



DESCRIPTION

General

The E1070 Checkweigher from Avery Weigh-Tronix; combines rugged stainless steel construction with the proven accuracy of specially designed stainless steel load cells.

The Avery Weigh-Tronix E1070 checkweigher allows precise monitoring of the machinery that dispenses product and gives the option to fine-tune any operation for maximum performance and profitability.

The foundation of all Avery Weigh-Tronix checkweighers are the patented Avery Weigh-Tronix bases, the industry standard for durability.

Design

The E1070 Checkweigher is completely wash-down safe and perfect for tough environments. It features stainless steel construction including base, column, load-cell and indicator enclosure. The standard indicator enclosure is adjustable from a vertical position to a tilt of 20 degrees.

Features

- The E1070 includes a multi-segment fan graph for fast evaluation. The operator can instantly verify that products are within the target range or above or below acceptable tolerance. In addition to its checkweighing feature also included are batching, counting, and peak measurement features.
- The E1070 has the ability to grow and adapt to new processes.
- Switching easily from job to job, this indicator applies to general weighing applications adding the capability of process control interface and data management.



E1070 checkweigher

Technical Specification

- Uncomplicated, the E1070 checkweigher provides process control and data management. Offering the advantage of the built-in interfaces—Ethernet 10/100, PROFIBUS® and DeviceNet™—the indicator is ideally suited for sharing data.
- In addition to network interfaces, the E1070 connects to printers, remote displays, computers and SensorComm™. SensorComm is the Avery Weigh-Tronix micro-processor-based digital junction box.
- The bright LED display with 0.8" digits allows the operator to view weights with a quick glance.

SPECIFICATIONS

Environment

14° to 104°F (-10° to +40°C) Water washdown
Humidity: 10% to 95% relative, non-condensing

Agencies

NTEP, EU Trade Approved, Canadian Weights and Measures, UL/CUL, CE marked, USDA compliant

Indicator

Power requirements

Standard: 85-265 VAC 50/60 Hz @ 0.3 Amp max.

Circuitry protection

RFI, EMI, and ESD protection

Display

Green LED 20 mm, displays up to six digits

Decimal Points: Configurable to any of six positions

Units Displayed: lb, kg, custom

Capacity selections: 999,999 with decimal located from zero to five places

Keypad

Numeric entry

One Function key

Dedicated Function Keys: Zero, Tare, Select, Print, Units, Standby, Escape, Enter, Clear



Annunciators

Balance (Gross Zero); Motion; Gross; Tare; Pre-set Tare; Net; lb, kg, custom; Under/Target/Over; Print; Three Trip Outputs

Load Cell Input

Maximum Load Cells of 350Ω – Eight

Excitation: Direct current

Voltage: ± 5V dc

Current: up to 230 mA

Remote Sense: Compatible with 4-wire and 6-wire weight sensors.

µV/ per Division: 1.6 minimum.

Resolution: Non- Approved 100,000, Approved 10,000.

A/D Conversion Rate

Display Update Rate: 1, 2, 5, 10 per second.

A to D Rate: 100 per second

A to D Type: Delta Sigma

Internal resolution

53,687,100 counts per mV/V per second

Excitation

+/- 5 volts DC

Supports up to eight 350-ohm weight sensors

Analog signal input range: +/-60 mV

Analog signal sensitivity: 0.2 µV/V/divisions minimum, 1.0 µV/V/divisions recommended

Available current

Up to 230 mA

Controls:

Twenty-two keys: Tare, Select, Zero, Print, Units, F1, Clear, Mode, Escape, Enter, On/Off, Decimal, 0-9 numeric

Construction:

Stainless steel, NEMA 6/4X enclosure

Calibration

Full digital multi-point (five point) calibration. Theoretical calibration entry possible if weight sensor parameters are known. Provides over load report.

Increment Multiplier: 1, 2, 5, 10, 20, 50, 1/2, 2/5, 5/10, 10/20, 20/50, 50/100.

Display rates

Six-digit, seven-segment, 0.8-inch high, LED

Display rate: Selectable (1, 2, 5, 10)

Recipe/Filling

Control of complete process using configurable trips. In-flight compensation may be set to optimize the process.

Totalizing Against Dedicated Product Look Ups (PLU)

Link weighings to PLUs for complete stock control.

Automatic Zero Tracking

Not selectable

1 displayed division

Filter

Harmonizer™ digital filtering

Four Programmable Parameters:

Samples to Average – sets number of A-D conversions which will be averaged to give a weight reading.

Filter Type – Single Pole, Three Pole

Filter Setting – Sets how much damping the harmonizer applies to the weight reading.

Typically between 1 (low) – 10 (higher).

Threshold Level - set the minimum weight change (in calibration units) which the harmonizer will not attempt to filter out as noise.

Standard inputs

Three logic level inputs for: Zero, Print, Tare, Units, F1, Start and Stop

Standard outputs

10/100 Ethernet

(Modbus/TCP, TCP/IP, SMTP, DHCP, Ethernet/IP, SMA Protocol response)

PROFIBUS DP

DeviceNet

Two serial ports

*RS-232/422/485

(SensorComm) selectable

*RS232 or 20mA current loop

Three cutoff outputs

Serial Command Inputs/Outputs

Programmable serial response to ASCII character input SMA protocol response (www.scalemanufactures.org), Broadcast

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/RAM

Battery backed up real time clock and RAM standard

Temperature Range

-10 to 40° C (14 to 104° F) approved

-40 to 60° C (-40 to 140° F) non-legal

Humidity

Up to 95% non-condensing humidity

Accuracy (Indicator)

NTEP Class III 10,000d CC#04-031

OIML certificate number R76/1992-GB1- 04.10

Canadian Weights and Measures - AM-5528

EU - UK2722

South Africa and New Zealand - MCA 1775

Australia - S 462

UL/CUL

CE Marked

Indicator Options

- Analog output/Pulse input
- ControlNet™
- Remote I/O
- TIU3
- Washdown remote foot control





Patented Torsion Bases

The innovative Breakaway Load Transfer System keeps dropped loads and side loads from wrenching the shroud and damaging the loadcell.

Proven 500% overload protection

Torsion assembly in the scale base automatically transfers shock loads and overloads away from the load cell to the scale frame. Scale frame and shroud are all corrosion resistant stainless steel, suitable for food processing environments.

Designed washdown resistant

Tough, easy to clean stainless steel construction makes the scale immune to washdown and changes from hot to cold environments.

Cable

Comes standard with a 10-foot load cell cable

Corner load

100% of scale capacity

Construction

NEMA 4X/IP66 – All-stainless steel structure and load cell

Capacities and increments (* factory default - unsealed)

Pounds	Kilograms	Custom (downloadable through e-Tools)
6 x 0.001	3 x 0.0005	Dependent on conversion factor
6 x 0.002*	3 x 0.001	Dependent on conversion factor
12 x 0.002	6 x 0.001	Dependent on conversion factor
12 x 0.005*	6 x 0.002	Dependent on conversion factor
30 x 0.005	15 x 0.002	Dependent on conversion factor
30 x 0.01*	15 x 0.005	Dependent on conversion factor
60 x 0.01	30 x 0.005	Dependent on conversion factor
60 x 0.02*	30 x 0.01	Dependent on conversion factor
100 x 0.02	50 x 0.01	Dependent on conversion factor
100 x 0.05*	50 x 0.02	Dependent on conversion factor

Scale base dimensions

6-lb and 12-lb scales: 8.75" x 8.75" x 3"
(22 cm x 22 cm x 8)

30-, 60-, and 100-lb scales: 12.25 x 13.75 x 3.25
(31 cm x 35 cm x 8 cm)

Environment

14° to 104°F (-10 to 40°C) Water washdown

Accuracy (base)

NTEP CC# 92-173 class III 3,000 divisions (Base)

Measurement Canada Cert# AM-5557 (Base)

EU Trade Approved (Complete scale)

3,000d EC certificate TAC DK0199.41

Patented Diamond Series Bases

The Diamond Series Base has set a high standard for performance. This tough and dependable design can be counted on for a lifetime of hard work.

Extremely reliable

Single load cell design, no moving parts provides for lower maintenance.

150% overload protection

Rugged overload stops protect scale from excessive loads or dropped objects.

Corner load

100% of scale capacity.

Cable

Comes standard with a 10-foot load cell cable.

Construction

NEMA 4X/IP66 – All-stainless steel structure with encapsulated load cell including four (4) rigidly bolted stainless struts

Capacities and increments

Pounds	Kilograms	Custom (downloadable through e-Tools)
100 x 0.02	50 x 0.01	Dependent on conversion factor
200 x 0.05	100 x 0.02	Dependent on conversion factor
500 x 0.1	220 x 0.05	Dependent on conversion factor

Scale base dimensions

100-lb scale: 20" x 20" x 4" (51 cm x 51 cm x 10 cm)

200 & 500-lb scale: 24" x 24" x 4" (61 cm x 61 cm x 10 cm)

Environment

14° to 104°F (-10 to 40°C) Water washdown

Accuracy (base)

NTEP CC# 88-104 III 5,000 divisions (Base)

Measurement Canada Cert# S.WA-3097 (Base)

EU Trade Approved (Complete scale)

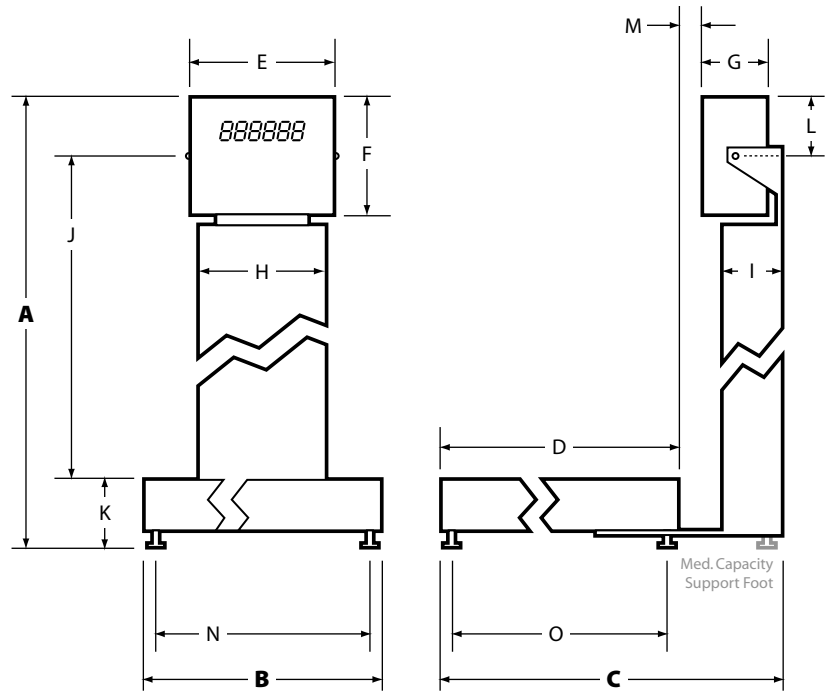
3,000d EC certificate TAC DK0199.41

Options (Diamond Series Only)

- Ball-top shroud – Keep product moving. Reduce operator lifting and bending.
- Portable cart – Move the scale easily from site to site. Double the work of a single scale. Constructed of stainless steel, adjustable height, with attached indicator stand.
- Extended cable length – If your application calls for placing the indicator at a remote location.



PHYSICAL SPECIFICATIONS



Low Capacity Dimensions

Model	Capacity	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
9x9 Standard Tower	6, 12	19.25	8.75	14.62	8.75	9.25	9.25	4.44	7.69	3.66	10.38	2.81-3.31	5.56	.56	6.95	11.68
9x9 Extended Tower	6, 12	25.50	8.75	14.62	8.75	9.25	9.25	4.44	7.69	3.66	16.38	3.06-3.56	5.56	.56	6.95	11.68
12x14 Standard Tower	30, 60, 100	19.25	13.69	17.94	12.19	9.25	9.25	4.44	7.50	3.62	10.38	3.56-4.06	5.56	.75	11.50	10.00
12x14 Extended Tower	30, 60, 100	19.50	13.69	17.94	12.19	9.25	9.25	4.44	7.50	3.62	16.38	3.56-4.06	5.56	.75	11.50	10.00

Medium Capacity Dimensions

Model	Capacity	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
20x20 Standard Tower	100, 200	36.62	20	26.56	20	9.25	9.25	4.44	7.69	3.50	27.06	3.88-4.12	5.56	1.15	18.75	18.75
24x24 Extended Tower	100, 200	36.62	24	30.56	24	9.25	9.25	4.44	7.69	3.50	27.06	3.88-4.12	5.56	1.15	22.75	22.75

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