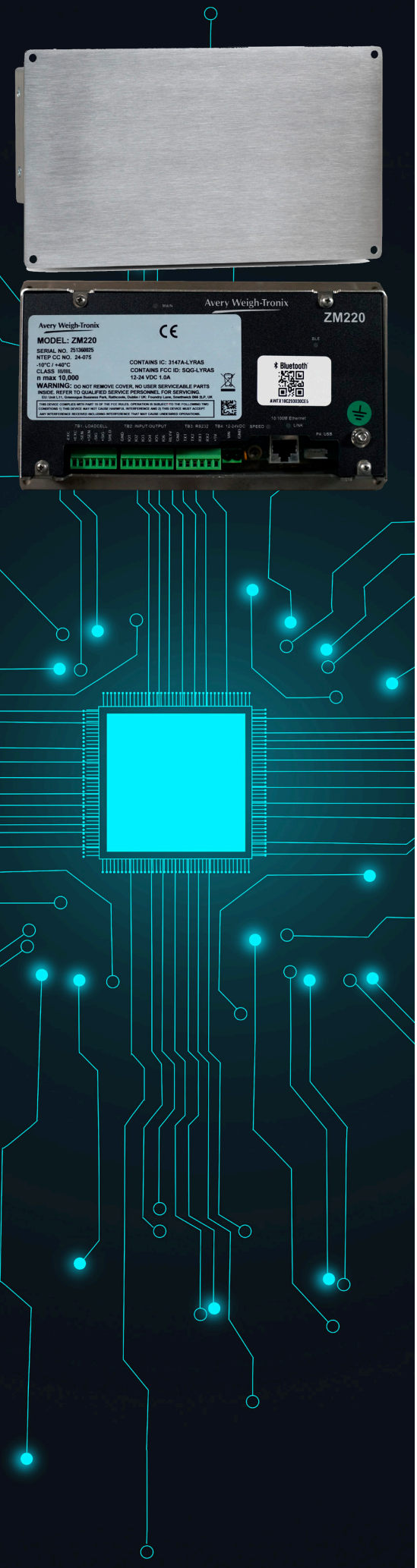


ZM220

Avery Weigh-Tronix

Specifications

This high-performance, legal-for-trade, multi-functional signal processor provides the same feature set as found in a ZM223 Indicator but without a display or key-pad. Perfect for applications that require accurate weight data to drive processes controlled by a PC or PLC. Monitor processes remotely over Bluetooth® or, use the integrated web browser with an Ethernet connection to provide an operator full control of the signal processor from any PC on the same network.

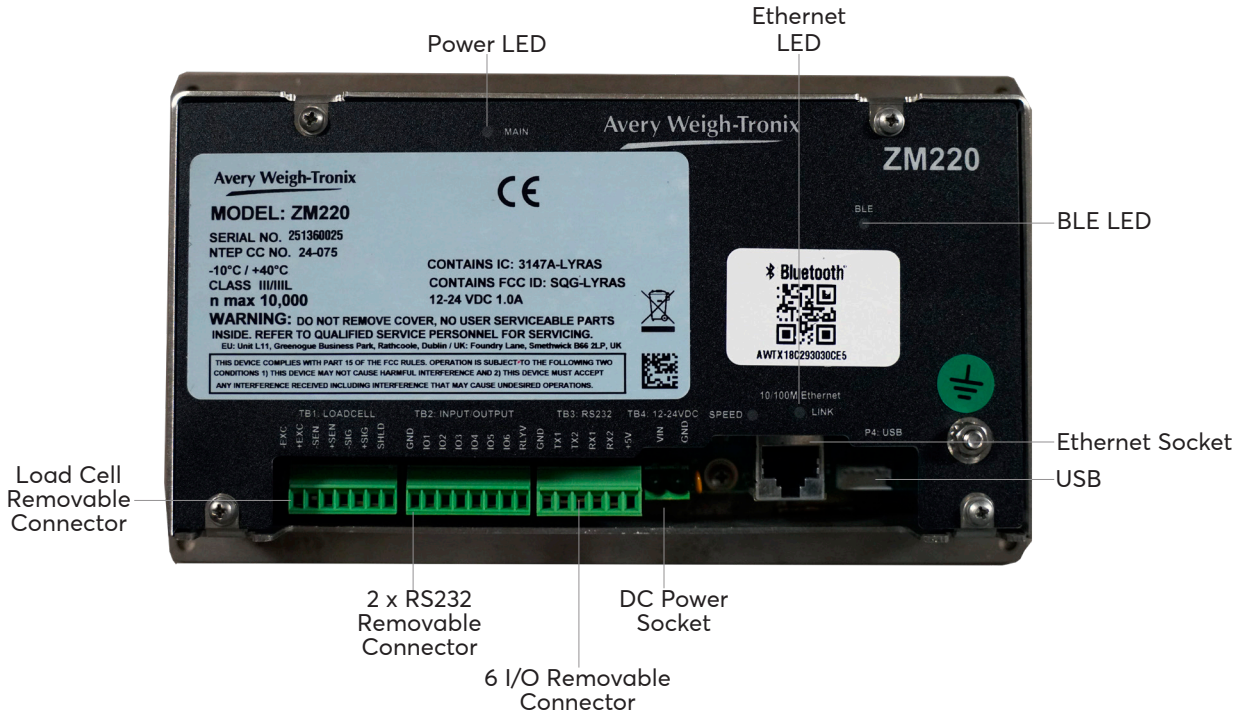
The ZM220 Signal Processor is fully programmable to fit directly into your process applications with a full range of communication ports available for most applications. With the ability to send and receive data using secure cloud HTTPS or MQTT connections, the ZM220 is the perfect data capture device.

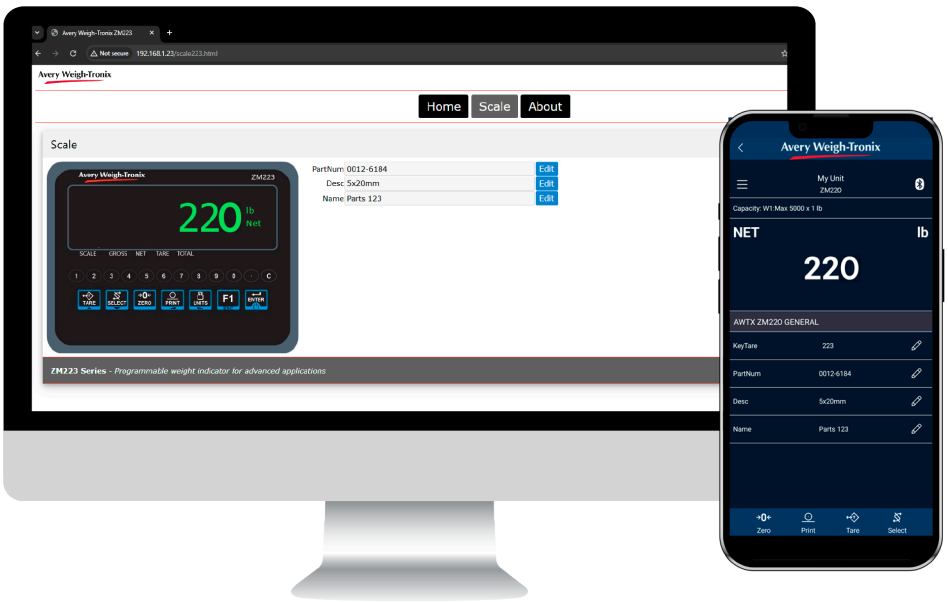
General

Operating Applications	Fully programmable using Lua. Comes standard with general weight app loaded inside the signal processor. This uses the same main PCB as the ZM223. All the current ZM223 apps can also run with the ZM220. Limitations being supervisor setup which can only be carried out at install using the installers Ztools license.
Remote Assist™ Mobile App	Compatible with Avery Weigh-Tronix Remote Assist™ Mobile App. It provides an easy method to quickly enter valuable alphanumeric data into the signal processor which can be used for printing or for viewing weight data from a distance. It also allows key weight data to be captured directly from the signal processor to the mobile device as a CSV file. The Remote Assist™ Mobile App can be used to fully calibrate the signal processor when first installed.
Unit of Measure	Up to four configurable: lb, lb/oz, oz, kg, g, or custom
Capacity Selections	9,999,999 with decimal located zero to six places
Incremental Selections	0.000001-500 in multiples/sub-multiples of 1, 2, 5
Configurable Selections	Zero range, motion detection, automatic zero tracking, 10-point linearization, single range, 3x multi-range - 3x multi-interval
Time and Date	Battery backed up time/date/year (12-hour AM/PM or 24-hour format)
Calibration	Two point calibration Zero and Span or up to 10 calibration points when using SMA commands
Analog to Digital Measurement Rate	Rate 80Hz
Internal Resolution Analog	53,687,100 counts per mV/V per second
Internal Resolution Digital	One billion internal counts per second when linked to the BSQ Digital Base
Digital Filtering Harmonizer	Harmonizer filtering with configurable constant, average and threshold
Dynamic Weighing	Minimum nominal weigh time 100 milliseconds, recommended minimum 300 milliseconds

User Interface

Keypad	None. The signal processor has no keypad. All key functions are controlled through SMA PC commands or directly from the ZM220 web browser page by using an Ethernet connection
Operational Keys	None. The web browser page or Remote Assist™ Mobile App must be used to control key presses
RPN Function	Not available on the ZM220 Signal Processor; however some of the ZM223 RPN key functions are preprogrammed inside the web browser page as dedicated key functions. Other secondary key functions can be added using custom programming
Status Annunciators	Only visible on the web browser page: Center of Zero, Motion, Gross, Net, Tare, Preset Tare, Print, Scale Numbers 1, 2, Over/ Under/Accept Bar Graph, Weight Bands 1,2,3, lb, kg, g
Display	No display on signal processor: Only display used is in the web browser page seen from a PC: Web browser display utilizes color changing back display (Green, Red, Orange & Yellow) based on the output status





Electrical

Power Requirements	External power 12 to 24VDC wired on to removable connector block
Max Current	0.5A or 1A using an external 12VDC power supply or power source
Weight Ranges	Single range: up to 10,000d Legal-for-Trade Multi range (MR): 2 to 3 ranges Multi interval (MI): 2 to 3 ranges
Number of Bases	Up to two bases: one analog base & one BSQ Digital Bench Base or two BSQ Digital Bench Bases

Excitation	5VDC, short circuit protected Supports up to eight 350-ohm weight sensors Four or six conductors with sense leads Detachable plug connectors
Analog Signal Input Range	-1 m/V/V to 5 mV/V
Analog Signal Sensitivity	0.1 µV/V/divisions minimum 0.5 µV/V/divisions recommended
Analog Signal Protection	RFI, EMI and ESD protection

Physical Housing

Enclosures

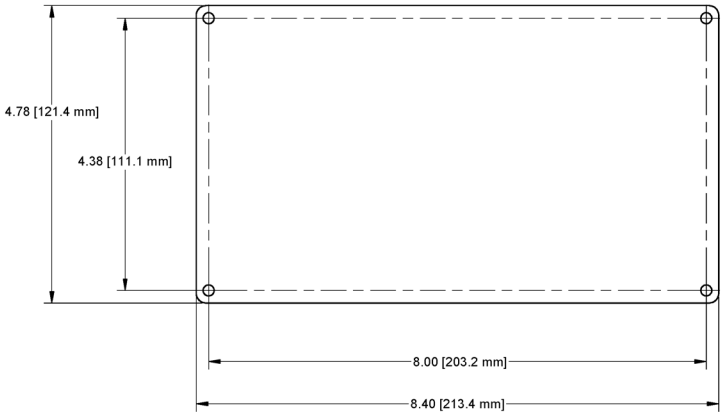
Stainless steel: 304 brushed stainless steel with four mounting holes for wall/under bench mounting or for mounting inside electrical enclosure. Removable wire connectors. Optional DIN rail mounting kit available.

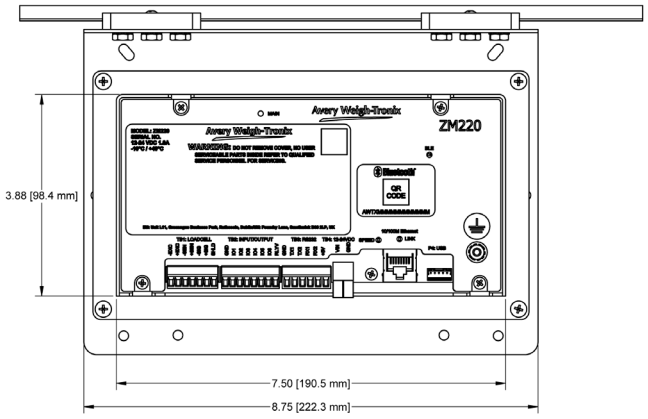
Shipping Weight & Dimensions

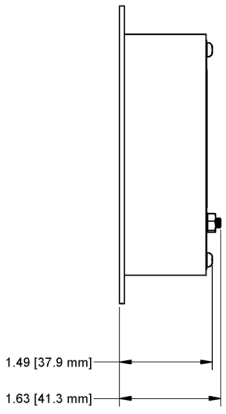
2 lb (0.9 kg)
8.40" x 4.78" x 1.63" (213.4 mm x 121.4 mm x 41.3 mm)

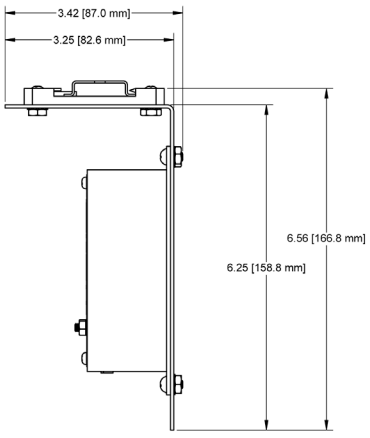
Operating Temperature

14° F to 104° F / -10° C to 40° C
(Compliance with legal-for-trade requirements)
-4° F to 140° F / -20° C to 60° C (industrial)
10 to 90% humidity noncondensing









Din Rail mounting option (AWT77-504357)

Input-outputs/Data Storage

Remote Inputs	Up to 24V input signals with to six logic level inputs for Zero, Print, Tare, Units, F1, and more Configurable apps: Mostly use three inputs Programmable apps: Can be programmed to be either inputs or outputs up to a max of six
Standard Outputs	Up to six outputs Configurable apps: Mostly use three inputs, three outputs Programmable apps: Can be programmed to be either inputs or outputs up to a max of six
Serial Ports	Two serial Comm ports: wired • Comm 1 RS232 full duplex • Comm 2 RS232 full duplex • Both RS232 comm ports can also be used to drive a BSQ high-precision digital bench base Utilize via all standard protocols: SMA, Broadcast, ENQ, NCI, etc. Fully programmable via LUA
USB Host	Internal USB socket connection for USB loom (optional) Printer, USB Memory, USB Scanner, USB Keyboard
Bluetooth	BLE used to connect to Remote Assist™ Mobile IOS, Android, Windows App
Remote Assist Mobile App	The current Remote Assist™ App can be used to remotely view weight directly from the signal processor and to control key functions from the app that is running in the signal processor
Web Server / Web Browser	• Internal web server for device configuration and monitoring • View weight and control the scale remotely • Multiple connections supported • Supports HTTP and HTTPS (secure and non-secure access)
Ethernet	Embedded Web Server • Internal web server for device configuration and monitoring • Supports HTTP and HTTPS (secure and non-secure access) Industrial Ethernet Protocols • EtherNet/IP (EIP) • Modbus TCP API & Cloud Connectivity • HTTPS / RESTful API for modern application and cloud integration • MQTT for lightweight, publish/subscribe messaging and IIoT applications Socket Communication • TCP and UDP socket support • Enables custom client/server and peer-to-peer communication
Micro-SD Slot	Compatible with micro-SD cards up to 32GB, read individual files up to 4GB (not supplied)
Micro-SD Card Usage	Micro-SD card also holds: • Scale profile backup • PLU database storage backup area • Alibi memory data storage backup area • Transaction data
Programming Language	Lua programmable and fully configurable. Can use the ZM223 apps if set up correctly using Ztools
Data Drive Storage	Configurable (flash memory, USB storage memory, micro-SD card, or external to a PC or cloud server)
Alibi/Archiving Memory	5000 transactions internal or 100,000 transactions if micro-SD card is installed
Optional	The ZM220 can use any of the cards that the ZM223 can use, however, these cards will need to be mounted externally

Approvals

Agencies Single-interval, multi-range or multi-interval: NTEP 10,000d (24-075)

More online

- Technical specifications
- User manuals
- News and information

Avery Weigh-Tronix

www.averyweigh-tronix.com

Avery Weigh-Tronix is an ITW company

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