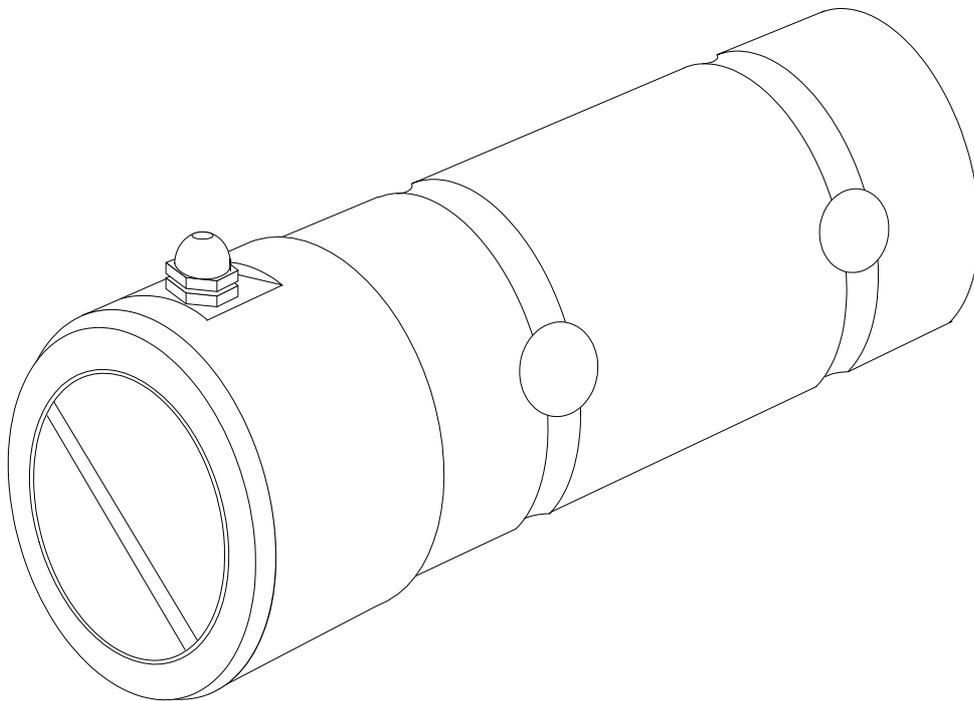




## Electronic load cell HF 50



Equipment in  
accordance with  
CE directives

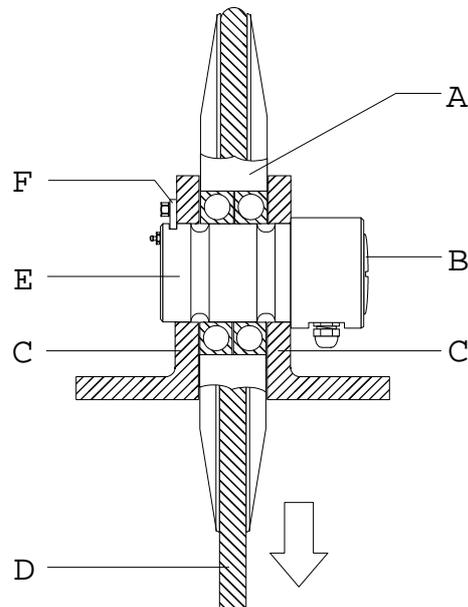
**Operating  
and  
Maintenance  
Instructions**

|  |            |
|--|------------|
| <b>GENERAL WARNING</b>                 | <b>2</b>   |
| <b>INSTALLATION OF HF 50 LOAD CELL</b> | <b>3</b>   |
| <b>LOAD CELL CONNECTION</b>            | <b>4-5</b> |

## **GENERAL WARNING**

- 1- Reading and fully understanding the technical data sheets relating to this equipment is essential for the best use of this high technological material that you have received. All the technical data sheets are available on request.**
- 2- Before installing and operating Dynasafe® equipment it is essential for the safe and correct operation of the material that this manual be read and fully understood and that all the instructions be followed. This manual should be made available to every operator. Extra copies of this manual will be supplied on request.**
- 3- The installation and operation of Dynasafe® equipment should only be carried out in accordance with the appropriate health and safety at work regulations.**
- 4- Never apply to the Dynasafe® a load or an effort in excess of the working load limit, and never use it for an operation for which it is not intended.**
- 5- TRACTEL SAS declines any responsibility for the consequences of dismantling or altering the machine by any unauthorised person.**
- 6- Dynasafe® equipment must not be used in explosive atmospheres.**
- 7- Dynasafe® equipment must only be used in a system designed for lifting people after ensuring that the appropriate operating coefficients have been used in accordance with the current regulations.**
- 8- Prior to the use of Dynasafe® equipment with complementary equipment relaying the signals to an operating system, the user or installer of this system should carry out a specific risk analysis of the operating functions. The appropriate measures should be taken to obviate the risks identified.**

## **INSTALLATION OF ELECTRONIC LOAD CELL HF 50**



### **Components of the load cell**

- |                        |                            |
|------------------------|----------------------------|
| A- Pulley              | D- Wire rope               |
| B- Electronics housing | E- Dynamometric axle       |
| C- Bracket for axle    | F- Position adjustment key |

### **Procedure for installing the load cell**

Replacing an existing axle by a dynamometric axle should be carried out whilst taking full account of all the operating conditions and strictly observing the safety regulations.

- Wire the load cell correctly into the control box. Secure the cable.

### **Connections**

- See monitor manual or display associated with the load cell.

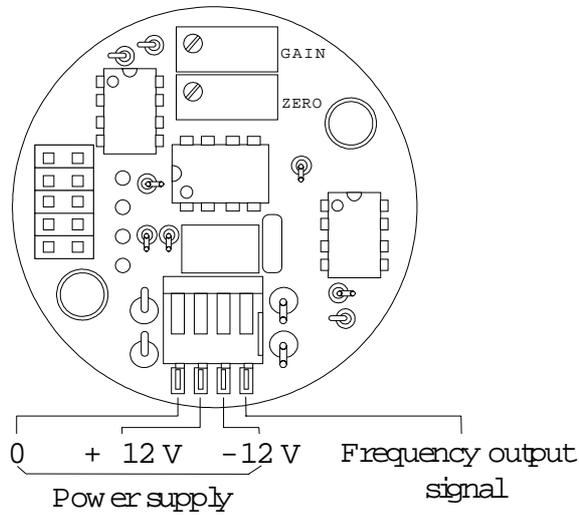
### **Important notes**

The accuracy and the repeatability of the signal from the dynamometric axle depends to a large extent on the mechanical (rigidity) and geometric quality of the axle bracket. The dynamometric axle is designed to measure a shearing force (with the connecting socket downwards). All other constraints, such as compression, traction, twisting induced during installation or existing afterwards adversely affect the correct operation of the load cell. Electronic components are incorporated in the different parts of the dynamometric axle, which requires particular precautions to be taken during installation. In particular :

- The axle must be positioned without any direct knocks. The axle, when in position, must be able to be turned by hand before being fixed in place.
- Carry out any welding or soldering work on the overhead crane before installing the load cell.
- Do not allow any dust or conductive particles to enter the electronics housing.

# LOAD CELL CONNECTION

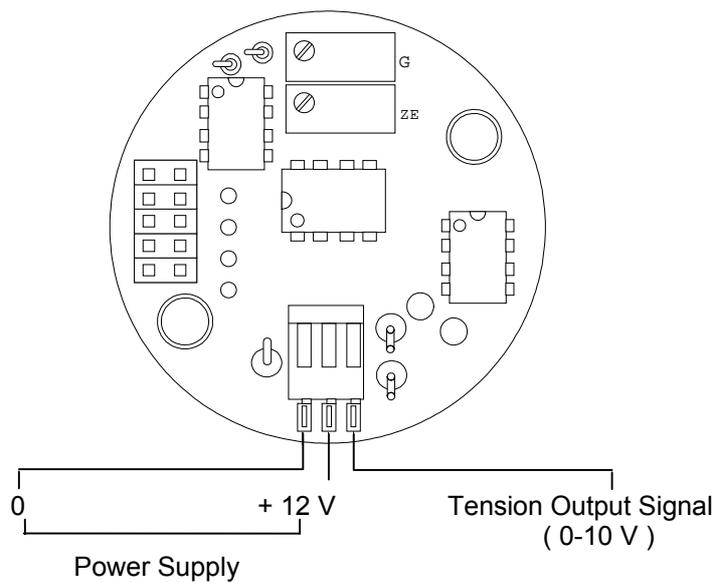
## 1) Frequency output (Standard Dynasafe)



Electronic equipment combined with:

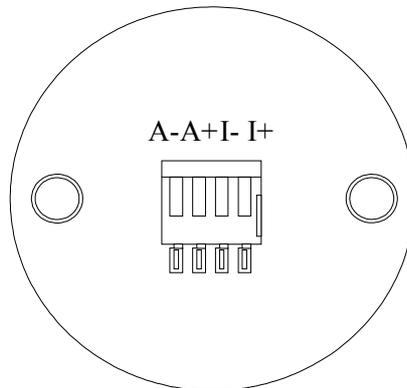
- HF 80/1 and HF80/2 monitors
- HF 87/1 – HF 87/2 – HF 87/3 displays
- HF83/2 and HF83/4 sum units

## 2) Tension output (Option)



## LOAD CELL CONNECTION

### 3) Strain gauge bridge output (option)

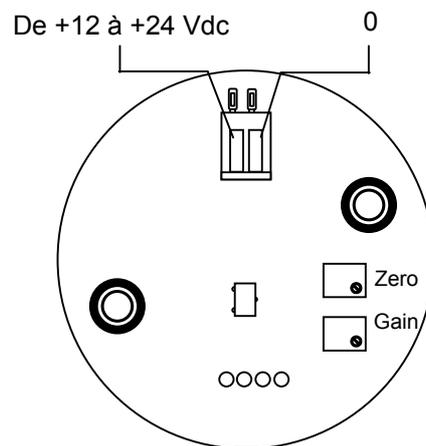


If the axle is kitted out of a plug ( LUMBERG), connectors are marked as following :

|     |        |    |
|-----|--------|----|
| N°1 | BROWN  | A+ |
| N°2 | GREEN  | A- |
| N°3 | YELLOW | M+ |
| N°4 | WHITE  | M- |

Remark : Electric connection between the load cell and control equipment will have to be made with a shielded cable (4 x 0,34 mm<sup>2</sup> ).

### 4) 4-20Amps 2 wires output (option)



Possible power supply between 12 and 24 Vdc.



**NOTES :**