

# 920i

PROGRAMMABLE INDICATOR/CONTROLLER



# What can the 920i do for YOUR operation?

Find out at [www.appliedweighing.co.uk](http://www.appliedweighing.co.uk)



320 video



interactive front panel demonstration



application specific overviews

Applied Weighing International Limited manufactures and distributes a full range of process control weighing equipment. Visit our website for further information @ [www.appliedweighing.co.uk](http://www.appliedweighing.co.uk)

## Standard Features

- Large 117mm W x 86mm H, 320 x 240 pixel back-lit LCD graphical display
- Selectable character sizes from 6mm to 30.5mm
- Display up to four scale channels with required Legal-for-Trade information per screen
- 32 individual scale accumulators
- Five displayed soft keys with 10 user-defined and 14 preset functions per screen
- Front panel or serial configuration/calibration
- NEMA 4X/IP66 stainless steel enclosure
- Four bi-directional communication ports
- Operator prompts
- Four on-board digital I/O
- 100 configurable setpoints
- Two option card slots
- 1000-ID vehicle registers for in/out weighing
- Programmable ticket formats
- ESP event-driven processing
- User programmable 128K flash memory
- Power for 16 (350 ohm) load cells per A/D option card
- Multiple screens (program control)

## Option Cards

- Digital I/O, 24 channel
- A/D dual or single channel
- 0-4 kHz pulse input
- Analog output selectable (0-10V, 0-20 mA)
- Memory, 1MB
- Two channel serial (accommodates RS-232, RS-485 and 20 mA current loop)
- 2- and 6-card expansion boards

RS-232  
RS-485

20 mA  
current loop

DeviceNet

PROFIBUS

ENCOMPASS  
AMERICAN PARTNER

ethernet  
CO COMMUNICATIONS

## Communication protocol cards

- DeviceNet
- Remote I/O
- Profibus DP
- Ethernet TCP/IP 10/100 Base-T module

## Approvals



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



Desktop/Universal listed  
Wall Mount listed (508A control panel)  
Panel Mount recognized

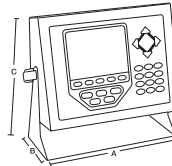


TC9678  
n<sub>max</sub> = 10,000  
Class III



## Enclosure Options

### Universal Mount



A = 267mm B = 115mm C = 292mm

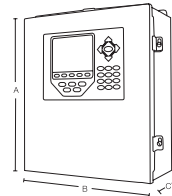
### Common Applications

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

### Model-Specific Features

- 360° mounting configuration
- Accommodates 2 option cards internally (up to 14 total)

### Wall Mount



A = 406mm B = 355mm C = 171mm

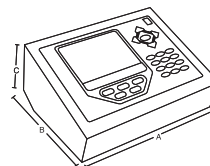
### Common Applications

- Control systems
- Industrial indoor/outdoor
- Material handling

### Model-Specific Features

- Space for manual overrides
- Accommodates 8 option cards internally (up to 14 total)
- Accommodates internal relays

### Desktop



A = 267mm B = 216mm C = 115mm

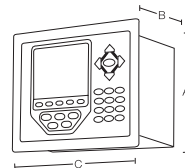
### Common Applications

- Data entry
- Weighbridge
- Office environment

### Model-Specific Features

- Ergonomically efficient
- Accommodates 4 option cards internally (up to 14 total)

### Panel Mount



A = 231mm B = 127mm C = 295mm

### Common Applications

- Process control
- Retrofit existing panels
- Custom consoles

### Model-Specific Features

- Optimizes panel space
- Accommodates 4 option cards internally (up to 14 total)

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# Whatever you do...

If you can imagine it, we can do it.

The 920i is built with best-in-class core features that allow you to control your weighing 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 configured to do exactly what your application requires.



data management in-motion checkweighing batching tank/hopper weighing material handling



high speed vehicle scale automation custom process control bulk processing

TRUCK ID	WEIGHT	TIME
09/01/2002	02:33PM	TRUCK 152
CME152	45260 Kg	03:41
F1454	32500 Kg	09/01/2002
F1545	32500 Kg	03:28
F1542	45260 Kg	09/01/2002
F1540	32220 Kg	03:41
F1541	32220 Kg	09/01/2002
F1543	32220 Kg	03:28
F1544	32220 Kg	09/01/2002
F1546	32220 Kg	03:41
F1547	32220 Kg	09/01/2002
F1548	32220 Kg	03:28
F1549	32220 Kg	09/01/2002
F1550	32220 Kg	03:41
F1551	32220 Kg	09/01/2002
F1552	32220 Kg	03:28
F1553	32220 Kg	09/01/2002
F1554	32220 Kg	03:41
F1555	32220 Kg	09/01/2002
F1556	32220 Kg	03:28
F1557	32220 Kg	09/01/2002
F1558	32220 Kg	03:41
F1559	32220 Kg	09/01/2002
F1560	32220 Kg	03:28



- desktop
- panel mount
- universal
- wall mount



# Whatever you imagine...

**Simplicity, ultimate flexibility, infinite power.  
*i* am different.**



Yes, the revolutionary 920i is indeed different.

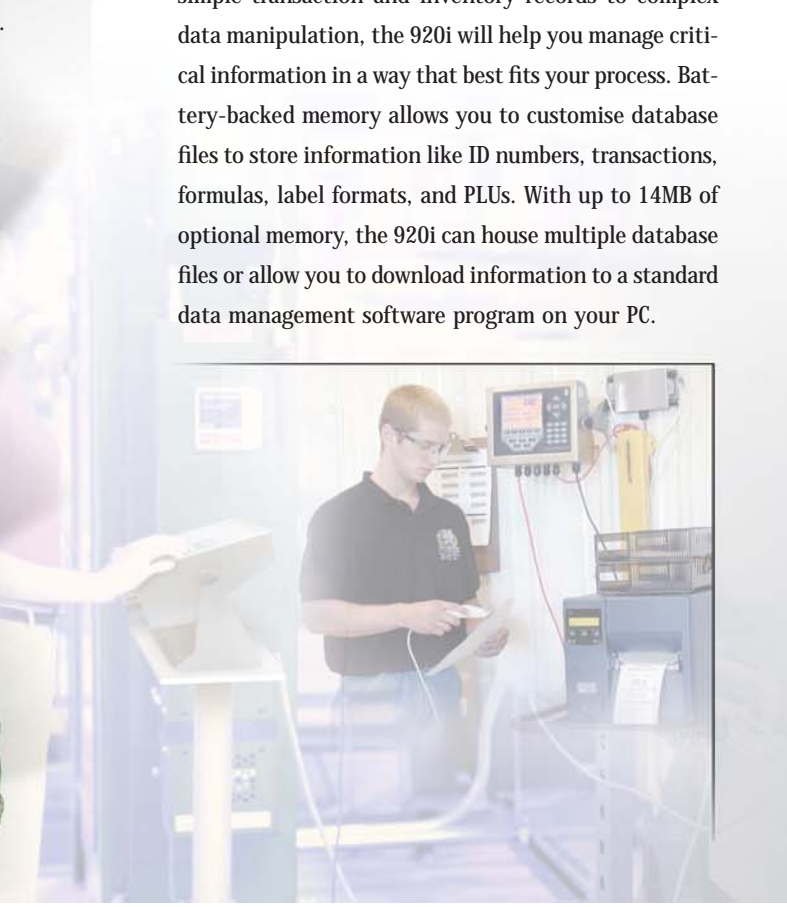
Different, yet intuitively familiar for even the least experienced operators.

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 customisation 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.

**Customised 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 customise 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

The ultimate user-interface!  
Character sizes are selectable from 6mm up to 30.5mm to tailor the display to the information required.

Real-time bar graphs show filling and batching

Prompting  
Customised 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 & 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 totalised scales.



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



# and 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.

UPDATES PER SECOND



**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 16 times faster than the closest published competitor claim.\* 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, prioritised 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 pulse inputs
- Up to 14 analogue outputs

**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.

INPUTS

**SENSORS**

- load cells
- force
- level
- photoeyes
- switches
- proximity
- thermocouples
- density

**DATA INPUTS**

- scanners

**INSTRUMENTS**

- indicators
- plc
- dcs
- scada
- touch screen

**COMPUTERS**

- pc
- minicomputer
- mainframe

**HMI**

- alarms
- homs
- lights
- remote displays
- message centres

**CONTROL DEVICES**

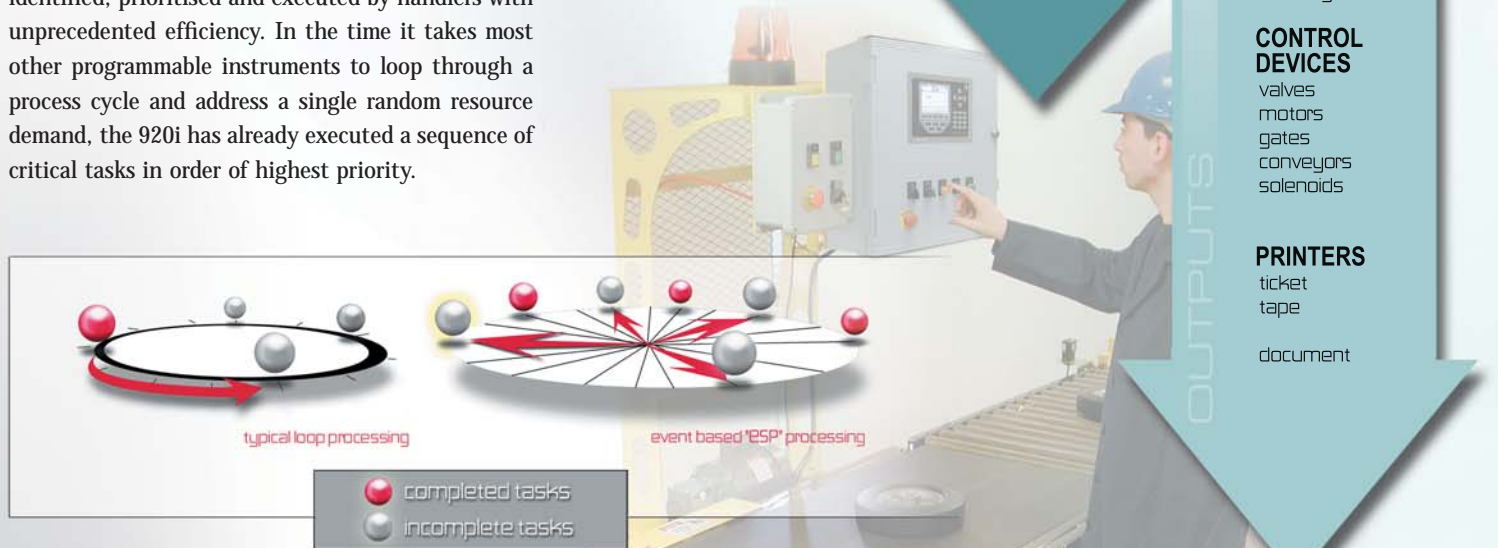
- valves
- motors
- gates
- conveyors
- solenoids

**PRINTERS**

- ticket
- tape
- document

OUTPUTS

BIDIRECTIONAL



\*A/D conversion rate comparison based on latest published claims of competitive programmable indicators.  
 \*\*Requires hardware expansion and is dependent upon option combinations.