iQUBE
Digital Diagnostic Junction Box

Standard Features:

- 4-channel model, 8-channel model, and 8-channel model with 8 digital I/O
- NEMA 4X polycarbonate enclosure
- Multi-level transient protection
- 4-platforms and 16-cell summing capacities
- Daisy chain up to 3 master/slaves iQUBEs for multiple scale applications
- Cal-Match™ algorithm automatically trims and calibrates scale in one pass of test weights (stopping for each mount)
- Theoretical calibration allows you to enter factory sensitivity and capacity values to calibrate the scale without test weights
- Manual software trimming
- Load cell substitution supports cells of unmatched capacities
- Serial (RS-485) connectivitiy-full duplex
- Bi-color LEDs offer diagnostics capabilities by checking and illustrating load cell status in real time
- Cell-Emulator load cell algorithm compensates for excessive drift, A/D failures, connection errors, excitation voltage shifts, and more. It allows the scale to function properly until a permanent repair is available
- Configure with Revolution III™ software for use with analog devices and iRev™ software for the iQUBE and the 920i

iQUBE is the intelligent alternative to analog resistance junction boxes. Unlike conventional load cell summing devices, iQUBE provides simplified calibration, diagnostics and enhanced electrical overload protection. iQUBE increases the performance of any existing multi-cell system and compliments new scale installations. Through use of a cell-emulator feature, iQUBE compensates for an improperly functioning load cell to ensure that the scale maintains accurate operation.

Featuring the latest analog to digital technology and a non-proprietary interface, iQUBE works with conventional weight indicators, serial operator interfaces, PLCs and PCs. Networking is available through analog (4 20mA and 0-30 mV), serial (RS-485) and Ethernet connectivity. iQUBE supports fiber optic, RF and copper communication routings for integration with WAN, LAN Internet and other non-proprietary network configurations. When paired with instruments such as the 920i, iQUBE supports proprietary networks including: Profibus DP, Allen-Bradley Remote I/O and DeviceNet.

iQUBE offers advanced diagnostic features that alert both operators and technicians to potential scale inaccuracies. It greatly reduces scale downtime and provides valuable troubleshooting data to speed repair.
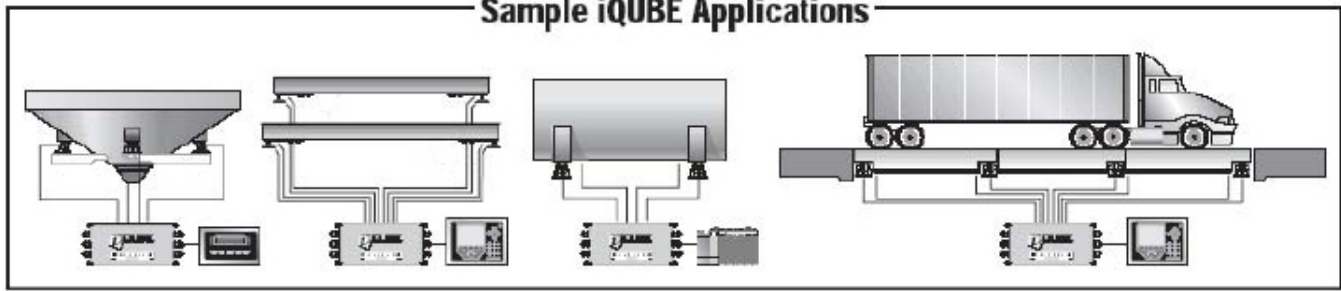
From simple material handling and truck ticketing, to complex enterprise-level integration, iQUBE provides value-added opportunities for data collection and data distribution. Blending incredible value with connectivity options to deliver performance, diagnostics, data acquisition, control and future migration paths...iQUBE is the portal to intelligent weighing integration.

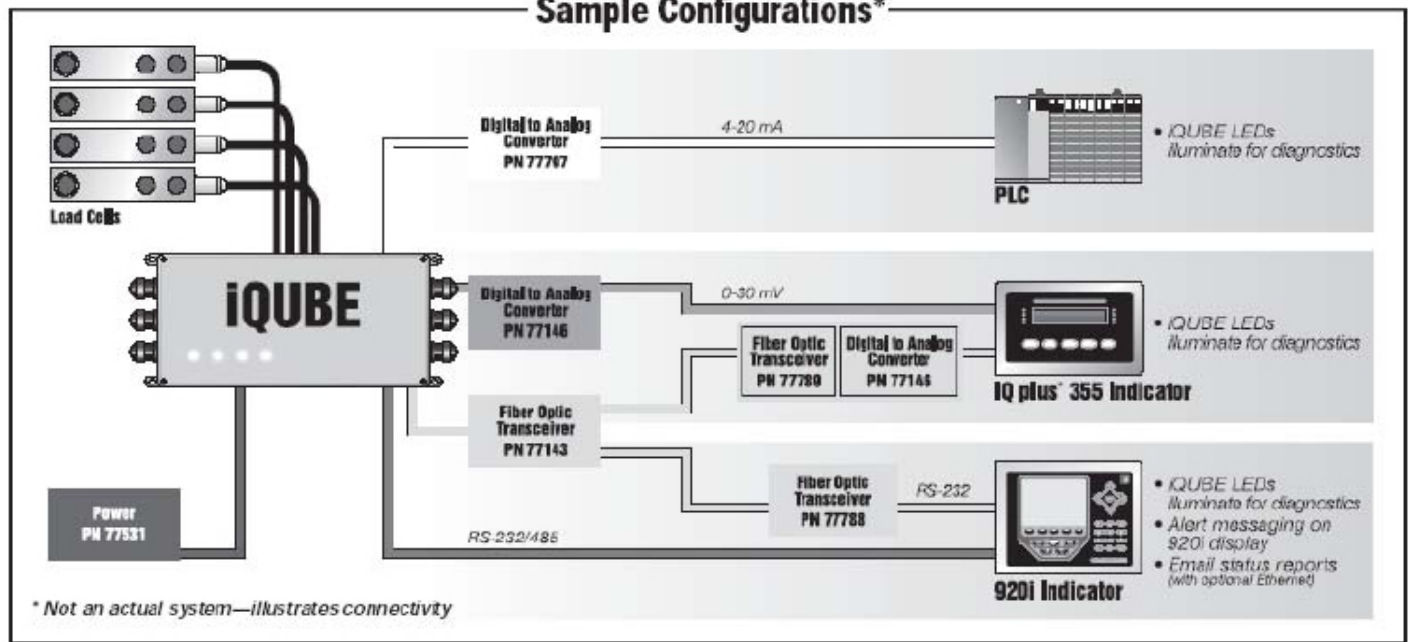## Applications:
Mission critical weighing processes, including:
- Truck and railroad track scales
- Tank and hopper scales
- Floor and bench scales

Sample iQUBE Applications

Specifications:

Sample Configurations*

* Not an actual system—illustrates connectivity

iQUBE

ENCLOSURE:
NEMA 4X polycarbonate enclosure

VOLTAGE INPUT:
4.6 - 25 VDC or 120 VAC

LOAD CELL INPUTS:
8 (16 with network board)

A/D SAMPLING RATE:
15 updates per load cell per second

TEMPERATURE RANGE:
14 to 104 deg. F (-10 to 40 deg. C)

LOAD CELL EXCITATION VOLTAGE:
+4.00 VDC

EXCITATION CURRENT SUPPLY:
120 mA maximum, short circuit protected

APPROVALS:
NTEP certified, CC# 03-032

WARRANTY:
2-year limited warranty

DIGITAL TO ANALOG CONVERTER

OUTPUT:
0-30 mV or 4-20 mA

RESOLUTION:
16 bit

TEMPERATURE RANGE:
14 to 104 deg. F (-10 to 40 deg. C)

FIBER OPTIC TRANSCEIVER

VOLTAGE INPUT:
6-8 VDC

TRANSMITTER:
Red, visible

TRANSMISSION MEDIA:
1 mm plastic fiber 1.5 db/meter
attenuation, duplex jacketed

SERIAL INPUT:
to 115 KBAUD

Can be used as serial-to-serial optic link

TECHWEIGH