representative nearest you:

**(800) 451-4107**

Call between 8:00 a.m. – 5:00 p.m. Central Time

Corporate Headquarters: 6800 W. 64th Street, Overland Park, Kansas 66202

(816) 471-0231 Internet Address: <http://www.Fairbanks.com>

