

Flexible weight indicator for advanced applications.

Technical Specification



*IP69K Stainless Steel Enclosure  
Graphic Display*  
**IP69K**



*IP66 Stainless Steel Panel Mount  
Enclosure Graphic Display*



## DESCRIPTION

This high performance, multi-function indicator provides the flexibility to adapt for your applications. Pixels across the full length and height of the 320 by 80 display can be used to create personalized Human Machine Interface messages such as user prompts, images and status annunciators.

Suitable for the office, dusty, wet or high pressure and heavy washdown environments, these indicators can display, analyze, store, and transmit data across a range of technology methods to meet your specific installation.

## SPECIFICATIONS

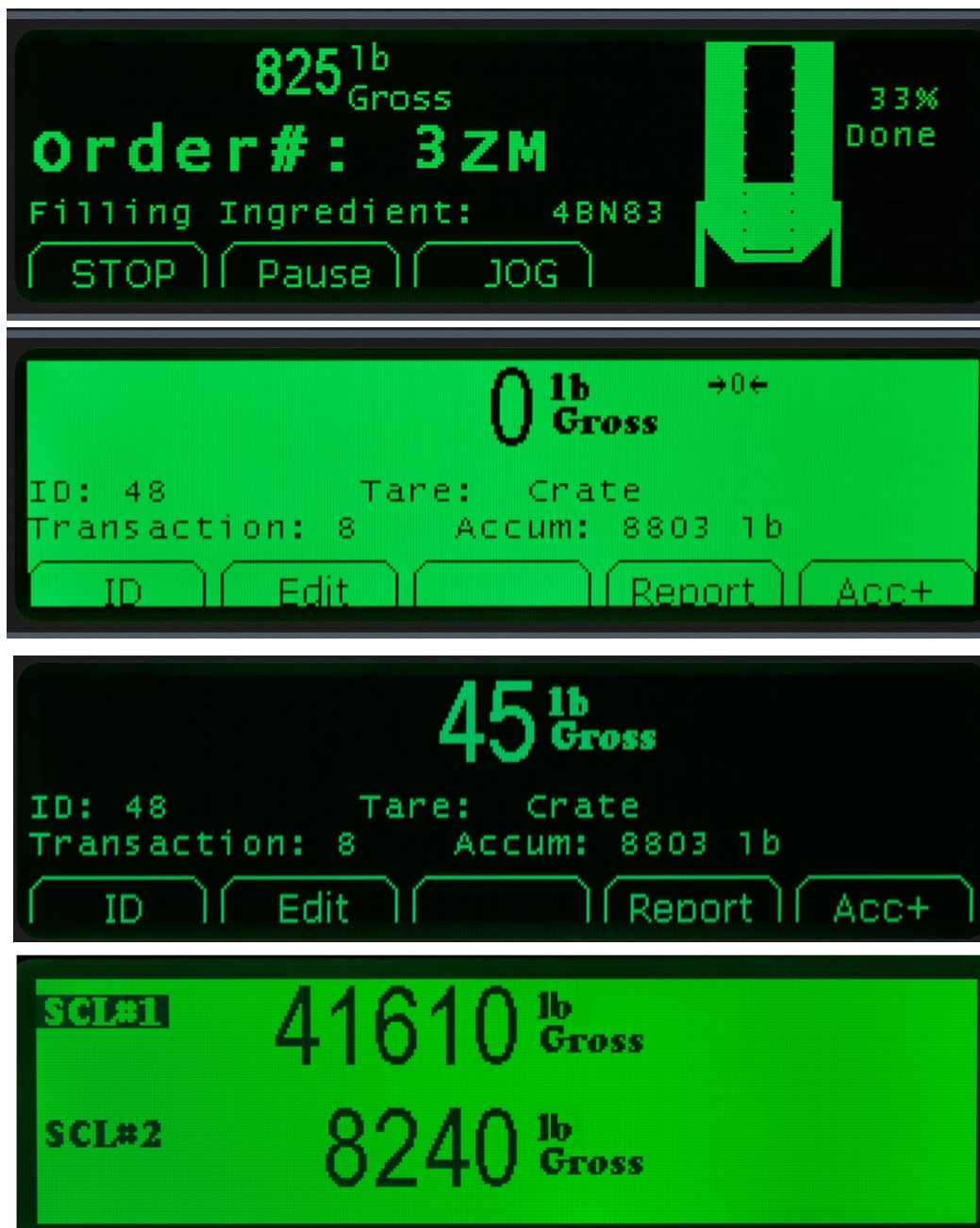
### GENERAL

<b>Unit of Measure</b>	Four active choices (Kilograms, Ounce, Gram, Pounds, Pound/Ounce, Ton, Tonne, Custom)
<b>Capacity Selections</b>	9,999,999 with decimal located zero to five places
<b>Incremental Selections</b>	Multiples and sub-multiples of 1, 2, 5
<b>Multi-Range/Multi-Interval</b>	Up to three independent weight ranges and divisions
<b>Programmable Selections</b>	Zero range, motion detection, automatic zero tracking, eight point linearization
<b>Time and Date</b>	Battery backed up time/date/year (12 hour AM/PM or 24 hour format)
<b>Calibration</b>	Two to ten points
<b>Analog to Digital Measurement Rate</b>	100 Hz
<b>Internal Resolution</b>	67,108,864 counts per mV/V per second
<b>Digital Filtering</b>	Harmonizer™ filtering with adaptable constant and threshold
<b>Self Diagnostics</b>	Display, keys, inputs, outputs, serial port, scale A to D, USB port and option cards
<b>Dynamic Weighing</b>	Minimum nominal weigh time 100 milliseconds, recommended minimum three hundred milliseconds
<b>Programming Language</b>	Avery Weigh-Tronix Lua, WT Basic, GSE Macro

## USER INTERFACE

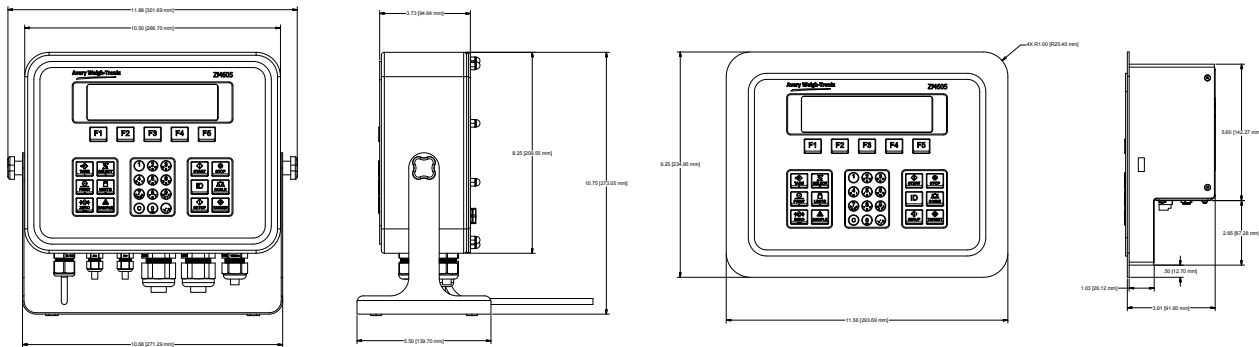
<b>Keypad</b>	ZM605 has a 29 key chemical resistant keypad with metal domed tactile feedback and audio confirmation when pressed
<b>Operational Keys</b>	Zero, Print, Units, Tare, Sample, Setup, ID, Scale, Target, 5 Function Keys (F1-F5), Select, Start, Stop, 0-9, Alpha, Decimal, Clear and Common Symbols
<b>Status Annunciators</b>	Center of Zero, Motion, Battery status, Preset Tare, Active Ethernet Connection, Unit of Measure and more are shown on the dot matrix display
<b>Display</b>	Improved Super Twisted Nematic (ISTN) Graphic Display: the green illuminated with black background 320 x 80 pixel display provides wide viewing angles and high brightness. Pixels can be organized on the display to create personalized Human Machine Interface messages and images. A mode selection allows the image to be displayed in reverse image for applications that would benefit from dark characters with a clear/light contrasted background.
<b>Display Rate</b>	Selectable (1, 2, 5, 10, 20) times per second

### Dot Graphic Display Adapts to Meet the Solution



**PHYSICAL**

<b>Enclosure</b>	Stainless steel desktop: 304 brushed stainless steel (IP69K certified) with GORE® Vent ventilation and tilt stand with provisions for desk, wall and column mounting Stainless steel panel mount: Stainless steel with easy access to interface connections
<b>Operating Temperature</b>	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 non condensing
<b>Shipping Weight</b>	Stainless steel desktop: 12.4 lb (5.62 kg) Stainless steel panel mount: 11 lb (5 kg)
<b>Dimensions (L x W x H)</b>	Stainless steel desktop: 11.88" x 5.5" x 10.75" (301.69 mm x 139.70 mm x 273.05 mm) Stainless steel panel mount: 11.56" x 3.6" x 9.25" (293.69 mm x 91.60 mm x 234.95 mm)



**INPUT/OUTPUT**

<b>Remote Inputs</b>	Three TTL or voltage free logic level inputs can be received for basic key functions or application program events
<b>Standard Outputs</b>	Three outputs can be used for system variable setpoints or in combination with application program events
<b>Serial Ports (3)</b>	Three serial ports: - Comm 1 RS232 full duplex - Comm 2 RS232 full duplex - Comm 3 RS232 full duplex Or - Comm 1 RS232 Full duplex with handshaking - Comm 2 RS232 Not available - Comm 3 RS232 Full duplex with handshaking Manual and Autoprint function Supports SMA, ENQ and NCI command response protocols and broadcast Supports BSQ digital bench base
<b>USB Host (2)</b>	Two USB Host ports for: ▶ Printer ▶ USB flash memory ▶ Remote USB keyboard
<b>Ethernet</b>	The Ethernet port can be configured to support ten independent devices. It supports DHCP, UDP Sockets, TCP/IP (client or server), embedded web server, email, SMA, NCI, FTP, ENQ and Broadcast.
<b>Fieldbus</b>	Ethernet/IP™ and Modbus-TCP

**ELECTRICAL**

<b>Power Requirements</b>	Line voltage: 90-264 VAC (110-240 VAC nominal), frequency 50 or 60 Hz, 12 to 36 VDC Power consumption: estimated at 300mA at 12VDC for one 350 ohm weight sensor and 650mA at 12VDC for fourteen 350 ohm weight sensors
<b>Excitation</b>	10 VDC (+/-5 VDC), short circuit protected Supports up to twenty four 350 ohm weight sensors (five scales) 4 or 6 conductors with sense leads Detachable plug connectors
<b>Analog Signal Input Range</b>	-1 mV/V to 5 mV/V
<b>Analog Signal Sensitivity</b>	0.1 μV/V/divisions minimum 0.5 μV/V/divisions recommended
<b>Circuitry Protection</b>	RFI, EMI and ESD protection (10 V/m minimum RFI noise immunity)

## OPTIONS

**Option Kits (maximum four internal options)**

✓ = choose up to two per option expansion RS232

✗ = one per option expansion

- Analog output kit: 0-5 VDC, 0-10 VDC and 4-20 mA ✓
- Current loop kit: Current loop and RS232/RS422 ✓
- USB device kit: Provides USB interface to PC (virtual comm Port) ✓
- Device Net™
- Profibus®
- Wireless (Ethernet) internal kit: 802.11b/g wireless data communications kit with antenna
- Internal 120 VAC Relay module for IP69K model
- Scale Input 5 VDC excitation
- Scale Input 10 VDC excitation with STVS kit
- External I/O interface kit ✗
- DC Output, 4 relays 3-60VDC at 2A Kit ✓
- DC Input, 4 Inputs 4-30VDC kit ✓
- AC Output, 4 relays 20-240VAC at 1A kit (IP69K models) ✓
- AC Input, 4 Inputs 120-240VAC kit (IP69K models) ✓
- Severe Transient Voltage Suppressor (STVS)
- PDIO - Pulse Counting, PWM

**External Options**

- ZM OPTO
- Option Expansion - RS232
- USB watertight gland
- Ethernet watertight gland

## APPROVALS

**Patent**

US Patent 672,262

**Agencies**

NTEP (US) Class III/IIIL 10,000d (CC# 14-039)  
 Measurement Canada class III/III HD (AM-5955C)  
 UL/cUL  
 IP69K  
 EC (Europe) Class III and IIII UK 3042  
 OIML R76 Class III and IIII UK/0126/0197  
 MID R61/2006-GBI-16.03



Measurement Canada Approved



Ministry of Business, Innovation & Employment

# Avery Weigh-Tronix

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