TECHNICAL INSTRUCTIONS

NIVA 5

V3.0

CONTENTS

TECHNICAL CHARACTERISTICS

Mains supply Voltage	230V +/- 10% 50Hz
Outputs Filling solenoid valve Filtering manual override Filtering pump impeded	24 V 50Hz (12 VA max.) Dry contact NO 200 W max. Dry contact NF 200 W max.
Level sensors	5 probes (NIVA 5)

Important note:

- The liability of the installer is directly engaged by the work he does.
- In particular, risks associated with bad installation, a system fault and a supply problem must be taken into account:
  - Risk of flooding, if an overflow had not been planned for at the level of the buffer tank.
  - No opening of the solenoid valve by corrosion of the connections.

Accessories delivered with the NIVA box

- 5 SE-1 probes. (NIVA 5)
- One solenoid valve (24V, connection 1")
- One filter for filling solenoid valve (max pressure 4 bars).

Fitting this filter is compulsory and is a condition of the NIVA system warranty validity.

- 1 supply cable

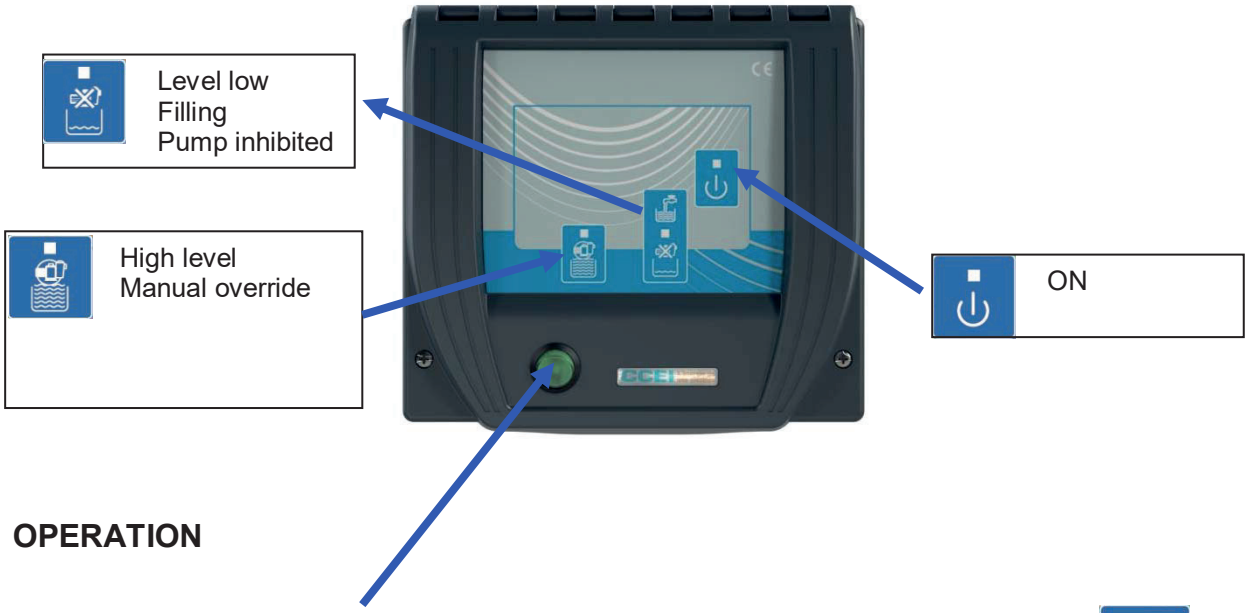
DESCRIPTION

Specially suited for overflow pools, this regulation device keeps the water level constant in the buffer tank. The NIVA system automatically controls:

- The filling of the pool and the inhibition of the pump when the level is too low.
- The manual overriding of the filtering pump if the level is too high.

THE DISPLAY

The device displays the condition in which it is.



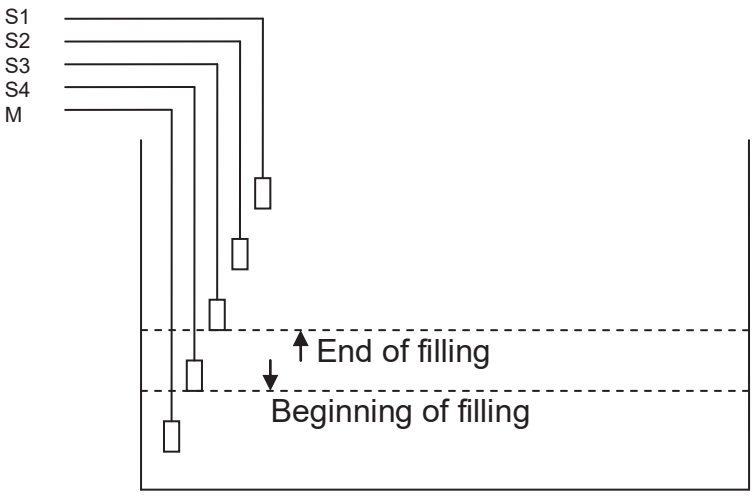
OPERATION

The system is switched on by the switch on the front panel of the box. The ON light has to light up.

No water / Filling

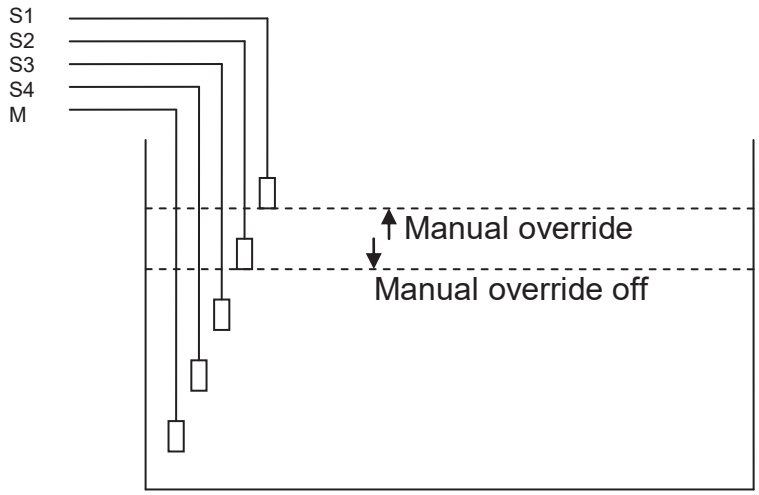
As soon as the level of the buffer tank goes down below the "beginning of filling" level (only the reference probe in the water), the filling solenoid valve is activated and the buffer tank is filled until the "end of filling" level (3 probes in the water) is reached again.

The system prevents the pump from operating during this time and allows it to operate again only when the level goes above the probe S3.



When the water level is low, the filling light lights up.

The Overflow Function ***(Only for the NIVA5 model)***

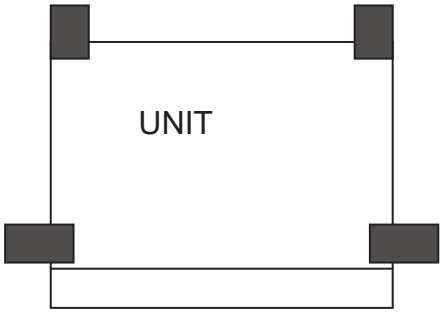


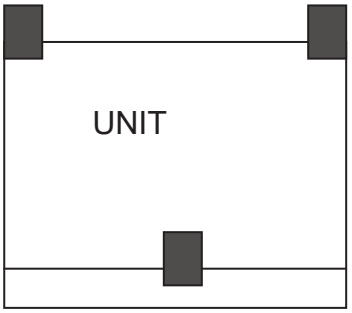
The overflow is detected when the water level is over the probe S1. The filtering pump is then on manual override until the level goes back down to below the probe S2.

When the water level is high the overflow light lights up.

FIXING THE UNIT

4 fixing feet and 4 bolts are delivered with the unit. Fixing is possible by following one of the two models shown bellow.





CONNECTION

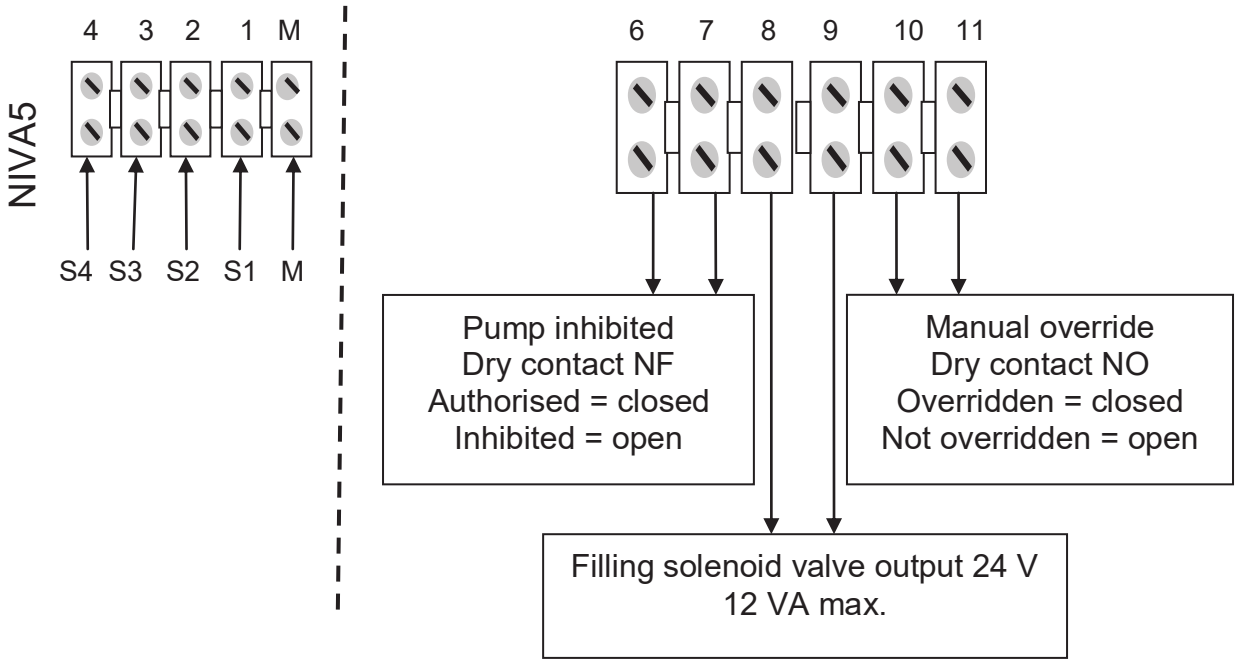
The NIVA must be connected to the electrical unit to control the filtering. For example, when the level is too low, NIVA impedes the operation of the pump (« Pump inhibited »). On the other hand, when the level is too high in the buffer tank, NIVA overrides the operation of the pump to send water into the pool – “manual override”.

YOU ARE STRONGLY ADVISED TO HAVE THE ELECTRICAL CONNECTION DONE BY A PROFESSIONAL ELECTRICIAN.

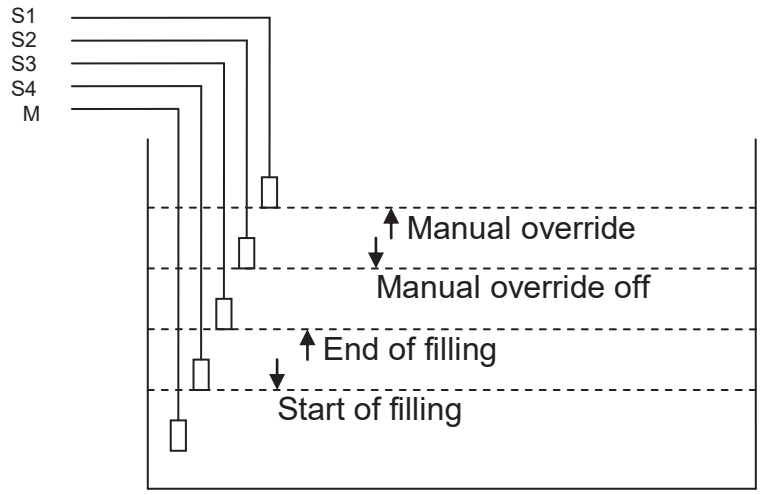
TO OBSERVE STANDARD NF C 15 100 IL, YOU MUST CHECK UPSTREAM FROM THE UNIT FOR THE PRESENCE OF A DIFFERENTIAL PROTECTION DEVICE CALIBRATED AT 30mA.

CONNECTION TERMINAL BOARD

Before connecting NIVA to the mains, check the protection by a 30mA differential protection device for supply.
The supply must be permanent and efficiently protected against over voltage and any overloads.



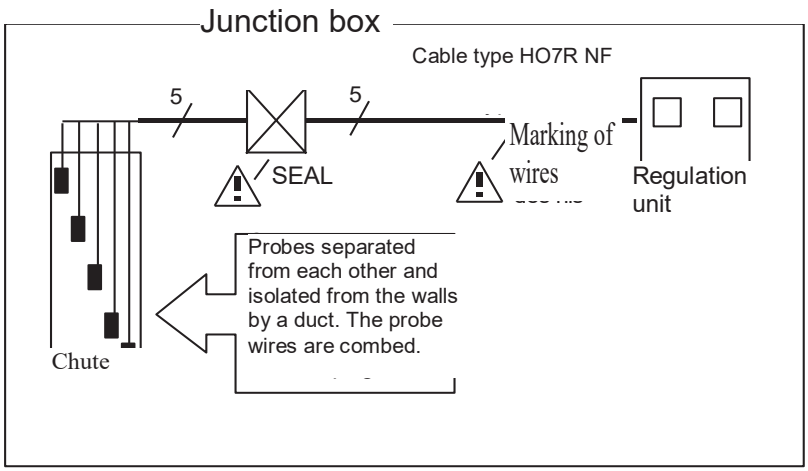
Connecting the probes



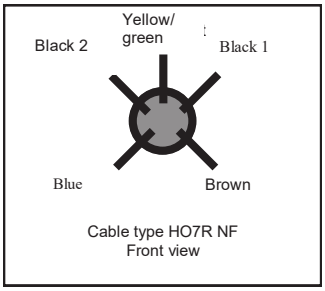
NIVA 5 uses 5 level probes. The probes must be positioned in the buffer tank so that the manual override level (S1) is below the buffer tank overflow.

> ***Warning:*** To guarantee the reliability of detection, you are advised to install the probes in a chute or a PVC pipe in order to isolate them from the wall and to keep them separate. The probes must be fixed at the desired height to prevent their movement and to avoid any pulling on the wire. The probe wires must be guided to avoid their becoming tangled.

The probes are supplied with a length of cable which can prove insufficient to connect them to the regulation box. You are then advised to prolong the cables by using a junction box. The connection between the regulation box and the junction box should not exceed 50 m and will be made with a 5-strand flexible cable for the NIVA 5 (or 3 strand flexible cable for the NIVA3) 1.5 mm ² (HO7RNF type for example). To ensure a good performance of the installation, it is essential to ensure the sealing of the junction box and good galvanic insulation of the contacts. The use of silicone adhesive is recommended.

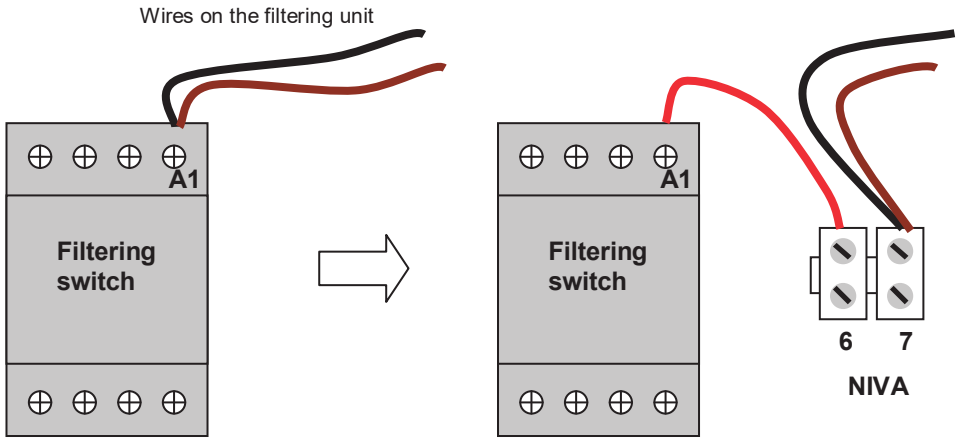


To avoid wiring errors, the multi-strand wires must be clearly marked, particularly if the 5 strands are not of different colours. For the RO2V for example, care should be taken to mark the position of the 2 black wires.



Connecting the pump inhibition

Connect terminals 6 and 7 to the C and D terminals of the CCEI filtering units. (The NIVA provides a normally closed dry contact). If these terminals are not available, disconnect the wire(s) connected to terminal A1 of the filtering switch. Connect this or these wire(s) to terminal 6 of the NIVA, then connect terminal A1 of the switch to terminal 7 of the NIVA.



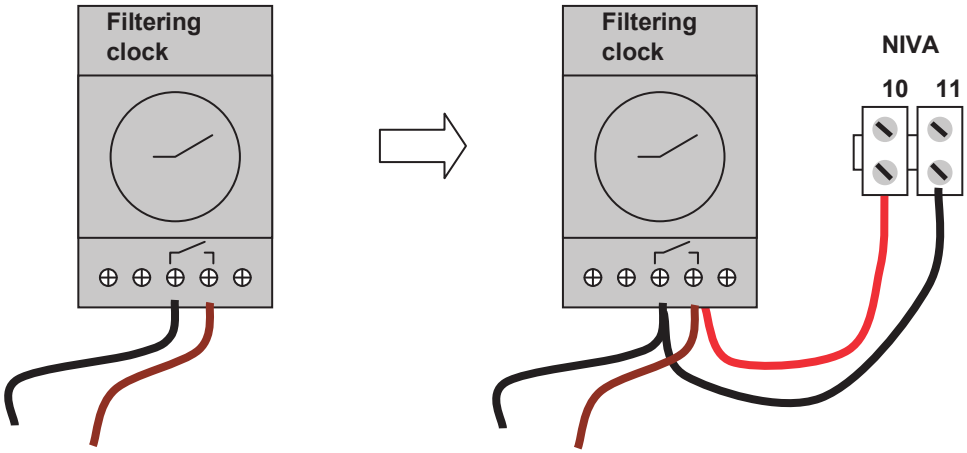
Connecting the solenoid valve

The NIVA has an output (terminals 8 and 9) to supply a filling solenoid valve. This solenoid valve is delivered with the unit and is directly supplied with 24 V AC from the NIVA.

WARNING: Never connect any type of solenoid valve other than the one supplied with the NIVA.

Connecting the manual override

Connect terminals 10 and 11 to the A and B terminals of the CCEI filtering units. (The NIVA provides a normally open dry contact). If these terminals are not available, connect terminals 10 and 11 to the filtering clock contact.



NIVA

Date of sale:.....

Serial number:.....

Declaration CE

The company CCEI S.A.S (FR 47 40 35 21 693) declares that the NIVA product satisfies the requirements of safety and electro-magnetic compatibility of European directives.

Electrical safety 2006/95/CE (Low Voltage Directive)
Electro magnetic compatibility 2004/108/CE (CEM Directive)

Environment 2002/95/CE (RoHS Directive) and 2002/96/CE (DEEE Directive)

Emmanuel Baret
15/07/2013

Distributor's stamp

CCEI

www.ccei.fr