# Catalogue





# Welcome

### What we do

Flintec is a world-leading manufacturer of precision weight measurement technologies designed for use across a diverse range of industrial sectors.

Our journey began in 1968 when two Swedish engineers established a weighing scale design company, designing unique scales and later developing innovative load sensors. Very soon the business grew to include offices in the USA and Germany. Today we have offices and representatives globally.

In 2008 the founder of Flintec passed ownership of the business to Indutrade AB (www.indutrade. se), a company listed on the Swedish stock market. Although ownership of the company has changed, we remain committed to our values of innovation, quality, precision and customer service.

### Mission

As a member of the Indutrade family of companies, Flintec takes great pride in ensuring our business operations are responsible and sustainable.

We focus on continued profitable growth which allows us to invest in our business, employees and customer service. Since our establishment many years ago, we have a long-term vision and strategy at the heart of everything that we do as a business.

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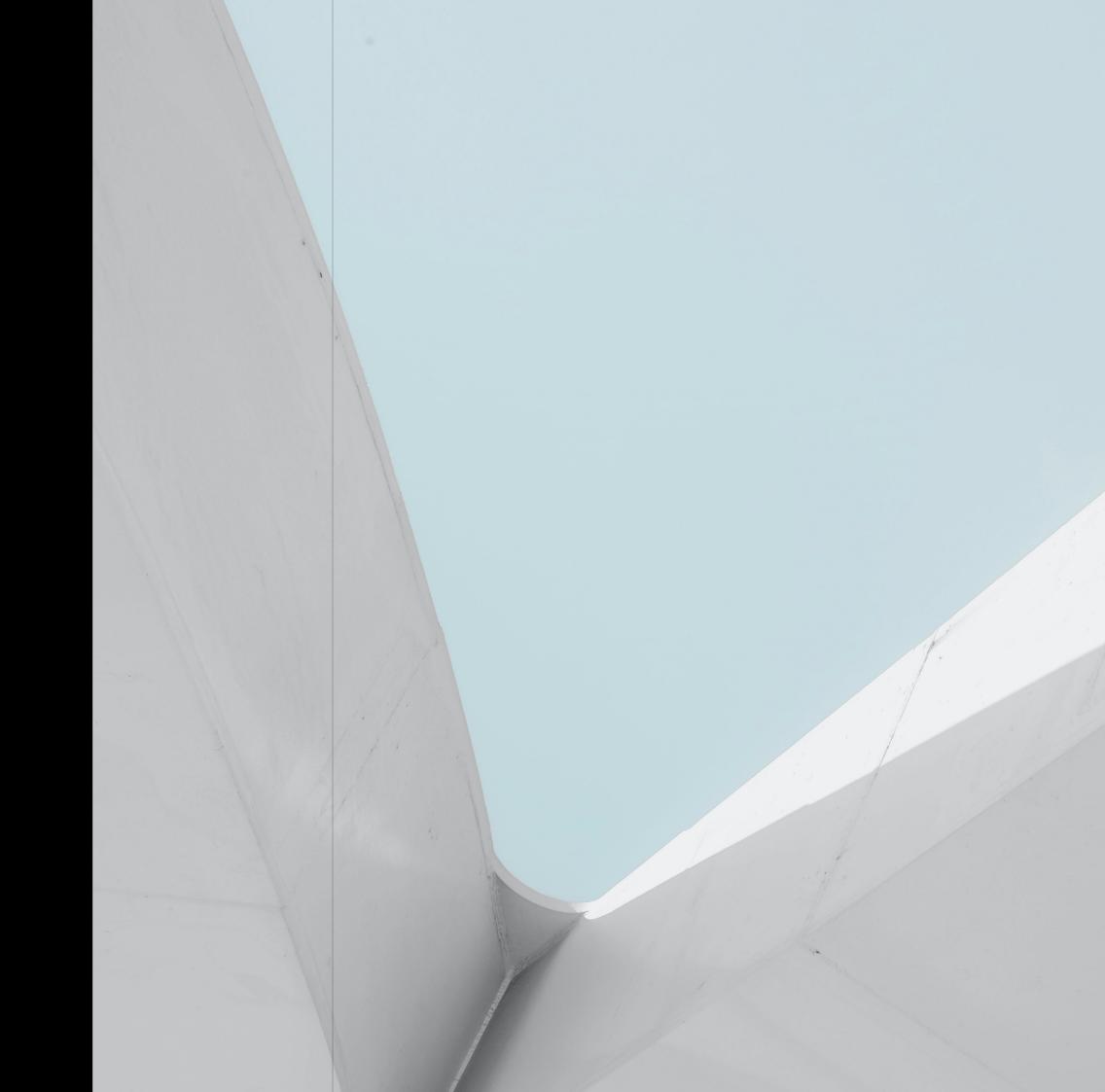
# Industry Sectors

The need for force and weight measurement is not limited to any particular industry or application.

At Flintec, our sensors service a wide range of different applications across various industries.

We have defined six load cell applications where our sensors are regularly used.

- Weighing Machinery
- Medical Devices
- Industrial + Agricultural Vehicles
- Process Automation + Control
- Process Weighing
- Test + Measurment



# Weighing Machinery

We have an extensive line of general use products available for weighing machine manufacturing. Our products are built to the highest quality, ensuring optimum performance.

We can offer a choice of aluminium, tool steel or stainless steel construction with environmental sealing using either high-performance elastomer materials or with laser-welded covers.

We offer high-accuracy load cells and electronics, most of which are certified by OIML and NTEP for use in legal for trade weighing applications. For machinery intended for use in hazardous environments, most of our load cells are ATEX and FM certified.

Weighing capacity ranges extend from 5kg through to 300,000kg.

We also offer an extensive array of options and accessories with our standard products, such as cable and connector options, labelling, calibration and loading hole configurations.



## **Applications**



### **Truck Scales**

Flintec was the first to market with the single column load cell. The Model RC3 has since positioned itself as the benchmark product for truck scale manufacturers who demand the best accuracy and absolute durability. An extensive line of mounting hardware is also available.



### **Bench-top Scales**

The all stainless steel, fully welded single point PCB is ideal for scales requiring regular wash down. Specified by manufacturers of EHEDG certified scales, the PCB is both OIML and NTEP approved and is available in a range of capacities from 50kg through to 1000kg.



### **Scanner Scales**

Flintec offers class-leading scanner scale solutions based upon either single point load cells or planar beam technology. We design and build complete scales solutions for leading names in the industry.

# **Medical Devices**

The medical device sector covers a very broad field of applications and increasingly manufacturers are turning to Flintec to help them solve their weighing and force measurement challenges.

This application sector often needs customized solutions as no two types of equipment are the same. At Flintec, we combine our ISO 13485 Quality Management System with our understanding of the medical device industry to work with clients to satisfy their needs for highly accurate and reliable measuring technology.

Today we provide clients with sensors for infusion pumps, weighing systems for continuous renal replacement therapy equipment, precision scales for infant incubators and a range of sensors for weighing patients in hospital beds, patient hoists and exercise equipment. Our product design capabilities extend from sensor development, electronic circuit design, software, plastic moulding, aluminium and steel casting and beyond to product certification.

We are routinely audited by NQA to ensure continuous compliance with ISO 13485. We are also routinely audited by our medical device customers and that our design history files are maintained using FDA recommended document control systems.



## **Applications**





We are experienced in the design, development and manufacture of baby scales.
Using unique weighing technology, our products are characterised by extended battery life, very low weight, dual-range, OIML Class III and NTEP certified and a stylish and modern form factor.



### **Infant Scales**

As a manufacturer of both strain gauges and force sensors, we can design and build sensors in any shape for infusion pumps. We typically supply customers with plunger disk or blade form sensors, designed to meet the challenging standards required by the medical device industry.



### Incubators

The ultra-low-profile Flintec range of Planar Beams and bespoke measurement electronics can be supplied either as components or as complete scale solutions. Our ISO13485 Quality Management System for Medical Devices ensures peace of mind for our customers.

# Industrial Vehicles

Machinery is becoming increasingly complex, requiring sensors that ensure thier efficient and safe operation. We have a range of solutions for manufacturers to help meet the demands of the modern industrial landscape.

Truck manufacturers and operators will find an extensive line of load cells for on-board vehicle weighing. Sensors that measure axle load, monitor payloads and count individual collection tasks. We offer chassis-mounted for bulk haulage vehicles or load cells integrated into the lifting arms of refuse collection vehicles.

The need for precision farming is increasing the level of force sensor integration in agricultural machinery. We have a range of solutions to control the operation of baling machinery, agricultural trailers and combine harvesters.

Our solutions deliver consistent accuracy in challenging operating environments thanks to reliable strain-gauge technology, durable electronics and advanced environmental sealing technology.



# **Applications**



### **Refuse Collection**

An extensive range of solutions is available for either front end lifting forks or side/rear mounted bin lifting systems.

Certification to 3000d OIML allows for approved accuracies down to very low container weights.



### Harvesting

Flintec has developed a highly accurate strain-gauge based grain-flow sensor; specifically designed to have minimum complexity which leads to a robust and extremely compact device —supplied either as an analogue or amplified sensor.



### Haulage

Vehicle payload measurement is required to ensure compliance with road vehicle weight legislation and to ensure efficient operation of the truck. We offer a range of load cell designed for onboard vehicle weighing.

# **Process Automation**

We offer an extensive list of products for use in the process automation and control sectors.

Applications range from the control of machines that assemble microchips to machines that pump oil from underground reservoirs.

All of our products are built to the highest standard of quality, ensuring optimal performance across the board. Unique applications can receive customized solutions.

In electronic assembly equipment or screen printing machinery, Flintec can provide bespoke solutions to control the insertion force applied to components or the dispensing of screen printing adhesives. Our solutions can be as simple as turning a machine component into a strain gauge bridge or if required we are able to design compact and robust force sensors.

Our rugged load cell solutions are to be found in the oil and gas industry, where our pump off control load cells are used to control the efficiency of oil wells.

Pipe bending machinery, stamping machines and presses are further examples where Flintec sensors and strain gauge instrumentation is specified to control machines to ensure high quality of operation and to maximize production efficiency.



## **Applications**





The Flintec CC1 is a thruhole, hermetically-sealed, stainless-steel load cell used to control the operation of oil well pumps. Supplied with or without 4-20mA outputs and a range of connector/ cable configurations the CC1 is designed to withstand the harshest applications found in the oil industry.



### **Printing Machines**

Measurement of the weight of paper or plastic film rolls consumed or generated by printing machines requires tough load cells. The Flintec range of bending beam load cells such the Model SB4 supplied with integral roller bearings can handle loads up to 10T.



### **Inventory Control**

The low profile single point load cell PC22 with a capacity range of 5kg ¬ 40kg is ideally suited for weighing of storage containers in part-counting and inventory-management applications. The ultra-low-profile Planar Beam provide OEM's with even greater flexibility when designing in weighing technology.

# **Process Weighing**

We have an extensive line of generic products for process weighing applications. They cover high-speed packaging machinery through to level control in large capacity silos.

Our range of products includes load cells, application hardware, junction boxes, amplifiers and weighing instruments. All are built to the highest standard of quality, ensuring optimum performance. For machine builders, our OIMLapproved electronic systems can record measurements up to 2,400 times per second at an accuracy of 10,000d. For plant engineers, our application hardware has been designed for ease of installation and maintenance-free operation to help you obtain the best accuracy from our load cells. Our weight indicators can be supplied with a range of communication protocols and a range of application programs for basic weighing, high-speed check weighing, batching, filling and dispensing.

We are among the first load cell manufacturers to gain EN1090-2 approval from the Construction Products Directive (CPD) for our weigh modules, which are extensively used throughout the process weighing sector. Our load cells are stainless steel, fully hermetically sealed, capacities up to 300T, OIML and NTEP approvals and FM and ATEX hazardous area certification.



## **Applications**



### **Conveyor Scales**

Flintec have a range of rugged beam and single point load cells for applications in conveyor weighing systems.

The load cell range is complemented by an extensive line of mounting accessories designed to obtain the highest possible weighing accuracies in high vibration environments.



### **Food Packaging**

Flintec single-point load cells are ideal for multi-head weighing systems.

Complementing this range is the MCS-08 high-speed multi-channel systems with Profibus, CANopen and ethernet fieldbus interfaces able to handle up to 2400 measurements per second.



### Silo Weighing

For the highest possible weighing precision, the RC3 and 55-20 mount is the solution of choice for industrial silos. Simple to install the 55-20 is complete with an integral bump stop and lift-off protection, offering a life-time of reliability.

# Test + Measure

Flintec's range of strain gauges, load cells and instrumentation is ideally suited for applications in the test and measurement sector.

Our tension and compression load cells are used typically in tensile test machines for the calibration of samples and the analysis of their mechanical properties.

For manufacturers of vehicle testing equipment such as dynamometers, Flintec produces a range of highly accurate bending beam load cells with complementary high speed electronic modules. In the field of agriculture, grain moisture analyzers utilize Flintec planar beam load cells that combine compact dimensions and the capability of resolving to very precise sub-gram levels of measurement.

Hand tools used in production assembly operations are becoming increasingly complex. Flintec provides strain gauged torque sensors that are embedded within nut runners for quality critical applications in the automotive sector.

Another example is a Flintec multiple strain gauge array that is assembled into a fabric glove – this haptic technology device provides tactile feedback in the computer simulation field and is used for the remote control of machines and robots.



# **Applications**



### Haptics

Strain-gauge technology permits the development of a range of sensing solutions for the haptics market. One such example is the Flintec instrumented glove solution used in such applications as pilot training and virtual reality gaming.



### **Material Testing**

Tension/compression load cells such as the stainless steel, hermetically sealed UB6 are specified by manufacturers of universal material testing machines. Compact in size, the UB6 deliveries OIML and NTEP certified performance consistently.



### **Hand Tools**

Torque wrenches are becoming increasingly complex as the demand for quality control increases in manufacturing processes.

Flintec supplies compact and robust torque sensors that are embedded within the tool.

# Load Cells



BK2

200 - 2,000kg

GP // C3

Low-profile beam load cell designed for space restricted industrial and medical applications.

Stainless steel | Potted seal | IP67

Industries:













DSB7

7.5t, 15t & 25t

Double-ended shear beam load cell designed for on-board vehicle weighing.

Stainless steel | Hermetic seal | IP68

Industries:

p.o.e



**SB14** 

227 - 4,536kg GP // C3 // C3 MI 6

A high accuracy and low profile bending beam load cell with a wide range of capacities.

Stainless steel | Hermetic seal | IP68

Industries:











SB<sub>2</sub>

20.4t & 45.4t

GP // C1 // C3

A heavy-duty range of shear-beam load cells, designed specifically for applications found in steel processing systems.

Painted tool steel | Hermetic seal | IP68

Industries:

















SB4 510 - 10,197kg

GP // C1 // C3 // C3 MI7.5 // C4 // C4 MI7.5

A high-accuracy, welded, bendingbeam load cell with a wide range of capacities and a blind-ended loading

Stainless steel | Hermetic seal |

Industries:

p.o.e









GP // C3



SB5

510 - 10,197kg

A high-accuracy, potted, bendingbeam load cell with a wide range of capacities and a blind-ended loading

Stainless steel | Potted seal | IP67

Industries:

p.o.e









GP // C1 // C3



SB6 20 - 204kg

GP // C1 // C3 // C3 MI6 // C4

Unique bending-beam load cell, designed for a wide range of highaccuracy applications. Features a blind loading hole.

Stainless steel | Hermetic seal | IP68

Industries:

p.o.e





SB8 10 - 500kg

A bending-beam load cell with a wide range of available capacities and a welded bellows casing.

Stainless steel | Hermetic seal |

Industries:

p.o.e



IP68

17 // 55 18 // 55 Flintec | Product catalogue | 2023 // 2024





250 - 2,000kg

GP // C3

Rugged shear-beam load cell designed for industrial platform scales and other applications not requiring welded

### Stainless steel | Potted seal | IP67

Industries:

p.o.e





### **SBT**

A robust, nickel-plated beam load cell designed to be mounted underneath heavy-duty vehicles and trailer bodies.

### Alloy steel | Potted | M12 connector | IP68

Industries:

p.o.e



### **SLB**

91 - 2,268kg

A high accuracy and low profile bending beam load cell with a wide range of capacities.

### Stainless steel | Potted seal | IP67

Industries:

GP // C3



# p.o.e FM (Ex) (Cs

### **Custom Solutions**

We understand that sometimes projects need special attention. Sometimes, off-the-shelf solutions just don't cut it. That is why we offer all customers the option to have a completely bespoke solution, engineered from the groud up to suit your needs.

Each year, approximately half of all our new products are custom load cell solutions, illustrating our customer-driven philosophy. The work we do ranges from small modifications to complex projects.

We have one of the stongest engineering resource pools in the industry, meaning we can tackle any project you have in mind.

We are fully compiant with international standards ISO 9001:2015 for quality management and ISO 13485:2016 for medical device manufactue.

Through passion and dedication we guarantee quality and precision in all our work.

# Quality and Precision.

# Poin



PA<sub>1</sub>

300 - 20,000g Miniature single-point load cells

designed for very low-capacity weighing scales, process machinery and medical devices.

### Aluminium | Potted seal | IP67

Industries:

p.o.e



PA<sub>2</sub>

300 - 5,000g

Miniature single-point load cells designed for very low-capacity weighing scales, process machinery and medical devices.

Anodised aluminium | Potted seal | IP66

Industries:

p.o.e

GP

PA<sub>3</sub> 300 - 5,000g

Miniature single-point load cells

designed for very low-capacity weighing scales, process machinery and medical devices.

Anodised aluminium | Potted seal | IP66

Industries:

p.o.e



### PC<sub>1</sub>

7.5 - 200kg

GP // C3 // C3 MI6 // C4

A high-accuracy, single-point load cell, ideally suited to a wide range of weighing tasks and certified weighing equipment.

### Stainless steel | Potted seal | IP67

Industries:

p.o.e









Single capacity load cell optimised for

dynamic weighing applications, such as

Stainless steel | Hermetic seal |

p.o.e

**PC12** 



speed checkweighers.



PC2

GP // C3

20 - 150kg

GP // G3

Robust, end-mounted single-point load cell, ideal for both dynamic and static applications with large platforms.

Stainless steel | Hermetic seal | IP68

Industries:

p.o.e









**PC22** 

5 - 40kg

GP // C3

A compact and low-capacity singlepoint load cell. Industry-standard mounting, ideal for new equipment or replacements.

Aluminium | Potted seal | IP67

Industries:

p.o.e

FM Ex S



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A robust, single-point load cell designed for front and rear-end bin lifting systems on waste collection vehicles.

Stainless steel | Hermetic seal | IP69K

Industries:

PC2H

2,000kg

p.o.e





**PC30** 

7 - 100kg

GP // C3

A high-accuracy, single-point load cell, ideally suited to a wide range of weighing tasks and certified weighing equipment.

Stainless steel | Potted seal | IP67

Industries:

p.o.e

(ATEX pending)

21 // 55

GP // C3



### PC3H

5,000kg

GP // C1 // C2.5

A rugged and high-capacity, singlepoint load cell designed for front-end bin lifting systems on waste collection vehicles.

### Stainless steel | Hermetic seal | IP69K

Industries:

### p.o.e







### **PC52**

100 - 200kg

A very low-profile, single-point load cell, ideal for applications where overall

### Aluminium | Potted seal | IP67

scale height needs to be minimised.

Industries:

p.o.e



### **PC42**

5 - 200kg

GP // C3

A compact, low-capacity, single-point load cell. Industry-standard mounting holes for new or replacement scale equipment.

### Aluminium | Potted seal | IP67

Industries:

### p.o.e









A highly accurate, single-point load cell ideally suited to medium-capacity bench and platform scales.

### Aluminium | Potted seal | IP67

Industries:













### PC5H

2,000kg

GP

A robust, high-capacity, single-point load cell, designed for rear-end bin lifting systems on waste collection vehicles.

### Stainless steel | Hermetic seal | IP69K

Industries:



GP // C3

p.o.e











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### PC6

10 - 200kg

GP // C3 // C3 MI6 // C4

A highly accurate and electropolished single-point load cell, ideal for tradeapproved equipment in the food industry.

### Stainless steel | Hermetic seal | IP68

Industries:

p.o.e







### **PC60**

30kg - 750kg

GP // C3

A medium capacity, single-point load cell, ideal for bench scales, medical scales and platform scales.

### Aluminium | Potted seal | IP67

Industries:

p.o.e









A rugged single-point load cell

vehicles. Trade-approved.

designed for rear-end bin lifting

Stainless steel | Hermetic seal |

p.o.e

IP69K



PC6H

2000kg



PC7

GP // C3

100kg, 250kg & 500kg

GP // C3 // C3 MI6 // C4

An electro-polished, single-point load cell to compliment the PC6 and PCB. Ideal for weighing in marine, food and

### Stainless steel | Hermetic seal |

Industries:













### PC7H

1,000kg

GP // C2

A rugged and high-capacity, singlepoint load cell designed for rear-end bin lifting systems on waste collection vehicles.

### Stainless steel | Hermetic seal | IP69K

Industries: p.o.e





### **PC81**

2,000kg

A high-capacity option for very large platform scales, vessel weighing and bin-lifting systems.

### Aluminium | Potted seal | IP67

Industries:

p.o.e



### **PCB**

50 - 1,000kg

GP // G3

Highly accurate and electropolished;

GP // C3 // C3 MI6

Stainless steel | Hermetic seal |

the food or chemiical industry.

designed for trade approved scales in

### IP68

Industries:

p.o.e















7kg - 150kg

GP // C3

A low-profile single-point load cell with numerous capacity variants. Offers an accurate and economical solution to many weighing applications.

### Stainless steel | Potted seal | IP67

Industries:

p.o.e







### PC4

10, 20, 50 & 100kg

A high performance single-point load cell designed for applications that require trade-approved weighing in harsh environments.

### Stainless steel | Hermetic seal | IP69K

Industries:



GP // C3

### p.o.e











### **SB61C**

50kg

An economical alternative to the SB8 for applications that do not require tradeapproved performance.

### Aluminium | Potted seal | IP67

Industries:

p.o.e

# Sensors ecia



**J25** 20, 150 & 250 bar

A pressure sensor for monitoring gas and fluid. Robust and compact design, ideal for numerous automotive and industrial applications.

Stainless steel | Hermetic seal | IP68

Industries:

p.o.e







PD3 2.2lb - 500lb

A parallelogram load cell capable of both tension and compression measurements. High performance with in-build overload protection.

Stainless steel | Mechanical overload protection | IP65

Industries:

# Compress

# New

### CN<sub>3</sub>

C3 // C4

A high-capacity compression load cell with a bending-ring design. It delivers high-accuracy measurments ideal for trade-approved applications.

### Stainless steel | Hermetic seal |

Industries:

### p.o.e











### **MSA**

5lbs - 1,000lbs

optional TEDS enabled

A miniature button sensor similar to the MBA but with an extra low height profile. Ideal for various test and measure applications.

### Stainless steel | Potted seal |

Industries:



### p.o.e





### AP5

1 - 10kg

optional TEDS enabled

Very low capacity, miniature sensor. A low profile and compact design to fit inside assembly and test machinery. assembly and test machinery.

### Aluminium | Miniature sensor | IP40

Industries:

p.o.e



### AP8

optional TEDS enabled

Very low capacity, miniature sensor. A low profile and compact design to fit inside

### Aluminium | Miniature sensor | IP40

Industries:

p.o.e





### CC1

30K Lbs & 50K Lbs

The CC1 compression load cell is a robust and reliable option for polished rod sensors in the oil and gas industry.

### Stainless steel | Hermetic seal | IP68

Industries:











### CC1W

30K Lbs & 50K Lbs

The CC1W is a wireless compression load cell used for pump-off control in the oil and gas industry. No more costly cable repairs.

### Stainless steel | Hermetic seal |

Industries:

p.o.e





### CC3

30K Lbs & 50K Lbs

A rugged and robust compression load cell for polished rod sensors (pump-off control) in the oil and gas industry.

### Cast steel | Hermetic seal | IP68

Industries:

p.o.e





JF1

2 - 100kN

optional TEDS enabled

The JF1 conpression sensor is designed for press-fit applications. Low profile design to easily embed into assembly machines.

### Stainless steel | Miniature sensor

Industries:

p.o.e



### **MBA**

100lb - 50klb

optional TEDS enabled

A miniature button sensor designed for applications in test and measurement as well as machine monitoring and control.

### Stainless steel | Miniature sensor | IP65

Industries: p.o.e



### **MBA-TW**

25 - 50lb

A miniature button sensor designed for applications in test and measurement

optional TEDS enabled

control.

### Stainless steel | Miniature sensor | IP64

as well as machine monitoring and

Industries

p.o.e



### **MBC**

100lb - 50klb

A miniature thru-hole sensor designed for applications in test and measurement as well as machine monitoring and control.

optional TEDS enabled

### Stainless steel | Miniature sensor | IP65

Industries:

p.o.e

27 // 55 28 // 55



### MBD2

10 - 5,000lb

optional TEDS enabled

A miniature thru-hole sensor designed to test and measure the compressive forces acting on cylinders, bolts and shafts.

### Stainless steel | Miniature sensor | IP64

Industries:

p.o.e



A miniature compression sensor with

threaded mounting. Ideal for various

Aluminium or stainless steel |

test and measure applications.

Miniature sensor | IP64

### MHT1

1 - 200kg

Industries:

p.o.e

optional TEDS enabled

MHT2 500 - 5,000kg

optional TEDS enabled

A miniature compression sensor with threaded mounting. Ideal for various test and measure applications.

### Stainless steel | Potted seal | IP64

Industries:

p.o.e





### MK

100N - 200kN

optional TEDS enabled

A low-profile, miniature button sensor A smart sensor with high-accuracy and designed to be embedded into test and measurment machinery.

### Stainless steel | Miniature sensor | IP64

Industries:

p.o.e



Q1

200 - 5000N

optional TEDS enabled

electronicly adjustable zero and span

### Stainless steel | Miniature sensor | IP68

Industries:

p.o.e







Industries:

**Q50** 

A compression load cell with a high

Electropolished surface is ideal for use

Stainless steel | Hermetic seal | Eletropolished surface | IP68

capacity and low-profile design.

in sterile and clean environments.





RC1

25.5t - 91.8t

GP // C1 // C3

A robust, column load cell designed for applications in truck scales and process weighing systems.

Stainless steel | Hermetic seal | IP68 | Self-restoring column

Industries:

p.o.e













Industries:

RC3

7.5t - 300t



A rocker-column load cell with a

very wide range of capacities. An

economical alternative to the RC1.

IP68 | Self-restoring column

Stainless steel | Hermetic seal |



GP // C1 // C3 //

C3 MI8 // C4



RC3D

GP // C1 // C3 // C4

An digital version of the RC3 with embedded electronics to improve accuracy and data handling.

Stainless steel | Hermetic seal | IP69L | Daisy-chain configuration

Industries:

p.o.e





### **Smart Sensors**

All of our miniature force sensors come with the option of a TEDS-enabled connector.

TEDS stands for Transducer Electronic Data Sheet, and refers to a small chip that is housed inside the connector, encoding sensor specifications and calibration data. Enabling plug-and-play functionality in accordance with IEEE 1451.4 Standard for Smart Transducer Interface.

Our solutions deliver consistent accuracy in challenging operating environments thanks to reliable strain-gauge technology, durable electronics and advanced environmental sealing technology.

Benefits include:

- Eliminate data-entry error
- Simplify setup with plug-and-play
- · Hot-swap sensors with ease
- · Identify sensors electronically
- Available sensors

# Load Cells





optional TEDS enabled

for both tension and compression measurment. Ideal for embedding in

Aluminium | Miniature sensor |

Industries:



**ISB** 

25 - 100lb

test equipment.

Miniature S-beam sensors configured for both tension and compression measurment. Ideal for embedding in

optional TEDS enabled

Aluminium | Miniature sensor | IP40

Industries:



UB<sub>1</sub>

1,000 - 10,000kg

A robust, high capacity s-beam load

cell, suitable for both tension and compression measurments in tradeapproved weighing.

Stainless steel | Hermetic seal | IP68

Industries:

p.o.e







GP // C1 // G3 // C3



### UB<sub>6</sub>

75 - 500kg

GP // C1 // C3

A low capacity s-beam load cell that measures both compression and tension. Rugged with trade-approved performance.

Stainless steel | Hermetic seal |

Industries:

p.o.e



**Y1** 

| IP64

p.o.e

Industries:

50 - 5,000N

Miniature threaded force sensor

configured for both tension and

equipment and machinery.

compression. Easy to embed into test

Stainless steel | Miniature sensor







optional TEDS enabled











### **ULB**

100 - 5,000kg

GP // G3 // C3

An s-beam load cell with a vast range of capacities, measuring both tension and compression. Ideal for process plants.

Stainless steel | Potted seal |

Industries:

p.o.e











A robust and reliable s-beam load cell. Suitable for both compression and tension, it is an economical alternative to the ULB.

Nickel-plated alloy | Potted seal

Industries:

p.o.e

(ATEX, FM pending)



**Y2** 

10kN - 50kN optional TEDS enabled

Miniature threaded force sensor configured for both tension and compression. Larger capacity version of the Y1.

Stainless steel | Miniature sensor | IP64

Industries:

p.o.e



### UT4

200lb - 1,000lb

A low-profile load cell capable of both tension and compression measurements. Designed for medical devices where vertical space is limited.

High-grade aluminium or Stainless steel | Central axis mounting | IP65

Industries:

p.o.e



Miniature S-beam sensors configured test equipment.

IP40

p.o.e

31 // 55

p.o.e





# xtensometer

Load Cells



VT1 Extensometer

A rugged exensometer designed for silo monitoring. Bolts to support leg to monitor elastic deformation under the load.

Electropolished stainless steel Hermetic seal | Optional installation kit IP68

Industries:

p.o.e

(S



**XT50** 

A bolt-mounted extensometer that measures the deformation of structures under load, such as elevators & chassis.

Stainless steel | Hermetic seal | Bolt-on | Low activation force | IP68

Industries:

• • •

p.o.e



U **m** Load Cells



PB

3.75 - 375kg

GP // C3

A trade-approved, planar-beam load cell for use in ultra-low-profile weighing equipment.

Aluminium | Potted seal | IP65

Industries:



p.o.e





**PBW** 

5.7 - 150kg

GP // C3

A trade-approved, planar-beam load cell for use in ultra-low-profile weighing equipment.

Aluminium | Potted seal | IP65

Industries:



p.o.e





**ZLS** 

20 - 200kg

A stainless steel, planar-beam load cell suited to general measurment tasks offering low-profile and high accuracy.

Stainless steel | Potted seal |

Industries:

p.o.e



**ZLB** 

GP // G3

20 - 200kg GP // C1 // C3

A planar-beam load cell offering high accuracy and OIML certification. Bolthole compatible with SB8, SB6, SB61C.

Aluminium | Potted seal | IP67

Industries:

p.o.e









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52-00 Base Plate

A base plate designed to ensure optimum weighing performance from a beam load cell.

Stainless or zinc plated alloy | Optional overload protection

Compatible with:

SB4 SB5 SB6 SB8 SLB SB9 SB14

p.o.e



55-55

Load Mount

A symmetrical load mount, designed to be rugged and stable whilst allowing access on all sides. For use with compression load cells.

Steel or stainless steel | Symmetrical design | 7.5t - 300t

Compatible with:

RC3

p.o.e



52-02

beam load cells.

Compatible with:

p.o.e

A self-aligning foot with height

adjustable shims. Designed to improve

Zinc plated tool steel or stainless

SB4 SB5 SB6 SB8 SLB SB9 SB14

steel | Optional fixation plate

the weighing results for a number of

Rubber Foot

52-01HD

Weigh Module

A rugged weigh module designed especially for the high-capacity SB2 beam load cell, minimising overloads and sliding.

Painted mild steel | Optional overload protection

Compatible with:

SB2

p.o.e



A self-aligning rubber element and mount, to ensure precise loading when subjected to vibrations and thermal expansion.

Zinc plated steel | High lateral compliance

Compatible with:

SB4 SB5 SB6 SLB SB9 SB14

p.o.e



52-08

Rocker Pin

A rugged system for ensuring optimal load introduction. Suitable for highcapacity platforms and hopper scales.

Stainless steel | Guide installation

Compatible with:

SB4 SB5 SLB SB9 SB14

p.o.e



52-10

Height-adjustable Rubber Foot

A self-aligning foot with the added feature of being height adjustable. Ideal for industrial platform scales.

Zinc-plated tool steel or stainless steel | Optional fixation plate

Compatible with:

SB4 SB5 SB6 SLB SB9 SB14

p.o.e



52-13 Sliding System

A sliding system that offers excellent load introduction for hoppers, tanks and vessels. Both a 2- and 3-directional bumper version.

Stainless or zinc-plated steel | Optional weldments | Optional lift-off protection

Compatible with:

SB4 SB5 SB6 SLB SB14

p.o.e



52-15

Height-adjustable Rubber Foot

A self-aligning foot with height adjustability. Acts to reinforce performance, mitigating the effects of artifact forces.

Stainless steel | Metric or Unified threads | Optional fixation plates

Compatible with:

BK2 SB8

p.o.e



52-18

Weigh Module (Rocking or Sliding System)

The most universal mount available, with variants to suit static weighing, mixing and adgitated vessels as well as high-accuracy.

Zinc-plated or Stainless steel | Optional overload an lift-off protection

Compatible with:

SB4 SB5 SLB SB9 SB14

p.o.e 36 // 55



52-28 Weigh Module

A compact module designed to stabalise the lower capacity bendingbeam cells. Lift-off and overload

Zinc-plated or stainless steel | Ball and socket | Integrated check-link

Compatible with:

protection included.



p.o.e



FX

**Fixation Plates** 

Designed to secure the feet of platform scales, preventing movement during installation.

Black polypropylene | Symmetric or asymmetric versions

Compatible with rubber feet:

52-02 52-10 52-15

p.o.e



52-31

Tension Adapter

A robust, self-aligning module designed to improve performance of load cells mounted to suspended tanks and vessels.

Zinc-plated steel | Suitable for 20kg - 10t

Compatible with:

SB4 SB5 SB6 SLB SB9 SB14

p.o.e



LM-SB8

Load Mount for SB8

A mount designed especially for the high-capacity SB8 beam load cell, improving load introduction.

Rubber and steel plates | Optional threaded or cone inerface

Compatible with:

SB8

p.o.e



56-01

**Dummy Support** 

A dummy support that offers an economic means of creating a tank or vessel weighing system.

Zinc plated mild steel or stainless steel | Optional welding

Height compatible with:

52-13 52-18

p.o.e



53-04

Tension Assembly

A self-aligning mounting system for s-beam tension load cells. Ideal for use in suspended tank and vessel applications.

Zinc plated steel | Supplied earthing strap

Compatible with:

UB1 UB6 ULB UXT

p.o.e



55-01-07A

Rocker System

A self-aligning support mount for the RC1 load cell. Ensures optimum performance, ideallly suited to truck scale systems.

Zinc plated steel | Anti-rotation |

Compatible with:

RC1

p.o.e



55-01-07C

Rocker System

A self-aligning support for the RC3 and RC3D. Ensures optimum performance, ideal for truck scale systems.

Zinc-plated steel | Anti-roation |

Compatible with:

RC3 RC3D

p.o.e



55-01-07D

Rocker System

A low-profile mount designed for the lower capacity versions of the RC3 load cell. Ensures optimal weighing performance.

Zinc plated steel | Anti-roation

Compatible with:

RC3

p.o.e



55-01-07H

Rocker System

A mounting system for the RC3 and RC3D. Easy to install and maintain, ensures accurate performance in truck scales.

Zinc-plated steel | Anti-roation | Self-aligning

Compatible with:

RC3 RC3D

p.o.e



55-01-10

Weigh Module

A self-aligning support for rockercolumn load cells used in hopper and tank weighing. Ensures accurate performance.

Stainless steel | Self-aligning | Integrated bump-stop and lift-off protection

Compatible with:

RC3

p.o.e



55-01-11

Weigh Module

A support mount designed for use with hoppers and tanks fitted with agitators. Integrated check link to offset oscillations.

Zinc-plated or stainless steel | Check link | Integrated lift-off protection |

Compatible with:

RC3

p.o.e





55-20

Weigh Module

A rugged support for rocker column load cells. Suitable for a wide range of tank and silo weighing systems.

Zinc-plated or painted cast mild steel | Integrated bumpstop & lift-off protection

Compatible with:



p.o.e



Weigh Module

A self-aligning support designed to help eliminate occilations caused by tank and hoppers that have agitators

Zinc-plated or stainless steel | Check link | Integrated lift-off protection

Compatible with:



p.o.e



56-02

**Dummy Support** 

A dummy support that offers an economic means of creating a tank or vessel weighing system.

Zinc-plated mild steel | Welding plates available

Compatible with:

55-20 55-01-10 55-07C 55-07D

p.o.e



66-20 Weigh Module

A support designed especially for the Q50 load cell used in sterile environments such as

Plated alloy or stainless steel | Easy clean | Integrated lift-off protection

Compatible with:

Q50

p.o.e



LM-PB

Load mount for PB / PBW

A load mount designed to improve load introduction and weighing accuracy for PB and PBW planar beams.

Zinc-plated steel & natural rubber

Compatible with:

PB PBW

p.o.e



LM-ZL

Load mount for ZLB / ZLS

A load mount designed to improve load introduction and weighing accuracy for ZLB and ZLS planar beams.

Zinc-plated steel & natural rubber

Compatible with:

ZLB ZLS

p.o.e

# Quality and Precision.

Electronics

### **DAD 141.1**

Process Indicator

A powerful and economical indicator for weighing and filling as well as force measurement. OIML R76 10,000d certified. With Ethernet interface and analogue output.

Six-digit display | 600 measures/s | IP40

Industries:

p.o.e





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### **DAD 142.2**

Process Indicator

A powerful and economical indicator for weighing and filling as well as force measurement. OIML R76 10,000d certified. With Profibus interface.

Six-digit display | 600 measures/s | IP40

Industries:

p.o.e



### **DAS 72.1**

Process Indicator

A fast, high-accuracy, DIN-mountable instrument for static and dynamic

Easy interfacing with a PC or PLC.

Five-digit display | 2,400 measures/s IP40

Industries:

p.o.e



### **DAD 143.1**

Weighing Indicator

A powerful and economical indicator for weighing, filling & force measurement. OIML R76 10,000d certified. With Profinet/EtherCAT/ EtherNet interfaces and analogue output.

DIN mountable | max 600 updates per sec | Legal-for-trade | IP40

Industries:

p.o.e



### 



### **FRD**

Remote Displays

A family of three remote displays for use in various weighing applications. Red LED screens for use in bright environments.

Steel or aluminium housing | Sixdigit display | Wall-mountable | IP65

Industries:

p.o.e



### FT-10

Weighing Indicator

A comprehensive family of indicators for static weighing. Numerous communication protocols and certified to 10,000d and OIML R76 certified.

Multiple versions | 1600 measures/s | IP65

Industries:

p.o.e



### FT-10 Fill

Weighing controller

An accurate and verstaile indicator designed specifically for automating filling applications. OIML R61 certified.

Stainless steel & aluminium | For filling, dispensing and packaging | IP65

Industries:

p.o.e



### FT-10 Flow

Weighing controller

A precise dosing controller designed for trade-approved monitoring of flow rates and summing transported material. OIML R107 certified

Stainless steel | 1,600 measures/s | Configured for flow rate control | IP65

Industries:

p.o.e





### FT-107

Weighing Indicator

General purpose indicators that are compact and lightweight. Essential functionality, OIML certified to 6,000d.

Plastic or stainless steel | Rechargible battery | Wide-angle LCD | IP65

Industries:





p.o.e



### FT-111

Weighing Indicator

A multifunctional indicator for weighing and monitoring. An intutive menu, onboard memory and OIML R76 certified.

Stainless steel enclosure | Numerous interfaces | Analogue or digital load cells | IP67

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Industries:







### FT-112

Weighing Indicator

A high-precision, multifunctional terminal allowing dual-scale connections. Features SmartAPP and OIML R76 certified.

Stainless steel | Dual scale | Smart functions | Analogue or digital load cells | IP67

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Industries:

p.o.e





### FT-111 Panel

Weighing Indicator

An alternate version of the popular FT-111 indicator, featuring a paneltype housing that is ideal for cabinet mounting.

Analogue or digital connections | Tactile keypad | Multipe interface options | IP67

Industries:



p.o.e





### FT-112 Panel

Process Indicator

An alternate version of the popular FT-112 indicator, featuring a paneltype housing that is ideal for cabinet mounting.

Analogue or digital connections | Tactile keypad | Multipe interface options | IP67

Industries:

p.o.e







### **FT-30M**

Onboad Weighing Indicator

A modular, plug-and-play indicator for onboard vehicle weighing. Dinmountable, accessory-rich and intuitive to use.

Microsoft embedded OS | Fullcolour touchscreen | Suite of fuctions | IP30

Industries:

p.o.e



### FT-113 Fill

Weighing Indicator

A versatile indictor for filling and packaging applications. 12 modes, programmable keys and a range of fieldbus options. OIML R107 certified.

High-speed conversion | Tactile keypad | Smart filling algorithm | 12 filling modes | IP67

Industries:

p.o.e





### VR1

Handheld Display

A convenient, portable indicator for load cells and strain gauges. Ideal for calibration and monitoring in the field.

Water-resistant | Tactile buttons | Standard functions | 450h battery | IP65

Industries:

p.o.e



### FT-150

Weighing Indicator

An indicator designed for vehicle weighing & labelling and data collection applications. Tradeapproved according to OIML R76.

Stainless-steel enclosure | 7" LCD Touch Display | Multiple Interfaces | IP30 or IP67

Industries:

p.o.e



### Software

The Flintec Device Configurator (FDC) is a Windows-based application designed for use with the EM100 and TR2 electronic modules.

With the software you can calibrate, configure and monitor the connected device, with connection support for up to four devices at a single time.

- -RS232, RS485, USB-CDC or CANbus
- -Up to 4 devices
- -Auto-find feature
- -Powerful real-time charts
- -Clone settings to another device

Get the software at flintec.com.

# Electronics



### **EM100**

Amplifier and 24-bit ADC module

High precision digitiser for general weighing, check-weighing, and filling, 1200 measures/s, OIML R76, R51, R61 certified.

24-bit | Legal-for-trade | CANopen | USB | RS-232/485 | Option: adapter board | IP20

Industries:

p.o.e



### **FAD-30**

Analogue-to-Digital Converter

A high-accuracy digitiser for static and dynamic weighing. Supports numerous bus protocols.

24-bit | DIN-mountable | 800 measures/s | 0.0015% accuracy | up to 18 sensors | IP20

Industries:

p.o.e





up to 18 sensors | IP20 Industries: p.o.e

**FAD-40** 

outputs.

Analogue-to-Digital Converter

A high-accuracy digitiser for static and

dynamic weighing. Same functionality

as the FAD-30 but with extra inputs/

24-bit | DIN-mountable | 800

measures/s | 0.0015% accuracy |



### **MCS-08**

Multi-channel Weighing System

State-of-the-art, multi-channel digitiser with high-resolution, standard functions, and optional modules for I/O, bus and display.

24-bit | DIN-mountable | 8 channels | 0.0015% accuracy | 800 measures/s | IP20

Industries:

p.o.e



### **MCS-64**

Multi-channel Weighing System

A 64-channel digitiser. Versions for automatic weighing, fluid filling and weight loss. Optional mods.

24-bit | DIN-mountable | 64 channels | 0.002% accuracy | 2,400 measures/s | IP20

Industries:

p.o.e

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24-bit ADC | 10-bit tiltaccelerometer | Up to 4 sensors | RS-232/485 | USB

Industries:



### **JBE**

Industries:



45 // 55 46 // 55



p.o.e

Digital Junction Box

A digital junction box to connect four load cells in parallel. Two variants are available: a polyester or an aluminium enclosure. Designed for use with the EM100 electronics module.

Polyester or aluminium enclosure EM100 support | Up to 4 sensors | IP66

p.o.e

# Boxes Junction

Electronics

### **ATEX**

Junction Boxes

A range of ATEX-certified junction boxes suitable and safe for use in potentially explosive atmospheres.

Stainless steel, aluminium or plastic | 4/6/8 connections | Screw terminals | IP66

Industries:

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p.o.e





### KA-1

Junction Box

A simple junction box designed to make it easy to connect a single load cell to electronic instrumentation.

Painted aluminium | Single load cell | Screw terminals | IP66

Industries:



### **KA-KAK**

Junction Boxes

A family of three junction boxes designed to connect 3 to 6 load cells. Robust and useful for a wide range of weighing applications.

Painted aluminium | 3/4/6 load cells | Soldered or clamped terminals | IP66

Industries:

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p.o.e



### KEK-4

Junction Box

A rugged styainless steel junction box, ideal for tough industrial conditions. Designed for four cells plus corner trimming resistors.

Stainless steel | 4 load cells | Clamped terminals | Corner trimming | IP65

Industries:

p.o.e

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### **KP-KPK**

Junction Boxes

A polyester junction box for up to four load cells. It comes in two versions; one with soldered terminals, the other clamped.

Polyester | 4 load cells | Soldered or clamped terminals | Corner trim | IP66

Industries:

p.o.e



### KPB-4

Junction Box

Connect up to four planar-beam load cells via AMP connectors. Accurate corner trimming with  $10\Omega$  or  $50\Omega$ potentiometer.

Plastic with aluminium baseplate AMP connect 4 sensors | Corner trimming | IP54

Industries:

p.o.e



### **KPF**

Robust junction box available for 4, 6, 8, or 10 load cells. Ideally suited to outdoor applications such as truck scales and silos.

Polyester | 10 sensors | Surge-

Industries:

p.o.e



Junction Boxes

protected | Clamped terminals | Corner trim | IP66

47 // 55 48 // 55

# Amplifiers



### **EA250**

Analogue Amplifier

A high-performance amplifier and signal conditioner. Suitable for all strain-gauge sensors, and housed in a robust casing.

ABS plastic | Up to four  $350\Omega$  bridges | Voltage or current output | IP65

Industries:

p.o.e

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### **FAA-26 / 27**

Analogue Amplifiers

Accurate and economical amplifiers that support a range of applications in process weighing and process automation.

DIN-mountable |  $12x 1,000\Omega$ sensors | Volt or Amp outputs | 3-step filter | IP20

Industries:

p.o.e



### FAA-28

Analogue Amplifier

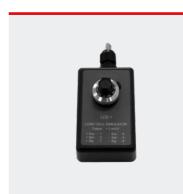
Accurate and economical amplifiers that support a range of applications in process weighing and process automation.

DIN-mountable |  $18x 1,100\Omega$ sensors | Volt or Amp outputs | 9-step filter | 1P20

Industries:

p.o.e

# **Diagnostics**Electronics



### LCS-1

Analogue Load Cell Simulator

Simulates the analogue signal produced by one strain-gauge load cell. Ideal for testing and troubleshooting systems.

Rugged ABS housing | 0 - 2mV/V adjustable output | IP40

Industries:

p.o.e

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### LCS-1D

Digital Load Cell Simulator

Emulates the input recieved from a single RC3D load cell. Ideal for testing and troubleshooting systems.

Rugged ABS housing | 0 - 40k counts adjustable output | IP40

Industries:

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p.o.e



### LCT-11

Load Cell Tester

A hand-held, battery-operated device for troubleshooting strain-gauge sensors. It provides useful diagnostic data to the user.

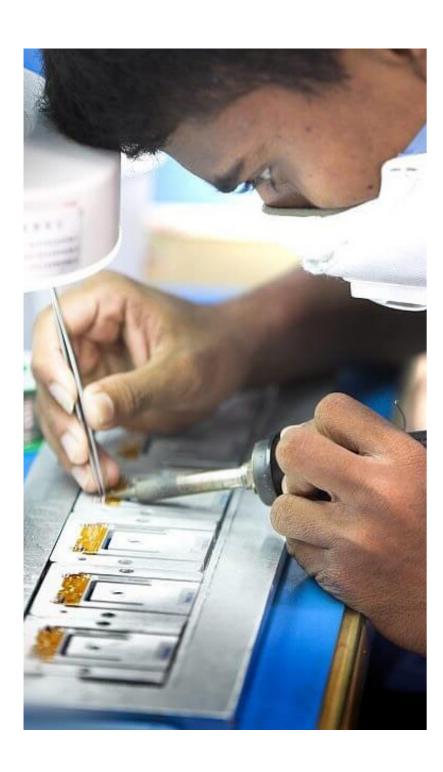
ABS Enclosure | 16-bit ADC | 16-digit display | 8-pin connector | IP40

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Industries:

p.o.e

# **Services**



### Overview

We offer a range of services for the design and manufacture of made-to-order weighing systems. We can take care of everything, from electrical design, software development, approvals and production.

We support many of the world's leading blue-chip companies in developing systems for product manufacturing, inventory control, automation and consumer purchasing.

### **Project Process**

Stages
Feasibility
Concepting
Quote Agreement
Design
Pre-production
Production

# **Capabilities**

### **Mechanical Design**

# Capabilities 3D Design & Modeling Generative Design ✓ Visualisations 2D Drafting Rapid Prototyping Data Management ✓

### Manufacturing

### Capabilities

Machining	$\Theta$
Heat treatment	0
Strain gauge	0
Surface finishing	0
Medical devices (ISO 13485)	<ul><li>∅</li></ul>
Calibration	Ø
Quality control (ISO 9001)	Ø
Health and Safelty (OHSAS 18001)	0

### Regulatory Standards

OIML	$\odot$	CE	$\odot$
NTEP	<b>⊘</b>	GDPR	<b>⊘</b>
ATEX	<b>⊘</b>	ROHS	<b>⊗</b>
FM	<b>⊘</b>	FCC	<b>⊘</b>
UL	<b>⊘</b>	IC	<b>⊗</b>
ISO	<b>⊘</b>		

### **Electrical Design**

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### Legal Metrology

I2C

Wireless

EMC

We have extensive experience in acquiring the relevant legal and regulatory requirements of our products.

Our familiarisation with the pplication processes and global test houses means we can facilitate a painfree process of getting your product fit for the market.

### **Software Design**

Langages			
С	0	Python	<b>⊘</b>
C++	0	Perl	<b>⊘</b>
C#	0	HTML	<b>⊘</b>
Java	0	XML	<b>⊘</b>
JavaScript	0	JSON	<ul><li>Ø</li></ul>
VBS	Ø		

Interfaces			
RS-232	0	SPI	<b>⊘</b>
RS-485	0	I2C	<b>⊘</b>
Modbus	<b>⊘</b>	Ethernet	<b>⊘</b>
CAN	0	Telnet	Ø
CANopen	0	НТТР	<b>⊘</b>
J1939	0	Wi-fi	<ul><li>Ø</li></ul>
USB CDC	0	Zigbee	<ul><li>Ø</li></ul>
USB HID	0	Bluetooth	<ul><li>Ø</li></ul>

### **Simulation Analysis**

Advanced Finite Element
Analysis (FEA) by our
skilled specialists offer
actionable reports on product
performance without the need
for physical testing, which
is faster, more efficient and
more cost-effective.



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