# Avery Weigh-Tronix

# ZM

## 201 SERIES

Indicators for daily weighing tasks with powerful built-in applications.

*Technical Specification*

## DESCRIPTION

ZM201 Series indicators are ideal for applications that require a basic weighing indicator for performing Zero, Tare and Print functions. Their simple yet powerful design makes them the perfect choice for connecting with bench, platform or floor scale and bin/tank/hopper (vessel) scales.

## SPECIFICATIONS

### GENERAL

| | |
|---|---|
| **Operating Applications** | General weighing, general weighing with accumulation, checkweighing, counting, peak measurement, batching and remote display |
| **Calibration** | Two to five points stored |
| **Analog To Digital Measurement Rate** | 80 Hz |
| **Unit Of Measure** | Two, configurable (pounds, kilograms, ounce, gram, pound/ounce, custom) |
| **Capacity Selections** | 9,999,999 with decimal located zero to five places |
| **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 hr or 24 hour format) |
| **Internal Resolution** | 53,687,100 counts per mV/V per second |
| **Digital Filtering** | Harmonizer filtering with adaptable constant and threshold |
| **Self Diagnostics** | Display, keys, inputs, outputs, serial port |

### ELECTRICAL

| | |
|---|---|
| **Power Requirements** | *Line voltage:* 90 VAC to 264 VAC (110-240 VAC nominal), frequency 50 or 60 Hz, 12 to 36 VDC<br>*Power consumption:* estimated at 150 mA at 12 VDC for one weight sensor and 180 mA at 12 VDC for four weight sensors |
| **Excitation** | 5 VDC, short circuit protected<br>Supports up to four 350 ohm weight sensors<br>4 or 6 conductors with sense leads<br>Detachable plug connectors |
| **Analog Signal Input Range** | -1 m/V/V to 5 mV/V |
| **Analog Signal Sensitivity** | 0.1 μV/V/divisions minimum<br>0.5 μV/V/divisions recommended |

### USER INTERFACE

| | |
|---|---|
| **Operational Keys** | Tare, Select, Zero, Print, Units, F1, On/Off (no keys on signal processor) |
| **Status Annunciators** | Center of Zero, Motion, Gross, Net, Tare, Count, Print, Battery Status, Setpoint 1, Setpoint 2, Setpoint 3, Over/Under/Accept bar graph or fill bar graph, lb, kg, Preset Tare, Total, (Custom unit of measure– lb/oz, ton, gram, configurable), Active Ethernet connection |
| **Keypad** | 7 key chemical resistant polycarbonate |

| Display | ABS: TN backlit 7-digit seven segment display with 1.2 in / 30 mm high digits<br>Stainless steel: TN backlit 7-digit seven segment display with 0.5 in / 13 mm high digits<br>Panel mount: TN backlit 7-digit seven segment display with 0.5 in / 13 mm high digits<br>Signal processor: No display<br>Displays have annunciators for status and mode identification |
|---|---|
| Display Rate | Selectable (1, 2, 5, 10) times per second |

## INPUT/OUTPUT

| Remote Inputs | Three logic level inputs for Zero, Print, Tare, Units, or Select |
|---|---|
| Standard Outputs | Three set point outputs, open collector design |
| Communications | Two serial ports:<br>  - Comm 1 RS232, no handshaking<br>  - Comm 2 RS232, no handshaking<br>Ethernet: TCP/IP, DHCP, Static IP<br>Protocols (all ports):<br>  - SMA Broadcast, Remote Display, and NCI<br>ZM201 Signal Processor Modbus/TCP |
| Circuitry Protection | RFI, EMI and ESD protection |

## PHYSICAL

| Operating Temperature | Compliance with legal-for-trade requirements<br>Approval: 14° to 104° F / -10° to 40° C<br>  at 10 to 90% relative humidity, non-condensing<br>Industrial: -4° to 140° F / -20° to 60° C<br>  at 10 to 90% relative humidity, non-condensing |
|---|---|
| Enclosure | Stainless steel: 304 brushed stainless steel IP66 with<br>  tilt stand/mounting bracket<br>Plastic: ABS plastic IP20 with rubber feet<br>Panel mount: Stainless steel panel mount IP66 |
| Weight | ABS: 3.87 lb / 1.75 kg<br>Stainless steel: 7.34 lb / 3.32 kg<br>Panel mount: 4.18 lb / 1.89 kg<br>Signal processor: 4.25 lb / 1.93 kg |
| Dimensions | See drawings |

## APPROVALS

| Patent | US Patent 672,262 |
|---|---|
| Agencies | NTEP (US) Class III/IIIL 10,000 d CC# 13-017<br>OIML (European and UK) Class III 6,000 d<br>  (R76/2006-GB1-13.02)<br>Measurement Canada AM-5902C[†]<br>Australia (NMI S655)<br>MID R61<br>New Zealand (2135)<br>CE<br>UL/cUL<br>EC |

[†] Signal Processor not approved by Measurement Canada
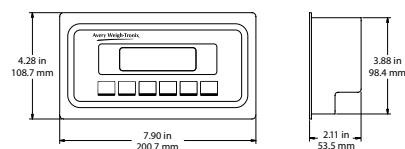
## OPTIONS

| Battery Pack | Internal NiMH rechargeable pack providing 18<br>  hours operation on a single weight sensor<br>  system and 14 hours on a four weight sensor<br>  system. Maximum charge time is five hours. |
|---|---|
| ZM-OPTO | Provides setpoint interface |
| Ethernet Watertight Gland | Rubberized and sealed |
| AC to DC Power | In-Line AC to DC power module |
| Pole Mounting Kit | For ABS model |

*Panel Mount*

4.28 in / 108.7 mm — 7.90 in / 200.7 mm — 3.88 in / 98.4 mm — 2.11 in / 53.5 mm

*ABS*

6.50 in / 165.0 mm — 9.65 in / 245.0 mm — 30° — 3.74 in / 95.0 mm — 4.01 in / 101.8 mm

*Stainless Steel*

9.63 in / 244.6 mm — 8.25 in / 209.6 mm — 3.55 in / 90.2 mm — 6.5 in / 165.1 mm — 8.75 in / 222.3 mm — 8.43 in / 214.1 mm — 5.0 in / 127.0 mm
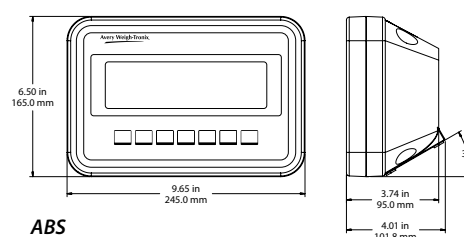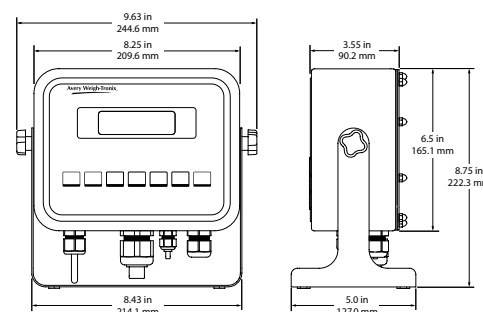
### More online

www.gse-europe.de/en/ZM201.aspx

› Technical specifications

› User manuals

› News and information

# Avery Weigh-Tronix

*www.averyweigh-tronix.com*

*Avery Weigh-Tronix is an ITW company*