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## INSTRUCTION AND MAINTENANCE MANUAL

### PROPELLER LEVEL CONTROL FOR SOLIDS MOD. "SEP"

**Manual purpose**

This manual has been designed by the Manufacturer to provide the necessary information regarding the instrument to those who are authorized to carry out safely its installation, maintenance, dismantling and disposal. All the necessary information for the buyers and planners can be found in the Sales catalogue.

Other than adopting good technical construction methods, the information should be read carefully and strictly applied. Inobservance of this information could cause risks for the health and safety of people and economical damage. This information, provided by the Manufacturer in the original language (Italian language) is also available in other languages to satisfy legislative and/or commercial needs.

This manual must be kept in a good condition by a responsible person in an ideal place so that it is always available for consultation. In case this manual is lost or deteriorated, a replacement should be requested directly from the manufacturer quoting the manual's code. This manual reflects the state of skill of the instrument at the time of input on the market: however the manufacturer reserves the right to make changes, add or improve the manual without giving any reason to hold the present manual inadequate.

**Identification of the equipment**

The identification plate represented is applied to the instrument.

To find the identification code of the instrument, consult the sales catalogue.

**Environmental conditions**

Temperature setting: min. 0°C max. + 50°C.

**It is forbidden to use the instrument other than its specific use and in potentially explosive conditions or where anti- explosive elements are used.**

**Storage**

Here below are some references to be followed for the storage of the instrument. Avoid environments with excessive humidity and those exposed to bad weather (avoid open areas). Avoid putting the instrument directly on the ground.

**Conformity declaration and EC marking**

The instrument answers to the following Communitarian Directives:

2014/30/UE	Electromagnetic Compatibility,
2014/35/UE	Low Voltage
2011/65/UE	RhOS

**Maintenance**

Reparations should be done only and exclusively at the FIAMA technical assistance centre.

Turn off the power before touching the internal parts. Clean the external plastic parts using a soft, damp cloth with ethylic alcohol or water. Do not use hydrocarbon solvents (petrols, diluants, etc.): using these products could affect the pro-per mechanical functioning of the instrument.

**Assistance request procedure**

For any kind of technical assistance request, contact the sales department of the Manufacturer directly indicating the information given on the identification plate, the number of hours used and the type of defect.

**Manufacturer's responsibility**

The manufacturer declines any responsibility in case of:

- Using the instrument contrary to the national safety and accident-prevention laws;
- Wrong installation, inobservance or wrong procedures of the instructions provided in the present manual;
- Defective electrical power supply;
- Modifications or tamperings;
- Operations carried out by untrained or unqualified personnel.

The safety of the instrument also depends on the strict observance of the procedures indicated in the manual: always operate the instrument in its functioning capacity and carry out a careful routine maintenance.

- All phases of inspection and maintenance should be done by qualified personnel.
- The configurations provided in the manual are the only ones permitted.
- Do not try to use them anyway contrary to the indications provided.

The instructions in this manual do not substitute but accomplish the obligations of the current law.

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### Description

These instruments are used for the level control in tanks that contains dust and granulate materials. The function is very simple: a synchronous motor that rotates at low speed powers a propeller inside the tank, in failing of material the starter goes under voltage and the propeller rules. The presence of material around the propeller brakes the rotation and causes an exchange in the drive contact; a second micro-switch causes the detachment of voltage feeding of the starter. The opening or closing of the electric circuit defines the command of an acoustic or visual signal, or the same silo load, conveyors stop, stop and start of worm conveyors

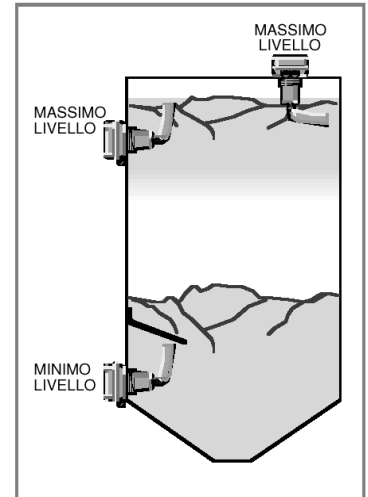
### Installation

The instrument controls the maximum or verifies the minimum level: the working conditions are the same. The instrument has to be applied on the outside wall of the container, sideways or in head, by the means of the 6-bore-flange.

During installation it is recommended to remove the protective sponge inside the instrument.

Plastic case (for alimentary use), with 2 output presscables.

- Tight execution for working.
- The steel shaft is mounted on hermetic ball bearings.
- Plastic propeller.
- Adjustment screw of the spring strength.
- 6 holes plate for assembly or mounting plate, supplied on request.
- The shaft with propeller is 15, 30, 50, 70, 100 cm long.

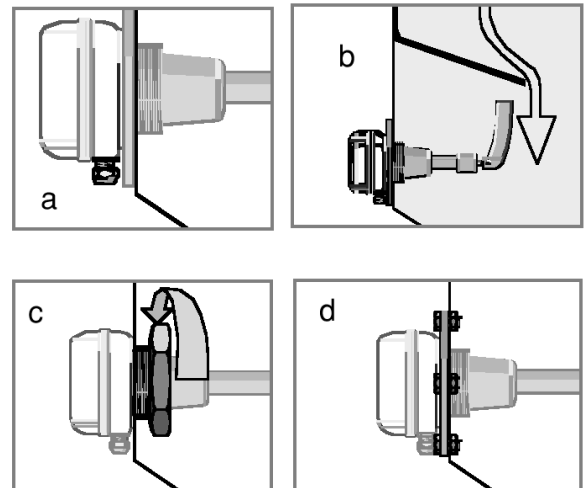


### Care in mounting

By sideways mounting the presscables have to be directed downward (fig. a).

In case of heavy material on the propeller, for example materials with a high specific weight or subject to mass movements, it is necessary to dispose a protection deflector of 8-10 cm about, on the top of the level indicator (fig. b).

The indicator has to be fixed using 6 screws type M6 (mounting plate) or using a threaded hub 2"1/2 inch GAS with a nipple (fig c, d)

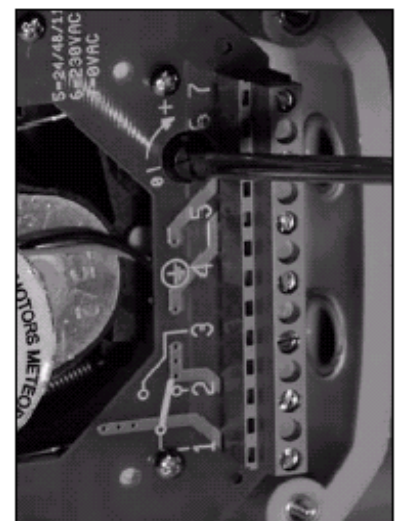


### Instruction for ajustement of spring power

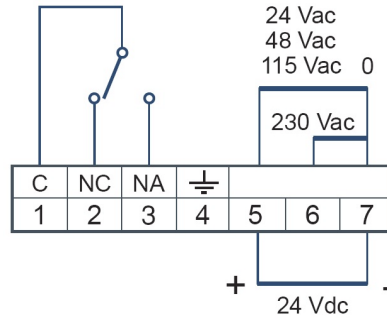
The indicators SEP are usually supplied with the pressure-spring of the starter adjusted on minimum power.

For products with a high specific weight it is advisable to increase the spring power as follows:

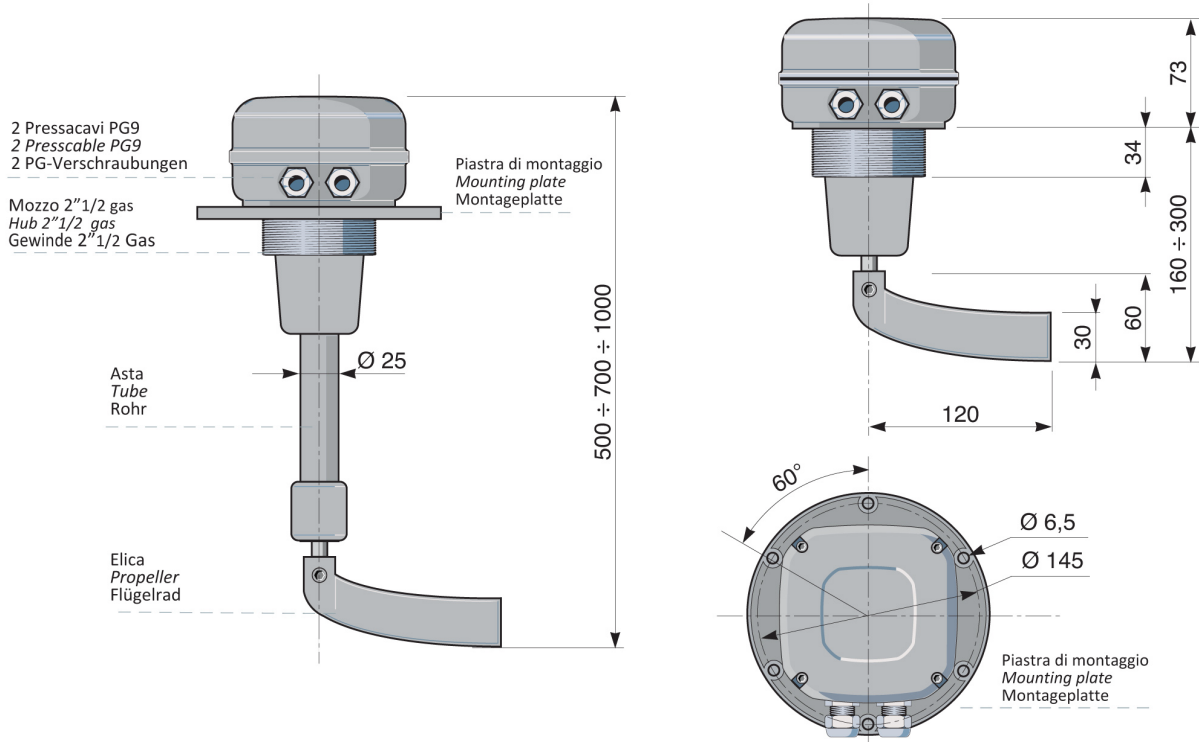
- take off the cover of the instrument,
- identify the adjustment screw in front of the terminal board,
- turn the screw, equipped with 3 adjustment releases, clockwise.



**Connection scheme**



**Dimensions**



**Technical characteristics**

Case	plastic
Protection degree	IP65
Electrical contacts	6A 250 Vac - 3A 250 Vdc
Working temperature	-10° +60°C
Power supply (available)	24 - 48 - 115 - 230 Vca ± 10% 50/60 Hz - 24 Vdc ± 10%
Absorption	3 VA
Rod lenght	15 - 30 - 50 - 70 - 100 cm
Relative umidity	10-90%
Working pressure	atmospheric

Directive: Elettromagnetic compatibility 2014/30/UE; Low Voltage 2014/35/UE, RoHS 2011/65/UE.

**Manufacturer**

All communications to the manufacturer should be addressed to:  
 FIAMA s.r.l., Via G. Di Vittorio, 5/A - 43016 San Pancrazio (Parma) - Italy  
 Tel. (+39) 0521.672.341 - Fax. (+39) 0521.672.537 – e-mail: info@fiama.it - www.fiama.it

**FIAMA srl is not responsible for any damage to persons or things caused by tamperings and wrong use and in any case that are not consistent with the features of the instrument.**