Weighing Indicators



IND700 Weighing Indicator

Intuitive User Interface Multi-Scale Weighing System Adaptable Applications Weighbridge Applications Seamless IT/OT Integration

Streamline Production Processes

Maximize Your Productivity



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METTLER TOLEDO IND700 Weighing Indicator Brochure



Multi-Scale Weighing Indicator Production within Process Tolerances

The Windows-based IND700 weighing indicator offers diverse scale interfaces and connectivity options for industrial processes ranging from precise micro-dispensing to heavy-capacity silo weighing systems. With tiered software licenses, IND700 can be customized to fit your unique needs and optimize manual or semi-automatic manufacturing applications.







Rapid Custom Application Design Easily design highly customized applications with minimal engineering expertise, time, or costs. ProWorks Studio allows you to benefit from built-in weighing expertise and fit the system to your process instead of adapting to equipment capabilities.

All-Purpose Adaptability

Achieve your desired weighing accuracy with full indicator functionality for new or existing applications across your entire facility. The IND700 integrates with any of the latest METTLER TOLEDO weighing sensors so that you can mix and match to build your best-fit solution.

Optimized Multi-Scale Operation

Optimize your weighing system and workflow with multi-scale connectivity, which allows you to handle a wide range of materials with unique process tolerances while maximizing process control.

Painless PLC Connectivity

Save time and start weighing in minutes with streamlined PLC connectivity, supported by METTLER TOLEDO's Standard Automation Interface (SAI) protocol.

Data Handling with Trust

Seamlessly maintain the highest data security and protect your business from cyber threats with reliable IT domain integration, easy updates, and regular security patches.

Effective Data Management

Conveniently recall data at any time for materials and their attributes (e.g. ID, target, tolerances), weighing transactions, or system performance logs to simplify audits and make informed decisions.

Optimized Visual Ergonomics Sharp, Bright, and Intuitive UI

IND700's interactive graphical interface enhances visibility, making it easy to read values at a glance, navigate menus quickly, and execute tasks efficiently – even for new employees. Designed for optimized visual ergonomics and intuitive operation, the IND700 provides consistent performance that boosts productivity.



7" Touchscreen Display

Minimize training time, avoid operator fatigue, and reduce human errors with clear, highly visible prompts and results.



Intuitive UX/UI

Washdown Design

Leverage familiar features like toggle, time picker, and the brightness slider to control the system settings like your smartphone.

Leave no room for moisture or bacteria accumu-

lation with the IP69-rated stainless-steel con-

struction that withstands heavy wash down.





colorWeight[®] Functionality

Speed up weighing processes and minimize waste with the simple multi-color alert visualization that confirms results at a glance.



Choose Your Preferred Housing and Configuration

IND700 offers IP69 protection in two housing options:

Custom Application Views*

Display the most relevant manufacturing process information to operators and/or supervisors with configurable layouts. *See Page 13 for more details.



Assignable Softkeys

Freely assign the application touchscreen keys to your most-used options for easier, error-free operation.

 Harsh housing for industrial applications where PLC connectivity and/or I-O control integration are required.

• Wedge housing (or hygienic wedge housing) for bench or column-mounted applications to enable flat or tilt viewing for better workplace ergonomics.





Capture Data Across Devices Connectivity and Integration

IND700 supports multi-scale management and data capture across analog, Precision, and POWERCELL® weighing systems, even allowing for totalization as a legal-for-trade sum scale. The advanced communication protocols enable connectivity regardless of the PLC system, while easy data integration allows for seamless visibility into device activity through your MES or ERP system.



Bench and Floor Platforms

Analog, Precision, and POWERCELL® platforms are supported, so you can choose from our complete scale portfolio, including high-precision, hygienically designed, or portable weighing platforms.



Weigh Modules

Analog or POWERCELL® compression or tension weigh modules are supported for tank, silo, or hopper weighing, enabling easy engineering and design of custom weighing systems.



POWERCELL® PDX® Weighing Systems

Heavy capacity systems such as truck scales, rail scales, and silo weighing systems are supported together with POWERCELL® PDX® technology to offer advanced condition monitoring capabilities.

PLC Integration

Integrate your single- or multiscale weighing system into your automatic supervised process with PLC integration via the SAI protocol and Industrial Ethernet (Ethernet/IP, PROFINET).

Technology Partner

SIEMENS



Peripherals

METTLER TOLEDO

Data exchange compatibility and smart data detection algorithms allow for smooth connectivity to peripheral devices, such as printers, readers, or keyboards.



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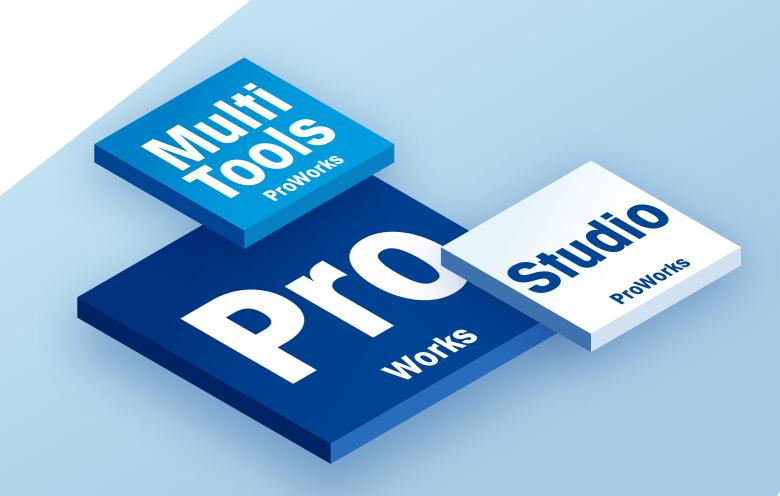
DIO Connectivity

Connect easily to external discrete-output sensors, actuators, instrumentation, or machinery to integrate your weighing system into your existing application workflow.



Tiered Application Options ProWorks Application Bundle

With ProWorks Multi-Tools, ready-to-use embedded applications are available to streamline your manufacturing process and increase efficiency. If you want to further tailor the system to your exact workflow requirements, ProWorks Studio allows you to leverage our application library and customize applications in Microsoft Visual Studio.NET.





Multi-Scale Weighing

Streamline simple weighing tasks and integrate data directly into IT/OT systems with 1, 2, or up to 4* scales. IND700 uniquely acts as a legal-for-trade** sum scale to visualize your complete workflow across weighing devices.

*Dependent on weighing technology. **LFT per NTEP and OIML.





Smart Manual Filling

Simplify manual material dispensing with graphical visualization and multi-color alerts for process tolerance violations. The local material table allows you to customize material parameters with specific attributes.





Multi-Zone Checkweighing Implement over/under checkweighing for 3 or 5 zones to improve net content control. The graphical multi-color zone alert visualization speeds up operation, and you can set zone tolerances in the local material table.



Piece Counting Achieve the highest accuracy for straight counting, manual piece filling, net package control, and packaging classification with IND700's smart algorithms. Material parameters are assigned independently within the local material table.





Product Classification

Classify single products or packages faster and easier per their weight or piece contents. Define your own class range values from 2 to 8 classes, and exceptional graphical visualization alerts operators to each item's class range.





Programmable Applications Save engineering time and costs by taking advantage of our built-in weighing expertise, and easily configure applications to meet your exact workflow requirements/SOPs. The ProWorks Studio license allows you to build upon the METTLER TOLEDO standard application library and create customized solutions with Visual Studio.

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Vehicle Weighing Maximize Uptime and Data Insights

IND700 provides valuable insights into truck scale health with its POWERCELL® compatibility and supports efficient operations through multi-scale connectivity. Additionally, the onboard ProWorks AxleView application captures axle weights and when combined with DataBridge[™] transaction management software, improves data management and compliance across different configurations.



POWERCELL® Compatibility

Maintain accuracy with advanced load cell networks that offer patented onboard digital signal processing and laser-welded stainless-steel construction with IP68/IP69k ratings.



Multi-Scale Connectivity

Enhance your weighing system and workflow with multi-scale connectivity for complete visibility and streamlined processes, from daily operations to routine maintenance.



Robust Performance Protection

Safeguard your operations and maximize uptime with a robust system engineered for extreme conditions, featuring lightning protection up to 84,000 amperes.



DataBridge™ Transaction Management Software

DataBridge[™] software offers comprehensive data management capabilities, including inbound and outbound weighing and transaction management. It supports both attended and unattended operations, ensuring flexibility in usage.

www.mt.com/databridge



ProWorks AxleView for Roadway Compliance

AxleView is designed to enhance your existing truck scale setup and verify compliance by providing visibility into axle weights. It is engineered to suit a variety of vehicle specifications and weighing requirements, including single, dual, tri-, or quad-axle weighing.

www.mt.com/axleview



Technical Data

Mechanical and Environmental

Enclosure Types	Wedge, Wedge hygienic design, Harsh (glands or M12 connectors)	
Eliciosule Types	Type 304 stainless steel enclosure	
Display	17.75 cm (7 in) TFT color display, touchscreen (800 x 480 px)	
Dimensions $(I \times w \times d)$	Wedge: 172 mm × 260 mm × 93 mm (6.77 in × 10.2 in × 3.66 in)	
	Harsh: 260 mm × 157 mm × 132 mm (10.2 in × 6.2 in × 5.2 in)	
Shipping Weight	Wedge: 3.6 kg (7.9 lb)	
	Harsh: 3.8 kg (8.4 lb)	
Environmental Protection	IP69 IEC 60529 and ISO 20653	
Environment	Up to 5000 m (16,400 ft) above sea level; indoor or outdoor use (Type 4)	
Storage Environment	-20°C to 60°C (-4° to 140°F), 10% to 95% relative humidity, noncondensing.	
Operating Environment	-10° to 40° C (14° to 104°F), 10% to 95% relative humidity, noncondensing.	
Pollution Degree	2	
Power	100 – 240 VAC, -15% to + 10%, 50 – 60 Hz, 650 – 275 mA	
Overvoltage Category		

Scales Interfaces

Weight Display	Max. 4 weighing systems in total depending on the technology, plus a sum scale Display resolution of 1,000,000 counts for analog load cell scales (HSALC) Display resolution for POWERCELL®, PowerMountTM, PowerDeckTM, PHD, and Precision platforms (PBD, PBK, PFK) is determined by the specific platform	
Types	High-Speed Analog Load Cell (HSALC) scale interface: Max. 2 scales, with up to 8x350 ohm of 2 or 3 mV/V load cells Excitation voltage 10 VDC and A/D update rate of 1kHz	
	Precision scale interface: Max. 2 scales, high precision METTLER TOLEDO platforms model PBD, PBK, and PFK. Update rate depends on the model	
	PowerDeck [™] scale interface: Max. 4 METTLER TOLEDO platforms PHD or PFD. Update rate100 Hz per scale, 50 Hz dual scales, 25 Hz four scales	
	POWERCELL® scale interface: Max. 4 METTLER TOLEDO weighing systems, with up to 14 POWERCELL® PDX®, GDD® load cells or Weigh Modules, or up to 24 load cells with external power supply of 24 VDC. Update rate 100 Hz per scale, 50 Hz dual scales, 25 Hz four scales	
	SICS Protocol: Max. 4 METTLER TOLEDO weighing systems	
Lightning Protection	POWERCELL® PDX®: 70,000 volts and 84,000 amps	
Calibration Methods	Zero and span adjustment, linearization and hysteresis (3, 4 and 5 points), Step Calibration, CalFree™, and CalFree Plus™	
Weight Units	oz, lb, g, kg, t, and ton	
Noise Filtering	Process weighing low-pass filter with advanced frequency tuning adjustments Manual weighing filter types for vibration, quick stability, and filling process type	

All technical specifications may be subject to change.

Communication and Interfaces

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Standard Interfaces	One Serial COM1 (RS-232/RS-422/R
	Ethernet 1,000Base-T
	USB 3.0 and USB 2.0
	Discrete I/O (2I/2O): Input 5- 30 VDC
Optional Interfaces	HSALC* (High Speed Analog Load C POWERCELL [®] PDX* scale interface PowerDeck™* scale interface Precision scale interface (SICSpro co Up to two additional serial ports with
	* Scale interfaces include a Discrete 30 VDC, 500 mA
	** Includes a serial port COMx (RS2 Input: 5- 30 VDC, Output: solid state
Peripherals Integration	Barcode scanner compatibility via US Printing via serial or ethernet with dat triggering, with up to ten configurable
	Customizable multi-field ASCII Input T ten configurable input templates
Protocols	ASCII commands for CTPZ (Clear, Ta level 1, and level 2 commands), MT MT continuous Multi 1 and Multi 2, o
	File transferring via FTP and sFTP
Remote Access	Virtual Network Computing (VNC) re
PLC Interfaces	EtherNet/IP and PROFINET
PLC Protocol	Standard Automation Interface (SAI) 2
Automation Drivers/Files	EDS (EtherNet/IP), AOP (EtherNet/IP),
PLC Interface Certifications	ODVA (EtherNet/IP) File Number:123 PROFINET Certificate: Z13547

Production Data Management

Logs	Alibi: 500,000 records
	Transaction table: unlimited records
	Change log: 30,000 records
	Maintenance log: 32,000 records
	Error log: 10,000 records
Application Tables	Materials table: unlimited. For impo
	Tare table: unlimited. For import op

Approvals

USA: NTEP, Class II 100,000d; Class
Canada: Class II 100,000d; Class II
Europe: Class II approved divisions
6,000e; POWERCELL 10,000e
CSA

(RS-485), 2400 to 115,200 baud

DC, Output: solid state, 30 VDC, 500 mA Cell) scale interface

communication to digital platforms)** ith a Precision scale interface

e I/O, 2I/2O.Input 5- 30 VDC, Output: solid state,

232/RS422/RS485) and Discrete I/O (2I/2O), ie, 30 VDC, 500 mA JSB or Serial interface ata transfer on demand or automatic le transfer templates

Template: USB, Serial, and Ethernet with up to

Tare, Transfer, Zero), SICS (most level 0, IT continuous, MT continuous Extended, , and Shared Data Server Access

remote desktop connection

2, 8, and custom blocks format
), GSDML (PROFINET), and Faceplate
318.01

ort operation, 100,000 max. is recommended peration, 1,000 max. is recommended

ss III/IIIL 10,000d III 10,000d; Class IIIHD, 10,000d s determined by platform; Class III, IIII, HSALC

Ordering Information

Interface

Options

30785331	High-Speed Analog Load Cell Scale Interface Kit	
30785332	Hygienic High-Speed Analog Scale Interface Kit	
30785333	POWERCELL [®] Scale Interface Kit	
30785334	PowerDeck™ Scale Interface Kit	
30785335	Precision Scale Interface Kit	
30785336	COMx (M12) kit	
30785337	COMx (Gland) Kit	
30785338	PROFINET Kit	
30785339	Ethernet/IP Kit	

Accessories

Compatible with IND700

30785381	Cable M12 RS232/422/485, 8P, 3 m Kit
30785377	Cable M12 RS232 DB9 Female 3 m Kit
22017602	Cable M12 RS232-SICS Scale (Male)
22017604	Cable M12 USB type A 0.2 m (Female)
22017608	Cable M12 USB type A 3 m (Female)
30785378	Cable M12 Ethernet to RJ45 3 m Kit
30785379	Cable M12 Ethernet to RJ45 10 m Kit
30785380	Cable M12 Ethernet to RJ45 20 m Kit
22018969	Cable M12 Digital I/O open 10 m
30630863	PET Cover Spare Part IND700
30630864	Paper & Plastic Sealing Spare Part IND700
30630865	Lead-head Wire Sealing Spare Part IND700
22020286	VESA 100x100mm Tilt Bracket - M8 mounting hole
71209353	Wall Mounting Bracket (pair - fixed angle)

Application View Examples

Single Material Filling



Over/Under on 3 or 5 zones

Classification, up to 8 classes

Explore Our Service Solutions Tailored to Fit Your Equipment Needs

METTLER TOLEDO Service delivers resources to enhance your efficiency, performance, and productivity by providing service packages that fit your operational needs, maximize your equipment lifetime, and protect your investment.

www.mt.com/IND-Service



Start with professional installation

Installation services include support for your unique production situation:

- Professional IQ/OQ/PQ/MQ documentation
- Initial calibration and confirmation of fit-for-purpose
- Hazardous area installations

Calibrate for quality and compliance

The professional Accuracy Calibration Certificate (ACC) determines measurement uncertainty in use over the entire weighing range. Corresponding annexes gives a clear pass/fail statement for specific tolerances applied, such as fit-forpurpose (GWP[®]), OIML R76, NTEP HB44, or further regulations.



Maintain accuracy over time

Receive professional guidance (GWP[®] Verification[™]), including a routine testing plan that specifies four key factors to maximize your efficiency and ensure quality:

- Tests to perform
- Testing frequency
- Weights to use
- Tolerances to apply



Extend your warranty coverage

Add two years of preventive maintenance and repair coverage to protect your equipment purchase and achieve maximum productivity and budget control.



Schedule maintenance

Full preventative maintenance plans offer inspection, functional testing, and proactive replacement of worn parts. Health inspections offer a full assessment of current equipment condition with professional maintenance recommendations.

www.mt.com/IND700

For more information



METTLER TOLEDO Group Industrial Division Local contact: www.mt.com/contacts

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