



RICE LAKE[®]
WEIGHING SYSTEMS

800-472-6703
www.ricelake.com

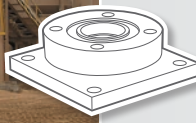
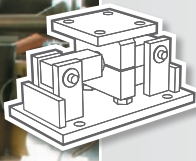
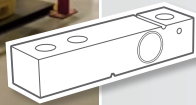
Identify Problems Before They Happen

Rice Lake Weighing Systems' iQUBE²® digital diagnostic junction box compares the output of each load cell to adjacent load cells, ensuring optimal performance and warning operators of weight irregularities. iQUBE² converts any analog load cell system into a modern digital system, without replacing individual load cells.

Enhance the Performance of Any Scale System

iQUBE² is ideal for systems using single or multiple scales with two or more load cells. Floor scales, hopper scales, tank scales, vehicle scales and dosing systems can all benefit from an upgrade to the iQUBE² digital diagnostic junction box system.

With accelerated data transfer, batching and dosing applications can efficiently achieve target weights when speed and accuracy are critical.



*Stainless Steel
Enclosures Available*



Instant Alerts and Cell Emulation

Diagnostics can be viewed on the user interface and an email alert is sent in the event of a component error. If a load cell fails, the cell emulation feature calculates weight based on known comparisons to functional load cells, keeping your scale functional until the load cell can be replaced.

RETURN TO ZERO

If any load cell within a scale system does not return to zero, it could be an indication of scale binding or a damaged load cell. iQUBE² uses diagnostic data to troubleshoot these situations and pinpoint any problem areas.

BALANCE

iQUBE² monitors each load cell's output and compares the readings, so it's able to detect mechanical problems or out-of-tolerance load cells before inventory shortages occur.

NOISE

Also called instability, noise is the most common problem in a scale system, caused by deteriorating resistance to ground inductance, shorting of conductors, excessive vibration or other factors. iQUBE² monitors for intermittent signals, alerting operators of a faulty load cell.

DRIFT

Corrosion, temperature change or strain gauge damage can cause drift. iQUBE² scans for drift, which could affect the scale accuracy when the system is loaded.

Real-time Monitoring and Diagnostics

iQUBE² tracks performance, weight, dead load and current values for each load cell as well as A/D, excitation and load cell bridges. Using these measurements, iQUBE² looks for common issues in scale systems.



VIRTUi²

Basic Applications

VIRTUi² provides the functionality of a basic weight indicator on a PC. For simple installations not requiring process control, this Windows[®]-based solution is ideal.



920i[®] Series

Complex Applications

The 920i has been tested and trusted by the weighing industry for years. Utilized by a wide range of industrial applications, the 920i offers a customizable LCD graphical display and custom program options, including batching and event-based routines.



PLC



1280 Enterprise Series

Advanced Applications

Offering ultimate speed and power, the 1280 is capable of virtually any task. With a highly customizable color touchscreen interface, applications including sophisticated batching and complex event-based programs are handled with ease.



Choose from Three Indicator/Controller Options

Whether connecting a basic scale system, advanced control process or anything in between, Rice Lake offers a solution appropriate for the application.



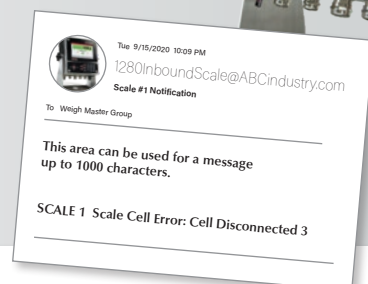
PLC

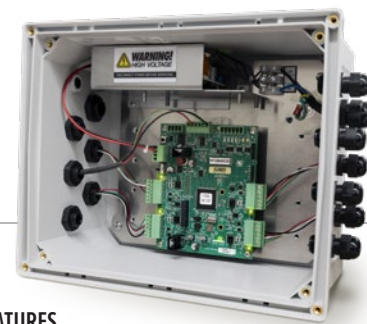


Web Server



Email Alerts





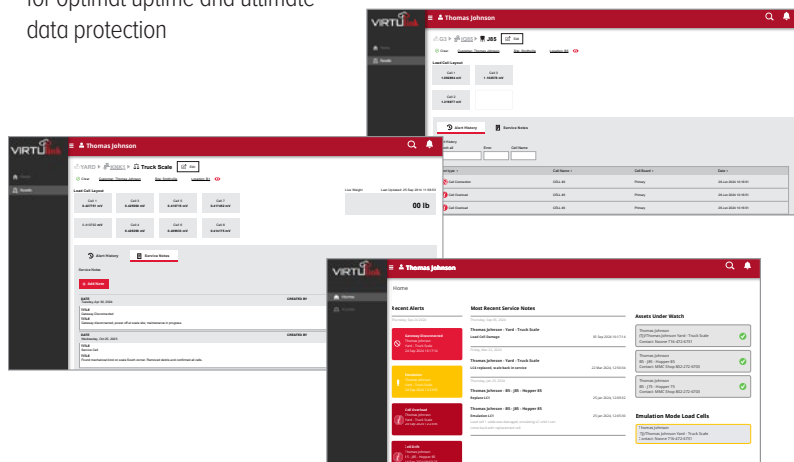
Increase the Power of iQUBE² with VIRTULink™

VIRTULink's IoT (Internet of Things) gateway connects the power of iQUBE² to the cloud. This enables the digital junction box's real-time diagnostics and process data to be accessible through a convenient, secure web dashboard. iQUBE² and VIRTULink partner together to monitor scale health around the clock. If an issue is detected, VIRTULink can display an alert and automatically send an email to designated users. The iQUBE² and VIRTULink can automate alerts and log diagnostics for any process to improve efficiency.

- Sends raw and analyzed values from the scale to the cloud
- Expandable with support for multiple data points from indicators, junction boxes, auxiliary equipment, sensors, web relays and IP cameras

VIRTULink Web Dashboard

- Online portal to monitor equipment and review data in real time
- Receive alerts when a problem is detected
- Configure the home screen to display critical assets
- Remotely identify service needs and schedule regular maintenance alerts based on number of weighments or time intervals
- Review technician notes and dispatch customer support
- Quick access to data from one screen
- Hosted on secure data centers for optimal uptime and ultimate data protection



iQUBE² STANDARD FEATURES

- iQUBE² board has four A/D channels
- Supports networking up to four boards, for 16 A/D channels; connection can be up to four separate platforms with a system total, or four separate scale systems
- Diagnostic routines for weighing errors and system health
- Cell tests for overloaded, underloaded, zero reference, drift, noise and unbalanced conditions
- Onboard status LEDs for communication and visual bi-color indication of cell health
- Cell emulator compensates for load cell failure until a repair can be made
- Cal-Match® algorithm automatically trims and calibrates the scale in one pass of test weights (stopping over each mount)
- Standard communications
- Option card slot for fiber optic, Ethernet TCP/IP, wireless TCP/IP, USB or RS-232/RS-485
- Communicates to 920i®, 1280, VIRTUi2® using ASCII (EDP) serial commands

OPTIONS/ACCESSORIES

- 1280 indicator/controller
- 920i indicator/controller
- VIRTUi2 Windows-based indicator software
- VIRTULink IoT gateway
- Transient protection
- Remote AC power supply
- 9-36 VDC converter
- Revolution® scale software
- Card slot for fiber optic, Ethernet TCP/IP, wireless TCP/IP, USB or RS-232/RS-485

iQUBE² SPECIFICATIONS

VOLTAGE INPUT:	115/230 VAC power supply DC/DC converter for 9 to 36 V 6 to 12 VDC to CPU
ANALOG SIGNAL INPUT RANGE:	-78 to +78 mV
ANALOG SIGNAL SENSITIVITY:	0.3 uV/grad at 30 Hz 0.5 uV/grad at 100 Hz 1.2 uV/grad at 500 Hz
A/D SAMPLING RATE:	2.5 to 500 Hz (selectable)
DIGITAL I/O:	Four per card, for push-button operation, setpoint control or cell status
COMMUNICATION PORTS:	RS-232/RS-422
LOAD CELL INPUTS:	Four channels per board up to four networked boards
LOAD CELL EXCITATION:	5 V DC, 57 mA maximum per channel
RATING/MATERIAL:	Polycarbonate (NEMA Type 4X) enclosure with overlapping solid cover, stainless steel screws Stainless steel (NEMA Type 4X) enclosure with hinged cover
TEMPERATURE:	Certified: 14 °F to 104 °F (-10 °C to 40 °C) Operating: -13 °F to 140 °F (-25 °C to 60 °C)
WARRANTY:	Two-year limited

APPROVALS



CC# 03-032AT



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