

Avery Weigh-Tronix

Checkpoint M-VA

WIPOTEC • POWERED

DYNAMIC CHECKWEIGHING



Checkpoint M-VA

WIPOTEC • POWERED

Optimum performance with high precision in a wet environment



The standard model may be equipped with a built-in printer or Smartfile System



Throughput speeds up to 230 pieces/minute

The **Checkpoint M-VA** is designed for mid-range checkweighing in wet environments where constant washdown is a necessity.* Whether you need to check current nominal weight or sort and classify, the Checkpoint M-VA provides the means to do the job with greater speed and efficiency.

Durability and efficiency of design

A heavy, solid stainless steel base frame provides the stability needed for high weighing precision at medium and high belt speeds. The control panel and drive motors are fully protected within 316 stainless steel (IP65) enclosures. Motors are also equipped with special sealed bearings for splash protection.

The low-weight, patented conveyor belt systems also feature all-stainless-steel construction, and a carefully tuned drive system ensures smooth operation for fast, safe transport of products.

Individually modified solutions for varying product shapes are easily accommodated. Quick-change clamps on conveyors allow easy belt exchange without tools.

A wide range of application-specific sorting devices is available to reliably discharge products that have incorrect weights, without disturbing the ongoing production.

Touch screen operation

0,0 g Product No. : 5		STAND BY	
		GENERALPASSWORD	
STATISTICS	PRODUCTION		
GRAPHICS	PRODUCT		
PASSWORD	LIST		
SYSTEM	SERVICE		

A menu-guided touch screen with alphanumeric input facilitates fast, easy setup and adjustment of the scale for different products and requirements.

Display and modify master data with a simple touch

Password protection prevents unauthorized access to the individual functions and parameter settings.

Factory defaults are permanently stored and may be loaded at any time. This provides the assurance of a well-defined operating condition when needed.

The desired units for operation and machine management are user selectable from the menu: grams (g) or kilograms (kg); ounces (oz) or pounds (lb).

* The Checkpoint M-VA is designed to be cleaned by low pressure water jet. For high pressure water jet, steam or harsh chemical cleaning, select the Checkpoint M-NH.



EMFR

WIPOTEC

Weigh Cell Technology

with Electromagnetic Force Restoration (EMFR)

To achieve the speed and accuracy required for dynamic checkweighing, Wipotec Weigh Cells are used in all Avery Weigh-Tronix Checkpoint models.

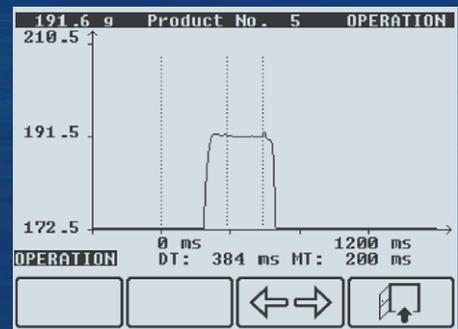
Operational Features

- 100% production monitoring of products to ensure they meet the minimum weight or average weight requirements with production documentation
- Rejection of out-of-tolerance products with choice of mechanisms including: air blast, pusher, flipper or diverter
- Production documentation shown by means of graphic screens for statistics histogram, trend and average value curves by pieces, hours or minutes.
- 3 different weighing ranges
- 5 weight classes for under, accept and over classification
- 50 PLUs (incorporates all relevant information required for the assigned product)
- Touch screen simple, menu-guided operation
- Multi-level password protection
- 3 different working height ranges
- Right to left or left to right working directions
- Simple belt and conveyor change, no tools required
- Maintenance-free servo drive includes motor and electronics
- Compact design for easy integration into production lines
- Line synchronization with isolated relay contacts
 - Remote start (input)
 - Weighing mode (output)
 - Error (output)
- 20 automation channels available: eight input and 12 output channels
- Main power switch located on electrical cabinet
- Photo cell for product recognition mounted on supporting frame
- Simple menu-driven calibration
- AutoZero tracking capabilities
- Tare weight input for checking net weights
- Standard statistics including totals, over/under weights, standard deviation, average, etc.
- Bubble level on frame for accurate machine leveling
- Emergency by-pass for "worst-case scenario" resets the checkweigher to "product transport with the last selected speed" – Production can continue uninterrupted and the weight check can be performed at a later time

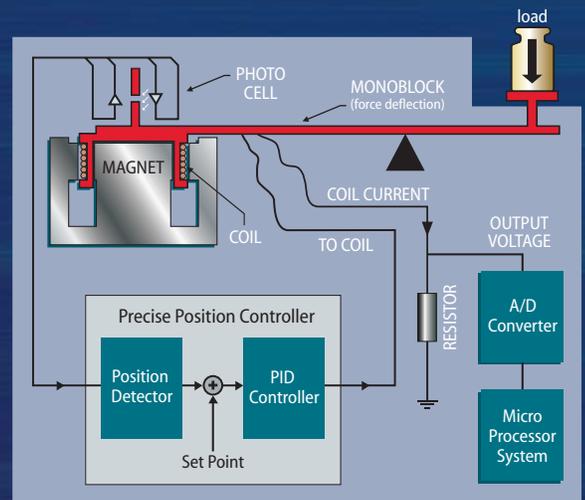
EMFR Operating Principle and Weigh Cell Design

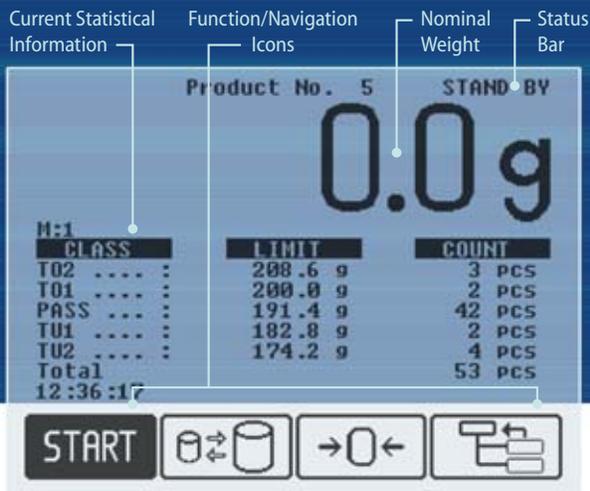
Weigh Cells are an electronic version of the simple beam scale. A coil is attached to one end of the beam and load applied to the other. The amount of electrical current required to hold the coil at a neutral position within a magnetic field is proportional to the applied load. Since the Weigh Cell calculates weight based on changing current rather than physical motion, it is able to provide an extremely fast response time (typically 60 ms to reach 99.9% of the final value).

Checkweigher analysis tool



The links and levers that form the heart of the Weigh Cell are machined into a one-piece "monoblock" to ensure high precision, short settling time and reliable operation in an industrial environment. The electronics required to produce a useable digital signal, along with temperature and vibration compensation, are incorporated within the Weigh Cell.





Powerful standard software and user-friendly interface

The graphical interface simplifies training, allows quick access to operating parameters and clearly displays the desired checkweighing data.

Standard Configuration

- Welded stainless steel (AISI 316) tubular frame with stainless steel control cabinet/operating column and polycarbonate front cover
- Integrated display/control system with 5.7" graphical touch screen
- 3 transport conveyors (infeed, weighing and outfeed)
- 1 sorting device, mounted on the mainframe (pusher or air blast)
- 1 set – operator/maintenance manual, electrical and pneumatic drawings, spare parts catalog

Avery Weigh-Tronix Checkpoint systems are certified in accordance with DIN ISO 9001-2000. Our checkweighers are distinguished by their precision and reliability. They were designed and manufactured for long-lasting, continuous operation.

Specifications

Type	Checkpoint M-VA 3000-3	Checkpoint M-VA 3000-2	Checkpoint M-VA 4000-2
Weighing range	0 to 1500 g	0 to 3750 g	0 to 7500 g
Resolution ⁽¹⁾	0.2 g	0.5 g	1.0 g
Maximum possible throughput ⁽¹⁾ parts per minute (ppm)	230	230	230
Conveyor width (30 mm dia roller) millimeters	120/150/200/300	120/150/200/300	120/150/200/300
Standard weighing conveyor length (30 mm dia roller) millimeters	200/250/300/400/500/600		
Units of measure	lb/oz/kg/g		
Sorting device	Air blast for products up to 500 g Pusher for products above 500 g ⁽²⁾ Drop-flap conveyor ⁽³⁾ Diverter gate ⁽³⁾		
Printer ⁽³⁾	Built-in printer for production documentation / Smartfile / interface for external printer connection		
Temperature range	5 to 40°C (40 to 104°F) 80% non-condensing humidity		
Electrical supply	115 V / 230 V; 60 Hz / 50 Hz		
Maximum power consumption	800 VA		
Degree of protection	IP65		
Pneumatic connection	87 psi		
Agency approvals	Certified for several countries; OIML R51 #NL-00.01, Measurement Canada #AM-5368		

(1) Depends on weight, dimensions and behavior of the product as well as conveyor speed and environmental conditions.

(2) Pusher for products over 1,000 g only in combination with a free-standing sub-frame

(3) Optional

Optional portable data storage system



32K Bytes Data Card



PC Compatible Card Reader

Add-on capabilities for even greater application flexibility

The basic model of the Checkpoint M-VA covers an extraordinarily wide and versatile spectrum of applications. This versatility is supplemented by many selectable options.

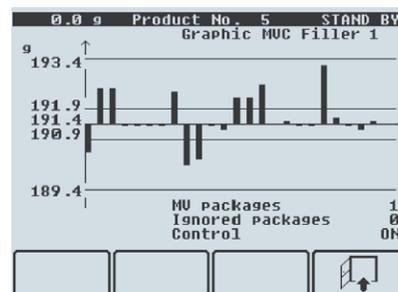
The Checkpoint M-VA can be equipped with a mean value control (MVR-1). This feature allows the control of automated filling machines. It is a valuable tool to reduce and/or eliminate inefficient overfilling. The production tendency can be graphically represented.

When integrated into a production line, the Checkpoint M-VA can be started by remote-control using the line synchronization of a higher line control.

By the integration of additional safety components, all drives as well as the pneumatics can be operated off circuit (optional feature). In order to ensure that products which are out of tolerance are rejected, a rejection verification is available. A photo sensor located downstream from the sorting device monitors the actual product flow and, if necessary, stops the belts immediately.

With the extensive range of optional equipment, the Checkpoint M-VA can be easily adapted for specific application requirements.

Track production with optional MVR-1



Options

- Memory expansion for 80 product PLUs
- Remote electronics cabinet including the touch screen
- Remote secondary weight-only display
- 3 or 5 zone lights, indicating classification status
- Error light indicating machine status
- Audible alarm signal
- One external error input: used in combination with other devices such as a metal detector
- Air pressure verification: monitors the performance of the reject device by stopping the machine and displaying an error message in the event of pressure drops
- E-Stop: remote or machine mounted emergency push button immediately stops checkweigher
- Guide rails: lateral rails mounted on infeed conveyor for product positioning
- Consecutive Reject Alarm: activates in the event of consecutive rejects. Target count is set by customer.
- Sorting device: air blast, pusher, drop-flap conveyor or diverter gate, reliably discharges items of incorrect weight without disturbing the ongoing production
- Reject verification: monitors the performance of the reject device
- Weigh Conveyor Cover Guard: hinged polycarbonate guard for protection from air drafts
- MVR-1: mean value regulator for one (1) filling head. Checkpoint sends two binary signals to the controls of the filling head (\pm adjustment).
- Statistics package providing comprehensive statistical data concerning all products produced
- Built-in printer, Smartfile System or Centronics printer to print statistics package for production documentation
- Interface to transmit individual weights via RS-232, RS-422, RS-485, TTY (current loop)

THE RIGHT SYSTEM FOR THE JOB



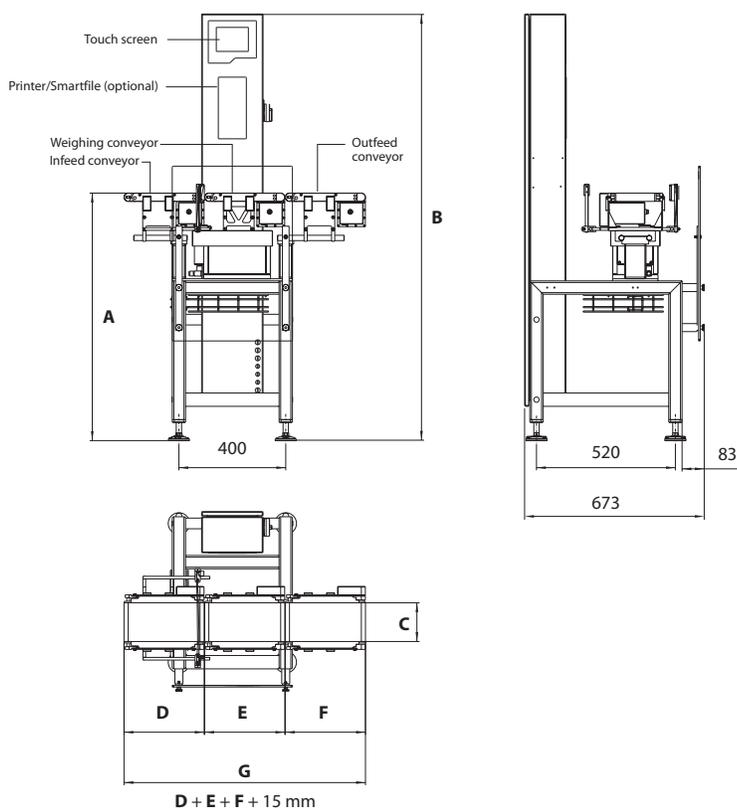
Products shown above include some optional equipment.

Localized sales and service support

Your Avery Weigh-Tronix distributor has valuable application experience and can help determine whether the Checkpoint M-VA or one of the other efficient Checkpoint models is best suited for your needs. Avery Weigh-Tronix distributors are valuable resources that are readily available to you. They are complete support centers, providing needs assessment, technical information, product sales and service.

M-VA Series Dimensions

	mm	inches
A Working height	700 – 850	27.55 – 33.46
	800 – 950	31.49 – 37.40
	900 – 1050	35.43 – 41.33
B Total height	Approx. 1580 mm (+150 mm when using the maximum foot height)	Approx. 62.20" (+5.91" when using the maximum foot height)
C Conveyor width	120	4.72
	150	5.91
	200	7.87
	300	11.87
D Infeed/Outfeed conveyor length	250	9.84
	300	11.81
	400	15.74
	500	19.68
	600	23.62
E Weighing conveyor length	200	7.87
	250	9.84
	300	11.81
	400	15.74
	500	19.68
F Outfeed/Infeed conveyor length	250	9.84
	300	11.81
	400	15.74
	500	19.68
	600	23.62



Please call us or visit www.wtxweb.com for your nearest Avery Weigh-Tronix distributor.

Avery Weigh-Tronix

Fairmont, Minnesota U.S.A.
 USA Toll-Free: 800-368-2039
 USA Phone: 507-238-4461
www.wtxweb.com

Pointe Claire, Quebec Canada
 CAN Toll-Free: 800-561-9461
 CAN Phone: 514-695-0380
www.weigh-tronix.ca



Avery Weigh-Tronix reserves the right of technical modification. Specifications are subject to change in accordance with any such modification.