

# Digital weighing technology solutions

Fast, precise and cost-efficient



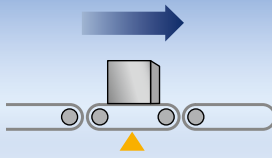
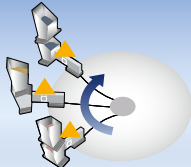
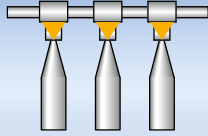
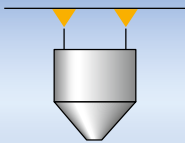
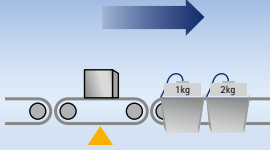
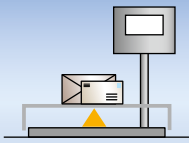
# Clever solutions for dynamic and static applications

## Digital technology with strain gauge-based load cells

Digital weighing technology from HBM provides you with the right tool for your sorting, checkweighing, filling and packaging applications. A range of certified products offers excellent quality for dynamic weighing processes.

Digital load cells, for example, can be used to perform distributed control functions in your automation environments. This helps you to implement complete dosing and filling control of coarse and fine flow as well as autonomous optimization of parameters.

## Application examples

		
<p><b>Checkweighers</b></p>	<p><b>Multihead combination weighers</b></p>	<p><b>Bottling plants</b></p>
<p>Very simple integration of a portioning weigher as the most important component in the packaging process</p>	<p>In multihead combination weighers, digital or analog load cells control the mixing ratio exactly with PAD</p>	<p>Conditioning of measurement signals for optimum control of bottling plants using digital load cells from HBM</p>
		
<p><b>Batching weighers</b></p>	<p><b>Sorting machines</b></p>	<p><b>Postal scales</b></p>
<p>Even granular materials can be batched precisely and easily with coarse and fine settings</p>	<p>Digital, precise and fast – for efficient and optimum sorting of goods</p>	<p>Accurate to the gram: digital load cells are a powerful component of your postal scale, even with fast franking</p>

# The digital success principle

## The basis for your complete solution

Components for dynamic weighing. Individually or as a complete solution. Weighing technology from HBM offers both.

- SG-based digital load cells PW15iA and FIT (Fast Intelligent Transducers)
- PAD digital transducer electronics
- Intuitive PanelX operating software

Digital load cells



Analog load cells



Digital AED



Intuitive PanelX operating software



## Good reasons for HBM

### A reliable partner

HBM is a leading partner in weighing technology. So you will also be benefitting from a strong supplier for your machines:

- We are a component supplier only for weighing technology, so you will not be buying your components from a potential competitor
- A reliable partner around the world for dependable delivery
- Local and close to you – with a strong sales and service team

### Safety and reliability with load cells from HBM

- Highly precise load cells with valid national and international test certificates
- Fast and easy to use thanks to international approvals including NTEP, GOST and OIML



GOST



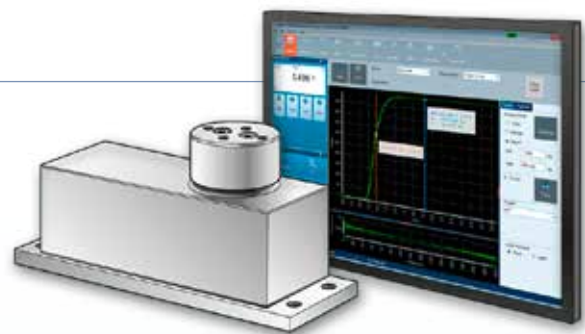
# Always one crucial step ahead

## Fast. Precise. Clever.

An intelligent load cell is the heart and soul of your packaging and sorting machines and checkweighers. With digital load cells from HBM, you benefit from a solution that ensures that your dynamic weighing systems are operating at their full potential:

SG-based digital load cells are more than just sensors for your machine: You can use them as an "engine of innovation" for all

of your development. The unique combination of an attractive price and impressive technical properties will allow you to lower prices for your checkweighing and packaging systems considerably, thereby opening up entirely new market segments. We make you fit – in hard global competition.



## FIT7A by HBM:

### fit for speed and precision in your checkweigher

#### Fit for speed

Top speeds in measurement signal conditioning with up to 180 weighings per minute. So your machines can guarantee speed and efficiency.



#### Fit for precision

Top values in precision – never achieved previously with SG-based load cells – with standard deviations of only 0.1 g for 10 kg and the new accuracy class C4.



#### Fit for competition

Top price: About 50% more cost-efficient than load cells based on electromagnetic force compensation. So your machines can stay competitive and reach new market segments.



# The measured value digitizer

## The decisive tool in harsh environments

### Fast and exact – for bottling and checkweighing applications

Digital transducer electronics are sturdy components, which makes them a reliable control element in bottling plants and similar systems. For example, the PAD 4000A is optionally available with a connection cable and rugged M12 plug connections as well as a cable in hygienic design. Different HBM load cells can be connected easily with plug connection. Two freely programmable digital I/Os are available for bottling or checkweighing applications. That makes the PAD 4000A optimally suited for connecting rugged strain gauge-based load cells such as the PW15P or hygienically designed sensors like the PW27 with EHEDG certificate.

### Maximum precision – even with vibration

With a measured value resolution of up to 1,000,000 digits for 2 mV/V and complete measurement signal conditioning with selectable or automatic filters, precision is guaranteed even with strong vibration.

PanelX analysis software is available for adjusting functions and analyzing measurement signals. The transducer electronics can be conveniently integrated using RS485, CANOpen and DeviceNet interfaces.



*The new digital technology of the FIT7A offers greater precision and allows for fast and accurate measurements, even with temperature fluctuations and in dynamic applications.*

# Simply well adjusted

## Intuitive and based on actual requirements

Intuitive PanelX operating software allows you to adjust all the parameters for your measurement with Touch Control. The design is application-oriented so it responds to your needs. The integrated Web Help provides continuous support to make your measurement tasks easier.

### Other strengths of PanelX

- Adjusting the weighing system
- Selecting the bus address and baud rate
- Entering four limit values with hysteresis
- Graphical analysis and visualization of measurement results

### Supported connections

- RS485
- CANopen
- DeviceNet



# PanelX



# Digital load cells

Digital load cells based on SG technology bring new momentum to dynamic weighing, sorting, bottling and batching.

Type family	FIT7A	FIT5A	PW15iA	PAD4001	PAD4002
Accuracy class in legal-for-trade operation	C3; C4	C3	C3		
Maximum scale division (Y value) up to	25000 **	25000	10000		
Platform size up to	600 x 500 mm	400 x 400 mm	500 x 400 mm	*	*
Interfaces	RS-485, 4-wire CANopen Device Net	RS-485, 4-wire CANopen Device Net	RS-485, 4-wire CANopen Device Net	RS-485, 4-wire CANopen Device Net	RS-485, 4-wire CANopen Device Net
Diagnostic channel ***	Yes	Yes	No	No	No
Digital inputs	2	2	up to 2	up to 2	up to 2
Digital outputs	4	4	up to 2	up to 2	up to 2
Degree of protection	IP 66	IP 68/IP 69K	IP 68/IP 69K	IP 68/IP 69K	IP 68/IP 69K
Enclosure material	Stainless steel	Stainless steel	Stainless steel	Stainless steel	Stainless steel
External supply voltage	11 ... 30V	11 ... 30V	11 ... 30V	11 ... 30V	11 ... 30V
Nominal loads from ... to	3 kg 75 kg	5 kg 50 kg	10 kg 50 kg		

\* Depending on which load cell is connected

\*\* Y up to 40,000 available soon

\*\*\* Additional diagnostic channel depending on option



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measure and predict with confidence

