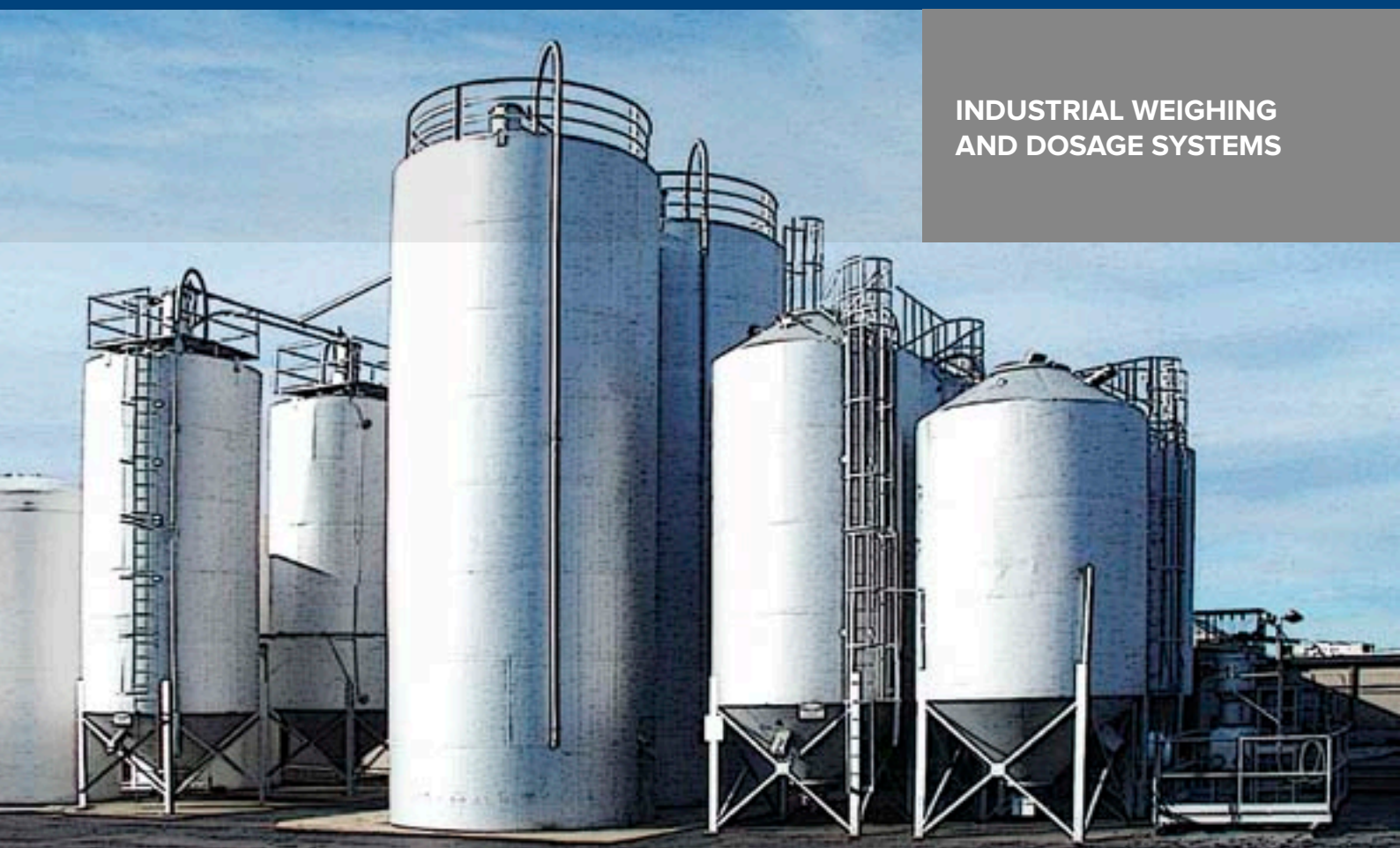






















**INDUSTRIAL WEIGHING
AND DOSAGE SYSTEMS**



CATALOGUE - JUNE 2013



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INDUSTRIAL WEIGHING AND DOSAGE SYSTEMS

Dini Argeo is a company specialising in the design and manufacture of scales and weighing systems, with a proven track record in the world for quality and reliability.

The solutions created by **Dini Argeo** cover all industrial weighing applications:

- reading, editing, and transmission of the weight data
- easy, sequential, simultaneous dosages, in filling or discharging, continuous on belt or in loss in weight
- weighing in ATEX zones with risk of explosion
- parts counting, labeling
- check production lines, statistical check of pre-packaged goods

- weighing logistics (pallet truck scales, fork lift scales, hanging scales)
- vehicle weighing (weighbridges, static and dynamic wheel and axle weighing).

The wide range of interfaces and fitted communication protocols allow the **Dini Argeo** products to be easily integrated in the industrial world of automation and process control, in order to create OEM systems with customized functions.

MANUFACTURE DESIGN QUALITY CONTROL



DINI AR GEO: QUALITY AND CERTIFICATIONS



Dini Argeo has obtained the Quality Management System Certification according to the UNI EN ISO 9001: 2008 norm for the design, production and post sales assistance of measuring instruments, scales and weighing systems, components and software.



Dini Argeo is an **ATEX** notified company according to the ATEX 94/9/CE directive (attachment IV). The Dini Argeo production process is therefore certified for manufacturing and marketing equipment marked with EX, intended to be used in environments with potential explosive atmospheres.



Dini Argeo manufactures non-automatic weighing instruments according to the 2009/23/CEE directive. The DG0252 mark indicates that the instrument is subject, by the manufacturer, to the CE verification in accordance with the CE approval Certificate of the Quality Production Assurance System issued by the Chamber of Commerce of Modena, Notified Body 0252.



Dini Argeo manufactures CE-M approved or approvable instruments according to the EN45501 European Norm - 2009/23/CEE Directive. The CE-M certificate, issued by the Italian Central Metric Office, states that the instrument is fitted with the CE TYPE APPROVAL CERTIFICATE which legitimizes the suitability for legal for trade use. This approval is essential for all legal uses in commercial transactions.



Dini Argeo manufactures instruments in accordance with the recommendations requirements of the International Organization of Legal Metrology (OIML):

- OIML R60 approval for the load cells.
- OIML R76 approval for non-automatic weighing instruments.
- OIML R134 for the dynamic weighing.



Dini Argeo produces instruments conforming to the Russian Federation standards, Gost-R certified.

THE DINI AR GEO GROUP: A 360 DEGREES SERVICE

Dini Argeo offers to the customers a complete service which ranges from the study of the customized solution and the supply of weighing components up to the creation of PC software and communication networks, the calibration services and the certification of OEM systems. Dini Argeo has developed into a group with a strong international vocation, with branches in Europe, Asia and a sales and assistance network in over 70 countries worldwide. The Group is made up of Dini Argeo and other companies, leaders in their respective fields:



Retail scales
www.helmac.it

Syntweb
 System Integrator & Web Technology

Software and Web solutions
www.syntweb.com



LABORATORIO PESI E MISURE
 Weights and Measures Laboratory
 Metrological laboratory
www.cibelab.it



Hardware development
www.selene-electronics.it



Calibration, installation,
 maintenance services network
www.servistar.it



www.diniargeo.com

The complete range of **Dini Argeo** products, available on the website, includes:



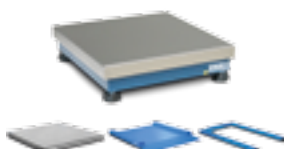
WEIGHT INDICATORS

Weight indicators, repeaters, and transmitters for easy or advanced industrial applications of: totalization, parts counting, statistical checking, industrial price computing, weigh bridges or wheel and axle weighing systems management, single or multi product dosages in filling and discharging, etc.



LOAD CELLS

Off center, bending beam, shear beam, double shear beam, compression, tension, column load cells, junction boxes, and kits for creating small, medium, large-capacity weighing systems.



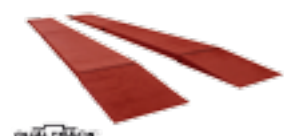
WEIGHING MODULES

Single or 4-cell platforms, pallet-weighers, levers platforms for weighing of metal profiles, rods or pipes, overhead monorail and wall quarter weighing modules.



MOBILE WEIGHING

Pallet truck scales, crane scales, weighing kit for forklift trucks, pallet weighing which allow to integrate the weighing in the logistics warehousing, the materials handling and the lifting of suspended loads.



WEIGH BRIDGES

Classic and dual track weigh bridges for fixed or mobile installations, particularly suitable in industrial, agricultural, and commercial fields, and platforms for the axle dynamic weighing of a vehicle in transit.



WHEEL AND AXLE WEIGHING PLATFORMS

Analog or wireless platforms suitable for creating vehicle weighing mobile stations, directly where one needs, on any type of flat surface, by saving time and money.



INDUSTRIAL SCALES

Multifunction, flexible, precision scales for counter-top and floor, and high versatility modular weighing systems. Suitable for industrial, commercial, and laboratory use.



INDUSTRIAL, LABORATORY, AND RETAIL SCALES

"Scale House" is a brand that distinguishes products for industry, laboratory, retail as well as weighing in general, carefully selected in order to have the best quality/price ratio.



SCALES, CASH POINTS AND AUTOMATIC MACHINES FOR RETAIL

Helmac designs and manufactures price computing, bench, and hanging scales, for use in shop, supermarket, and mobile sales, POS systems, cash registers and price computing automatic machines for agro-food industries.



WEIGHTS, SETS OF WEIGHTS, MASS SAMPLES, AND CALIBRATION SERVICES

Cibe Metrological Laboratory offers a wide range of weights, sets of weights, mass samples, and accessories as well as calibration services and Periodic Verification of automatic and non automatic weighing instruments.



WEIGHING SOFTWARE

Syntweb offers software solutions connected to the weighing world, including programs for: reading, checking and recording of weighs; manual of automatic dosage; vehicle IN/OUT weighing with weighbridge; management of the production cycle, disposal and traceability of waste; pieces counting; statistical check of the filling processes; etc.

SYMBOLS LEGEND



The products bearing this mark can be used in potentially explosive environments 1 and 21 or 2 and 22, classified by the **ATEX** directives.



The products bearing this mark are usually constructed in STAINLESS STEEL for use in environments with very strict hygiene requirements or for providing greater protection from all types of corrosion.



The IP classification indicates the protection degrees which the instrument may have in relation to penetration of solid bodies (1st digit) and/or liquids (2nd digit). Many of Dini Argeo weighing systems ensure total protection from dust, humidity, and water sprays (IP65 and IP67 protection), up to hermetic sealing in submersion (IP68 protection).

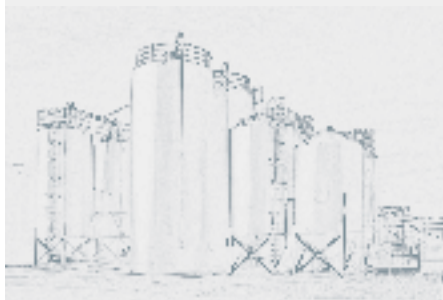


These symbols represent, in a simplified way, the typical use of the load cell. In particular, they indicate:

1. suspended hoppers / tanks
2. silo of any size
3. horizontal tanks, whether or not containing liquids
4. 4-cell platforms
5. single-cell platform.

PROCESS CONTROL

EASY-TO-USE INDICATOR, TRANSMITTER FOR WEIGHING AND AUTOMATION



The weight indicators of the PROCESS CONTROL range are the most economical and practical solution to read the weight of the load cells and transmit it to external devices (PCs, PLCs, micro-controllers etc), via RS232, RS485 serial port, relay output or programmable analog output.

Thanks to the plug and play external switching, the user can communicate in Ethernet, WIFI, PROFIBUS and RADIO FREQUENCY.

Each instrument is designed to be installed on a DIN rail, or panels with standard fixings, easily adaptable with existing installations.

The multifunction software will allow you

to convert the weight into other units of measurement (Newton, litres, pieces...), measure the peak weight, perform consecutive accumulation, and transmit the total.

The design of the hardware and the operating software is carried out in Italy by a technical staff who provide the knowledge for the production of OEM systems, with customised protocols and features. All indicators are approved for legal for trade use, according to EN45501, OIML R76.



Clear easy-to-read view

The LED display allows for quick and easy check of the weight status of any load applied to the load cells. It also greatly simplifies the implementation of any changes to the configuration.

Standard DIN sizes

The DGTQ and DGTP series indicators have standard DIN sizes.

The DGT1 indicator is extremely compact, a feature which simplifies the installation into small space conditions.



OIML R76 approval
EN45501 approval



DGT 1

Quickly configuration from PC with Dinitools

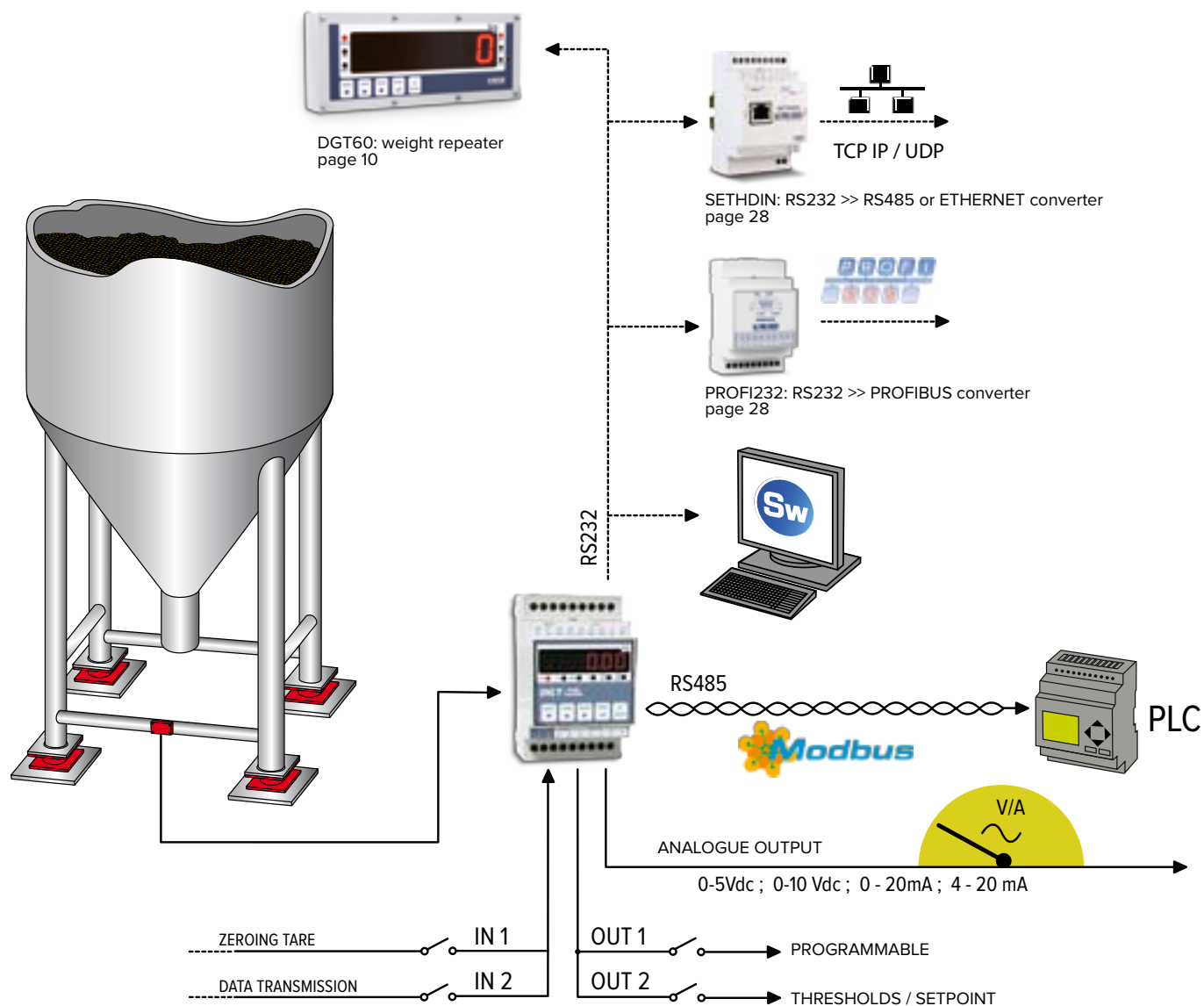
The Dinitools software for PC, supplied as standard, helps to quickly program and calibrate the indicator and create a database of the installations. These functions help to quickly replicate the installed systems, saving time when installing new equipment.



Simplified waterproof keyboard

The simplified keyboard ensures simplicity and immediacy of use. The DGTPK series provides a numeric/functional keypad, ideal for handheld applications.

DESIGNED FOR THE INDUSTRIAL AUTOMATION AND THE PROCESS



Example of system with DGT 1

Functions of the standard program

- Digital or theoretical calibration and configuration from indicator keyboard or PC via Dinitools, with the functionality of storing the setup of the instrument to backup, simplify the technical assistance, or replicate the same configuration on other instruments (OEM).
- Programmable signal linearization of up to 8 points.
- Quick recalibration of the zero point.
- Control of the overload and underload status of the load cells.
- Keyboard locking functions and limited menu access through programmable password.
- Fast and accurate weight reading with adjustable speed of up to 3200Hz.
- Modbus RTU protocol, as standard fitted
- Dini Argeo protocol for creating control programs on a PC that can read the weight, read the digital inputs, drive the relay outputs.
- Event log
- Possibility to create customized software according to the needs (OEM).
- Quick interface with ETHERNET, PROFIBUS, WIFI, USB module, IN / OUT expansion.



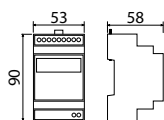
WEIGHING IN ATEX ZONES

We can provide equipment for use in EX 1 & 21, 2 & 22 hazardous areas, thanks to our available products, solutions and accessories, backed up full certification.

Visit the www.diniargeo.com website for the available ATEX solutions.

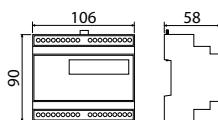


DGT 1 • Weight transmitter for single scale, DIN bar installation



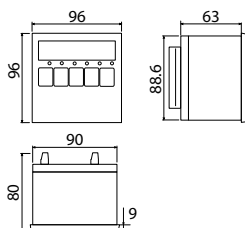
Standard
 with inputs/outputs
 with analog output

DGT 4 • Weight transmitter for 4 scales, DIN bar installation



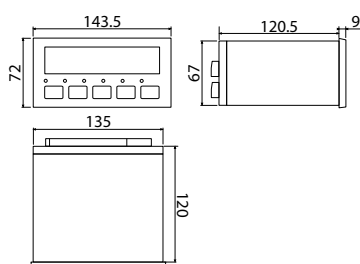
Standard
 with analog output
 with Profibus

DGT Q • Indicator for panel mounting, dimension 90x88mm



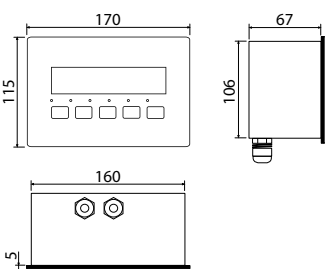
Standard
 with analog output
 with Profibus

DGT P • Indicator/transmitter for panel mounting for 1...4 scales, dimension 136x67mm



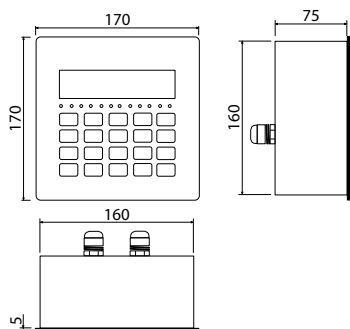
Standard
 with analog output
 with Profibus

DGT 20 • Indicator/transmitter for counter-top or panel mounting for 1...4 scales, perforation 160x106mm



Standard
 with analog output
 with Profibus

DGTPK • Indicator/transmitter for counter-top or panel mounting for 1...4 scales, perforation 160x160mm



Standard
 con uscita analogica
 con Profibus

MAIN TECHNICAL FEATURES

Technical features	DGT 1	DGT 4	DGTQ	DGTP	DGT20	DGTPK
Power supply	12/24Vdc, 5W					
N. of load cells	up to 16 of 350Ω					
F.S. max of Display Screen	± 999999					
Converter	24 bit / 1 channel	24 bit / 4 channels	24 bit / 1 channel	24 bit / 4 channels	24 bit / 4 channels	24 bit / 4 channels
Conversions / Resolution	3200Hz / 16'000'000 points					
Red LED display	8 mm	13 mm	13 mm	20 mm	20 mm	20 mm
Keyboard	waterproof mechanic					
Operating Temperature Range Std / CE-M	-20...+60°C / -10...+40°C					
Humidity (not condensing)	85%					
Case	ABS	ABS	ABS	ABS	Aluminium/ Painted steel	
Inputs						
Opto-isolated, 12-24Vdc, 5 – 20mA (PNP or NPN) Programmable functions (net / gross, zero, tare, pick*, data transmission, sensor reading at distance)	2	2	2	4	2	4
Relay outputs						
Electronic opto-isolated, 48Vac or 60Vdc, up to 150mA, NO or NC programmable. Direct functioning or at stability, on net or gross, positive or negative weight. Programmable setpoint from keyboard or distance. Controllable through serial protocol / Modbus RTU / Profibus DP	2	2	2 (6)	6	2	6
Analog output						
16 bit, 0..10Vdc (min 10KOhm) / 0..20mA or 4..20mA (max 350Ohm), programmable on net or gross weight	1	1	1	1	1	1
RS232 serial port						
Baud: from 1200 to 115200bps. Parity: E/N. Word: 7/8. Stop: 1/2. Up to 240 tx/sec with ASCII protocol Available protocols: for PC / PLC, continuous, at stability, printer, repeater, Modbus RTU Available interfaces: Profibus DP, Ethernet TCP / IP-UDP, WiFi, Bluetooth, Rabio 868MHz, USB Memory Stick	1	1	1	1	1	1
RS485 serial port						
Baud: from 1200 to 115200bps. Parity: E/N. Word: 7/8. Stop: 1/2. Up to 240 tx/sec with ASCII protocol Available protocols: for PC / PLC, continuous, at stability, repeater, Modbus RTU Network: up to 32 instruments, distance up to 500m.	1	1	1	1	1	1
External Profibus (>> page 28)						
Profibus DP slave (IEC 61158), speed 9,6 Kbit/s..12Mbit/s	○ *	-	-	-	-	-
Integrated Profibus (>> page 28)						
Profibus DP slave (IEC 61158), speed 9,6 Kbit/s..12Mbit/s	-	●	●	●	●	●
Modbus protocol						
Modbus RTU protocol, up to115200 bps	●	●	●	●	●	●
External Ethernet (>> page 28)						
TCP, UDP, DHCP, SNMP HTTP, SMTP, SSL 3.0/TLS 1.0, ICMP, IGMP, ARP	○ *	○ *	○ *	○ *	○ *	○ *

○ Optional

● Fitted as standard depending on the model

* Discover the main options at page 28

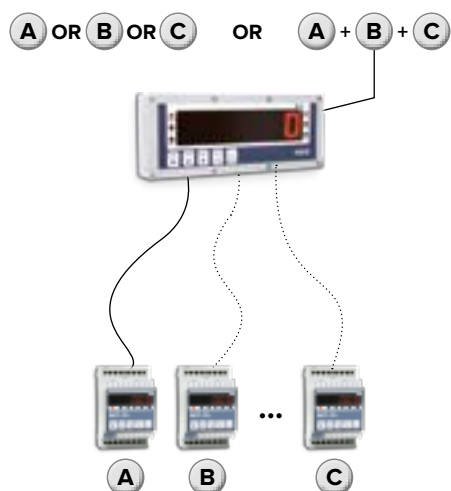
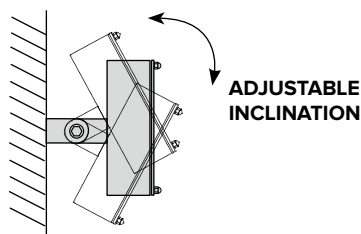
- Not available

DGT60: UNIVERSAL WEIGHT INDICATOR / REPEATER

DGT60 is a weight indicator designed for harsh industrial environments or outdoors use, thanks to the AISI 304 stainless steel case and the IP68 protection degree. DGT60 is indispensable when clear weight

data is required, even at great distances, thanks to SMD super bright red LED display, with the adjustable intensity from menu. Available in two versions, weight repeater or scale, with management of the load cells

and the same functions of the DGT PROCESS CONTROL range.

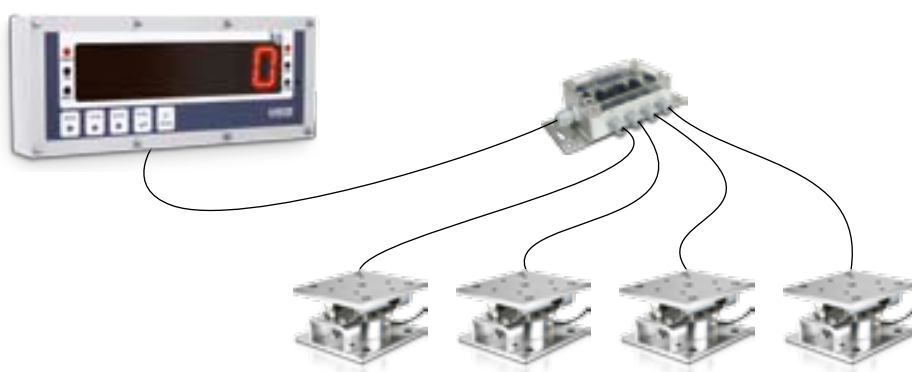


UNIVERSAL WEIGHT REPEATER

DGT60 adapts itself to any input weight string from the serial RS232 or RS485 port, in ASCII format, and it is able to repeat the weight in real time and manage the overload and underload. The auto detect function of the input string makes the installation of the indicator particularly simple and fast.

MULTIFUNCTION WEIGHT REPEATER

DGT60, connected to one or more Dini Argeo weight indicators, repeats not only the weight of each indicator, the sum, but also the functions of the keyboard (zero, tare, preset tare, main function); in this way the indicator can be integrated in a electric control box and the multifunction repeater allows the operator to freely execute the basic weighing functions without the risk of altering the calibration or incorrect maneuvers.



WEIGHT INDICATOR WITH MANAGEMENT OF THE LOAD CELLS

DGT60 is available in weight indicator/transmitter version and it can manage up to 16 load cells, by offering the same electronic features of the DGT4 indicator shown on page 9.

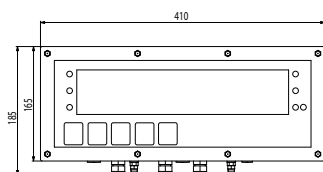


AVAILABLE IN ATEX VERSION

DGT60 is available in ATEX 3GD version for 2 & 22 areas, with protection degree
ATEX II 3G Ex nR IIC T6 Gc X
ATEX II 3D Ex tc IIIC T130°C Dc IP68 X

Visit the www.diniargeo.com website for the available ATEX solutions.

DGT60 • IP68 AISI304 stainless steel weight indicator, for 1...4 scales



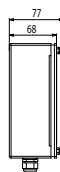
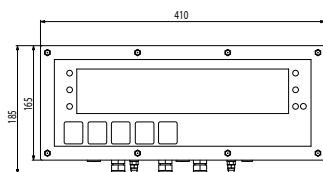
Standard
with analog output
with Profibus

ATEX version for 2 & 22 zones



Standard
with analog output
with Profibus

DGT60R • Multifunction weight repeater version



Repeater

ATEX version for 2 & 22 zones



Repeater

MAIN TECHNICAL FEATURES

Technical features	DGT 60
Power supply	12/24Vdc, 5W
N. of load cells	up to 16 of 350Ω
F.S. max of Display Screen	± 999999
Converter	24 bit / 4 channels
Conversions / Resolution	3200Hz / 16'000'000 points
Red LED display	60 mm
Keyboard	waterproof mechanic
Operating Temperature Range Std / CE-M	-20...+60°C / -10...+40°C
Humidity (not condensing)	85%
Case	AISI 304 Stainless Steel, IP68
Inputs - Opto-isolated, 12-24Vdc, 5 – 20mA (PNP or NPN)	2
Programmable functions (net/gross, zero, tare, pick*, data transmission, sensor reading at distance)	
Relay outputs	2
Electronic opto-isolated, 48Vac or 60Vdc, up to 150mA, NO or NC programmable. Direct functioning or at stability, on net or gross, positive or negative weight. Programmable setpoint from keyboard or distance. Controllable through serial protocol / Modbus RTU / Profibus DP	
Analog output	1
16 bit, 0..10Vdc (min 10KOhm) / 0..20mA or 4..20mA (max 350Ohm), programmable on net or gross weight	
RS232 serial port	1
Baud: from 1200 to 115200bps. Parity: E/N. Word: 7/8. Stop: 1/2. Up to 240 tx/sec with ASCII protocol Available protocols: for PC/PLC, continuous, at stability, printer, repeater, Modbus RTU Available interfaces: Profibus DP, Ethernet TCP/IP-UDP, WiFi, Bluetooth, Radio 868MHz, USB Memory Stick	
RS485 serial port	1
Baud: from 1200 to 115200bps. Parity: E/N. Word: 7/8. Stop: 1/2. Up to 240 tx/sec with ASCII protocol Available protocols: for PC/PLC, continuous, at stability, repeater, Modbus RTU Network: up to 32 instruments, distance up to 500m.	
Integrated Profibus (>> page 28) - Profibus DP slave (IEC 61158), speed 9,6 Kbit/s..12Mbit/s	●
Modbus protocol - Modbus RTU protocol, up to 115200 bps	●
External Ethernet (>> page 28) - TCP, UDP, DHCP, SNMP HTTP, SMTP, SSL 3.0/TLS 1.0, ICMP, IGMP, ARP	○ *

○ Optional

● Fitted as standard depending on the model

* Discover the main options at page 28

- Not available

FILLING



www.diniargeo.com

EASY-TO-USE INDICATORS FOR FILLING AND DOSAGES



The indicators of the FILLING range are the best compromise between technology, speed, and ease of use.

Each instrument is designed to be installed on a DIN rail, or panels with standard perforation, easily adaptable with existing installations.

The multifunction software for dosage is

fully configurable and adaptable to any application, thanks to a menu which can be quickly programmed from keyboard or PC with Dinitools (page 30).

The hardware is designed for industrial use, with a high performance of up to 16000000 conversion points and 3200Hz of internal frequency readings.



DGTQ F



DGTP F



DGTPK F

Clear easy- to-read view

The LED display offers the maximum visibility in all lighting and temperature conditions.

Standard DIN sizes

The DGTQF and DGTPF series indicators have standard DIN sizes, which simplifies the installation in existing systems.

Simplified waterproof keyboard

The simplified keyboard ensures simplicity and immediacy of use, with the possibility to quickly modify the dosage quantity or start and stop the dosage cycle. The DGTPKF series provides a numeric/functional keypad, ideal for handheld applications.



DGTQ F

Quickly configuration from PC with Dinitools

One can customize the functions of the indicator, creating specific configurations and automatic sequences according to the needs. This feature is essential for making simple and immediate, the functions which the operator must perform daily. It is also possible to record the configuration to quickly replicate the systems.



Three different dosage modes are available on the same product



SINGLE COMPONENT
DOSAGE FOR FILLING

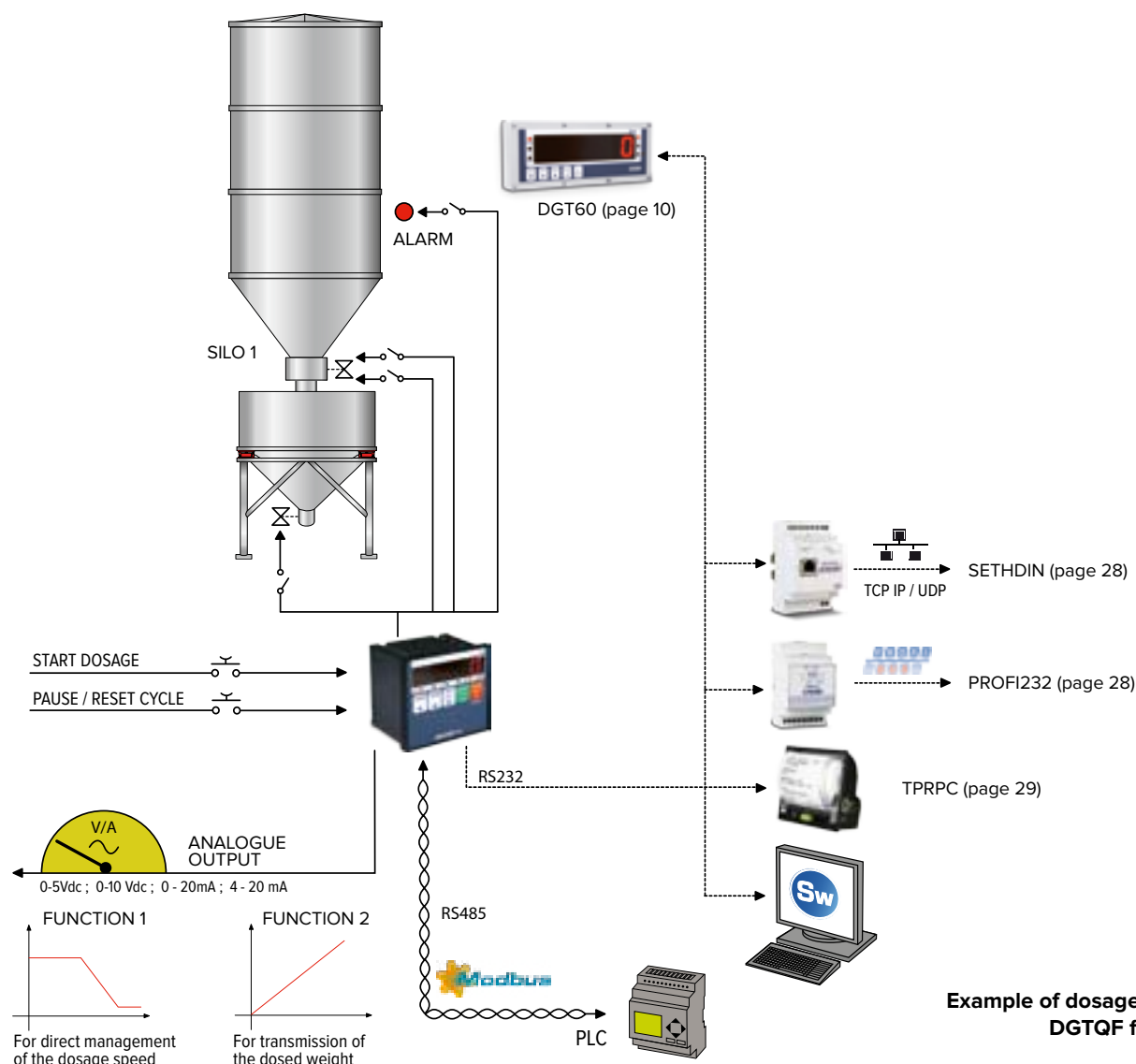


SINGLE COMPONENT
DOSAGE FOR
DISCHARGING



MULTI COMPONENT
DOSAGE

SINGLE COMPONENT DOSAGE IN LOADING



Example of dosage system using the DGTQF for loading routine

Functions of the standard program

- Automatic dosage in loading with dual speed.
- Quick change of the target to be dosed.
- Checking of the tare presence at the dosage start; the tare values are programmable for each formula.
- Automatic printing of the dosage data.
- Recording and printing of the quantities.
- Automatic correction of flight weight.
- Programmable repetitions of the dosage cycles / infinite cycle function.
- Tolerance test on the dosed weight, with guided correction on display.
- Check of the maximum dosage time.
- Alarms indication on display.
- Digital or theoretical calibration and configuration from keyboard.
- Digital or theoretical calibration and configuration from PC via Dinitools, with the possibility of storing the setup of the instrument to backup, simplify the technical assistance, or replicate the same configuration on other instruments (OEM).
- Quick recalibration of the zero point.
- Dini Argeo protocol for programming the formulas at distance.
- Quick interface with ETHERNET, PROFIBUS, WIFI, USB module, IN / OUT expansion.

Work cycle

1. Once the dosage start command is received, the presence of the tare and weight stability is verified, with the execution of the automatic tare and the enabling of the automation through its dedicated outputs: the dosages start at maximum speed.
2. Once the speed change threshold is reached, the dosage is slowed down through the dedicated output.
3. When the TARGET cutoff point is reached, the slow dosage output is disabled and then it waits (for the configured time) for the in-flight material to complete the cycle.
4. The dosed weight is then checked for tolerance and if correct added to the ingredient total and the overall machine total.
5. Completed discharging can be controlled through enabling of dedicated outputs.
6. End dosage or automatic restart for following cycle, with update of the ingredient and machine totals.



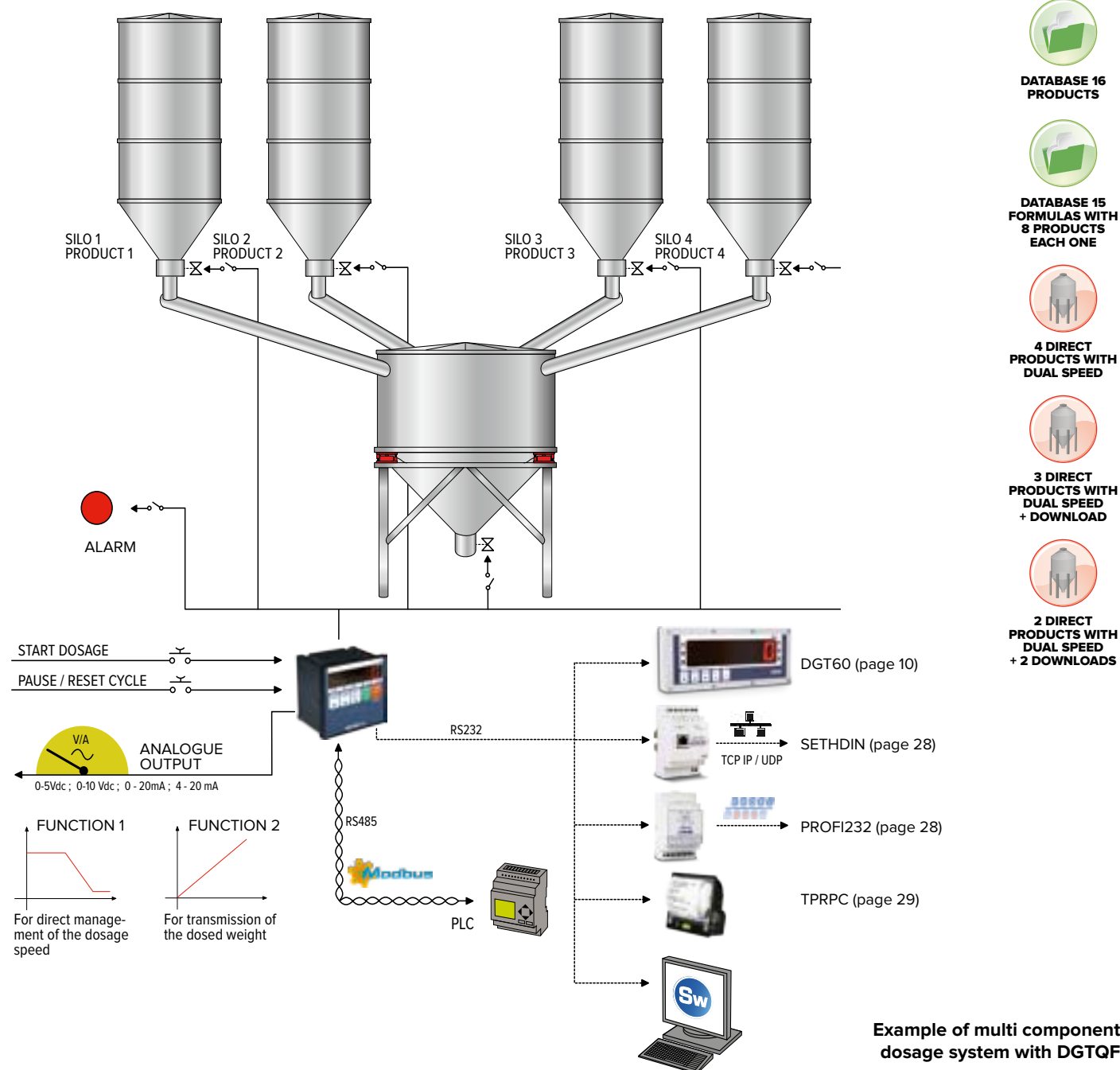
WEIGHING IN ATEX ZONES

We can provide equipment for use in EX 1 & 21, 2 & 22 hazardous areas, thanks to our available products, solutions and accessories, backed up full certification.

For more information please visit the www.diniargeo.com website.



MULTI COMPONENT DOSAGE



Functions of the standard program

- Database 16 products/phases.
- Database 15 formulas.
- Automatic management of 4 products in filling with dual speed, or 3 products in filling with dual speed and total discharging, or 2 products in filling and 2 discharging etc.
- Checking the presence of the tare at the dosage start.
- Automatic printing of the dosage data.
- Automatic correction of in-flight weight.
- Programmable repetitions of the dosage cycles / infinite cycle function.
- Tolerance test on the dosed weight, with guided correction on display.
- Check of the maximum dosage time.
- Alarms indication on display.

Work cycle

1. Once the dosage start command has been received, the following takes place:
 - the presence of the tare and weight stability is verified,
 - the execution of the automatic tare and the enabling of the automation through the dedicated outputs: the instrument executes the first phase of the formula.
2. Once the first phase is finished, the instrument automatically passes to the following phase, executing the automatic tare.
3. At the end of the last configured phase, the instrument enables the fine cycle contact and waits for the start of the new dosage, or automatically restarts with the following cycle.



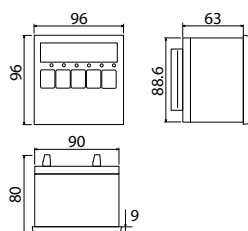
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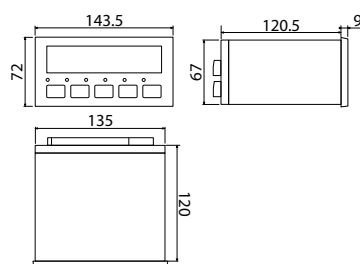


DGTQ - F • Indicator for panel mounting, dimension 90x88mm



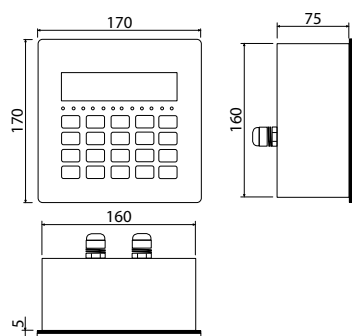
Standard
with analog output

DGTP - F • Indicator for panel mounting, dimension 136x67mm



Standard
with analog output

DGTPK - F • Indicator for counter-top or panel mounting, dimension 160x160mm, with extended keyboard



Standard
with analog output



MAIN TECHNICAL FEATURES

Technical features	DGTQ F	DGTP F	DGTPK F
Power supply	12/24Vdc, 5W		
N. of load cells	up to 16 of 350 Ω		
F.S. max of Display Screen	± 999999		
Converter	24 bit / 4 channels	24 bit / 4 channels	24 bit / 4 channels
Conversions / Resolution	3200Hz / 16'000'000 points		
Red LED display	13 mm	20 mm	20 mm
Keyboard	waterproof mechanic		
Operating Temperature Range Std / CE-M	-20...+60°C / -10...+40°C		
Humidity (not condensing)	85%		
Case	ABS	ABS	Aluminium/ Painted steel
Inputs			
Opto-isolated, 12-24Vdc, 5 – 20mA (PNP or NPN)	2	4	4
Start / stop / dosage reset function			
Relay outputs			
Electronic opto-isolated, 48Vac or 60Vdc, up to 150mA. Dosage programmable as quick, slow, in unloading, end cycle, tolerance checking, alarm.	6	6	6
Analog output			
16 bit, 0..10Vdc (min 10KOhm) / 0..20mA or 4..20mA (max 350Ohm), programmable on net or gross weight	●	●	●
RS232 serial port			
Baud: from 1200 to 115200bps. Parity: E/N. Word: 7/8. Stop: 1/2. Available protocols: for PC / PLC, continuous, at stability, printer, repeater. Available interfaces*: Ethernet TCP / IP-UDP, WiFi, Bluetooth, Radio 868MHz, USB Memory Stick	1	1	1
RS485 serial port			
Baud: from 1200 to 115200bps. Parity: E/N. Word: 7/8. Stop: 1/2. Available protocols: for PC/PLC, continuous, at stability, repeater. Network: up to 32 instruments, distance up to 500m.	1	1	1
External Profibus (upon request)			
Profibus DP slave (IEC 61158), speed 9,6 Kbit/s..12Mbit/s	○	○	○
Integrated Profibus (upon request)			
Profibus DP slave (IEC 61158), speed 9,6 Kbit/s..12Mbit/s	○	○	○
External Ethernet (>> page 28)			
TCP, UDP, DHCP, SNMP HTTP, SMTP, SSL 3.0/TLS 1.0, ICMP, IGMP, ARP	○	○	○

○ Optional

● Fitted as standard depending on the model

* Discover the main options at page 28

- Not available

BATCHING



www.diniargeo.com

ADVANCED INDICATORS FOR DOSAGE AND PROCESS



The indicators for dosage of the BATCHING line offer state of the art technology for weighing and dosing, at a very competitive price. All the indicators are fully designed and manufactured in Italy and offer great performance and versatility. The multifunction dosage software is fully configurable and adaptable to any application, thanks to a rich and full programming menu and to the internal development area for the implementation

of fully customized programs.

The CPWETF and 3590E series indicators are featured by a waterproof keyboard, an AISI 304 stainless steel case with IP68 protection, and an internal ventilation system for environments with extreme temperature changes.

The CPWE indicator, however, offers an IP65 front panel protection degree and a waterproof keyboard.



CPWE

CPWE TF

3590E XT

Customizable Display Screen

The backlit graphic LCD display allows a clear and immediate view of all the main data. The displayed data can also be easily customized to show descriptions, texts, totals, dosage quantity, etc.



OIML R76 Approved
EN45501 Approved

IP65 / IP68 protection

All the indicators of the batching line offer a high protection degree against dust and water, and are designed for use in harsh industrial environments.

USB memory

The USB memory stick allows you to download all of the production data of the completed dosages, for further processing from PC.

Customizable printouts

The print layout is fully customizable according to the specifications.

Databases and Consumption management

All the instruments have programmable databases (products, formulas, tares) and different total levels (daily, weekly, monthly, yearly, by formula, by product).

Quickly configuration from PC with Dinitools

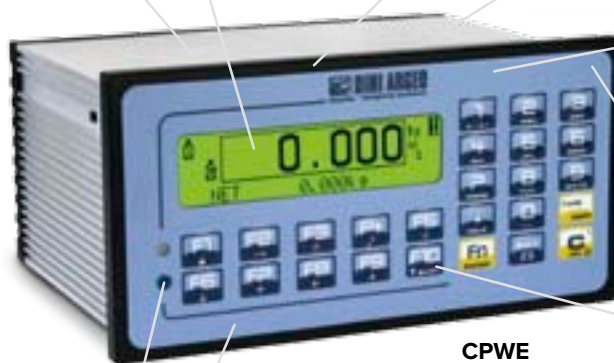
The Dinitools software for PC, supplied as standard, allows to quickly program and calibrate the indicator and create a database of the installations. These functions allow to quickly replicate the installed systems, saving time.

Bluetooth output (optional)

This option can be used for quickly programming the formulas inside the instrument, using a smart phone, a tablet or a portable PC.

Keyboard functions freely programmable

It is possible to customize the functions of each keys, by creating specific configurations and automatic sequences, according to the needs. This feature is essential for making simple and immediate, the functions which the operator must perform daily. It is also possible to inhibit the function of each single key, by creating the perfect combination.



CPWE



SINGLE COMPONENT DOSAGE IN FILLING (UP TO 4 SILOS)

Dini Argeo offers a complete range of indicators for single component dosage filling, featured by high performances, easy-to-use and fitted with various functions. The

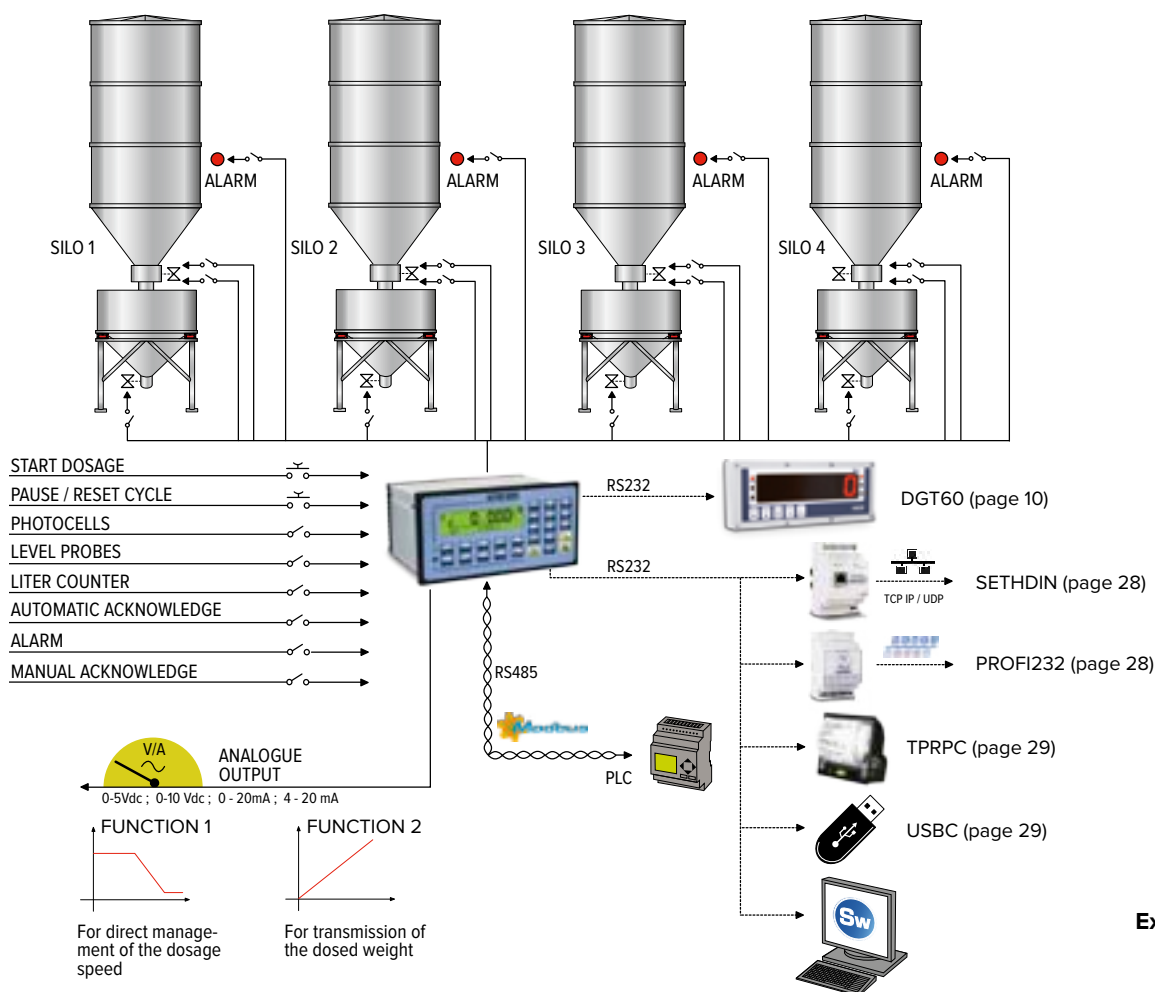
standard input/output allows you to create advanced automations directly managed from the indicator; the keyboard functions and the displayed data are completely cus-

tomizable.

All indicators are approved for legal for trade use, according to EN45501, OIML R76.



DATABASE 500 FORMULAS



Example of filling dosage system with CPWE

Functions of the standard program

- Single component, multi scale dosage in filling with dual speed.
- Database 500 formulas which can be quickly recalled from keyboard and programmed from Dinitools.
- Quick change of the target to be dosed.
- Checking of the tare presence at the dosage start; the tare values are programmable for each formula.
- Automatic printing of the dosage data.
- Recording and printing of the quantities.
- Automatic correction of flight weight.
- Programmable repetitions of the dosage cycles / infinite cycle function.
- Tolerance test on the dosed weight, with guided correction on display.
- Check of the maximum dosage time.
- Alarms indication on display.
- Digital or theoretical calibration and configuration from keyboard.
- Digital or theoretical calibration and configuration from PC via Dinitools, with the possibility of storing the setup of the instrument to backup, simplify the technical assistance, or replicate the same configuration on other instruments (OEM).
- Quick recalibration of the zero point.
- Dini Argeo protocol for programming the formulas at distance.

Work cycle

1. Once the dosage start command is received, the presence of the tare and weight stability is verified, with the execution of the automatic tare and the enabling of the automation through its dedicated outputs: the dosages start at maximum speed.
2. Once the speed change threshold is reached, the dosage is slow down through the dedicated output.
3. When the TARGET is reached and the configured flight weight is missing, the slow dosage output is disabled and then it waits (for the configured time) for the dropping of the material.
4. Tolerance test on the dosed weight, storage of the formula consumptions and increment of the dosed general total.
5. Complete unloading request, through enabling of dedicated output.
6. End dosage or automatic restart for following cycle, with increment of the consumptions and the totals.



WEIGHING IN ATEX ZONES

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For more information please visit the www.diniargeo.com website.



SINGLE COMPONENT DOSAGE IN UNLOADING (UP TO 4 SILOS)

Dini Argeo offers a complete range of indicators for single component dosage in discharging, featured by high performances, easy-to-use and fitted with various functions.

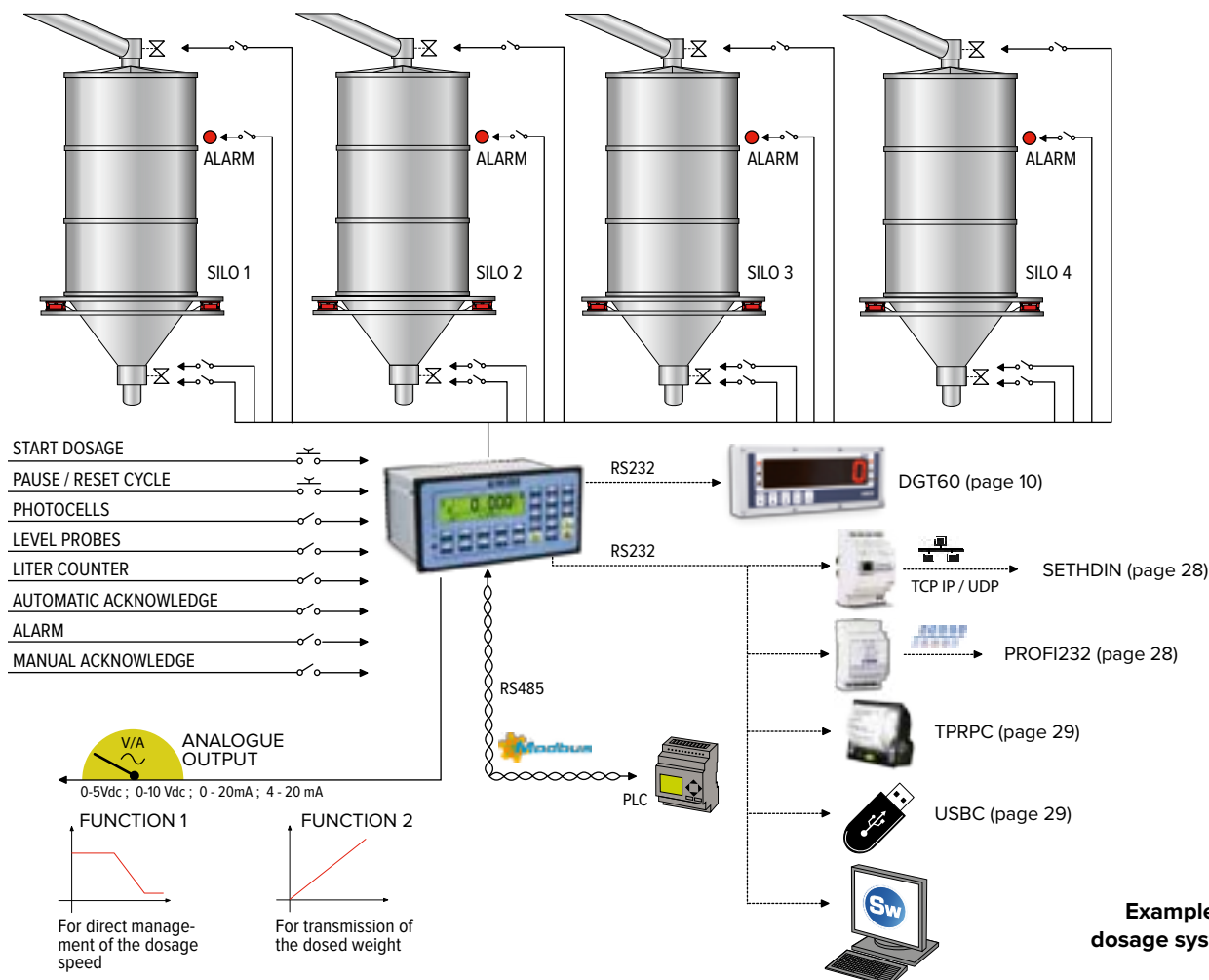
The standard input/output allows you to create advanced automations directly managed from the indicator; the keyboard functions and the displayed data are completely

customizable.

All indicators are approved for legal for trade use, according to EN45501, OIML R76.



**DATABASE 500
FORMULAS**



**Example of discharging
dosage system with CPWE**

Functions of the standard program

- Single component, multi scale dosage in unloading with dual speed.
- Database 500 formulas which can be quickly recalled from keyboard and programmed from Dinitools.
- Quick change of the target to be dosed.
- Automatic printing of the dosage data.
- Recording and printing of the quantities.
- Automatic correction of flight weight.
- Programmable repetitions of the dosage cycles / infinite cycle function.
- Tolerance test on the dosed weight, with guided correction on display.
- Check of the maximum dosage time.
- Alarms indication on display.
- Digital or theoretical calibration and configuration from keyboard.
- Digital or theoretical calibration and configuration from PC via Dinitools, with the possibility of storing the setup of the instrument to backup, simplify the technical assistance, or replicate the same configuration on other instruments (OEM).
- Quick recalibration of the zero point.
- Dini Argeo protocol for programming the formulas at distance.

Work cycle

1. Once the dosage start command is received, the presence of the tare and weight stability is verified, with the execution of the automatic tare and the enabling of the automation through its dedicated outputs: the dosages start at maximum speed.
2. Once the speed change threshold is reached, the dosage is slow down through the dedicated output.
3. When the TARGET is reached and the configured flight weight is missing, the slow dosage output is disabled and then it waits (for the configured time) for the dropping of the material.
4. Tolerance test on the dosed weight, storage of the formula consumptions and increment of the dosed general total.
5. End dosage or automatic restart for following cycle, with increment of the consumptions and the totals. Possible automatic recharge of the silo through a dedicated relay.



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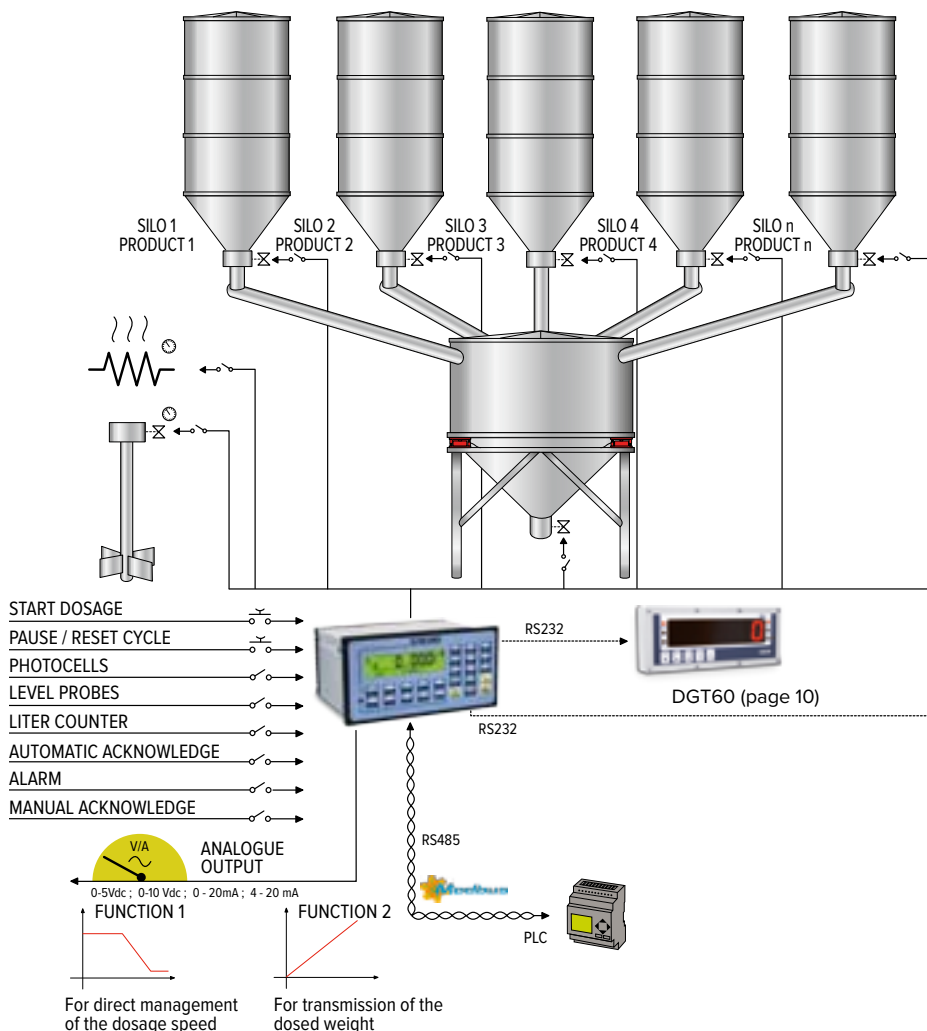


MULTI-PRODUCT SEQUENTIAL DOSAGE

Dini Argeo offers a complete range of advanced indicators for the sequential automatic dosage with various products (up to 100). The basic functioning provides a quick and easy programming of formulas which

recall sequentially the dosage activities at two speeds and the discharging activities of the final mixture, with the possibility of a time management of the mixers or burners in parallel to the dosage activity.

Thanks to the great configurability and integrated development area, one can completely customize the dosage cycle and the keyboard functions according to one's needs, adapting the instrument to every application.



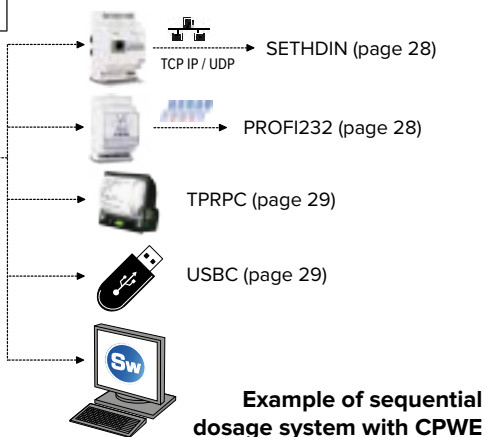
DATABASE 500 FORMULAS



DATABASE 100 PRODUCTS



UP TO 12 DIRECT PRODUCTS, 99 WITH BINARY DECODING



Functions of the standard program

- Management of the dosage on various scales (up to 4 independents), with automatic change of the scale during the dosage.
- Database 100 products/activities.
- Database 500 formulas; each formula contains 20 products/activities.
- Checking of the tare presence at the dosage start; the tare values are programmable for each formula.
- Automatic recalculation of the formula targets, by entering the total weight to be dosed.
- Automatic printing of the dosage data.
- Recording and printing of the quantities with quick recall of the printouts from keyboard.
- Automatic correction of flight weight.
- Programmable repetitions of the dosage cycles / infinite cycle function.
- Tolerance test on the dosed weight, with guided correction on display.
- Check of the maximum dosage time.
- Alarms indication on display.
- Completely programmable printouts, for compatibility with any ASCII printer manageable through the serial port.

Work cycle

1. Once the dosage start command has been received, the following takes place:
 - the presence of the tare and weight stability is verified,
 - the execution of the automatic tare and the enabling of the automation through the dedicated outputs: the instrument executes the first phase of the formula.
2. Once the first phase is finished, the instrument automatically passes to the following phase, executing the automatic tare.
3. At the end of the last configured phase, the instrument enables the fine cycle contact and waits for the start of the new dosage, or automatically restarts with the following cycle.



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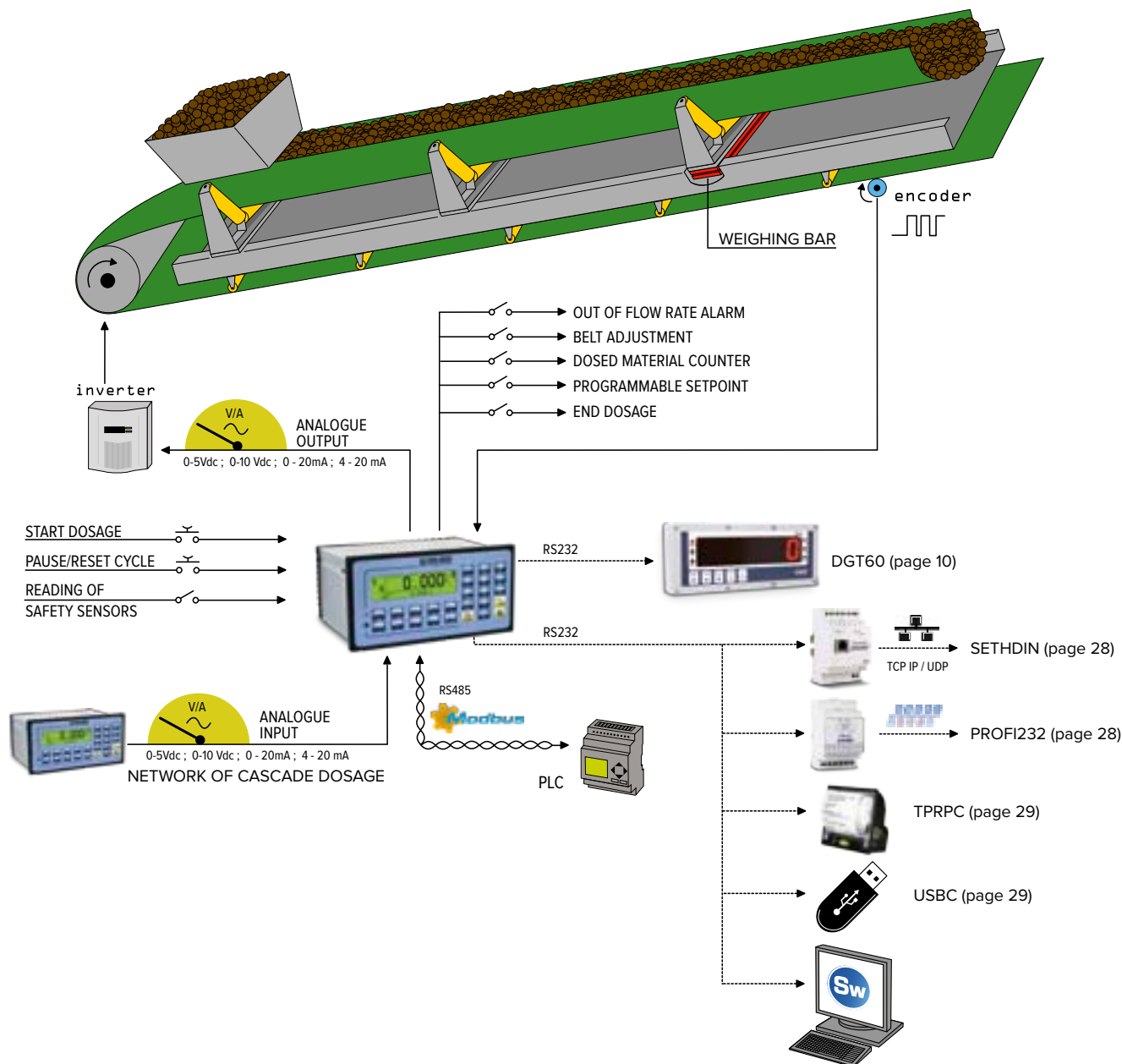


BELT: CONTINUOUS DOSAGE ON BELT

Dini Argeo offers solutions for conveyor belts, for the real-time weighing and dosage of the material in transit. The system is made up of one or more weighing bars / load cells, connected to

the main weight indicator, which can read and adjust the hourly flow rate of the material flow and automatically stop the dosage once the programmed set point is reached.

Thanks to the Modbus RTU and Profibus DP protocol, it is possible to interface the system with a PLC, or via Ethernet interface, connect it to the information company network.



Functions

of the standard program

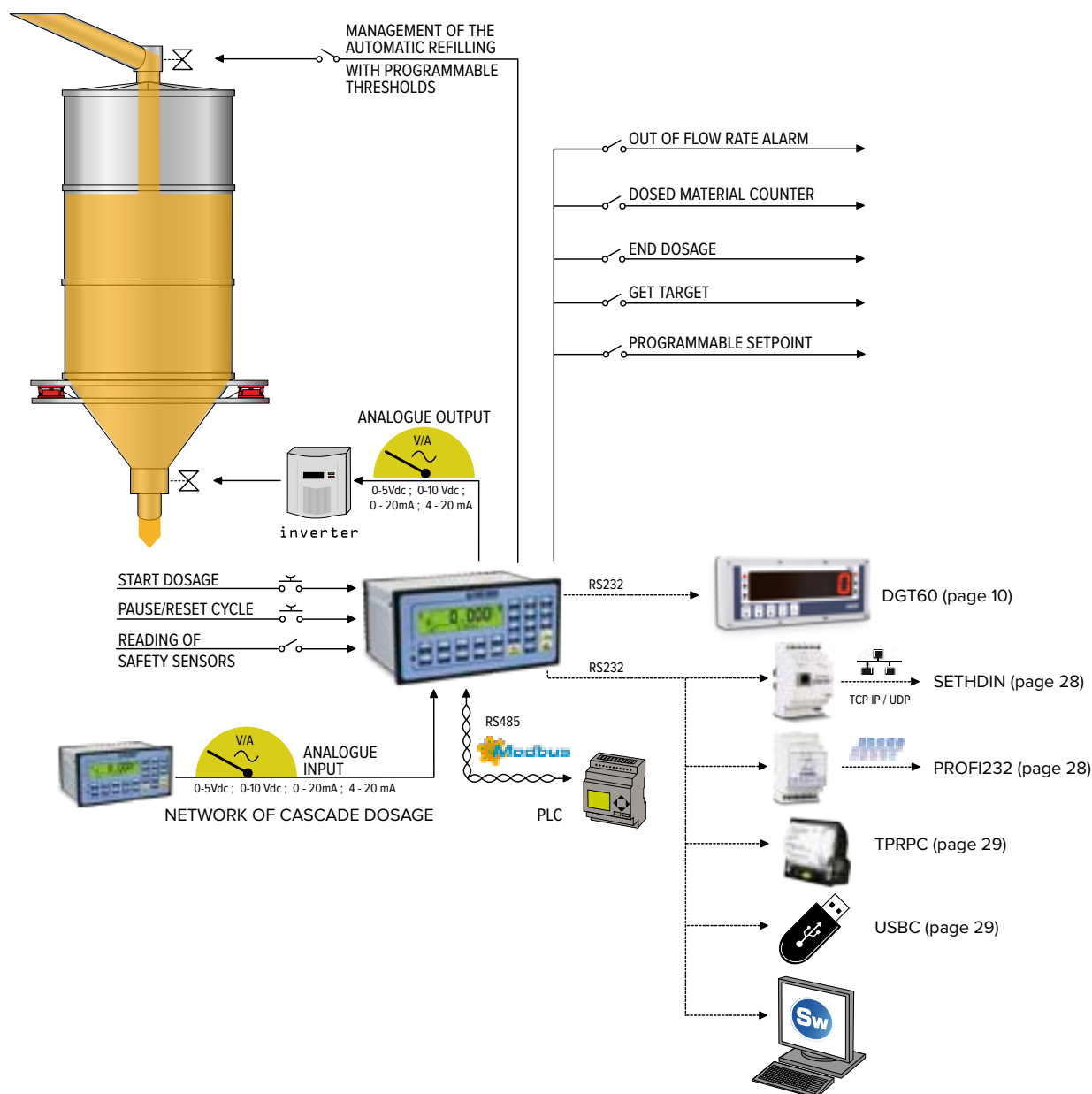
- | | | |
|---|--|---|
| <ul style="list-style-type: none"> • 2 selectable operation modes: <ul style="list-style-type: none"> - Instantaneous reading of the flow, in kg/h or t/h with displaying of the status of the system and of the dosed total. - Adjustment of the dosage hourly flow, in function of the pre-set target, with PID algorithm. • Display of the hourly flow graph and wide range of data displayed on the display. • Calibration of the flow reading function, for controlling the dosage performances. | <ul style="list-style-type: none"> • Reading filter of the hourly flow with configurable incidence and speed depending on the system. • Programmable dosage target upon weight or upon time, with relative contact. • Programmable start dosage delay, for synchronisation of various E-BELT systems in the dosage of material mixtures. • Management of the slow flow with programmable activation threshold, for more precise dosages. • Management of the dosage total under way and | <ul style="list-style-type: none"> general total of dosages, printable and clearable independently from each other. • Management of the automatic dosage from remote master or through Profibus DP or Modbus RTU protocol. • Printing of the dosage data and the total. • Completely programmable printouts, for compatibility with any ASCII printer manageable through the serial port. |
|---|--|---|

LW: CONTINUOUS DOSAGE IN UNLOADING

Software version for the measurement/integration of the weight, the flow of material exiting from silos, tanks, or hoppers,

with recording of the quantity of dosed material; possibility of adjusting the flow through the 16 bit analogue output and the

PID control. Option of the remote management of the instrument through Modbus RTU or Profibus protocols.



Functions of the standard program

- 2 selectable operation modes:
 - Instantaneous reading of the flow, in g/h, kg/h or t/h with displaying of the status of the system and of the dosed total.
 - Adjuster of the dosage hourly flow, in function of the pre-set target, with PID algorithm.
- Display of the hourly flow graph and wide range of data displayed on the display.
- Calibration of the flow reading function, for perfecting the dosage performances.
- Reading filter of the hourly flow with configurable incidence and speed depending on the system.
- Programmable dosage target upon weight or upon time, with relative contact.
- Programmable delay at the start, for synchronisation of various E-LW systems in the dosage of material mixtures.
- Management of the slow flow with programmable activation threshold, for more precise dosages.
- Management of the dosage total under way and general total of dosages, printable and clearable independently from each other.
- Management of the automatic dosage from remote master or through Modbus RTU or Profibus protocols.
- Printing of the dosage data and the total.
- Completely programmable printouts, for compatibility with any ASCII printer manageable through the serial port.



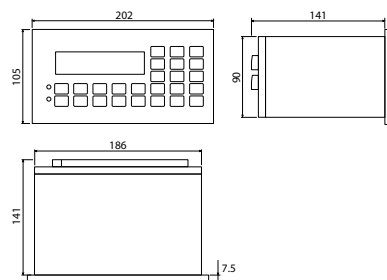
WEIGHING IN ATEX ZONES

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CPWE • Indicator for panel mounting, perforation 186 x 90 mm



BATCH1 single component dosage

BATCH multi component dosage

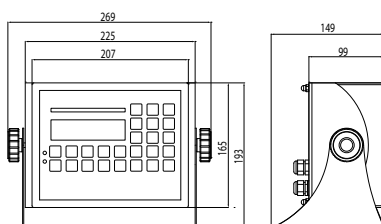
BELT continuous dosage on belt

LW continuous dosage in unloading

CPWETF • Indicator for panel mounting, fixing bracket with adjustable inclination



INOX
AISI 304



BATCH1 single component dosage

BATCH multi component dosage

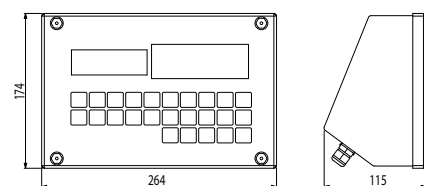
BELT continuous dosage on belt

LW continuous dosage in unloading

3590EXT • Indicator for counter-top / column



INOX
AISI 304



BATCH1 single component dosage

BATCH multi component dosage

BELT continuous dosage on belt

LW continuous dosage in unloading



MAIN TECHNICAL FEATURES

Technical features	CPWE	CPWETF	3590EXT
Power supply	from 8 to 40 Vdc	from 8 to 40 Vdc (through built-in power supplier 230Vac)	
N. of load cells	up to 16 of 350Ω (or 45 of 1000Ω)		
F.S. max of Display Screen	± 999999		
Converter	24 bit / 4 channels		
Conversions / Resolution	3200Hz / 16'000'000 points		
Backlit LCD display	25 mm, customizable display screen		
Red LED display	-	-	15 mm
Keyboard	multi function, customizable functions		
Operating Temperature Range Std / CE-M	-20...+60°C / -10...+40°C		
Humidity (not condensing)	85%		
Case	Aluminium	Stainless steel AISI 304	Stainless steel AISI 304
Inputs Opto-isolated, 12-24Vdc, 5 – 20mA (PNP or NPN) Programmable functions (net/gross, zero, tare, pick*, data transmission, sensor reading at distance)	8	8	8
Relay outputs Electronic opto-isolated, 48Vac or 60Vdc, up to 150mA, programmable NO or NC. Direct functioning or at stability, on net or gross, positive or negative weight. Programmable setpoint from keyboard or distance. Controllable through serial protocol / Modbus RTU / Profibus DP	16	16	16
Keyboard emulation input for connection to PC keyboard or bar code reader	●	●	●
Analog output 16 bit, 0..10Vdc (min 10KOhm) / 0..20mA or 4..20mA (max 350Ohm), programmable on net or gross weight	○	○	○
RS232 serial port Baud: from 1200 to 115200bps. Parity: E/N. Word: 7/8. Stop: 1/2. Available protocols: for PC / PLC, continuous, at stability, printer, repeater, Modbus RTU Available interfaces*: Profibus DP, Ethernet TCP / IP-UDP, WiFi, Bluetooth, Radio 868MHz, USB Memory Stick	2	2	2
RS485 serial port Baud: from 1200 to 115200bps. Parity: E/N. Word: 7/8. Stop: 1/2. Available protocols: for PC/PLC, continuous, at stability, repeater, Modbus RTU Network: up to 32 instruments, distance up to 500m.	1	1	1
External Profibus (>> page 28) Profibus DP slave (IEC 61158), speed 9,6 Kbit/s..12Mbit/s	○	○	○
Integrated Bluetooth (>> page 28) Bluetooth "version 2.0 + EDR", 300kbps transmission speed	○	○	○
Integrated Ethernet (>> page 28) TCP, UDP, DHCP, SNMP HTTP, SMTP, SSL 3.0/TLS 1.0, ICMP, IGMP, ARP	-	○	○
External Ethernet (>> page 28) TCP, UDP, DHCP, SNMP HTTP, SMTP, SSL 3.0/TLS 1.0, ICMP, IGMP, ARP	○	-	-

○ Optional

● Fitted as standard depending on the model

* Discover the main options at page 28

- Not available

Technical features	CPWE	CPWETF	3590EXT
Integrated WiFi (>> page 28) WiFi IEEE 802.11b, 2.4 GHz frequency, Data Rate up to 11 Mbps, up to 70 m outdoor and 30m indoor distances	-	○	○
Integrated USB 2.0 interface (>> page 29) Buffer di ricezione 256 byte receive buffer and 128 byte transmit buffer	○	○	○
USB key and port (>> page 29) Built-in USB port kit inside the indicator, complete of 2GB USB key	○	○	○
Integrated 868MHz radio frequency interface 50 configurable channels, up to 50m outdoor and 20m indoor distances	-	○	○
External 868MHz radio frequency interface (>> page 29) 50 configurable channels, up to 150m outdoor and 70m indoor distances	○	○	○

- Optional
- Fitted as standard depending on the model
- * Discover the main options at page 28
- Not available

EXPANSIONS AND ACCESSORIES

The functions of the weight indicators can be extended thanks to the wide range of available accessories.

DGT60R



Universal weight repeater

Power supply	12/24Vdc with built-in power supplier
Case	IP68 stainless steel
Installation	wall
Display	SMD super bright red LED, 60 mm high
Keyboard	waterproof, functional

SETHDIN



Ethernet / RS485 / RS232 converter

Power supply	12/24Vdc - 5W
Ethernet protocols	TCP, UDP, DHCP, SNMP HTTP, SMTP, SSL 3.0/ TLS 1.0, ICMP, IGMP, ARP.
Ethernet network interface	10/100 Base-T
Ethernet communication speed	10-100Mbps
Operating temperature	-10..+50°C
Installation	DIN bar

PROFI232



RS232 / PROFIBUS DP converter

Power supply	12/24Vdc - 12W
Speed	9,6 Kbit/s..12Mbit/s
Input	RS232
Output	Profibus DP slave (IEC 61158)
Installation	DIN bar

ETH



Ethernet interface

Power supply	from battery (5 ÷ 12Vdc)
Network connection	RJ45
Network interface	10/100 Base-T
Protocols	TCP, UDP, DHCP, SNMP, SSL 3.0/TLS 1.0, HTTP, SMTP, ICMP, IGMP, ARP
Operating temperature	-40°C +85°C
Absorption	350mA
Installation	inside the indicator

BLTH



Bluetooth interface

Class	2
Maximum working distance (in optimal conditions)	10m
Transmission speed	9600 baud/300 kbps
Standard bluetooth	2.0 + EDR
Installation	inside the indicator

WIFIT



Wi-Fi interface

Power supply	from battery (5 ÷ 12Vdc)
Type	WiFi IEEE 802.11b
Capacity	70m outdoor - 30m indoor
Frequency	2.4 GHz
Data Rate	11 Mbps con automatic fallback
Protocols and functioning modes	foreseen by the IEEE 802.11b, including WEP (cryptography)
Operating temperature	-20°C +85°C
Installation	inside the indicator

USBMB



USB 2.0 interface

interface support	UART for 7 or 8 data bits, 1 or 2 stop bits and odd / even / mark / space / no parity
Data transfer rates	configurable
Receive buffer	256 byte
Transmit buffers	128 byte
Receive and transmit buffers	FIFO
Installation	inside the indicator

OBRFUSB



868 MHz radio frequency module

Power supply	from USB port
Input signal	USB
Case	PVC 100x60x34mm
Cable	USB/mini USB, 1m long

OBRF232



868 MHz radio frequency module

Power supply	external power supplier
Input signal	RS232
Case	ABS IP65 120x80x55mm
Cable	RS232, 3m long

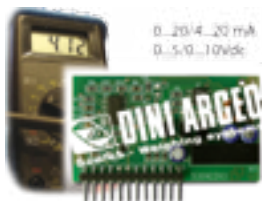
DAC160



Analogue output

Configurations	0..5Vdc / 0..10Vdc / 0..20mA / 4..20mA
Resolution	16 bit
Update frequency	50Hz
Precision	0.08% F.S.
Configuration	from indicator / PC
Installation	inside the indicator

ADC16I



Analogue input

Configurations	0..5Vdc / 0..10Vdc / 0..20mA / 4..20mA
Resolution	16 bit
Reading speed	100Hz
Maximum applicable resistance in current	250 ohm
Minimum applicable resistance in voltage	15 Kohm
Installation	inside the indicator

USBC



USB memory with extractable key

Power supply	direct from indicator
Recording weighs	5'000'000
Recording format	Text (.txt) or Excel (.csv)
Control signal	CTS
Key	fitted as standard
Installation	inside the indicator

TPRPC



Thermal printer for panel mounting

Power supply	5Vdc / from indicator
Paper width	58mm
Roll max. diameter	50mm
Print speed	up to 50mm/sec
Resolution	203 dpi

DINITOOLS

PC SOFTWARE FOR CONFIGURING THE WEIGHT INDICATORS

- Management of the customers and designers systems databases, with recording of attachments, pictures, etc.
- Recording of the current configuration of the designed system to simplify and speed up any future replies.
- Calibration of the scale with use of the sample weights, with up to 8 linearisation points.
- Theoretical calibration, by entering the data of the system to be made.
- Pre-calibration of the indicator's electronic card.
- Digital equalization.
- Modify/send/receive all the set-up parameters of the connected scale, with the subsequent recording of the executed configuration.
- Quick and easy compilation of the databases.
- Customization of the printout layout.



WEIMONITOR

SOFTWARE FOR MANAGING THE WEIGHTS FROM DINI ARGEO SCALES

WeiMonitor is our PC program which allows you to monitor and record in real time all the weights made on the connected scale, storing them in a text or Excel file for further processing.



LOAD CELLS

FOR WEIGHING AND DOSAGE SYSTEMS

Dini Argeo offers a complete range of high quality load cells and mounting kits,

manufactured with the latest technology ensuring accuracy and reliability.



SBX
Shear Beam



CP
Compression



DSBI
Double Shear Beam



FXC-FXD
Bending Beam



SP-SPS
Single Point



ST
Tension

High quality materials

The load cells and assembly kits, offered by Dini Argeo, are made of electro-polished stainless steel.

Load cells manufactured according to OIML R60

Each load cell is made according to the specifications indicated on the OIML R60. The SBX, DSBI, FXC, FXD, SP, SPS and ST load cells are also approved for legal for trade use.



Overload-proof screw jacks

The overload-proof screw jacks are essential for quickly installing / replacing the load cell and ensuring the maximum protection during the transport, even if already installed.

Compact sizes

The kits are designed for an easy installation at the bottom of the silos, hoppers, tanks, minimizing the change in the overall height of the system.

IP68 protection degree

The load cells are hermetically protected from dust, water and moisture, suitable for use in harsh industrial environments or with strict hygiene requirements.

SBX

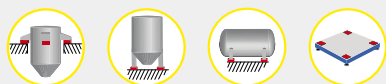


www.diniargeo.com

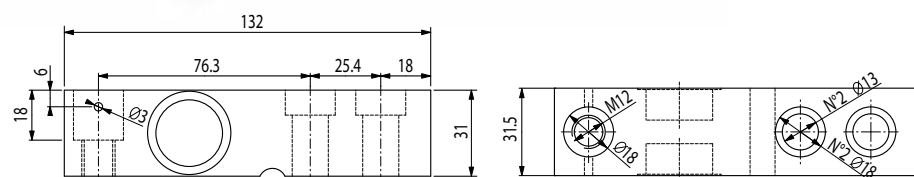
SHEAR BEAM LOAD CELLS FROM 500 TO 5000 kg

High performance, stainless steel shear beam load cells, extremely robust and resistant, with IP68 protection classification.

Particularly suitable for creating CE-M approved 4-cell scales with medium capacity, and for weighing tanks, silos, and hoppers, thanks to the KSB and KSBN assembly kits.



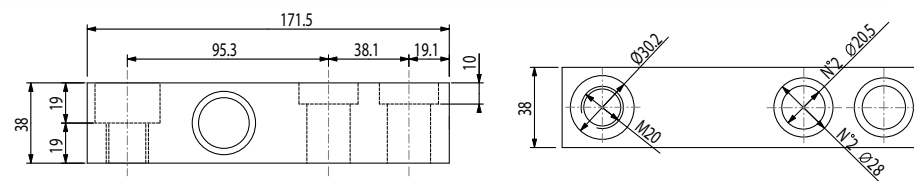
SBX FROM 500 TO 2000 kg



TECHNICAL FEATURES

Accuracy class	C3
Protection classification	IP68
Construction	17-4 PH stainless steel
Minimum load cell verification interval (Vmin)	EMax/10000
Maximum number of verification intervals	nLC=3000
Combined error of Full Scale Output (F.S.)	0.017%
Full Scale Output	2mV/V ± 0.5%
Temperature effect on zero	0.002% / °C
Temperature effect on full scale output	0.002% / °C
Compensated Temperature	-10°C / +50°C
Operating Temperature	-20°C / +60°C
Creep error after 30 minutes	0.02% F.S
Maximum tolerated excitation voltage	15 Vdc
Input Resistance	1100 ± 20 Ohm
Output Resistance	1000 ± 20 Ohm
Insulation Resistance	>5000 MOhm
Safe Overload	150% F.S
Ultimate Overload	>300% F.S
Shielded cable	5m, Ø 5mm / 6-wire

SBX FROM 3000 TO 5000 kg



Available also in ATEX certified version:
ATEX II 1G Ex ia IIC T6 (Ta -20÷+40°C) TX (Ta -20÷+65°C) Ga
ATEX II 1D Ex ta IIIC TX°C (Ta -20÷+40°C) TX°C (Ta -20÷+65°C) Da IP65

Code

Capacity kg

SBX500-1K / 1000-1KL / 2000-1KL

500 / 1000 / 2000

SBX3000-1K / 5000-1KL

3000 / 5000

KSB: ASSEMBLY KIT FOR SHEAR BEAM LOAD CELLS

Assembly kits for SBX series shear beam load cells, suitable for creating high-capacity weighing platforms, or for weighing silos, hoppers, horizontal or vertical tanks with a medium or large size.

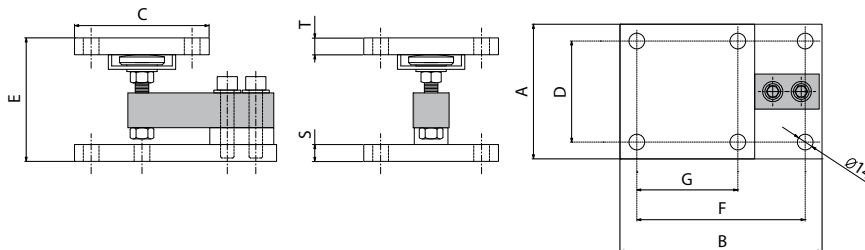
- ✓ The special articulation ensures excellent measurement accuracy even with an expanded or bent structure to be weighed.
- ✓ Adjustable height for an optimal leveling of the structure to be weighed.

- **KSB2 AND KSB5 VERSIONS: EXECUTION IN AISI304 STAINLESS STEEL WITH HINGE ADJUSTABLE IN HEIGHT**
- **KSN2 VERSION: EXECUTION IN GALVANIZED STEEL WITH SPHERICAL JOINT**
- **MECHANICAL COMPENSATION OF THERMAL SWELLINGS AND TRANSVERSAL FORCES**

KSB



INOX
AISI 304



KSNB



Code	Capacity kg	Dimensions mm								
		A	B	C	D	E	F	G	S	T
KSNB2	from 500 to 2000	120	180	120	90	127,5	150	90	20	10
KSB2	from 500 to 2000	120	180	120	90	110	150	90	15	15
KSB5	from 3000 to 5000	120	215	120	90	150	185	90	25	15



Available also in ATEX certified version:
ATEX II 1G Ex ia IIC T6 (Ta -20÷+40°C) TX (Ta -20÷+65°C) Ga
ATEX II 1D Ex ta IIIC TX°C (Ta -20÷+40°C) TX°C (Ta -20÷+65°C) Da IP65

SBFI: ARTICULATED FOOT FOR HIGH RESOLUTION

The kit is made up of four SBX load cells together with hypersanitizable adjustable mounting feet and a junction box with a built-

in equalisation board. Suitable for creating various sizes and capacities scales, connectable to any type of weight indicator.

SBFI



SBFI3K



INOX
AISI 304

- **COMPLETELY AISI304 STAINLESS STEEL CONSTRUCTION**
- **BUILT-IN NON-SLIP RUBBER**
- **FITTED WITH ANTI-VIBRATION GASKET**
- **EXTERNAL TREATMENT RESISTANT TO CORROSION**

Code	Capacity kg
SBFI	from 500 to 2000
SBFI3K	3000

PLX: CELL KITS FOR ASSEMBLING FLOOR SCALES

The kit is made up of four SBX load cells together with hypersanitizable adjustable mounting feet and a junction box with a built-

in equalisation board. Suitable for creating various sizes and capacities scales, connectable to any type of weight indicator.



- Load cells**
- **17-4PH stainless steel**
 - **C3 class**
 - **IP68 protection**

- Leveling feet**
- **stainless steel**
 - **adjustable height**
 - **anti-slip rubber**

- Junction box**
- **ABS**
 - **IP67 protection**
 - **5 fairleads**

Code	Provided cell
PLX1K405C3	SBX500-1K
PLX1K410C3	SBX1000-1K
PLX1K420C3	SBX2000-1K

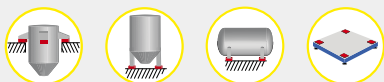
COMPRESSION LOAD CELLS FROM 250 TO 100.000 kg

Stainless steel load cells with IP68 protection classification, suitable for use in industrial environments.

✓ Ensure a high performance and an excellent resistance to great stress.

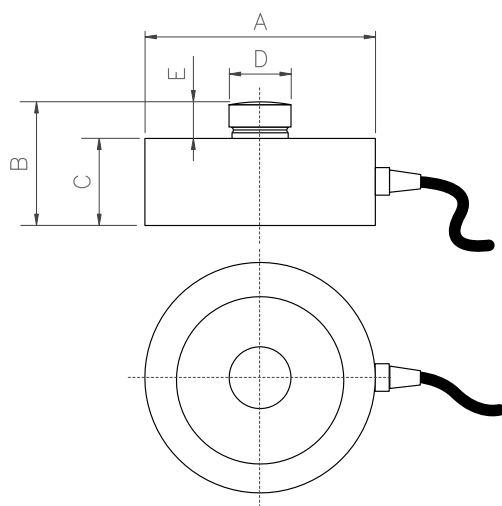
✓ Particularly suitable in the foodstuff and chemical industries, in industrial process and automation, for the weighing of tanks, hoppers, and silos.

✓ Quick and simple installation / replacement of the load cells thanks to the KCPN assembly kit.



TECHNICAL FEATURES

Accuracy class	C3
Protection classification	IP68
Construction	17-4 PH stainless steel
Combined error of Full Scale Output (F.S.)	0.2%
Full Scale Output	2mV/V \pm 0.5%
Temperature effect on zero	0.02% / 10°C
Temperature effect on full scale output	0.02% / 10°C
Compensated Temperature	-10°C / +50°C
Operating Temperature	-20°C / +60°C
Creep error after 30 minutes	0.02% F.S
Maximum tolerated excitation voltage	10 Vdc
Input Resistance	750 \pm 10 Ohm
Output Resistance	700 \pm 5 Ohm
Insulation Resistance	>5000 MOhm
Safe Overload	120% F.S
4-wire shielded cable, Ø 5mm	<ul style="list-style-type: none"> • 5m (CP 250 ... 5000) • 10m (CP 7500 ... 100000)



Available also in ATEX certified version:
 ATEX II 1G Ex ia IIC T6 (Ta -20/+40°C) TX (Ta -20/+65°C) Ga
 ATEX II 1D Ex ta IIIC TX°C (Ta -20/+40°C) TX°C (Ta -20/+65°C) Da IP65

Code	Capacity kg	Dimensions mm				
		A	B	C	D	E
CP250 / 500 / 1000 / 2500 / 5000 / 7500 / 10000	250 / 500 / 1000 / 2500 / 5000 / 7500 / 10000	82	44	32	22	12
CP15000	15000	100	47	35	28	12
CP30000	30000	126	54	40	35	14
CP50000	50000	165	80	60	60	20
CP100000	100000	165	80	60	60	20

KCPN: ASSEMBLY KIT FOR COMPRESSION LOAD CELLS

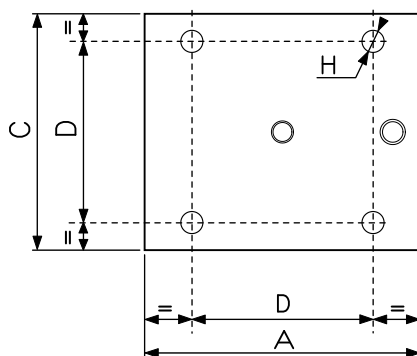
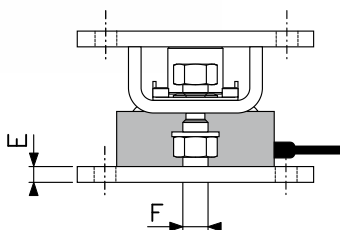
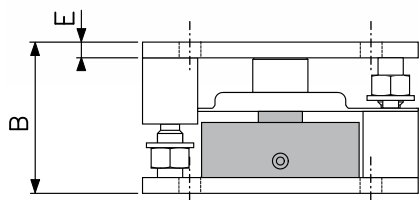
Assembly kits for CP series compression load cells, suitable for weighing silos, hoppers, horizontal or vertical tanks with a medium to large size or high-capacity weighing platforms.

- ✓ Designed to ensure the correct functioning of the load cell and to ensure the optimum weighing accuracy and high measure reliability over time.
- ✓ Simple installation / replacement of the load cells even when the kit is already installed.

- **CONSTRUCTION IN AISI304 STAINLESS STEEL**
- **GREAT RESISTANCE TO LATERAL FORCES**
- **OVERLOAD-PROOF SCREW JACKS FOR EASY INSTALLMENT AND/OR SUBSTITUTION OF THE LOAD CELL**
- **SELF-CENTERING CONNECTION SEGMENT BETWEEN LOWER AND UPPER PLATES.**



INOX
AISI 304

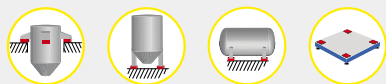


Available also in ATEX certified version:
ATEX II 1G Ex ia IIC T6 (Ta -20÷+40°C) TX (Ta -20÷+65°C) Ga
ATEX II 1D Ex ta IIIC TX°C (Ta -20÷+40°C) TX°C (Ta -20÷+65°C) Da IP65

Code	Capacity kg	Dimensions							
		A	B	C	D	E	F	H	
KCPN10	from 250 to 10000	175	96	150	115	10	M16	Ø 14	
KCPN15	15000	175	96	150	115	10	M16	Ø 14	
KCPN30	30000	230	118	200	160	10	M20	Ø 17	
KCPN100	from 50000 to 100000	320	154	320	250	15	M30	Ø 23	

DSBI

DOUBLE SHEAR BEAM LOAD CELLS FROM 10.000 TO 30.000 kg



Stainless steel double shear beam load cells, extremely robust and resistant, with IP68 protection classification. Particularly suitable for creating CE-M approved 4-cell scales with high capacity, and for weighing tanks, silos, and

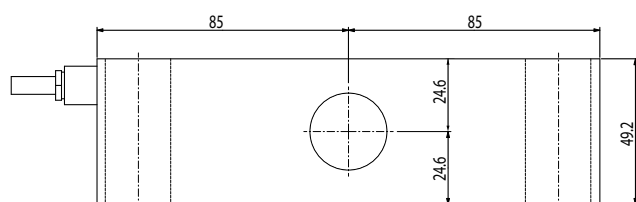
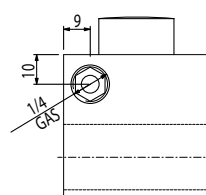
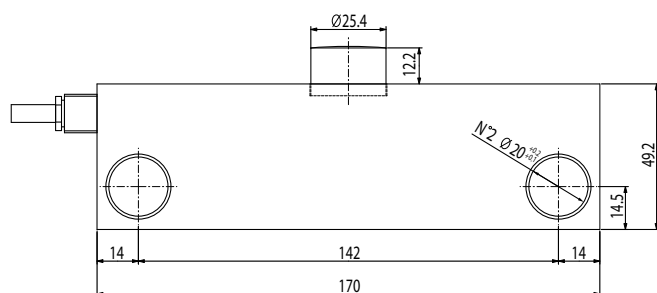
hoppers, thanks to the KDSBN assembly kit.

They ensure a high accuracy even in case of expansion of the structure to be weighed.



TECHNICAL FEATURES

Accuracy class	C4
Protection classification	IP68
Construction	17-4 PH stainless steel
Minimum load cell verification interval (Vmin)	EMax/10000
Combined error of Full Scale Output (F.S.)	0,03%
Full Scale Output	2mV/V \pm 0,1%
Temperature effect on zero	0,00116% / °C
Temperature effect on full scale output	0,00097% / °C
Compensated Temperature	-10°C / +40°C
Operating Temperature	-30°C / +85°C
Creep error after 30 minutes	<0,02% F.S
Maximum tolerated excitation voltage	15 Vdc
Input Resistance	700 \pm 7 Ohm
Output Resistance	700 \pm 7 Ohm
Insulation Resistance	>5000 MOhm
Zero Balance	\pm 1%
Safe Overload	150% F.S
Ultimate Overload	300% F.S
6-wire shielded cable	15m



Available also in ATEX certified version:
 ATEX II 1G Ex ia IIC T6 (Ta -20÷+40°C) TX (Ta -20÷+65°C) Ga
 ATEX II 1D Ex ta IIIC TX°C (Ta -20÷+40°C) TX°C (Ta -20÷+65°C) Da IP65

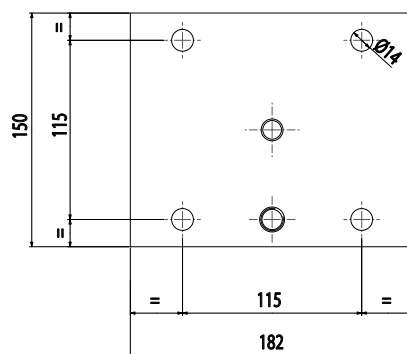
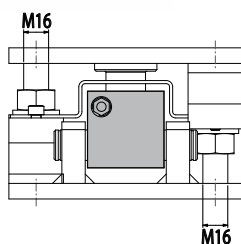
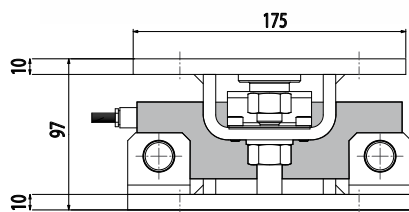
Code	Capacity kg
DSBI10 / 20 / 30	10000 / 20000 / 30000

KDSBN: ASSEMBLY KIT FOR DOUBLE SHEAR BEAM LOAD CELLS

Assembly kits for DSBI series double shear beam load cells, suitable for weighing silos, hoppers, horizontal or vertical tanks with a large size or high-capacity weighing platforms.

- ✓ Ensure the correct functioning of the load cell.
- ✓ Guarantee excellent weighing accuracy and high measure reliability even in case of an expanded or bent structure to be weighed.

- **CONSTRUCTION IN AISI304 STAINLESS STEEL**
- **GREAT RESISTANCE TO LATERAL FORCES**
- **OVERTURN-PROOF SCREW JACKS FOR EASY INSTALLMENT AND/OR SUBSTITUTION OF THE LOAD CELL**
- **SELF-CENTERING CONNECTION SEGMENT BETWEEN LOWER AND UPPER PLATES**



Available also in ATEX certified version:
ATEX II 1G Ex ia IIC T6 (Ta -20÷+40°C) TX (Ta -20÷+65°C) Ga
ATEX II 1D Ex ta IIIC TX°C (Ta -20÷+40°C) TX°C (Ta -20÷+65°C) Da IP65

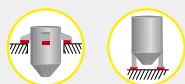
Code	Capacity kg
KDSBN	up to 30000

FXC and FXD

BENDING BEAM LOAD CELLS FROM 10 TO 500 kg

Stainless steel bending beam load cells, with IP68 protection classification, suitable for using in industrial automations. Ideal for hoppers and mixers with small

and medium size and for the integration in the dosage systems, thanks to the KFXDN assembly kit.



FXC

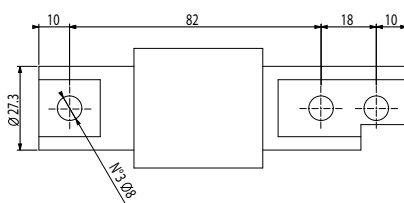
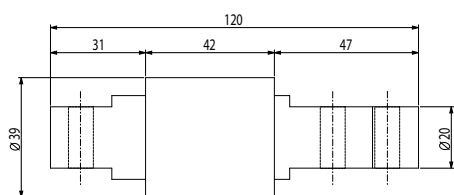


TECHNICAL FEATURES

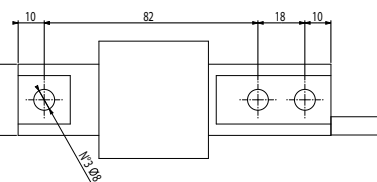
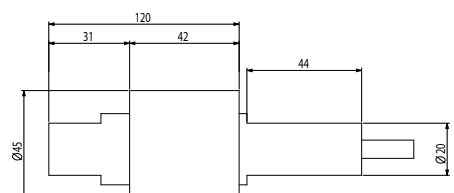
	FXC	FXD
Accuracy class	C3	C3
Protection classification	IP68	IP68
Construction	stainless steel	stainless steel
Minimum load cell verification interval (Vmin)	EMax / 10000	EMax / 10000
Maximum number of verification intervals	nLC=3000	nLC=3000
Combined error of Full Scale Output (F.S.)	0,017%	0,017%
Full Scale Output	2mV/V \pm 0,1%	2.0 \pm 0,002mV/V
Non-Repeatability	\pm 0,015%	\pm 0,015%
Temperature effect on zero	0,002% / °C	\pm 0,02% F.S./10°C
Temperature effect on full scale output	0,0012% / °C	\pm 0,02% F.S./10°C
Compensated Temperature	-10°C / +40°C	-10°C / +40°C
Operating Temperature	-20°C / +60°C	-30°C / +70°C
Creep error after 30 minutes	0,016% F.S.	0,016% F.S.
Maximum tolerated excitation voltage	15 Vdc	15 Vdc
Input Resistance	385 \pm 20 Ohm	400 \pm 20 Ohm
Output Resistance	350 \pm 5 Ohm	352 \pm 3 Ohm
Insulation Resistance	>5000 MOhm	>5000 MOhm
Safe Overload	200% F.S.	120% F.S.
Ultimate Overload	300% F.S.	150% F.S.
Nominal displacement	<0,4mm	<0,4mm
4-wire shielded cable	3m, Ø 4mm	3m, Ø 5mm



Available also in ATEX certified version:
 ATEX II 1G Ex ia IIC T6 (Ta -20÷+40°C) TX (Ta -20÷+65°C) Ga
 ATEX II 1D Ex ta IIIC TX°C (Ta -20÷+40°C) TX°C (Ta -20÷+65°C) Da IP65



FXD



Code	Capacity kg
FXC10 / 20 / 50 / 100 / 200 / 300 / 500	10 / 20 / 50 / 100 / 200 / 300 / 500
Code	Capacity kg
FXD100 / 200 / 300 / 500	100 / 200 / 300 / 500

KFXDN: ASSEMBLY KIT FOR BENDING BEAM LOAD CELLS

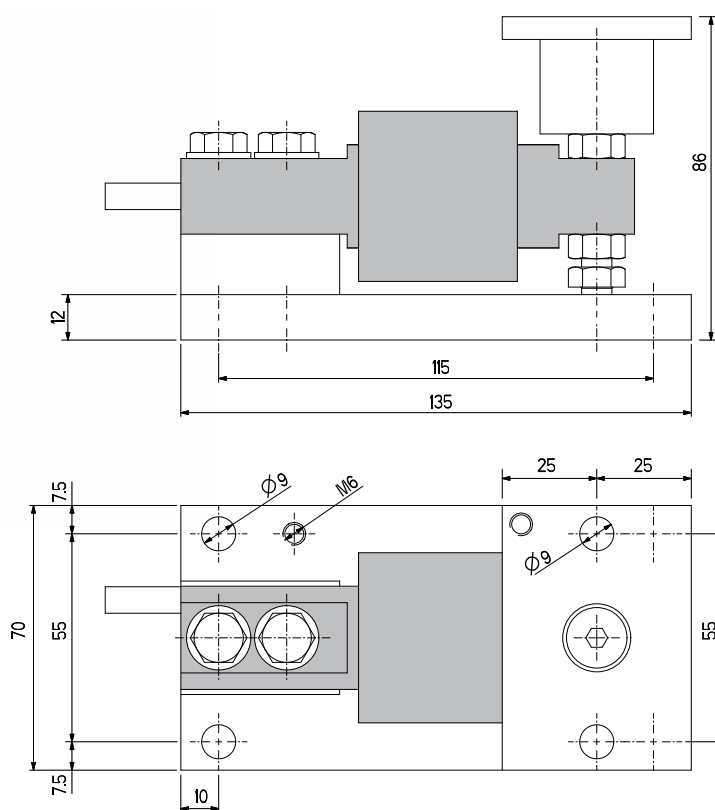
Assembly kits for FXC and FXD series bending beam load cells, suitable for weighing hoppers, mixers, and tanks with small or medium size.

- ✔ Designed to ensure the correct functioning of the load cell.
- ✔ Ensure optimum weighing accuracy, thanks to the articulated joint which guarantees the vibration damping and the compensation of the thermal expansion of the structure to be weighed.

- **CONSTRUCTION IN STAINLESS STEEL**
- **SAFETY LOCK FOR THE TRANSPORT**
- **FITTED WITH AN ARTICULATED JOINT FOR VIBRATIONS ABSORPTION AND EXPANSIONS COMPENSATION**

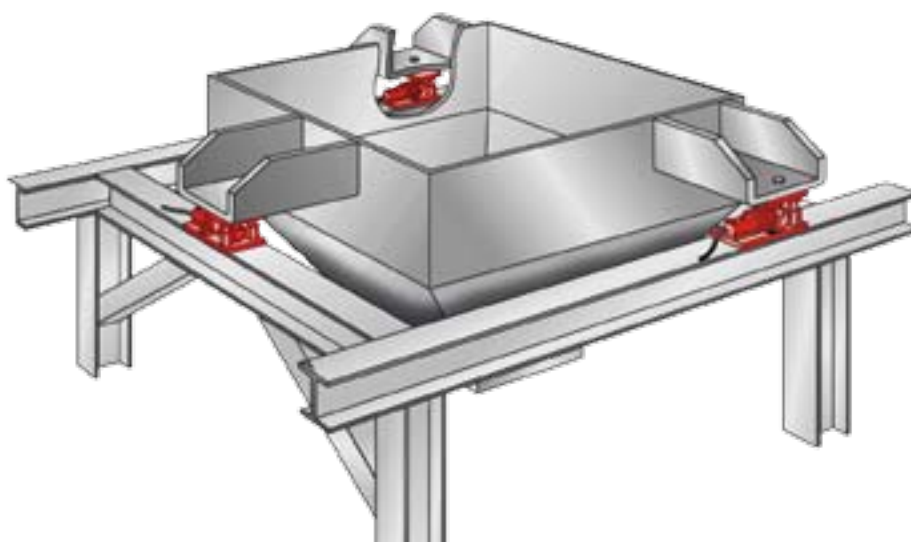


Suitable for **weigh hoppers**.



Available also in ATEX certified version:
ATEX II 1G Ex ia IIC T6 (Ta -20÷+40°C) TX (Ta -20÷+65°C) Ga
ATEX II 1D Ex ta IIIC TX°C (Ta -20÷+40°C) TX°C (Ta -20÷+65°C) Da IP65

Code	Capacity kg
KFXDN	up to 500



ALUMINIUM SINGLE POINT LOAD CELLS FROM 3 TO 750 kg



Single point load cells suitable to build CE-M approved scales with a single load cell. Guarantee high weighing accuracy thanks to the off-center loads compensation.



Available also in ATEX certified version:
 ATEX II 1G Ex ia IIC T6 (Ta -20÷+40°C) TX (Ta -20÷+65°C) Ga
 ATEX II 1D Ex ta IIC TX°C (Ta -20÷+40°C) TX°C (Ta -20÷+65°C) Da IP65

TECHNICAL FEATURES

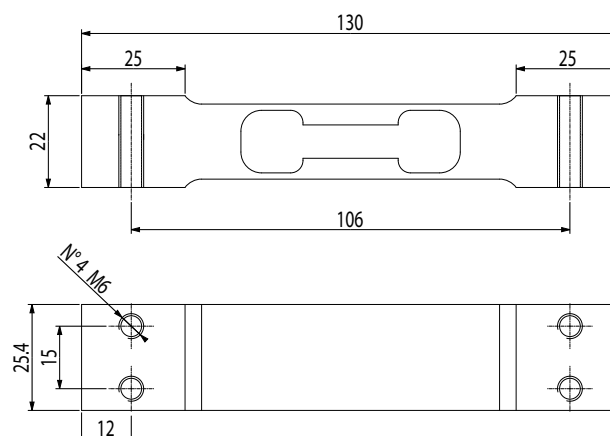
	SPO	SPG	SPG	SPM	SPN
Accuracy class	C3	C3	C6	C3	C3
Protection classification	IP67	IP67	IP67	IP67	IP67
Minimum load cell verification interval (Vmin)	EMax / 15.000	EMax / 15.000	EMax / 20.000	EMax / 15.000	EMax / 15.000
Full Scale Output	2mV/V +/- 10%	2mV/V +/- 10%	2mV/V +/- 10%	2mV/V +/- 10%	2mV/V +/- 10%
Temperature effect on zero	0,01% F.S./10K	0,01% F.S./10K	0,01% F.S./10K	0,01% F.S./10K	0,01% F.S./10K
Temperature effect on full scale output	0,001% F.S./10K	0,001% F.S./10K	0,001% F.S./10K	0,001% F.S./10K	0,001% F.S./10K
Compensated Temperature	-10°C/+40°C	-10°C/+40°C	-10°C/+40°C	-10°C/+40°C	-10°C/+40°C
Operating Temperature	-10°C/+50°C	-10°C/+50°C	-10°C/+50°C	-10°C/+50°C	-10°C/+50°C
Creep error after 30 min.	0,01% F.S.	0,01% F.S.	0,01% F.S.	0,01% F.S.	0,01% F.S.
Maximum tolerated excitation voltage	15 Vdc	15 Vdc	15 Vdc	15 Vdc	15 Vdc
Input Resistance	300..500 Ohm	300..500 Ohm	300..500 Ohm	300..500 Ohm	300..500 Ohm
Output Resistance	300..500 Ohm	300..500 Ohm	300..500 Ohm	300..500 Ohm	300..500 Ohm
Insulation Resistance	>2000 MOhm	>2000 MOhm	>2000 MOhm	>2000 MOhm	>2000 MOhm
Safe Overload	150% F.S.	150% F.S.	150% F.S.	150% F.S.	150% F.S.
Ultimate Overload	300% F.S.	300% F.S.	300% F.S.	300% F.S.	300% F.S.
Nominal displacement	< 0,5 mm	<0,3mm	<0,3mm	< 0,5 mm	< 0,5 mm
Shielded cable	40cm, Ø 3.2mm / 4-wire	3m, Ø 4.7mm / 6-wire	3m, Ø 4.7mm / 6-wire	3m, Ø 5mm / 6-wire	3m, Ø 5mm / 6-wire

The values of temperature effects in the table are indicative, the sum of these errors (including hysteresis and linearity) remain within the limit of the errors sum, according to OIML R60.

SPO



Code	Capacity kg	Platform l x w max. (mm)
SP03	3	150 x 150
SP05	5	300 x 300
SP010	10	300 x 300
SP015	15	300 x 300
SP020	20	300 x 300
SP030	30	300 x 300

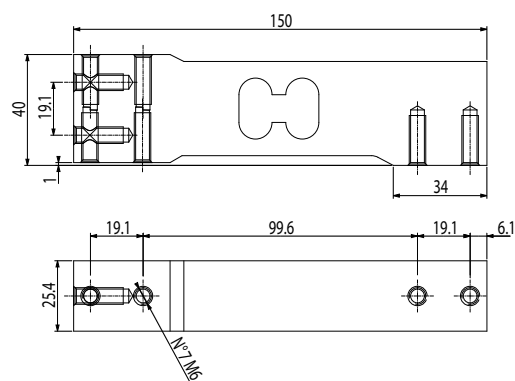


SPG



Versions in C3 class

Code	Capacity kg	Platform l x w max. (mm)
SPG10	10	300 x 300
SPG15	15	400 x 400
SPG20	20	450 x 450
SPG30	30	450 x 450
SPG50	50	600 x 600
SPG100	100	600 x 600
SPG200	200	600 x 600



Versions in C6 class

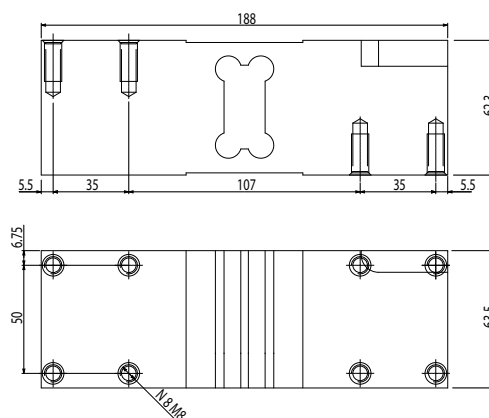


Code	Capacity kg	Platform l x w max. (mm)
SPG7C6	7	300 x 300
SPG18C6	18	400 x 400
SPG36C6	36	450 x 450

SPM



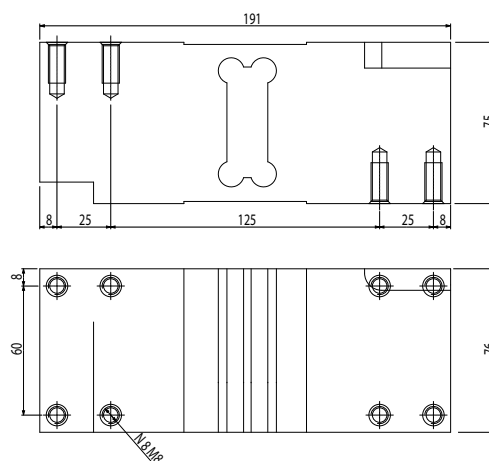
Code	Capacity kg	Platform l x w max. (mm)
SPM100	100	600 x 600
SPM200	200	600 x 600
SPM500	500	600 x 600



SPN



Code	Capacity kg	Platform l x w max. (mm)
SPN300	300	800 x 800
SPN500	500	800 x 800
SPN750	750	800 x 800



STAINLESS STEEL SINGLE POINT LOAD CELLS FROM 7.5 TO 1000 kg



Single point load cells suitable to build CE-M approved scales with a single load cell. Guarantee high weighing accuracy thanks to the off-center loads compensation.



Available also in ATEX certified version:
ATEX II 1G Ex ia IIC T6 (Ta -20÷+40°C) TX (Ta -20÷+65°C) Ga
ATEX II 1D Ex ta IIIC TX°C (Ta -20÷+40°C) TX°C (Ta -20÷+65°C) Da IP65

TECHNICAL FEATURES

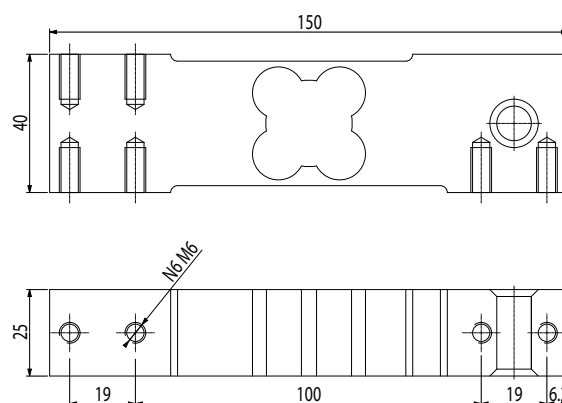
	SPSW	SPSY	SPSX	SPSZ
Accuracy class	C3	C3	C3	C3
Protection classification	IP67	IP68	IP67	IP68
Minimum load cell verification interval (Vmin)	EMax / 10.000	EMax / 10.000	EMax / 15.000	EMax / 10.000
Full Scale Output	2mV/V +/- 0,2%	2mV/V +/- 10%	2mV/V +/- 10%	2mV/V +/- 10%
Temperature effect on zero	0,01% F.S./10K	0,01% F.S./10K	0,01% F.S./10K	0,01% F.S./10K
Temperature effect on full scale output	0,001% F.S./10K	0,001% F.S./10K	0,001% F.S./10K	0,001% F.S./10K
Compensated Temperature	-10°C/+40°C	-10°C/+40°C	-10°C/+40°C	-10°C/+40°C
Operating Temperature	-10°C/+50°C	-10°C/+50°C	-10°C/+50°C	-10°C/+50°C
Creep error	after 30 minutes ± 0,01% F.S.	after 30 minutes ± 0,01% F.S.	after 30 minutes ± 0,01% F.S.	after 30 minutes ± 0,01% F.S.
Maximum tolerated excitation voltage	15 Vdc	15 Vdc	15 Vdc	15 Vdc
Input Resistance	380 ± 15 Ohm	380 ± 15 Ohm	390 ± 15 Ohm	380 ± 15 Ohm
Output Resistance	359 ± 5 Ohm	350 ± 10 Ohm	359 ± 5 Ohm	350 ± 10 Ohm
Insulation Resistance (100V)	>1000 MOhm	>2000 MOhm	>1000 MOhm	>2000 MOhm
Safe Overload	300% F.S.	300% F.S.	300% F.S.	300% F.S.
Ultimate Overload	300% F.S.	300% F.S.	300% F.S.	300% F.S.
Nominal displacement	< 0,5 mm	< 0,5 mm	< 0,5 mm	< 0,5 mm
Shielded cable	3m, Ø 5mm / 6-wire	3m, Ø 5mm / 6-wire	3m, Ø 5mm / 6-wire	3m, Ø 5mm / 6-wire

The values of temperature effects in the table are indicative, the sum of these errors (including hysteresis and linearity) remain within the limit of the errors sum, according to OIML R60.

SPSW



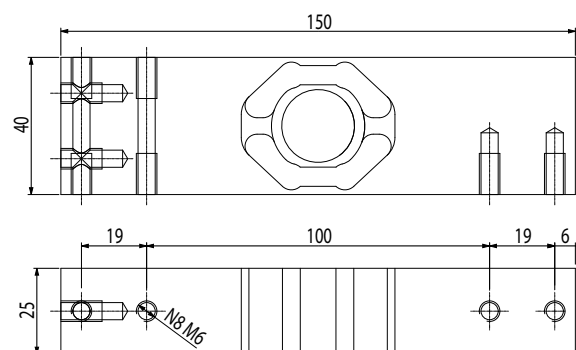
Code	Capacity kg	Platform l x w max. (mm)
SPSW7.5	7,5	500 x 400
SPSW15	15	500 x 400
SPSW30	30	500 x 400
SPSW50	50	500 x 400
SPSW100	100	500 x 400



SPSY



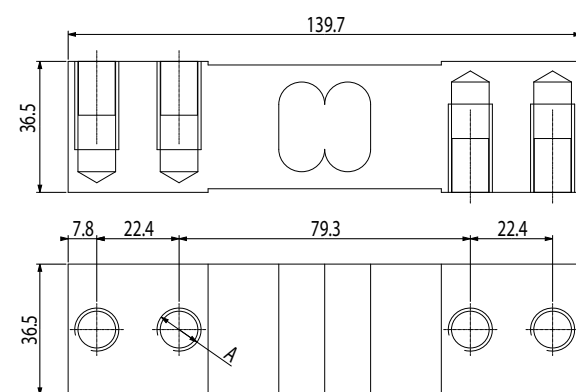
Code	Capacity kg	Platform l x w max. (mm)	
SPSY50	50	500 x 400	
SPSY100	100	500 x 400	



SPSX



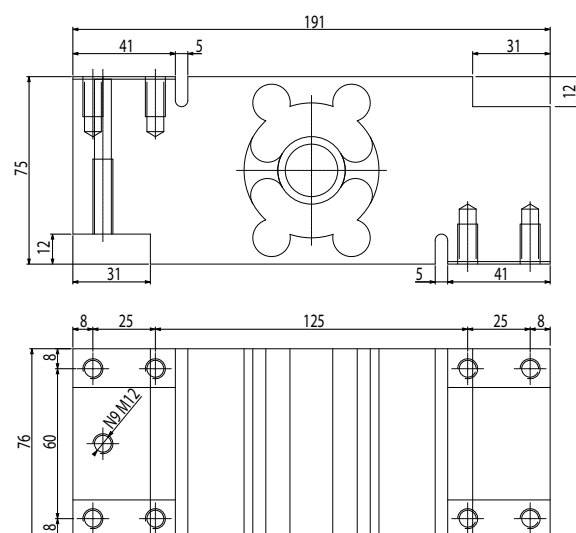
Code	Capacity kg	Dimensions mm	Platform l x w max. (mm)	
		A		
SPSX300	300	M10	600 x 800	
SPSX500	500	M12	600 x 800	



SPSZ

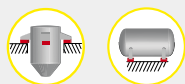


Code	Capacity kg	Platform l x w max. (mm)	
SPSZ500	500	800 x 800	
SPSZ1000	1000	800 x 800	



STG e STFC

TENSION LOAD CELLS FROM 100 TO 10.000 kg

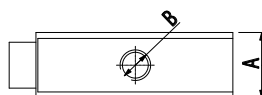
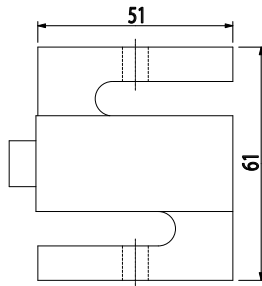


Tension load cells, fitted with robust structure and IP67 protection classification, particularly suitable for using in industrial environments.
Ideal for weighing suspended loads, hoppers, tanks, and lever scales, thanks to the KST kits.

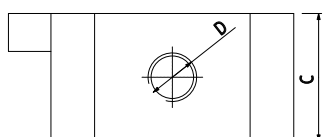
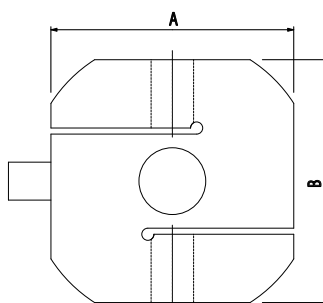


Available also in ATEX certified version:
ATEX II 1G Ex ia IIC T6 (Ta -20÷+40°C) TX (Ta -20÷+65°C) Ga
ATEX II 1D Ex ta IIIC TX°C (Ta -20÷+40°C) TX°C (Ta -20÷+65°C) Da IP65

STG



STFC



TECHNICAL FEATURES

	STG	STFC
Accuracy class	C3	C3
Protection classification	IP67	IP67
Construction	stainless steel	Nickel-plated steel
Minimum load cell verification interval (Vmin)	•EMax / 7.000 (STG100 version) •EMax / 10.000 (STG500 & STG1000 version)	EMax / 10000
Maximum number of verification intervals	nLC=3000	nLC=3000
Combined error of Full Scale Output (F.S.)	0,02%	0,02%
Full Scale Output	3mV/V ± 0,08%	2mV/V ± 0,1%
Non-Repeatability	0,017% / °C	0,0013% / °C
Temperature effect on zero	0,014% / °C	0,0014% / °C
Temperature effect on full scale output	-10°C / +40°C	-10°C / +40°C
Compensated Temperature	-35°C / +65°C	-20°C / +60°C
Operating Temperature	after 30 minutes 0,02% F.S.	after 4 hours 0,03% F.S.
Creep error after 30 minutes	18 Vdc	10 Vdc
Maximum tolerated excitation voltage	430 ± 60 Ohm	1100 Ohm
Input Resistance	350 ± 3.5 Ohm	1000 Ohm
Output Resistance	>5000 MOhm	>5000 MOhm
Insulation Resistance	±1% F.S.	±1% F.S.
Safe Overload	150% F.S.	130% F.S.
Ultimate Overload	300% F.S.	300% F.S.
4-wire shielded cable	6m, Ø 5mm	5m, Ø 5mm

Code	Capacity kg	Dimensions mm		
		A	B	
STG100	100	15	M8	
STG500	500	21	M12	
STG1000	1000	28	M12	

Code	Capacity kg	Dimensions mm				
		A	B	C	D	
STFC2000	2000	80	80	42	M16	
STFC5000	5000	80	80	42	M24x2	
STFC10000	10000	80	80	52	M24x2	

KST: JOINTS FOR TENSION LOAD CELLS

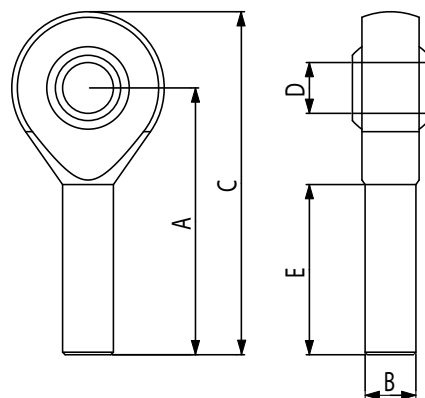
Articulated joint kits for STG and STFC series tension load cells, suitable for suspended loads weighing.

- ✓ Installed at the two ends of the cell, the joints assure the correct functioning in accordance with the directives for the cells installation.
- ✓ Ensure optimum weighing accuracy and high measure reliability with static tension forces.



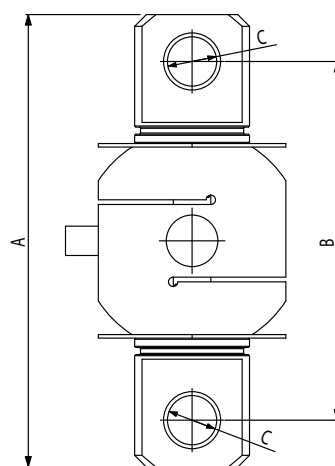
Available also in ATEX certified version:
ATEX II 1G Ex ia IIC T6 (Ta -20÷+40°C) TX (Ta -20÷+65°C) Ga
ATEX II 1D Ex ta IIIC TX°C (Ta -20÷+40°C) TX°C (Ta -20÷+65°C) Da IP65

KST1 - KST2



Model	Dimensions mm				
	A	B	C	D	E
KST1	42	M8	53	Ø 8	27
KST2	54	M12	69	Ø 12	32

KST3 - KST4



Model	Dimensions mm		
	A	B	C
KST3	193	153	Ø 21
KST4	223	167	Ø 28

Code	Capacity kg
KST1	100
KST2	from 500 to 1000
KST3	2000
KST4	from 5000 to 10000

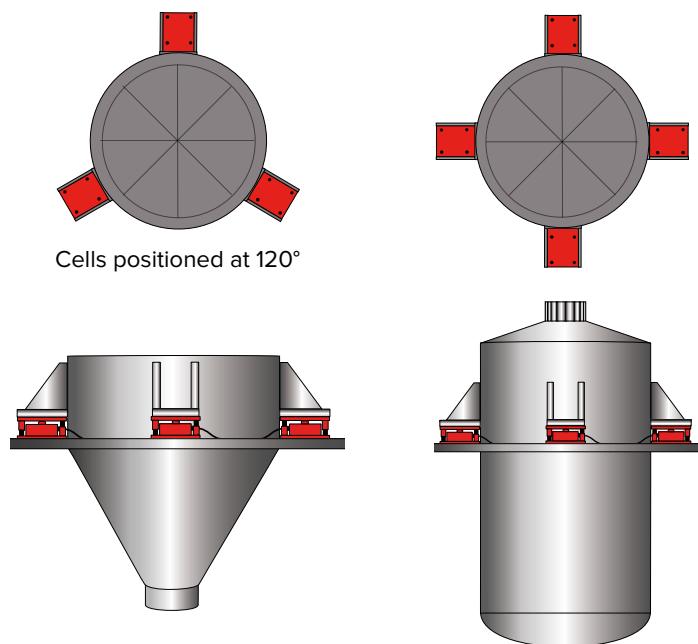
INSTALLATION TIPS

The surface under the load cells must be rigid and stable. The absence of linearity may be compensated through

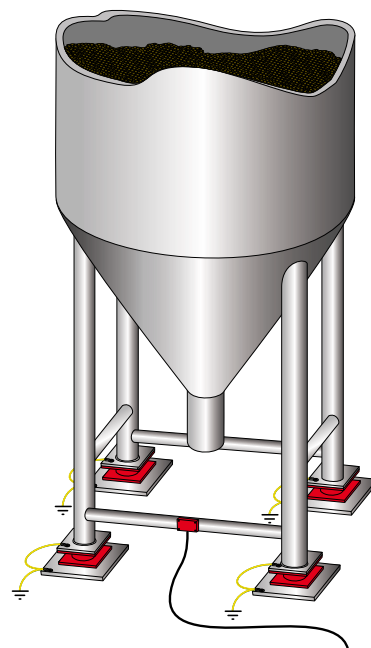
the use of the appropriate mounting kits. These accessories are suitable for weighing hoppers, tanks, and silos, also

suspended inside bearing structures.

SUSPENDED HOPPERS / TANKS



MEDIUM / LARGE SIZE SILOS

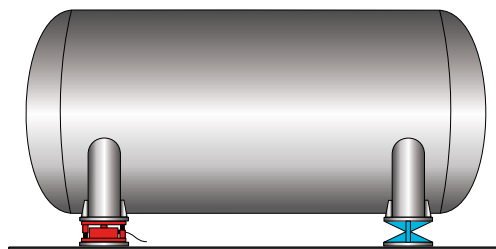


HORIZONTAL TANKS

In case of large-size horizontal tanks containing liquid, which can be particularly affected by expansion of the structure,

a cheaper system to weigh the content with a precision around 1% is to install two load cells on one side and two false cells

or joints on the other, in order to compensate the movement of the structure.

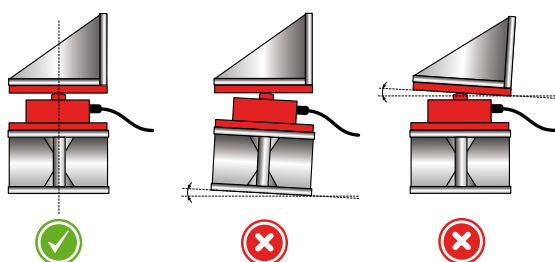


To complete a correct installation of the tank it must be:

- symmetrical in comparison to the line which crosses the center of gravity of the content;
- perfectly in level;
- not subject to the wind forces.

In this way one can ensure the best condition for the weighing.

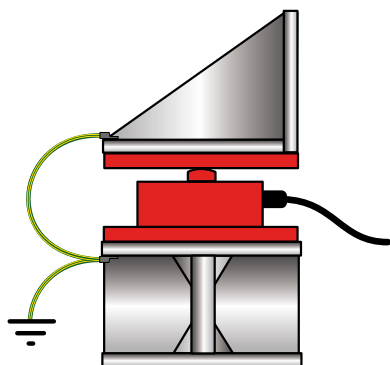
NOTES ABOUT THE SYSTEM INCLINATION



For a correct functioning of the weighing system and to obtain the best accuracy:

- The upper and lower plate of the kit must be perfectly flat and aligned with each other.
- The center of the surface imposed on the kit (for example the center of the foot of a silo) must match with the center of the upper plate of the kit.

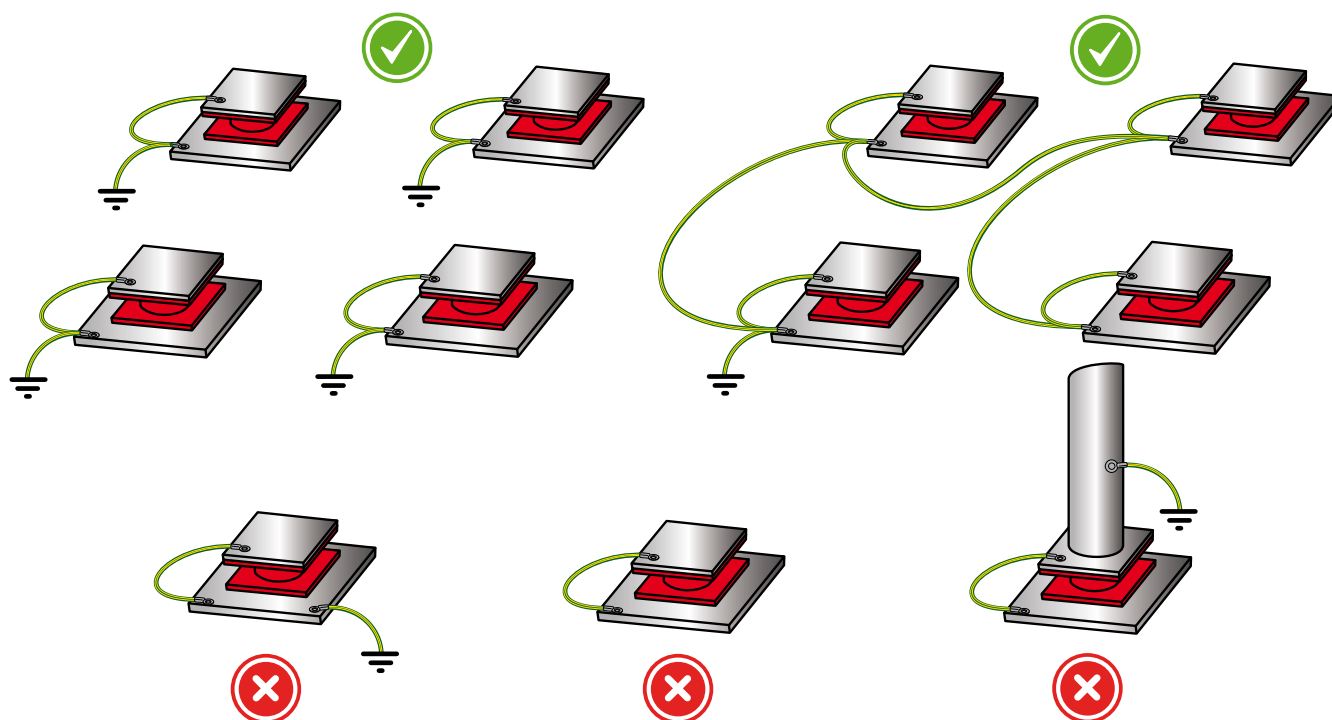
GROUNDING THE WEIGHING SYSTEM



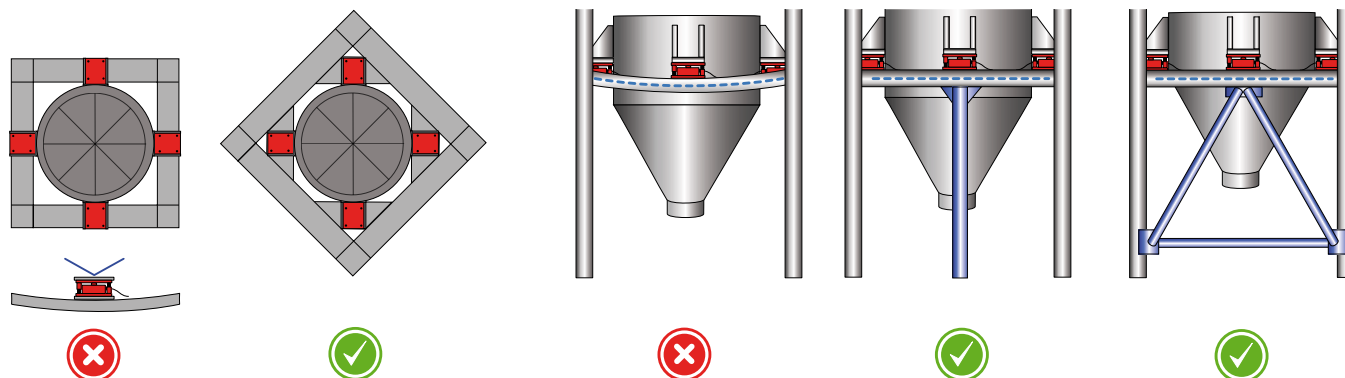
The grounding of the structure is indispensable to guarantee an optimum protection of the load cells from electrostatic discharge.

A bridge between the upper plate and the lower plate of the kit is necessary and it could be created by using a cable or a

copper braid of appropriate diameter. The failure of this assembly may not immediately affect the functioning of the system, but it can cause failure, even irreversible, of all the load cells and the attached weight indicator.



NOTES ABOUT THE BEARING STRUCTURE



It is necessary to study with great attention the placement of the load cells and the mechanical features of the structure, avoiding any irregular bending and de-

formation. The support surface, on where the kit will be installed, must be rigid and stable. If during the use of the system any bend-

ing or abnormal deformations are noted, it will be appropriate to reinforce the system by applying supports, tie rods, etc.

JUNCTION BOXES

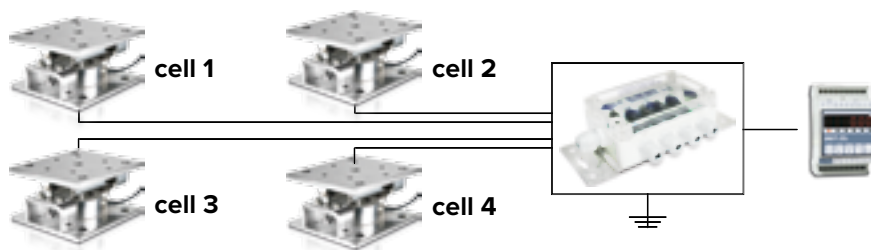
The junction boxes have an important role in the configuration of multi-load cell systems. The ABS or stainless steel cases are both designed for use in the presence of water and dust, offering different protection degrees according to the model.

The junction and equalization electronic

boards are fitted with screw terminals for an easy connection of cells, and a signal regulation trimmer for an accurate and reliable equalization.

In the version with 10 inputs, the card is also fitted with a protection system against overloads and shocks.

SCHEME OF USE



JBQ



IP67



Available also in ATEX version

Case	ABS
Protection classification	IP67
Maximum input voltage	24 Vdc
Maximum input current	700 mA
Maximum input load cell signal	1000 mV

JB10Q



IP68

Case	Polyester
Protection classification	IP68
Maximum input voltage	24 Vdc
Maximum input current	700 mA
Maximum input load cell signal	1000 mV

JBQI














INOX

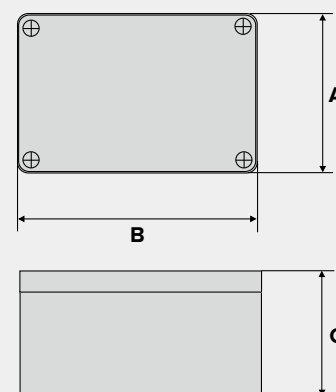
IP65



Available also in ATEX version

Case	Stainless steel
Protection classification	IP65
Maximum input voltage	24 Vdc
Maximum input current	700 mA
Maximum input load cell signal	1000 mV

Code	Dimensions mm		
	A	B	C
JB2Q	80	120	55
JB3Q	80	120	55
JB4Q 	80	120	55
JB4QI 	155	158	45
JB6QI 	132	190	50
JB10Q	120	220	90
JB1QAI  	130	190	45
JB2QAI  	130	190	45
JB3QAI  	130	190	45
JB4QAI  	130	190	45





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info.uk@diniargo.com

DINI ARGEO WEIGHING
INSTRUMENTS Ltd
Shanghai - China
info.cn@diniargo.com

DINI ARGEO
WEIGHBRIDGES
Calto (RO) – Italy
info@diniargo.com



HEAD OFFICE

Via Della Fisica, 20
41042 Spezzano di Fiorano Modena - Italy
Tel. +39.0536 843418 Fax. +39.0536 843521
info@diniargo.com

SERVICE ASSISTANCE

Via Dell'Elettronica, 15
41042 Spezzano di Fiorano Modena - Italy
Tel. +39.0536 921784 Fax. +39.0536 926654
service@diniargo.com



SALES AND TECHNICAL ASSISTANCE SERVICE