

# 920i<sup>®</sup>

PROGRAMMABLE HMI  
INDICATOR/CONTROLLER



**RICE LAKE<sup>®</sup>**  
WEIGHING SYSTEMS

To be the best by every measure<sup>®</sup>

800-472-6703

[www.ricelake.com](http://www.ricelake.com)

mobile: [m.ricelake.com](http://m.ricelake.com)

# Whatever you do...

If you can imagine it, *i* can do it.

The 920i is built with best-in-class core features that allow you to control your process with unprecedented efficiency. From there, it's up to you. With a unique modular design and tools that simplify custom programming, the 920i can be and do exactly what your application requires.



wall mount  
panel mount  
deep universal  
universal



data management • in-motion checkweighing • batching • tank/hopper weighing



high speed • vehicle scale automation • custom process control • bulk processing



*i* am everywhere. All of the time.

Add advanced diagnostics to the 920i with the optional iQUBE<sup>2</sup> digital diagnostic junction box. When the iQUBE<sup>2</sup> detects an unstable system, it automatically sends a signal to the indicator. The 920i alerts the operator to potential inaccuracies, and will even email findings to your service provider.



0.376

4/20/10 02:33PM Scale #1

Diagnosics

NAME	DEADLOAD	CURRENT
1-Load Cell 1	0.376	0.386
2-Load Cell 2	0.284	0.338
3-Load Cell 3	* ERROR *	0.807
4-Load Cell 4	0.327	0.379

System 1 2004.656  
4 weighments over 1000 grads

ERROR B

Previous Millivolts Done Next MORE



# Whatever you imagine...

**Simplicity, ultimate flexibility, infinite power.**

**i am different.**



Yes, the revolutionary 920i is indeed different. Different, yet intuitively familiar for even the least experienced operators. The 920i is truly the first of its kind to blend revolutionary user interfaces, total flexibility and ultimate processing performance with the simplicity of a basic weight meter.

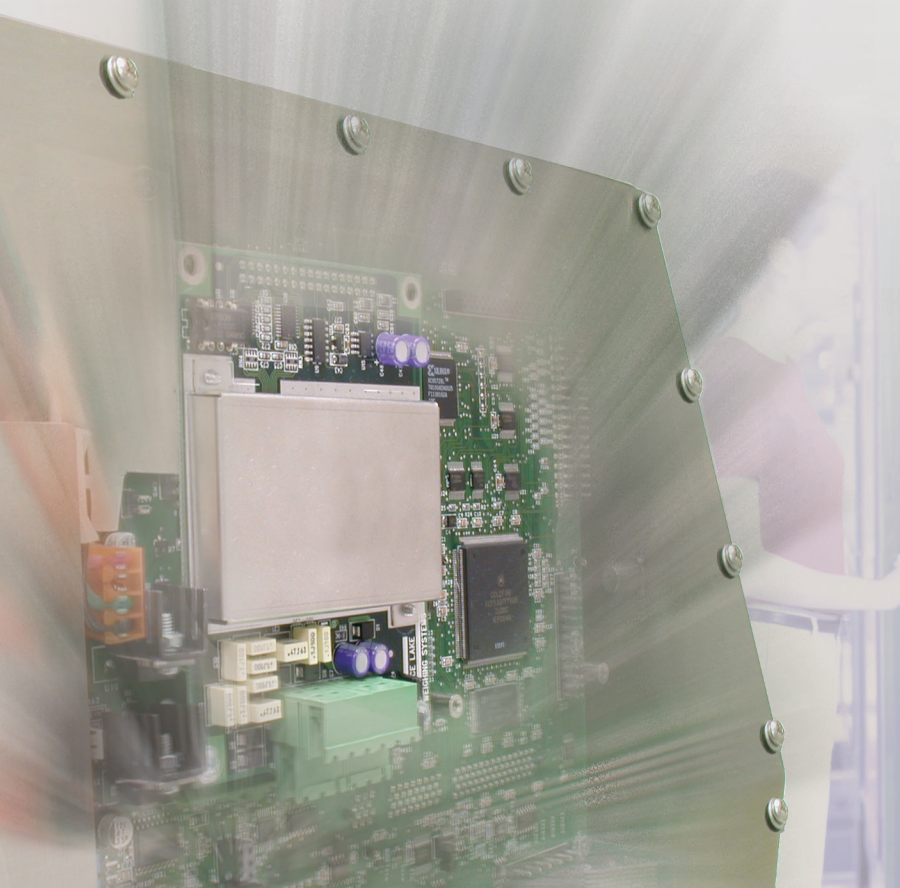
We took several key features from weight instruments, PLCs and computers, incorporated robust state-of-the-art electronics and wrapped them in virtually indestructible packaging options to deliver the most advanced programmable instrument the industry has ever seen.

Adding an entirely new dimension in flexibility for solution providers and users alike, the 920i delivers simplified customization at a fraction of the cost of traditional process instrumentation. From tailored "basic" weighing, to complex process automation, the 920i gives you exactly what you need, exactly the way you want it.

**i am intelligence.** While most programmable indicators/controllers can run complicated programs, operating them can be equally difficult. The 920i's intelligent design has changed all that. We've combined performance-driven circuitry, simplified architecture, and intuitive features to provide an instrument that offers virtually unlimited power, yet is remarkably easy to use.

**Customized soft keys put increased productivity at your fingertips.** Programmable keys provide instant access to frequently used functions such as selecting a formula, starting a batch, beginning a data collection sequence, or searching or sorting a file. They can be redefined throughout a program, providing a virtually unlimited number of soft keys. When your process changes, soft key functions can easily be modified in the field.

**Data acquisition and storage play a vital role in successful supply chain management.** From simple transaction and inventory records to complex data manipulation, the 920i will help you manage critical information in a way that best fits your process. Battery-backed memory allows you to customize database files to store information like ID numbers, transactions, formulas, label formats, and PLUs. With up to 14MB of optional memory, the 920i can house multiple database files or allow you to download information to a standard data management software program on your PC.





# i can do it easier, faster and



**The ultimate user-interface!**  
Character sizes are selectable from .25 up to 1.2 inches to tailor the display to the information required.

**Bar Graphs**  
Real-time bar graphs show filling and batching.

**Prompting**  
Customized scrolling prompts guide operators through functions.

**Soft keys**  
Multiple user-defined and preset functions are available simultaneously through five convenient soft keys with easy-to-read scrolling tabs.

**Nav-pad**  
Convenient navigation pad increases efficiency and accuracy.

**Graphic icons and messages**  
Alerts operators to setpoint and function status.

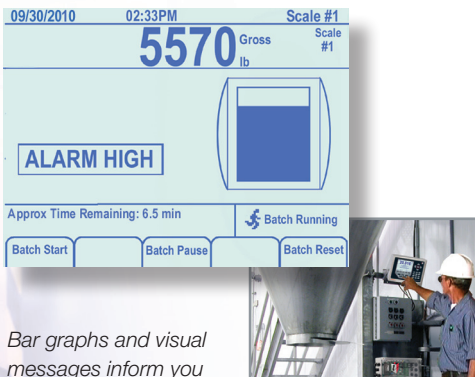
**Stainless steel domed switches**  
Heavy-duty tactile feel keys feature stainless domes tested to over five million actuations!

**Event Sequential Protocol**  
The most advanced processing technology in the industry.

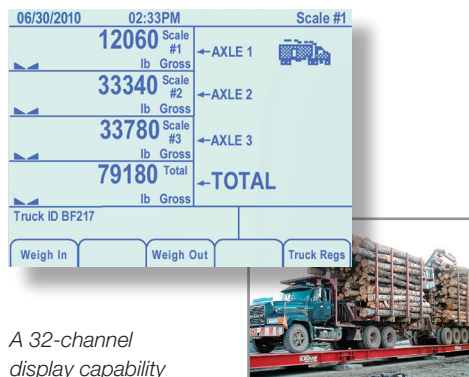
**NEMA 4X/IP66**  
Heavy-duty, stainless steel enclosure for enhanced protection in harsh environments.

## Your window of opportunity to a new dimension in process efficiency.

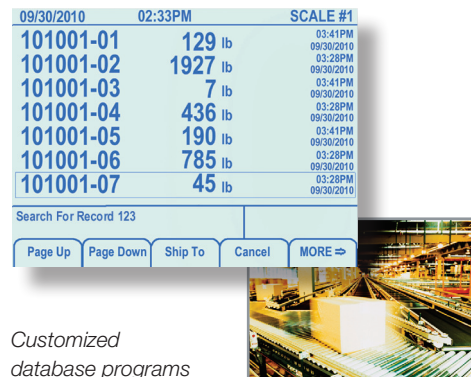
- Real-time bar graphs show filling and batching
- Simultaneously view up to 32 sensor inputs, or up to 4 legal-for-trade scales
- Up to 10 different screens can be programmed to change with your process
- Graphic icons and messages show setpoint and function status



Bar graphs and visual messages inform you at a glance when a batch or fill is in process and when it's approaching target weights.



A 32-channel display capability allows viewing of weight on an individual scale and a combination of totalized scales.



Customized database programs allow you to store, access and analyze critical production information.



# d smarter.

**i am speed.** As companies are continually pressed to do more with fewer resources, they expect more from their equipment. The 920i delivers the speed you need to stay ahead of the competition. Combining the power of three advanced features, it processes data light years faster than existing programmable instrumentation.



**For high-speed checkweighing, batching and filling,**

the 920i has raised the industry bar in A/D speed. Running single or multiple A/Ds at selectable rates from 7.5 to 960 updates per second, the 920i is faster than any competitive programmable indicator. The industry's most effective digital filtering and a selectable display update rate ensure accurate, stable weighments.

**For program controlled functions,** the 920i has removed the slowest step in the internal process—language compilation. When teamed with the latest industrial chip technology, the result is extremely efficient processing.

**Multi-tasking at the speed of i.** Until now, performing even simple weighing operations while running a program put your operation into slow motion. We've changed all that with technology we call ESP (Event Sequential Protocol). Similar to computer processing technology, events are identified, prioritized and executed by handlers with unprecedented efficiency. In the time it takes most other programmable instruments to loop through a process cycle and address a single random resource demand, the 920i has already executed a sequence of critical tasks in order of highest priority.

**i am flexibility.** The rapidly changing business climate requires products that will meet today's needs and evolve to exceed tomorrow's demands. The 920i's modular design allows you to choose only the options necessary for your current application, yet leaves room for future expansion. Whether your process requires multiple scales or connection to other peripherals, the 920i offers a full range of options\* to get the job done:

- Up to 28 A/Ds (scales) and 32 channels
- 100 setpoints
- Up to 340 digital I/O
- Up to 32 serial ports
- Up to 14 analog outputs
- Up to 14 pulse inputs

**Easily integrated into new or existing automation systems,** the 920i provides open connectivity to the most popular networking interfaces. In fact, with the ability to communicate with and control your other indicators, it performs much like a traditional PLC.

#### **SENSORS**

*iQUBE<sup>2</sup>*  
load cells  
force  
level  
photoeyes  
switches  
proximity  
thermocouples

#### **DATA INPUTS**

scanners  
keyboards  
serial scales

#### **INSTRUMENTS**

indicators  
plc  
dcs  
scada  
touchscreen

#### **COMPUTERS**

pc  
minicomputer  
mainframe

#### **HMI**

alarms  
horns  
lights  
remote displays  
message centers

#### **CONTROL DEVICES**

valves  
motors  
gates  
conveyors  
solenoids  
interlocks

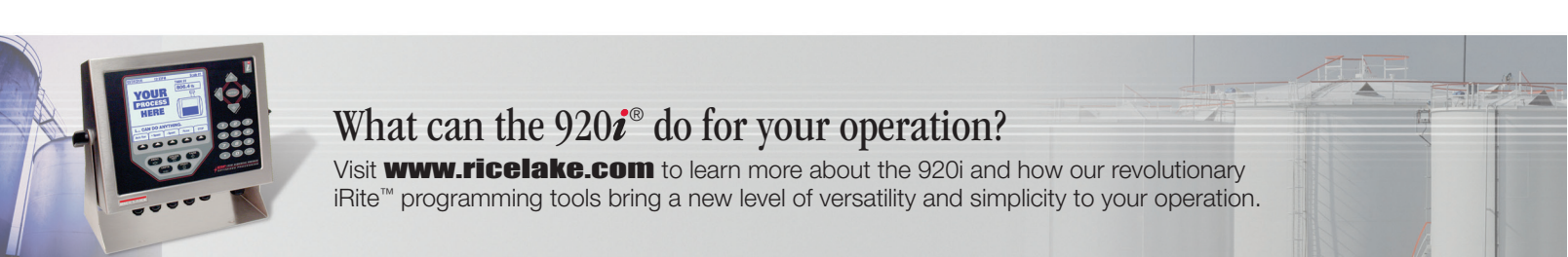
#### **PRINTERS**

ticket  
tape  
bar code  
document



\*Requires hardware expansion and is dependent upon option combination.





# What can the 920i<sup>®</sup> do for your operation?

Visit [www.ricelake.com](http://www.ricelake.com) to learn more about the 920i and how our revolutionary iRite™ programming tools bring a new level of versatility and simplicity to your operation.

## 920i<sup>®</sup> PROGRAMMABLE HMI INDICATOR/CONTROLLER

### Standard Features

- Large 4.6" W x 3.4" H, 320 x 240 pixel back-lit LCD graphical display
- Selectable character sizes from .25" to 1.2"
- Display up to four scale channels with required legal-for-trade information per screen
- Five displayed soft keys with 10 user-defined and 14 preset functions per screen
- Selectable A/D measurement rate up to 960/second
- Power for (16) 350Ω load cells per A/D option card
- Peak hold, rate of change
- Audit Trail Tracking and Alibi storage
- Multiple range/internal weighing
- Four bidirectional communication ports
- Local/remote keypress operation
- Operator prompts/256 widgets
- Multiple screens (program control)
- Eight onboard data bases
- Four onboard digital I/O
- 100 configurable setpoints
- Two onboard option card slots
- 1,000-ID truck registers for in/out weighing
- Programmable ticket formats - 20 auxiliary print formats
- ESP event-driven processing
- User programmable 512K flash memory
- iQUBE and iQUBE<sup>2</sup> connectivity
- 32 individual scale accumulators
- Front panel or serial configuration/calibration
- NEMA 4X/IP66 stainless steel enclosure
- PS/2 keyboard port for data entry

### Options/Accessories

- Digital I/O, 24 channel
- A/D dual or single channel
- 0-4kHz pulse input
- Analog output selectable (0-10V, 0-20mA)
- Analog input (-/+ 5VDC, 0-10V, 0-20mA)
- Thermocouple (E, J, K, N, T)
- Memory, 1 MB (14 MB optional)
- Two channel serial (RS-232, RS-485 and 20mA)
- Two- and six-card expansion boards
- DC-DC 9-36 converter
- PS/2 keyboard
- Fiber optic interface
- Trans-reflective display for sunlight applications



### Communication protocol cards

- DeviceNet™
- Allen-Bradley® Remote I/O
- EtherNet/IP™
- ControlNet™
- Profibus® DP
- Ethernet TCP/IP 10/100 Base-T
- Wireless LAN

### Enclosure Options

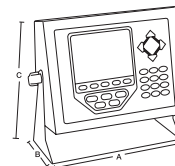
#### Universal Mount

##### Common Applications

- General purpose indoor/outdoor
- Confined space
- Data entry

##### Model-Specific Features

- 360° mounting configuration
- Accommodates two option cards internally (up to 14 total)



A = 10.8" B = 5.3" C = 10.9"

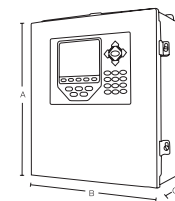
#### Wall Mount

##### Common Applications

- Control systems
- Industrial indoor/outdoor
- Material handling

##### Model-Specific Features

- Space for manual overrides
- Accommodates eight option cards internally (up to 14 total)
- Accommodates internal relays



A = 18" B = 14.3" C = 6.75"

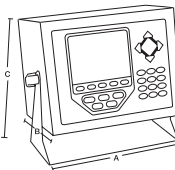
#### Deep Universal Mount

##### Common Applications

- General purpose indoor/outdoor
- Four option cards

##### Model-Specific Features

- Ergonomically efficient
- Accommodates four option cards internally (up to 14 total)



A = 11" B = 5.25" C = 10.8"

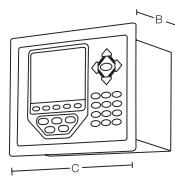
#### Panel Mount

##### Common Applications

- Process control
- Retrofit existing panels
- Custom consoles

##### Model-Specific Features

- Optimizes panel space
- Accommodates four option cards internally (up to 14 total)



A = 9.2" B = 5.2" C = 11.6"

### Approvals



CC #01-088  
P<sub>max</sub> = 10,000  
Class III/III.L



Universal, Deep and Wall Mount cUL listed  
Panel Mount cUL recognized



AM-5426



PRODUCT SERVICE



6000/10,000  
UK 2658

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