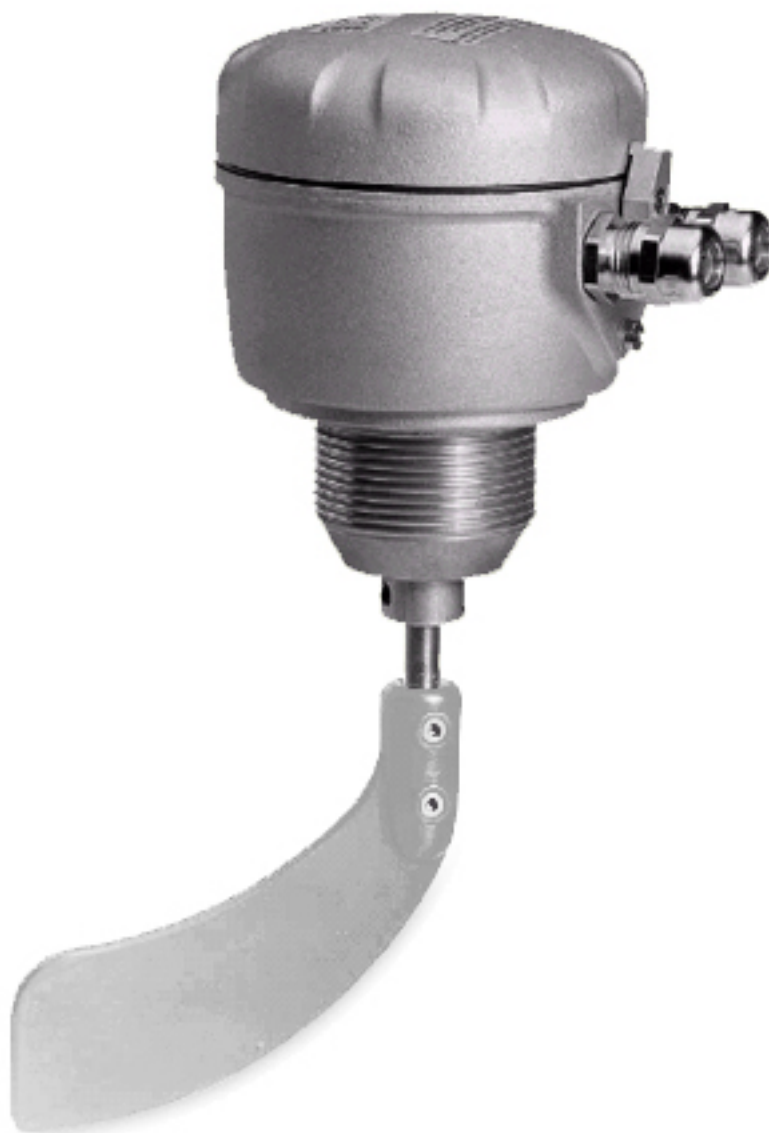




COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV GL
= ISO 9001:2015 =



USER'S MANUAL AND MAINTENANCE

PADDLE LEVEL CONTROLS FOR SOLIDS SL

Manual purpose

This manual has been designed by the Manufacturer to provide the necessary information regarding the device SL_ 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) is also available in other languages to satisfy legislative and/or commercial needs. A responsible person in an ideal place must keep this manual in good conditions so that it is always available for consultation. In case this manual is lost or deteriorates, 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 on the instrument.

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

Environmental conditions

Temperature working: min. -15°C, max. + 60°C.

It is forbidden to use the instrument other than its specific use.

Do not install in environments with potentially explosive atmosphere.

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/EU Electromagnetic compatibility, 2014/35/EU Low voltage, 2011/65/EU RoHS.

Maintenance

The instrument does not need a particular maintenance except cleaning to do only with a soft cloth dampen with ethylic alcohol or water. Do not use hydrocarbon solvents (petrol, diluents, etc.): the using of these products could affect the proper functioning of the instrument.

Verify the intact of case, the mobility of paddle, and general functioning.

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

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 tampering.
- Operations carried out by untrained or unqualified staff.

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.

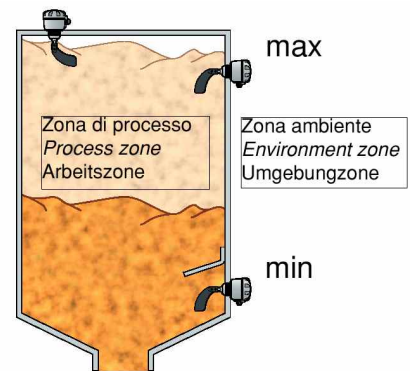
- All phases of inspection and maintenance should be done by qualified staff.
- The configurations provided in the manual are the only ones permitted.
- Do not try to use it anyway contrary to the indications provided.
- The instructions in this manual do not substitute but accomplish the obligations of the current legislation regarding the safety laws.

Description

The **SL** level controls are employed for the level control in tanks that contain powders or granulars. The indicator's working is very simple: a synchronous motor that rotates at low speed activates a paddle placed inside the tank to be controlled. In lack of material, the motor is under voltage and the paddle revolves. The presence of material round the propeller bridles the rotation provoking control contacts exchange. Electric circuit opening and closing causes the command of an acoustic or visual signal, or the silo's load, the conveyors and worm conveyors stop etc.

The material should be free to move round the paddle, that should be not fouled by the material direct jet: so arrange baffles on the indicator when weight on propeller is high (high specific weight material or subject to move in block ones).

1. Case of instrument is in die-cast aluminium with two press-cables for output.
2. Shaft, made of stainless steel, is mounted on water-proof ball-bearings, and dust-proof ring.
3. Assembling plate with threaded hub 2"1/2 GAS.
4. Rod (with paddle holder shaft) is available in lengths cm.15, 30, 50, 70, 100 in standard versions.



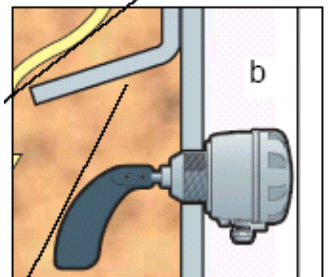
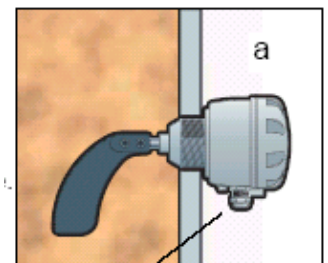
Assembling

The instrument is not suitable to be used in potentially explosive atmosphere.

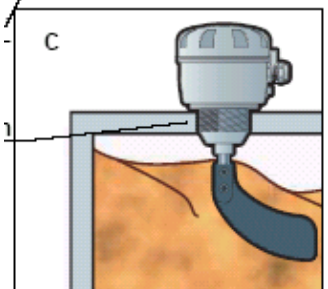
Provide for a protection against short circuit of power supply following EN 60079-14.

Precautions in assembling

In side mounting of level control, the press-cables has to be directed downward (picture a). In case of use of only one press-cable , mount a cover (available on request). Once made electrical connections, close the cover strength and block with the suitable clamp. It is advisable to tighten the press-cables after putting in the cable.



It is necessary to provide a protection deflector at about 8-10 cm over the level control, when weight of material on paddle is very high, for example: material with high specific weight or subject to block movements (picture b).



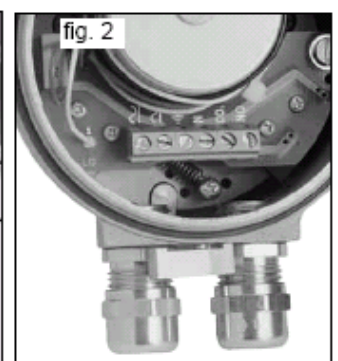
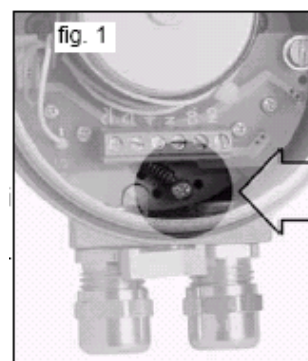
The level control has to be fixed on threaded hub 1"1/2 GAS, using a coupling or a lock nut (picture c).

Instructions for adjustment of spring strength

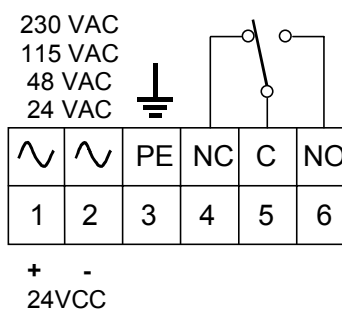
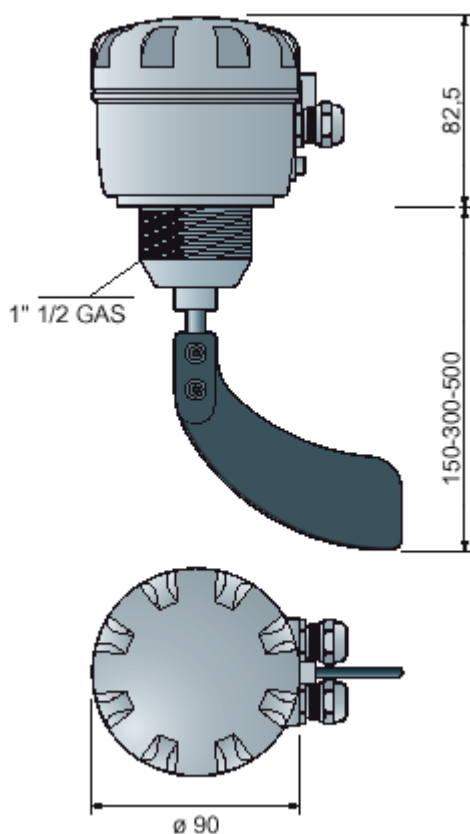
The level controls **SL** are usually supplied with spring of motor regulated with low tension strength.

For high specific weight products it is advisable to increase the spring tension:

- take off the cover
- identify hold-screw of the spring (picture 1), in front of terminal board
- move the screw to increase (or decrease) the tension of the spring (picture 2).



Dimensions - Electrical connection



Technical characteristics

Case	aluminium
Protection degree	IP65
Electrical contacts	6A 250 Vac - 3A 250 Vdc
Working temperature	-15° +60°C ambient, -15° +80°C process
Power supply	24 - 115 – 230Vac ± 10% 50/60 Hz – 24Vdc ± 10%
Absorption	3 VA
Cable entries	Cable gland M16x1,5
Shaft length	15 - 30 - 50 cm, others values on request
Relative humidity	10-90%
Working pressure	atmospheric
Directive: 2014/30/EU Electromagnetic compatibility, 2014/35/EU Low voltage, 2011/65/EU RoHS	

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 tampering and wrong use and in any case that are not consistent with the features of the instrument.