Avery Weigh-Tronix

ZM

305 GTN INBOUND-OUTBOUND INDICATOR

Indicators to measure
and control your daily
operations.

Frequently Asked Questions

1. **The ZM305 series is comprised of two different products, what are they?**
   › ZM305 Standard stainless steel IP69K desktop with multiple built-in weighing applications with IBN display.
   › ZM305 GTN Inbound-Outbound stainless steel IP69K with IBN display.

2. **What is an IBN display?**

This display technology provides tremendous contrast between its illuminated digits and surrounding background. It is used within the automotive industry to improve viewing in both bright and dimly lit environments.

3. **Are the rounded enclosure corners and modern colored keys standard?**

Through market research, customer research, and extensive application research, the ZM305 indicator series has been designed using a patented design language (US patent 672,262) to create a common product offering. The design language consists of colorful easy to read keys as well as industry leading, easy to clean rounded corners.

4. **What power source is required to operate these indicators?**

The indicators can operate from a mains power of 90-264 VAC (110-240 VAC nominal), 50 or 60 Hz, 12 to 36 VDC or from the optional external battery pack ZM-BAT.

5. **How long will the optional external battery pack power the scale?**

The external optional battery pack ZM-BAT utilizes four D cell batteries. Fresh batteries will maintain operation of a single weight sensor system for six hours, or a four weight sensor system for four hours and one hour with systems with eight weight sensors. The ZQ-BAT option with auto shutoff has selectable sleep mode choices in the Supervisor menu which will extend the battery life if enabled.

6. **The excitation voltage to the weight sensors is 10 VDC, how long can the cable length (home run cable) be from the scale to the indicator?**

The length of cable is dependent on a number of influences including the number of load cells, the quality and gauge of wire, the cable installation methods (conduit) and any external

sources of electrical noise. The ZM305 will support up to 14 (350 ohm) load cells. When using Avery Weigh-Tronix supplied load cell cable the maximum recommended length for this would be 500 feet (152 meters).

7. **The keys on the front panel have a crisp snapping response, is this normal?**

The indicator's durable front panel is chemical resistant and the keys' tactile feedback is maintained by high quality steel spring domes.

8. **Is the IP69K stainless steel a standard feature?** IP69K

The ZM305 is enclosed in a stainless steel assembly with a IP69K certified rating.

9. **What does IP69K mean?**

IP69K is a worldwide recognized standard which defines the ingress protection of the enclosure. The ZM305 stainless steel models are third party IP69K (IEC 60529) certified by FALAB. Do not be misled by brands that state their products are designed or equal to IP69K without certification.

10. **In addition to the ingress protection IP69K provides, is there a solution for internal condensation that may occur when a cold stainless steel enclosure is subjected to hot steamy water during a cleaning cycle?**

Each stainless steel IP69K enclosure includes a patented air pressure and temperature equalizing solution.

11. **How many weigh sensors does the ZM305 support?**

These indicators support up to fourteen 350 ohm weigh sensors with 10 VDC excitation.

12. **How many Truck ID records can be stored in the indicator database?**

The ZM305 GTN database can store up to 1000 Truck records. The records can be combined between Fleet and In/Out Trucks.

13. **What information is stored in a Truck record?**

Each truck record can store the truck ID (up to seven numeric digits), Gross, Tare and Net Totals, number of Transactions, Fleet Truck Tare weights, and the Inbound time/date and weight of any unfinished Truck In/Out transactions.

14. What is the difference between Fleet Trucks and Inbound / Outbound Trucks?

› Once the Fleet Truck database is established then only a single weighment needs to occur to determine the Gross and Net weight values.

› Inbound-Outbound weighing requires the products to be weighed IN and then weighed OUT to determine the Gross, Tare, Net values.

15. How do you enter new Fleet Trucks into the database?

Fleet Truck IDs and Tare weights can be entered through the Supervisor password protected menu or they can be created offline in an Excel spreadsheet. The database file can be Imported into the indicator using an USB thumbdrive or it can be imported from the Ethernet port or wireless option using FTP (File Transfer Protocol). Consult Avery Weigh-Tronix Applications Engineering for FTP details.

16. Can you delete or make changes to individual records in the database?

The supervisor password protected menu allows for changes to the Truck Scale database records. Inbound truck records that contain the Truck ID and inbound time, date and weight can be deleted individually or entirely. Outbound Truck records that contain the Truck ID and transaction totals can be deleted individually or entirely. Fleet Truck records that contain the Truck ID, Tare weight and transaction totals can be deleted individually or entirely. Fleet truck IDs and Tare weights can also be added, deleted or edited. Changes to the database can also be accomplished by exporting the database file, using Excel for offline editing, and then importing back into the indicator.

17. Does the ZM305 support Import and Export of the transaction database file?

The transaction database file can be imported or exported using a USB thumbdrive or the Ethernet port using FTP. The database consists of the Truck ID, Gross, Tare and Net Totals, number of Transactions, Fleet Truck Tare weights, and the inbound time/date and weight of any unfinished Truck In/Out transactions. This information is stored in a CSV format and allows for offline creation or editing of the stored records using Excel.

18. Can the ZM305 GTN Inbound-Outbound truck scale Indicator still operate as a general weighing indicator when not used for processing truck weight transactions?

When not used for processing truck weighments the basic operation of the ZM305 GTN Inbound-Outbound is the same as the general weighing application of other ZM300 series models. The functionality of the ZERO, TARE, PRINT, UNITS, and SELECT keys is identical. The ZM305 GTN Inbound-Outbound model has three unique function keys that are specific to the Truck Scale application, FLEET, IN / OUT and REPORT.

19. What type of reports can be printed and what information can be printed?

The ZM305 has three types of reports available to print: Inbound, Outbound and Fleet reports.

INBOUND report will show Trucks that have weighed IN but not OUT. The default report includes the Truck ID, and Inbound time, date and weight.

OUTBOUND report will show non-Fleet Trucks that have completed both IN and OUT bound weighments. The default report includes the Truck ID, number of completed transactions and Total Net weight. Total Gross and Total Tare weight can be added if required.

FLEET report will show all Fleet Trucks. The default report includes the Truck ID, the assigned Tare weight, number of completed transactions and the Total Net weight. Total Gross and Total Tare weight can be added if required.

20. Can communication output strings be changed?

The application includes a default print string and protocol, but this can be enhanced or modified through the front panel or by using Ztools. For ease of configuration we recommend the use of Ztools (PC software program).

21. Can customized headers or footers be added to the printed reports?

Each report (Inbound, Outbound or Fleet) has associated print formats assigned for the report header, body and footer that can be edited to include any special printed messages or customized details as necessary. Up to 1000 characters can be added to print information such as company name, address, phone number, etc. The report body is printed repeatedly as necessary for the number of records that are stored for each report so typically this would only contain truck scale database tokens and appropriate spacing to align with the header.

22. Can reports be sent to other ports or devices besides the typical ticket printer used to print truck weight transactions?

Reports can be sent to either of the two serial ports, the Ethernet port and the USB port. The USB port can connect with either a USB supported printer or to a thumbdrive. The ZM305 has an additional Protocol Type identified as REPORTS which allows for assigning (binding) the Truck Scale report to any of the available ports. The wireless Ethernet option also provides another method for transmitting data.

23. What are the PC requirements for Ztools software?

Minimum:

› CPU: Intel i3
› RAM: 2GB
› Hard Drive: 500GB
› Video Card: 512MB Integrated
› Display: 15.6 inch display
› Resolution: 1366x768
› OS: WinXP (32-bit), Windows 7 Home Premium (32/64-bit)
› Communications: 10/100 Ethernet Optical Drive: CD/DVD

Recommended:

› CPU: Intel i5
› RAM: 4GB
› Hard Drive: 500GB
› Video Card: 512MB Integrated
› Display: >15.6 inch display
› Resolution: 1366x768
› OS: WinXP (32-bit), Windows 7 Home Premium (32/64-bit)
› Communications: 10/100 Ethernet Optical Drive: CD/DVD

Top of the line:

- › CPU: Intel i7
- › RAM: >4GB
- › Hard Drive: >500GB
- › Video Card: 1024MB Dedicated Video Card
- › Display: >15.6 inch display
- › Resolution: 1920x1080
- › OS: WinXP (32-bit), Windows 7 Professional (32/64-bit)
- › Communications: 10/100 Ethernet Optical Drive: CD/DVD

24. The ZM305 indicators have so many communication ports, which one is used for downloading the Ztools configuration to the indicator?

The indicators include an Ethernet communication port which is used for connecting to the PC and communicating Ztools configurations.

25. The standard Ethernet permits the product to be configured from the PC Utility Ztools. Can the Ethernet port also be used to transmit data to a PC?

The Ethernet port can be used for sending data to a PC using TCP/IP or FTP protocols and can be used for PLC communication using Modbus TCP or Ethernet IP protocols. Settings for each of these methods are described in the Service Manual and additional information may be found in the On Demand Library Tech Guides in the secure area of the Avery Weigh-Tronix website.

26. Many peripheral devices including printers have USB interfaces; do these indicators provide a solution to connect to these printers without using a serial to USB converter?

Yes, the ZM305 provides a standard USB Host communication port which can be interfaced to supported USB printers.

27. The ZM305 has a standard USB port. Can it be used for attaching a memory device to download data?

The USB port can be used for connection to a memory device (USB thumbdrive) to store transactions or database information. When connected to a thumbdrive, transaction data can be transferred as individual files or in an appended file where all transactions are saved.

28. What printers and interface technologies have been tested with the ZM305 Series?

- › Avery Weigh-Tronix ZG110 Impact Printer (serial)
- › Avery Weigh-Tronix ZG310 Thermal Printer (serial)
- › HP Officejet Pro 8500A e-All-in-One Printer - A910a (USB, Wired and Wireless Ethernet)
- › HP Officejet Pro 8600 Plus e-All-in-One Printer (USB, Wired and Wireless Ethernet)
- › HP LaserJet Pro M1536dnf Multifunction e-Printer (USB, Ethernet)
- › HP LaserJet Pro CM1415fnw Color e-MFP (USB, Ethernet, Wireless Ethernet)
- › HP LaserJet Pro CP1525nw (USB, Wired and Wireless Ethernet)
- › HP A799 (USB, serial)
- › Zebra LP2824 (USB, serial)
- › Zebra LP2844 (USB, serial)
- › Epson TM-u220b (serial, Ethernet, USB)
- › Epson TM-T88V M244A (USB, Wired Ethernet, serial)
- › Epson TM-T20 (USB)
- › LP-250 Brecknell Thermal Printer (serial)
- › LP-470 Brecknell Thermal Printer (serial)
- › Brecknell DT 2205 (serial, USB)

29. What if I have a printer that is not on this list?

As manufacturers change their designs, Avery Weigh-Tronix will continually review the list of printers. Printer manufacturers maintain levels of backward compatibility. For example, if you own an HP 8600 series printer, connecting it to the ZM303 ZM305 USB port works by selecting the HP 8500 selection. The generic printer settings in the product also allow flexibility with new and legacy printers that are not listed.

30. When one printer model offers multiple interfaces which interface is active?

Please review the printer specifications as some communication ports may require activation before data is accepted from the indicator.

31. If a ticket gets jammed or does not print correctly on the printer can the ZM305 GTN indicator reprint the ticket?

A reprint selection is available from the REPORT key. When selected the last print transaction is printed again along with a last line showing "-----Reprint----".

32. Will the ZM305 control the traffic light operation on the XR4500TL remote scoreboard?

Print Format 25 is configured for the XR4500 and also contains the command character for control of the red and green traffic lights when equipped with the TL option. The start (green) and stop (red) keys on the ZM305 keypad control the status of the traffic light command. Also proper configuration of the Setpoint Outputs and Remote Inputs can provide automatic control of the traffic lights.

33. Are any additional options available for the ZM305 Series?

Additional options that can be added to the ZM305 Series include:

- › Analog Output
- › Current Loop/RS485/RS422
- › USB Device
- › Internal (Ethernet) wireless 802.11b/g
- › External battery pack
- › USB and Ethernet watertight glands
- › ZM-OPTO setpoint interface
- › Extreme Lightning protection

34. The ZM305 has built in standard lightning protection and there is an option for protection against extreme lightning. On what installations would this option be recommended?

The additional of the extreme lightning protection option is recommended for scale installations areas that experience frequent weather conditions involving severe lightning storms.

35. Are the ZM305 indicators approved as legal for trade?

The agency listings for these products include:

- › NTEP (US) Class III/IIIL 10,000 d (CC# 11-096A)
- › OIML (European and UK) Class III*
- › AM (Measurement Canada) (AM-5841C)
- › Australia (NMI)*
- › South Africa*
- › New Zealand*
- › India*
- › MID R61*
- › CE*
- › UL/C-UL
- › EC*
- › IP69K (case)

* Pending

36. The previous indicator range used levered connectors for interface cables; does this product have a better solution?

Improving accessibility for connecting cables was a common request from participants in the customer research interviews. These indicators use a two part detachable solution allowing connections to be made outside of a confined space and then to plug this assembly into its socket.

37. Is there a relay control option for the setpoint outputs?

The optional ZM-OPTO assembly provides a solution to activate devices used for setpoints and for inputs.

More online

- › Technical specifications
- › User manuals
- › News and information

www.averyweigh-tronix.com/zm305

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