UTILCELL

CELULAS DE CARGA - LOAD CELLS

LIFT-OFF PREVENTION SYSTEMS
Acc. 46901
Acc. 46902
Acc. 46903

MOUNTING INSTRUCTIONS

(Rev. 2 – 06/12)

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SAFETY INSTRUCTIONS

Read these mounting instructions completely before carrying out any operation.

These accessories should only be used following the instructions contained in this handbook. It is also completely necessary to follow any regulation regarding the use of the weighing application as a whole, and also regarding its parts or modules.

Accessories 46901, 46902 and 46903 are weighing modules to be used in weighing applications. Any other use may be considered not to be in conformity with the regulations.

These accessories are not safety elements by themselves. Proper transportation, storage, assembly, operation and maintenance are needed. If not properly installed or operated they can lead to danger. Also all people involved with the installation, maintenance and/or that have any other responsibility on it, if not properly trained, can lead to danger to themselves and/or others.

When the application involved with the use of these accessories could lead to cause wounds or injuries to people or damage the equipment, all necessary safety measures have to be taken by the user (for example: protection against having a fall, protection against overloads, etc). It is very important to carry out all the necessary regulations regarding with risk prevention.

These accessories are modules to be used in applications that involve other areas of weighing technology, so the designers, installers and operators of these applications have to implement all the safety considerations with the aim to minimise danger. Any regulations regarding the application have to be fulfilled always.

	When the environmental conditions of use of these accessories are known to be harsh or are unknown but will probably be harsh, then it is highly recommended to add an adequate coating to the accessories after mounting, and also to properly protect the cable and other parts.

It is not allowed to make any kind of modifications or conversions in these accessories that may affect the design under the safety point of view without our formal consent. Any modification shall exclude all responsibility from our part for any resulting harm.

These accessories should only be installed by qualified personnel following strictly all applicable technical data, safety rules and regulations. This is also valid for the whole application itself and for the accessories.

	These accessories may not be modified under any circumstance

INTRODUCTION

Accessories 46901, 46902 and 46903 are designed to be used as weighing modules with a lift-off prevention system for silos/tanks. Accessory 46901 is to be used with a load cell model 460 of capacity 5 to 20 t. Accessory 46902 is to be used with a load cell model 460 of capacity 30 to 50 t, and accessory 46903 is to be used with a load cell model 460 of capacity 75 to 100 t.

These accessories are mainly formed by a base plate **PB** that has to be mounted on the foundation and where the load cell is placed by means of two pins **P1**, and a load plate **PC** that stands the load of the silo/tank (see Figure 1 page 4). These accessories are provided assembled.

Accessories have the following systems:

- Lift-off prevention: pin **P2** is placed across the holes of the load plate **PC** being below the load cell avoiding the lifting of the load plate **PC**.
- Non-rotating: the horizontal movement produced by a silo on rotating is **limited** by the contact produced between the fixed pin **F1** and the pin **P2** with zones **E1** and **E2** of the load cell (it is impossible to exceed the wider part of the load cell).

MOUNTING

Mounting precautions

	These accessories have to be mounted as showed on examples D1 and D2 of figure 2 of page 5 for the non-rotating system work properly
	The base plate has to be fixed on a solid and levelled ground
	The surfaces where the accessories shall be mounted have to be level, flat and clean
	The foundations have to be rigid enough so that the deformations produced on loading are low and within acceptable limits.
	**Do not weld with the load cell mounted**, as a precaution against possible damages
	The loading on the support points has to be uniform where possible. Make sure that the height of the support points is correct and adjust it if necessary by means of compensating shims.
	It has to be ensured that the accessory, once mounted, is free of any transverse force

It is convenient to check the load cell output individually to prevent overloading. In case of overloading, compensate the height of the less loaded load cell by means of adding shims under it.

Mounting procedure

See Figure 1 in page 4.

The base plate **PB** has to be fixed to the foundations. That plate has 4 holes to allow a strong fastening.

Once the base plate **PB** is fastened the load cell shall be mounted on it (it may only be placed in the correct position, if not, it may not be mounted) fastening with the two pins **P1** and blocking these pins by means of four clips (2 per pin).

Thus, the load cell is mounted to the base.

The load plate **PC** shall be placed over the load cell in a way that the pin **F1** stands on the load cell center **E1**. Afterwards the lower pin **P2** shall be placed and blocked by means of two clips.

Once the load cell is mounted, and to avoid the load plate PC from being unstable, get down the four stops **t1** until they touch the columns **C**. This way, the load plate remains balanced and the load cell free, it is to say, not in touch in **E1,** allowing performing the mounting with the minimum mechanical risk.

Fasten the silo/tank anchoring point to the load plate **PC** making use of the four holes available for that purpose. Once all the anchoring points are fastened, release the stops **t1**. These stops may remain fitted as security stops leaving a proper tolerance **h** for each anchorage of 2mm with empty vessel or 1mm with full load.

Technical support:
The stops **t1** let us, if changing the load cell for another one becomes necessary, release the load over the load cell in a way that all the weight rests upon the columns **C**. Then, take out the pins **P1** and **P2,** pull out the load cell longitudinally and change it for another one.
Once changed, place the pins **P1** and **P2** and release the stops **t1**.

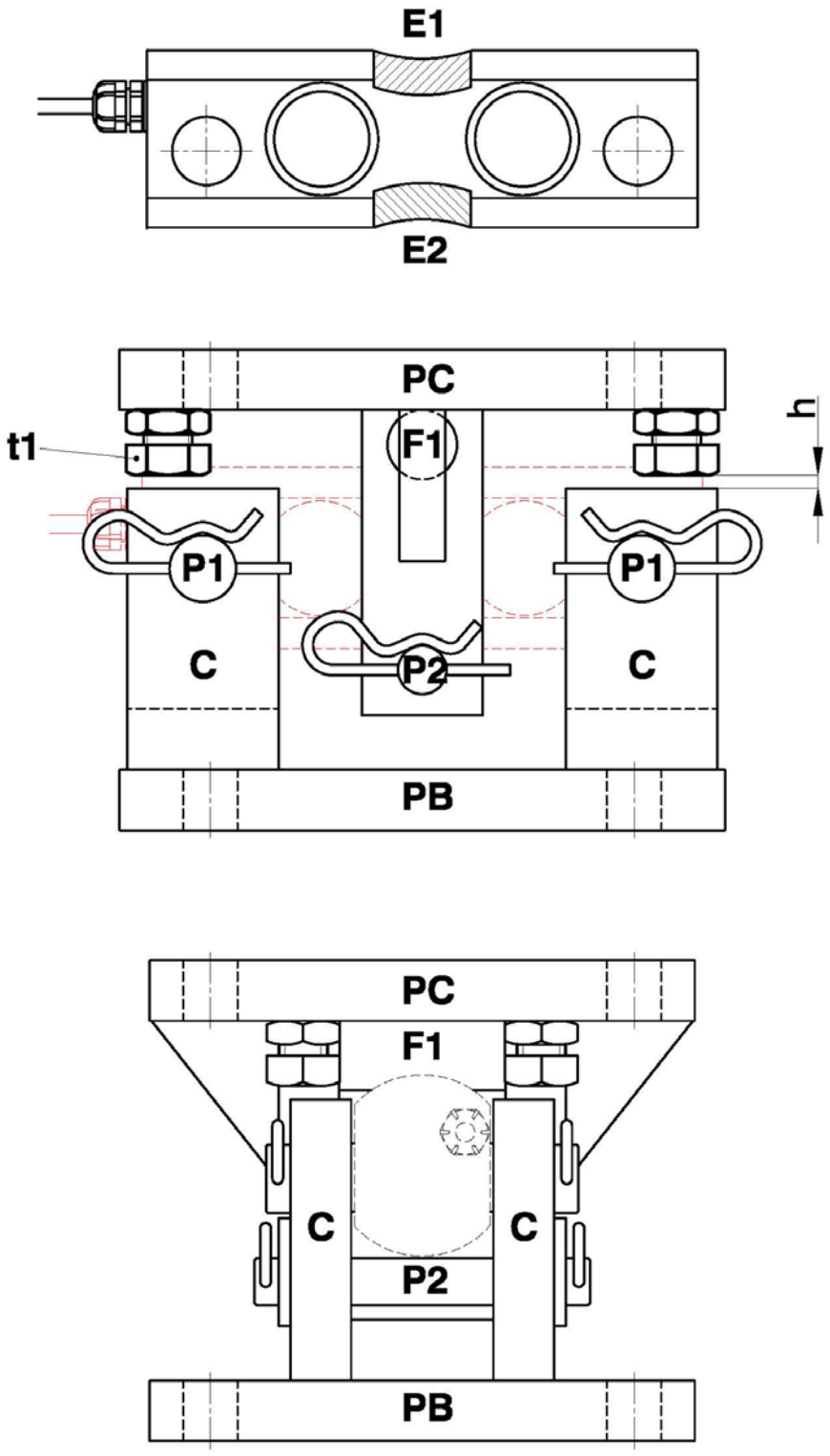

Figure 1

Mounting arrangements

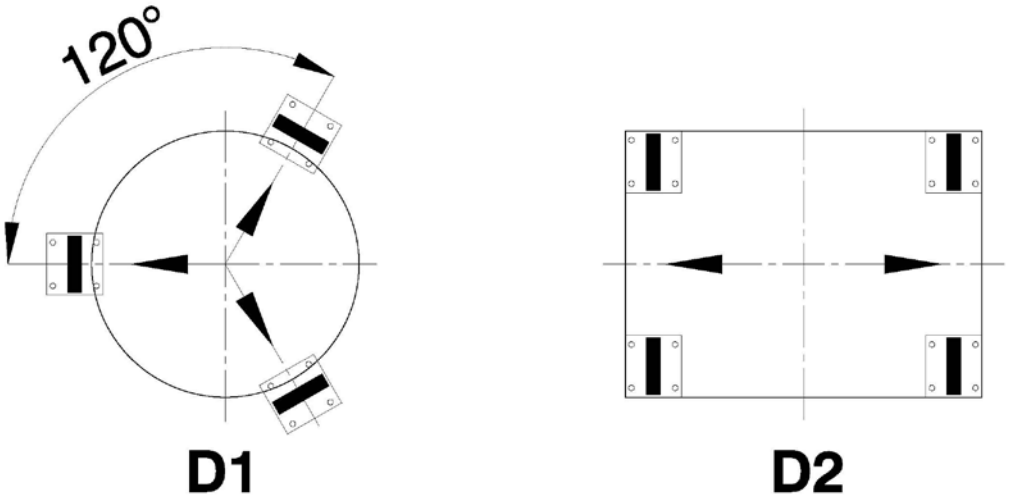

Figure 2