

**ZM223****Avery Weigh-Tronix****REVISED**

10:00 am, May 20, 2025

Specifications

This high-performance, multi-functional indicator gives you the required flexibility to suit most industrial applications. It is suitable for office areas, industrial facilities, food production, and indoor/outdoor environments, as well as dusty, wet, or heavy washdown environments. The ZM223 provides an easy way to analyze, store, display and transmit data across a wide range of technology methods and comes standard with a wide range of configurable/programmable software applications to meet your needs.

General

Operating Applications

Configurable & programmable apps stored on a micro-SD card: General Weighing, Accumulation, Counting, Check-Count, Checkweighing, % Weight Gain, Grading, Filling, Batching, Animal Hold, Peak Hold, Remote Display, Truck In-Out (See App functionality for more info)

Remote Assist™ Mobile App

Compatible with Avery Weigh-Tronix Remote Assist™ Mobile App. Provides an easy method to quickly enter valuable alphanumeric data into the indicator which can be used for printing or for viewing weight data from a distance through to fast line setup and other data retrieval.

Unit of Measure

Up to three configurable: lb, lb/oz, oz, kg, g, one custom

Capacity Selections

9,999,999 with decimal located zero to five places. Display supports up to six decimal places, if software supports that many.

Incremental Selections

Multiples and sub-multiples of 1, 2, 5

Programmable Selections

Zero range, motion detection, automatic zero tracking, five-point linearization

Time and Date

Battery backed up time/date/year (12-hour AM/PM or 24-hour format)

Calibration

Two to five points stored

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

Self-Diagnostics

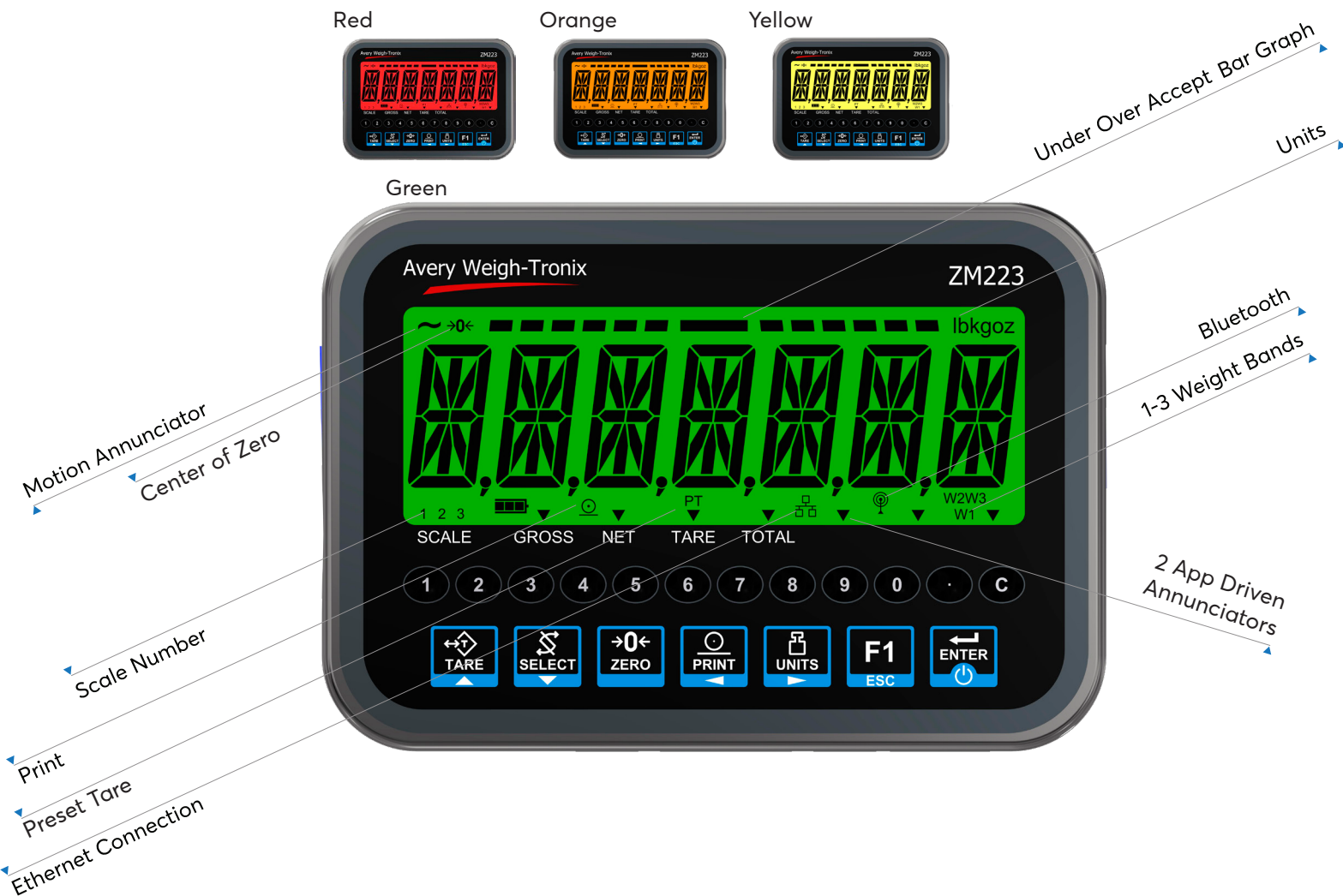
Display, keys, inputs, outputs, serial port, Scale A to D, USB port and option cards

Dynamic Weighing

Minimum nominal weigh time 100 milliseconds, recommended minimum 300 milliseconds

User Interface

Keypad	19 robust, flat, easy-to-clean keys & chemical resistant keypad with audio beep feedback
Operational Keys	Tare, Select, Zero, Print, Units, F1, Enter, 0-9, Decimal, Clear
RPN Function	Provides a secondary function for each key via configuration. Configurable Keys: Select, Print, Units, F1, and Enter
Status Annunciators	Center of Zero, Motion, Gross, Net, Tare, Preset Tare, Print, Battery Status, Scale Numbers 1, 2, Over/Under/Accept Bar Graph, Bluetooth, Ethernet Connection, Weight Bands 1,2,3, lb, kg, g, three Custom Annunciators
Display	Sunlight readable transfective HTN display, seven fourteen-segment, 1.5" (38 mm) high alphanumeric characters, illuminated with color changing backlight (Green, Red, Orange & Yellow)
Display Rate Selectable	(1, 2, 5, 10) times per second



Electrical

Power Requirements	Line voltage: 90-264 VAC (110-240 VAC nominal), frequency 50 or 60Hz, 12 to 24VDC Power consumption: estimated at 200mA at 12VDC for one 350-ohm weight sensor and 250mA at 12VDC for eight 350-ohm weight sensors	Excitation	5VDC, short circuit protected. Supports up to eight 350-ohm weight sensors Four or six conductors with sense leads Detachable plug connectors
Max Current	0.5A or 1A using an external 12VDC power	Analog Signal Input Range	-1 mV/V to 5 mV/V
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	Analog Signal Sensitivity	0.1 μ V/V/divisions minimum 0.5 μ V/V/divisions recommended
Number of Bases	Up to two bases: one analog base & one BSQ Digital Bench Base or two BSQ Digital Bench Bases	Analog Signal Protection	RFI, EMI and ESD protection

Physical Housing

Enclosures

Stainless steel: 304 brushed stainless steel (IP69K certified) with water and dust resistant, breathable, vented gland and tilt stand with provisions for desk, wall and column mounting

Shipping Weight & Dimensions

8.4 lb (3 kg)
14" x 12" x 6.5" (356 mm x 305 mm x 165 mm)

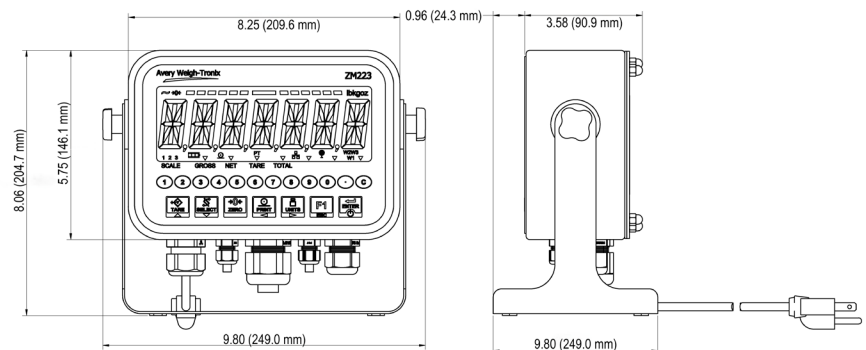
Operating Temperature

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

Dimensions



Approvals

NTEP 10,000D (xxxxxxx) Agencies EC UK----- & GB----- $\leq$ 10,000divs single interval Class III, $\leq$ 1000divs single interval Class IIII 3 Multi range / 3 Multi interval 3000d R61 UK/----- & CUL, IP69K,NSF, NOM GB----- $\leq$ 10,000divs, Ref(x)=0.02, Scale Interval $\geq$ 0.5g NTEP (US) Class III/IIIL 10,000 d (CC# xxxxxx) OIML R76 Class III and IIII

Measurement Canada India Australia (NMI Sxxx) New Zealand (MCA xxxx) CE UL/C-UL IP69K (case)

Input-outputs/Data Storage

Remote Inputs	Up 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	Micro-SD Slot	Compatible with micro-SD cards up to 32GB, read individual files up to 4GB Supplied with 16GB micro-SD cards as standard
Standard Outputs	Up to six outputs Configurable apps: Mostly use three inputs, three outputs Programmable apps: Can be programmed to inputs or outputs	Micro-SD Card Usage	Micro-SD card also holds all our configurable Avery Weigh-Tronix apps that can be selected to run based on each customers needs • Scale profile backup • PLU database storage backup area • Alibi memory data storage backup area • ZM223 app library retrieval area • Transaction data storage
Serial Ports	Two serial Comm ports: internally 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.	Programming Language	Lua programmable and fully configurable. Comes standard with a library of applications stored on the internal micro-SD card.
USB Host	Internal USB A connection for USB Printer, USB Memory, USB Scanner, USB Keyboard, and optional external washdown USB connector	Data Drive Storage	Configurable (flash memory, USB storage memory, micro-SD card, or external to a PC or cloud server)
Bluetooth®	BLE used to connect to Remote Assist™ Mobile IOS, Android, Windows App	Alibi/Archiving Memory	100,000 transactions
Ethernet	The Ethernet port can be configured to support multiple independent devices, it supports DHCP, Client/Server TCP Socket Connections, and UDP Fieldbus: Ethernet IP & Modbus TCP Cloud Server Connection: HTTPS & MQTT. Ideal for connecting to customers cloud data base servers	Optional	Holds one of the following option cards • Analog output card • STVS extreme lightning surge protection ideal for use with outdoor platforms or weighbridges Can be fitted with one of the external glands • USB A watertight gland • Ethernet watertight gland



More online

- Technical specifications
- User manuals
- News and information

Avery Weigh-Tronix

www.averyweigh-tronix.com

Avery Weigh-Tronix is an ITW company