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 *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 Supports up to four 350 ohm weight sensors 4 or 6 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

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
	Stainless steel: TN backlit 7-digit seven segment display with 0.5 in / 13 mm high digits
	Panel mount: TN backlit 7-digit seven segment display with 0.5 in / 13 mm high digits
	Signal processor: No display
	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:
	- Comm 1 RS232, no handshaking
	- Comm 2 RS232, no handshaking
	Ethernet: TCP/IP, DHCP, Static IP
	Protocols (all ports):
	- SMA Broadcast, Remote Display, and NCI
	ZM201 Signal Processor Modbus/TCP
Circuitry Protection	RFI, EMI and ESD protection

PHYSICAL

Operating Temperature	Compliance with legal-for-trade requirements
	Approval: 14° to 104° F / -10° to 40° C
	at 10 to 90% relative humidity, non-condensing
	Industrial: -4° to 140° F / -20° to 60° C
	at 10 to 90% relative humidity, non-condensing
Enclosure	*Stainless steel:* 304 brushed stainless steel IP66 with tilt stand/mounting bracket
	Plastic: ABS plastic IP20 with rubber feet
	Panel mount: Stainless steel panel mount IP66
Weight	*ABS:* 3.87 lb / 1.75 kg
	Stainless steel: 7.34 lb / 3.32 kg
	Panel mount: 4.18 lb / 1.89 kg
	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
	OIML (European and UK) Class III and IIII 6,000 d (R76/2006-GB1-13.02)
	Measurement Canada AM-5902C[†]
	Australia (NMI S655)
	MID R61
	New Zealand (2135)
	CE
	UL/cUL
	EC

Measurement Canada Approved

NTEP   OIML

CE   c UL us LISTED

[†] Signal Processor not approved by Measurement Canada
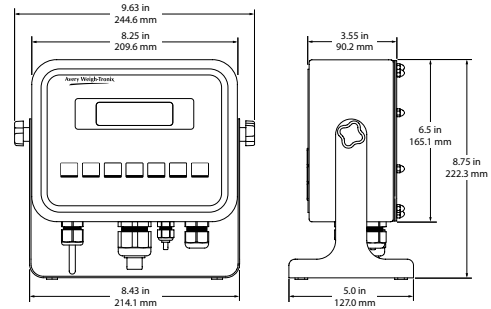
OPTIONS

Battery Pack	Internal NiMH rechargeable pack providing 18 hours operation on a single weight sensor system and 14 hours on a four weight sensor 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

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

Panel Mount

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

ABS

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
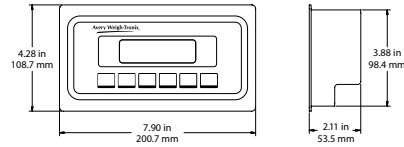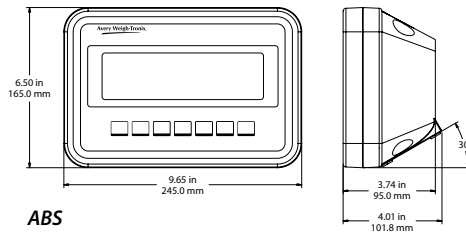
Stainless Steel

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