920i®

PROGRAMMABLE HMI
INDICATOR/CONTROLLER

Available with USB

KM SYSTEMS

Flexibility. Power. Simplicity.

A masterpiece of innovation

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 have taken the best features from weight instruments, PLCs and computers and added more robust electronics, a crisp graphical display and programmable softkeys. Put it all together inside a virtually indestructible enclosure and you have one of the most advanced HMIs the industry has ever seen. From tailored "basic" weighing, to complex process automation, the 920i gives you exactly what you need, exactly the way you want it.

Intelligent in concept

While most programmable indicators/controllers can run complicated programs, operating them can be equally difficult. The 920i combines performance-driven circuitry, simplified architecture, and intuitive features to provide an instrument that offers virtually unlimited power, yet is remarkably easy to use. An integrated PS/2 or USB port allows for quick data entry from a keyboard and seamless communication with a PC or other peripheral device.

An unlimited number of customizable soft keys puts increased productivity at your fingertips. Get 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. When your process changes, soft key functions can easily be modified in the field.

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. Customize database files to store information like ID numbers, transactions, formulas, label formats, and PLUs. With optional memory upgrades, the 920i can house multiple database files or allow you to download information to a standard data management software program on your PC.

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.

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

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.

Momentum for business

The 920i delivers the speed you need to stay ahead of the competition. Combining the power of three advanced features, it processes data many times faster than existing programmable instrumentation.

UPDATES PER SECOND

30-60

960

For high-speed checkweighing, batching and filling, single or multiple A/Ds at selectable rates from 7.5 to 960 updates per second, the 920i is as responsive as they come. The industry's most effective digital filtering and a selectable display update rate ensure accurate, stable weighments.

Until now, performing even simple weighing operations while running a program put your operation into slow motion. We've changed all that with ESP (Event Sequential Protocol) technology. The 920i is a master multi-tasking tool. 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.

Flexibility by design

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.

Easily integrated into new or existing automation systems, the 920i provides open connectivity to the most popular networking interfaces.
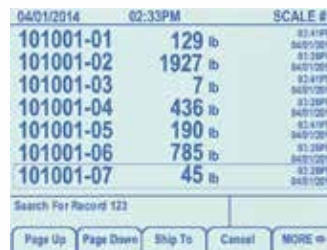
*Requires hardware expansion and is dependent upon option combination.

Event Sequential Protocol

typical loop processing

event based "ESP" processing

- completed tasks
- incomplete tasks

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 cues inform users 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.

iQUBE²

Paired for success

Add advanced diagnostics to the 920i with the optional iQUBE² digital diagnostic junction box. When the iQUBE² 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.

What can the 920 ¡® do for your operation?

™ programming tools bring a new level of versatility and simplicity to your operation.

920¡® 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) 350 Ω load cells per A/D option card
- Peak hold, rate of change
- Audit trail tracking and alibi storage
- Multiple range/interval weighing
- Four bidirectional communication ports
- Local/remote keypress operation

- Operator prompts/256 widgets
- Multiple screens (program control)
- Eight onboard data bases
- Six 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 512 K flash memory
- iQUBE² connectivity
- 32 individual scale accumulators
- Front panel or serial configuration/calibration
- NEMA 4X/IP66 stainless steel enclosure
- PS/2 or USB keyboard port for data entry

Options/Accessories

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

RS-232 RS-485

20 mA current loop

DeviceNet™

EtherNet/IP™

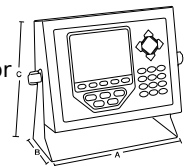**PROFIBUS®**

Ethernet connectivity

USB

Enclosure Options

Universal Mount
Common Applications
- General purpose indoor/outdoor
- Confined space
- Data entry

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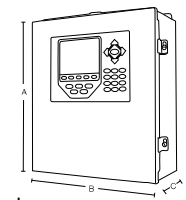- Accommodates two option cards internally (up to 14 total)

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)
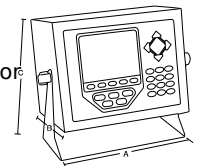- Accommodates internal relays

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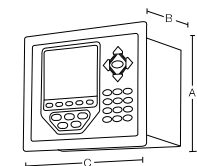- Accommodates four option cards internally (up to 14 total)

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

NTEP CC #01-088 Accuracy Class III/IIIL n_{max} 10,000

c(UL)us LISTED Universal, Deep and Wall Mount cUL listed Panel Mount cUL recognized

CE

Measurement Canada Approved AM-5426 Accuracy Class III/IIIHD n_{max} 10,000

TÜV PRODUCT SERVICE

OIML UK 2658 Accuracy Class III n_{max} 6000/10,000

KM SYSTEMS