InVision™ Smart Scale

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Ensure Quality Kits

Boost Productivity

Capture True Traceability

Full Visibility to Ensure Quality
Vision-Based Machine Learning

METTLER TOLEDO

Take the Next Step in Smart Weighing
Because Every Part is Important

The smart algorithms of InVision™ combine weighing with visual recognition and picture capture for easy handling and error-free operation in picking and packing applications. The system directly connects to production and ERP systems for full data visibility and visual proof of successful order fulfillment.

Innovation and Excellence

METTLER

InVision™ helps you meet your operational goals

Achieve 100% quality kits
Zero missing parts is a reality with InVision™ as your second pair of eyes on every package. When you reduce the risk of human error in manual picking processes, you can achieve 100% quality kits and maximize customer satisfaction.

Boost productivity up to 30%
InVision™ combines guided working steps and intuitive process verification with smart workstation design, leading to increased operator efficiency. See productivity improvements of up to 30% and get more out of your processes.

Benefit from true traceability
Benefit from automatic data and image capture with every kit, then send this information to your connected ERP or MES for simplified track-and-trace documentation.

Highest Quality Kits

Up to 30% Better Productivity

100% Process Transparency

Breakthrough Bench-Scale innovation
Order picking is a manual process that is often prone to errors. Similar parts are mistaken for each other and counting errors occur when operators are under time pressure. Solve these issues with InVision™, your second set of eyes.

- InVision™ is able to identify parts that are very similar in weight or appearance by combining both weighing technology and camera recognition.
- The smart algorithm combines the two technologies for optimal parts-identification results in milliseconds.
- The system can detect differences in shape, size, weight and color.
- Two-way verification boosts process stability.
- Software provides data and image capture for traceable results.
- Smart operator guidance on an intuitive touchscreen display reduces errors significantly.

Bring New Meaning to Process Visibility
Pair Weighing with Visual Proof

Manual weighing, counting and packaging tasks have a high potential for human error. Improve order picking while ensuring product completeness with the latest machine-learning vision and weighing technology: InVision™.

Discover what makes InVision™ a true innovation:

Smart algorithm
A smart machine-learning algorithm for both camera recognition and weighing.

Precision PBD769
High-resolution platform for accurate weighing of small and lightweight items.

High quality camera
High-resolution, rugged industrial camera for accurate parts recognition.

SAP connectivity
Integration into ERP or MES systems. Retrieve orders and report on fulfillment.

User-friendly HMI
Smart operator guidance and intuitive touchscreen. Process verification plus data and picture capture for advanced traceability.

Improve kitting operations and reduce out-of-the-box failures in 3 easy steps:

1 Start with your order
Connecting to an ERP system means your order can easily be recalled directly on the scale touchscreen, boosting process speeds.

2 Get help with fulfillment
Smart scale algorithms automatically identify parts and guide operators through the picking process with visual prompts, enhancing throughput and reducing error potential.

3 Pick with 100% accuracy
Once the kit is complete, an image is captured and confirmation is sent directly to the ERP. You gain fast, accurate inventory reporting and analysis.

Discover InVision™ Today:
▶ **www.mt.com/InVision**

Technical Specifications
InVision™ Solution

Technical data

|	
Housing type	Camera boom: AISI 304 Platter: ABS 757
Dimensions (L x W x H)	Camera boom: 280 × 321.5 × 798.5 mm Platter: 435 × 310 × 46.5 mm Installed with PBD769-AB-15: 435 × 444 × 802 mm
Net weight	Camera boom: 5.9 kg Platter: 0.59 g
Power supply	100–240 V AC, 50/60Hz, 0.15 A
Camera parameters	Model: acA4024-8gc Basler ace GigE camera Resolution (H x V pixels): 4024 x 3036 Sensor type: Sony IMX226CJL-C, progressive scan CMOS, rolling shutter Optical size: 1/1.7" Mono or color: Color Image data interface: Gigabit Ethernet (1000 Mbit/s) Synchronization: Via software trigger Exposure time control: <100,000 Camera power requirements: • 12 VDC, 1.0 A supplied via I/O connector • ≈12 W (rated) @ 12 VDC supplied via I/O connector
Lens working conditions	<55% relative humidity
Image parameters	3020 x 2430 (H x V pixels, factory default)
Type of protection	The InVision™ system satisfies the requirements for protection class IP20.
Operating temperature	0 °C -/+35 °C (at 10–70% relative humidity, non-condensing)
Storage temperature	-20 °C -/+60 °C (at 10–70% relative humidity, non-condensing)
Ambient conditions according to EN 61010	Indoor use only Pollution degree 2 Overvoltage category II Max. installation height 2,000 m AMSL
Recommended ambient lighting condition	Illuminance: 350–650 lux Coefficient of variation: <20% Color temperature: 4000–6500 k
Hazardous areas	The InVision™ system cannot be operated in hazardous areas.
Communication (camera connectors)	Ethernet connector: • 1000 Mbit/s Ethernet connection to the camera • 8-pin RJ-45 jack • Matching connector: Standard 8-pin RJ-45 plug (supplied) • When using locking screws, note the horizontal orientation of the screws I/O connector: • For 12 VDC power supply • Hirose micro receptacle • Matching connector: Hirose micro plug
IND970 HMI display	15" touchscreen: 1280 x 800 TFT LED backlight Membrane keypad: 38 keys with numeric keypads, navigation keys, function keys and scale-function keys
Application restrictions	The single part to be weighed and recognized through the InVision™ system should be: • ≥0.6 g in weight • ≤80 mm in height, ≤80 mm in length, ≤80 mm in width • Neither transparent nor semi-transparent Scale specifications regarding platform dimensions and camera are currently available in only one configuration.

Dimensions and drawings
Camera boom and platform
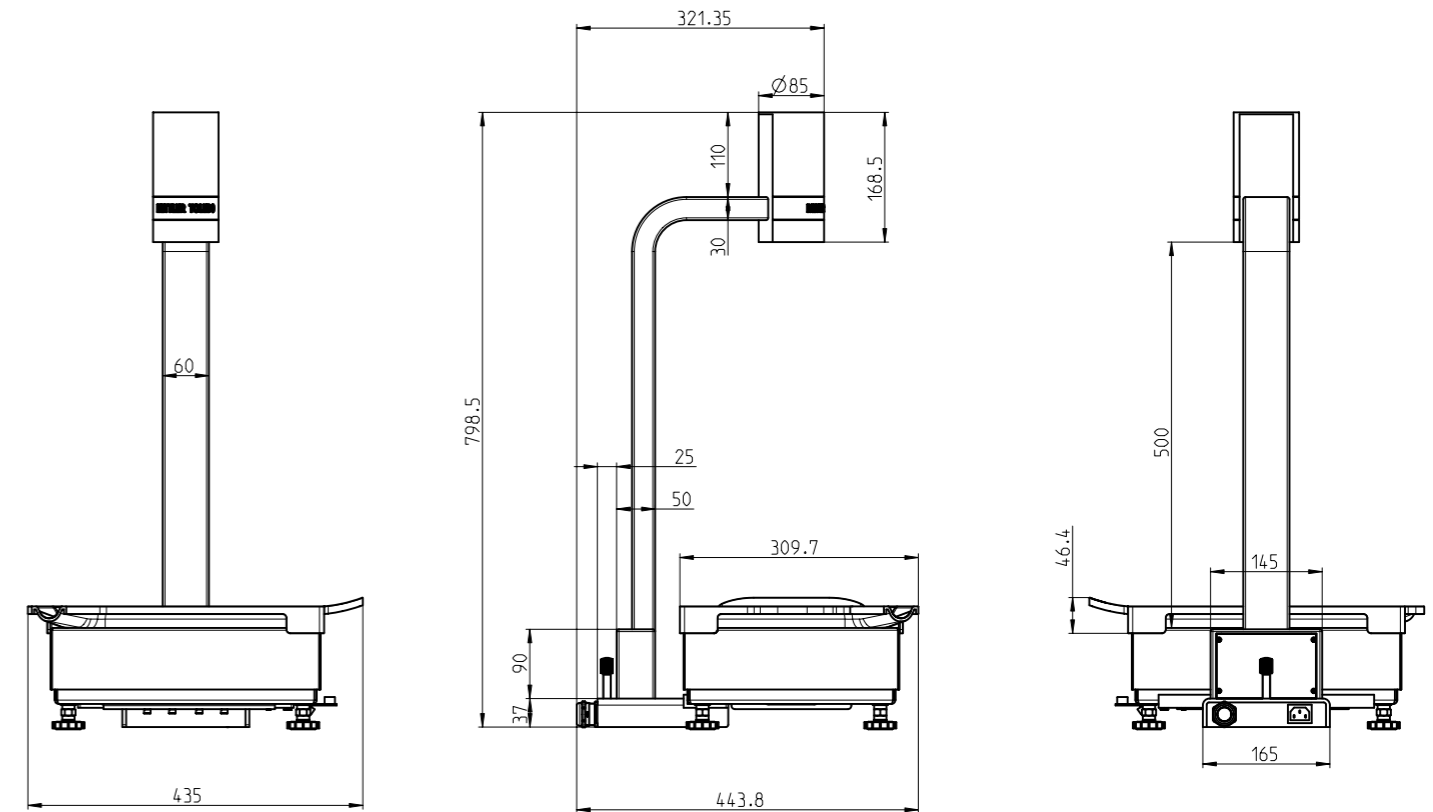
IND970-15" – desk version
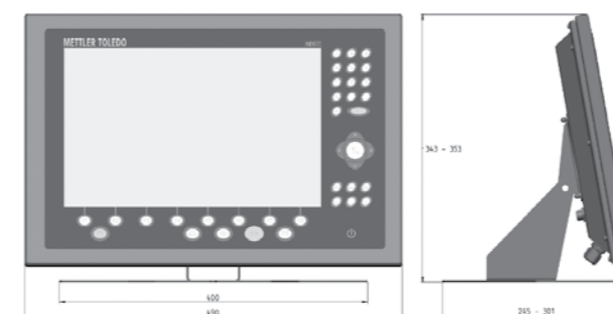
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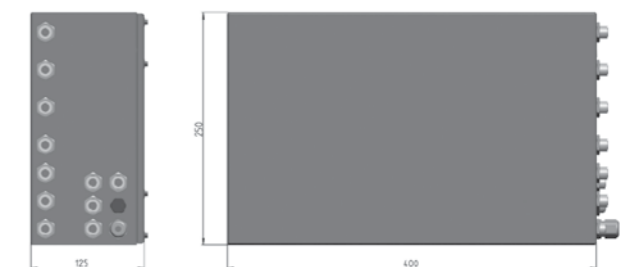
Solve your manufacturing challenges
Never miss a piece again

Increase operator efficiency, improve order fulfillment accuracy and reduce costs with InVision™ and other weighing solutions. Explore counting, checkweighing and quality-check applications throughout your manufacturing process and see how you could benefit in each area.

- **Material receiving**: Enable fast verification of incoming goods
- **Warehousing**: Track your inventory in real-time
- **Production, quality control and assembly**: Increase throughput by up to 20 percent via fast counting, early error-detection, and parts and kit verification
- **Order fulfillment and packaging**: Prepare zero-error packages for less rework and fewer customer complaints
- **Logistics and shipping**: Ensure completeness and traceability

Watch the manufacturing applications video:

▶ **www.mt.com/automotive**

www.mt.com/InVision

For more information

ISO 9001 registered

ISO 14001 registered

CE