

# PresSystem



Manual utilizare Presostat electronic Pressystem







Made in Italy

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## 1. Atentionari

## Warning

	<p><b>PERICOL</b> Risc de vatamare personala si a bunurilor daca nu se respecta instructiunile <b>PERICOL DE CURENTARE</b> Risc de soc electric daca nu se respecta instructiunile</p>	<p><b>DANGER</b> Risk of personal injury and property if not complied with the requirements <b>ELECTRIC SHOCK</b> Risk of electrical shock if not complied with the requirements</p>
	<p><b>AVERTIZARE</b> Risc de distrugere a proprietatii sau a mediului daca nu se respecta instructiunile.</p>	<p><b>WARNING</b> Risk of damage to property or the environment if not complied with the requirements.</p>
	<p><b>AVERTIZARE</b> Inainte de a instala si a folosi produsul, cititi cu atentie manualul de utilizare. Instalarea, mentenanta si depanarea trebuie facuta de catre personal calificat, in deplin acord cu legislatia. Producatorul, <u>MAC3</u> si importatorul, <u>Expert Instal Group SRL</u> nu sunt raspunzatori pentru nici o dauna provocata de utilizare, instalare sau depanare defectuoasa (gresita). Folosirea de piese de schimb altele decat cele originale, manipularea sau utilizarea defectuoasa duc la pierderea garantiei.</p>	<p><b>WARNING</b> Before installing and using the product read this book in all its parts. Installation and maintenance must be performed by qualified personnel in accordance with current regulations. MAC3 will not be held responsible for any damage caused by improper or prohibited use and is not responsible for any damages caused by a not correct installation or maintenance. The use of non-original spare parts, tempering or improper use, make the product warranty null.</p>
	<p><b>AVERTIZARE</b> PresSystem trebuie instalat conform descrierii din paragraful "Instalare" Instalatia hidraulica trebuie configurata si dimensionata corect pentru a evita socurile de presiune (lovitura de berbec). Amortizorul de socuri, instalat pentru a evita socurile de presiune trebuie sa beneficieze de intretinere regulata. Avand in vedere ca PresSystem este un dispozitiv electric, in cazul in care este deteriorat din cauza socurilor de presiune, infiltrarea apei in aparat este periculoasa. Contactul apei cu circuitele electrice pot cauza distrugeri.</p>	<p><b>WARNING</b> PresSystem must be installed as described in the paragraph "Installation" You must project correctly the hydraulic connection to avoid pressure shocks. The shock absorber, installed to avoid pressure shocks, must be keep under a correct maintenance.  PresSystem is an electric device, if the case will be damage by pressure shocks a possible water infiltration could be dangerous due to the contact between electric components.</p>
	<p><b>Pericol</b> PresSystem este etichetat CE (conform normelor europene), dar in cazul instalarii incorecte poate cauza interferente electromagnetice. Verificati functionarea corecta a celorlalte dispozitive electrice detinute in timp ce</p>	<p><b>DANGER</b> PresSystem is CE labelled but in the case of wrong installation can cause electromagnetic interference. Verify the correct operation of other electronic devices with PresSystem on</p>

	<p>PresSystem este pornit. Functionarea defectuoasa a echipamentelor electrice poate fi daunatoare persoanelor si proprietatii.</p> <p>In cazul unor interferente electromagnetice inchideti reseaua electrica si contactati tehnicieni specializati.</p> <p>Inainte de orice interventie asupra produsului, asigurati-va ca PresSystem este deconectat de la reseaua electrica.</p> <p>Nu incercati nici o interventie asupra PresSystem in timp ce este pornit.</p> <p>Conectarea PresSystem la panoul electric trebuie facuta de catre personalizat specializat conform normelor in vigoare.</p> <p>PresSystem trebuie protejat cu un comutator/siguranta termic(a).</p> <p>PresSystem trebuie conectat la o instalatie cu impamantare functionala si eficienta.</p>	<p>and running. Malfunction of equipment can be harmful to people and property.</p> <p>In the case of electromagnetic interference contact technical support and stop the plant.</p> <p>Before any intervention ensure that the PresSystem is disconnected from the electricity supply.</p> <p>Do not attempt operations with the PresSystem open.</p> <p>The connection of the PresSystem to the electric panel must be carried out by qualified personnel in accordance with current norms .</p> <p>PresSystem must be protected by a thermal switch.</p> <p>PresSystem must be connected to an efficient ground system</p>
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## 2 INFORMATII GENERALE - GENERAL REMARKS

Prin acest manual incercam sa oferim informatii esentiale pentru instalarea, folosirea si intretinerea Epower.

Este important ca utilizatorul si/sau instalatorul sa citeasca atent manualul inainte de instalarea si folosirea produsului. Instalarea si folosirea incorecta pot cauza pagube si pot duce la anularea garantiei.

Intotdeauna specificati datele de identificare ale modelului in momentul in care va adresati tehnicienilor service sau cand comandati piese de schimb.

In cazul in care aveti nevoie de instructiuni sau sunteti intr-o situatie ce nu este acoperita de acest manual, va rugam contactati departamentul de suport tehnic.

This manual intends to provide essential information for the installation, use and maintenance of the product PresSystem.

**It's important that the user and / or installer reads this manual in all its parts before installing and using the product.**

Improper use can cause damage and result loss of warranty.

Always cite the exact model number if they are to be requested technical information or spare parts to our sales and assistance service.

For instructions, situations and events not covered by this manual, please contact the customer service.

2.1

PresSystem este un produs nou de la Mac3, realizat sa controleze pornirea si oprirea unei pompe monofazate. Poate fi folosit in instalatii rezidentiale pentru a inlocui presostatul mecanic traditional. Folosirea unui microcontroler protejeaza pompa de mersul fara apa si supratensiune (numai vers. COS $\phi$ ).

PresSystem este un dispozitiv:

- Auto-programabil sau programabil de catre utilizator
- Se adapteaza oricarei pompe sau oricarei inaltime de pompare.

The PresSystem is a new electronic product by MAC3, designed to control the start and stop of single-phase pumps. It can be used in residential pressurization systems, to replace the traditional pressure switch. The use of a microcontroller also allows to protect the pump from dry running and overcurrent (vers. COS $\phi$ ).

PresSystem is a device:

- self-programmable or programmable by the user
- Adapts to any pump and at any height of the system

- PresSystem este montat pe o teava de oțel ce facilitează instalatia
  - Senzor de presiune intern ce permite reglarea presiunii de pornire.
  - Fara supapa de sens pentru a preveni pierderea de debit
  - Protectie Lipsa Apa cu resetari automate prin sesizarea variatiei de presiune
- PresSystem is mounted on a steel tube that facilitates installation
  - Internal pressure sensor that allows adjustment of restart pressure
  - No flow valve to prevent any loss load
  - Protection against dry running with automatic

- Protectie Lipsa Apa cu resetari automate prin sesizarea variatiei amperajului  $\cos\phi$  (numai la vers. COS $\phi$ )
  - Protectie ajustabila la supratensiune amperaj (numai vers. COS $\phi$ ).
  - Intrare auxiliara programabila:
    - a. Pentru legarea unui flotor
    - b. Pentru pornirea pompei dintr-o comanda externa
  - Protectie pentru resetari multiple din cauza pierderilor sau lipsei unui vas de expansiune.
  - PresSystem poate functiona ca un presostat mecanic traditional.
- restarts through the control of the pressure variation
- Protection against dry running with automatic restarts through the change of  $\cos\phi$  (vers. COS $\phi$ )
  - Adjustable amperometric protection (vers. COS $\phi$ ).
  - Configurable auxiliary input:
    - a. for the connection of a float switch
    - b. to drive a pump as a function of an external command
  - Protection for frequent restarts due to loss or absence of an expansion tank
  - PresSystem can work as a pressure switch

## 2.3



- Temperatura ambientala: intre +5°C si +40°C
  - Umiditate relativa maxima: 50% la +40°C (fara condens)
  - Temperatura lichidului pompat: intre +1°C si +40°C
  - Tipul lichidului pompat: Apa fara chimicale adaugate (ph 5÷9) si fara materii solide sau vascoase ce pot obstructiona teva de 1"
  - PresSystem nu poate fi utilizat in instalatii cu lichide abrazive, solide fibroase, lichide inflamabile, explozive sau chimicale agresive.
  - PresSystem trebuie instalat in locuri ferite de inghet si de intemperii.
  - Instalarea PresSystem trebuie facuta intr-un sistem ce nu este expus loviturilor de berbec (ex: cu vas de expansiune). Vasul de expansiune trebuie intretinut corespunzator.
- Ambient temperature between +5°C and +40°C
  - Max humidity: 50% at +40°C (without condensation)
  - Temperature of fluid between +1°C and +40°C
  - Nature of liquid: water with no chemical add (ph 5÷9) and with no solids acts to obstruct the pipe 1"
  - PresSystem can not be used with abrasive liquids, solids fibrous, flammable, explosive and aggressive.
  - PresSystem must be installed in a place protected from frost and bad weather.
  - The installation of PresSystem in a hydraulic system must be designed to avoid overpressure due to water hammer. The expansion tanks must be properly maintained.



## 2.4

<b>Alimentare</b>	1 x 230Vac / 1 x 117Vac	<b>Power supply</b>	1 x 230Vac / 1 x 117Vac
<b>Tipul pompei</b>	1 x 230Vac / 1 x 117Vac	<b>Pump</b>	1 x 230Vac / 1 x 117Vac
<b>Amperaj max. pompa</b>	8 Amperi	<b>Pump current</b>	8 Ampere
<b>Putere max. pompa</b>	Vers. 230Vac 1,5 kw (2hp) Vers. 117Vac 0,75 kw (1hp)	<b>Max pump power</b>	Vers. 230Vac 1,5 kw (2hp) Vers. 117Vac 0,75 kw (1hp)
<b>Intrare Aux.</b>	1	<b>Aux In</b>	1
<b>Display</b>	7 cifre/litere	<b>Display</b>	7 segments
<b>Protectie Amperaj (vers. cosφ)</b>	2-12 Amperi	<b>Amperometric prot. (vers. cosφ)</b>	2-12 Ampere

<b>Montaj</b>	Pe teava	<b>Mounting</b>	on pipe
<b>Pozitie montaj</b>	Oricare	<b>Mounting position</b>	Any
<b>Grad de protectie</b>	IP50	<b>Protection rating</b>	IP50
<b>Temp. ambientala</b>	5°C ÷ 50°C	<b>T. operating</b>	5°C ÷ 50°C
<b>Temperatura lichidului</b>	1°C ÷ 40°C	<b>Liquid temperature</b>	1°C ÷ 40°C

<b>Teava</b>	AISI 304	<b>Pipe</b>	AISI 304
<b>Filete</b>	1" exterior potrivit si pentru tevi de 1 ¼"	<b>Input/Output</b>	1" male suitable for pipes of 1 ¼ " (see Pressure drop)
<b>Presiune de lucru</b>	1,5 - 8 bar	<b>Working pressure</b>	1,5 - 8 bar
<b>Presiune de Restart (minima)</b>	0,6 - 7 bar	<b>Restart pressure</b>	0,6 - 7 bar
<b>Diferenta minima programabila intre minim si maxim</b>	0,3 bar	<b>Min. diff. pressure</b>	0,3 bar
<b>Debit maxim</b>	120 lt/min	<b>Max flow</b>	120 lt/min
<b>Pierdere de presiune</b>	<14mbar pentru debit de 150 lt/min	<b>Pressure drop</b>	<14mbar for flow of 150lt/min
<b>Suprapresiune maxima</b>	20 bar	<b>Max Overpressure</b>	20 bar
<b>Lipsa apa</b>	<ul style="list-style-type: none"> <li>- Protectie prin sesizarea variatiei presiunii</li> <li>- Protectie prin sesizarea variatiei amperajului cosφ</li> </ul>	<b>DryRunning</b>	<ul style="list-style-type: none"> <li>- Protection with pressure control</li> <li>- Protection with cosφ control</li> </ul>

<b>Omologari</b>	CE	<b>Approval</b>	CE
<b>Material dispozitiv</b>	PP	<b>Body Material</b>	PP
<b>Dimensiuni</b>	17x23x8,2 cm	<b>Dimensions</b>	17x23x8,2 cm
<b>Greutate</b>	0,6 kg	<b>Weight</b>	0,6 kg

### 3 INSTALARE - INSTALLATION

3.1

- PresSystem poate fi instalat in orice pozitie.
  - Inainte de a instala dispozitivul, amorsati corect pompa. Instalati PresSystem in apropierea pompei (la pompele de suprafata). Verificati ca nu exista vibratii daunatoare daca PresSystem este instalat direct pe pompa.
  - Folositi pentru instalatie tevi de dimensiune egala sau mai mare cea de pe PresSystem.
  - Evitati pozitionarea in locuri susceptibile la formarea condensului.
  - Evitati plasarea dispozitivului in locuri unde temperatura poate scadea sub zero grade Celsius (0°C).
  - **Instalati un vas de expansiune** pentru a evita pornirile repetate ale pompei. Folosirea unui vas de expansiune protejeaza instalatia de Loviturile de Berbec (suprapresiune), ce pot defecta instalatia. Vasul de expansiune se va monta numai dupa PresSystem. Pentru dimensionarea corecta a vasului de expansiune se recomanda instalarea unui vas cu capacitatea de 10% din debitul maxim al pompei:
- PresSystem can be installed in any position.
  - Before installing the device, make the perfect priming pump.
  - Install the PresSystem near the pump. Check that there are no vibrations that can damage the device when PresSystem is mounted directly on the pump.
  - Use pipes with a diameter not less than the pipe of PresSystem.
  - Avoid places where it is possible condensation.
  - Avoid locations where the temperature can drop below zero degrees Celsius (0°C).
  - **Install an expansion tank** to avoid continuous restarts of the pump that could increase the consumption of electrical energy regardless of the used device.  
The use of the expansion tank avoids overpressures that could be damaging for the system

#### **EXEMPLU:**

Pompa de 100lt/min → vas de expansiune de 10lt

Valoarea presiunii de pre-incarcare cu aer a vasului de expansiune trebuie sa fie aprox. 80% din presiunea instalatiei

For correct sizing of the expansion tank is recommended to install an expansion tank 10% of the maximum capacity of the pump:

#### **Example:**

Pump 100lt/min → expansion tank 10lt

The value of expansion tank pre-charging must be about 80% of the system pressure.

Pentru intretinerea usoara a instalatiei hidraulice:

For easier maintenance of the hydraulic system:

- Este recomandata montarea unei supape de sens la absorbtia (intrare) pompei (vezi Figura 1).
  - Este recomandata instalarea unui manometru de citire a presiunii.
  - Este recomandata conectarea PresSystem cu teava prin racord olandez.
  - Este recomandata instalarea unui robinet in apropierea PresSystem in linie cu vasul de expansiune.
  - Vasul de expansiune, robinetul sau orice alt consumator nu trebuie montat inaintea PresSystem.
- It is recommended the insertion of a non-return valve at the inlet (Figura 1).
  - It is recommended to install a pressure gauge reference.
  - It is recommended to install the PresSystem using a 3-piece union fittings.
  - It is recommended to install a tap near the PresSystem and in series with the expansion tank

Di seguito schema d'esempio di un tipico impianto con pompa di superficie:

Example of a typical system with surface pump:

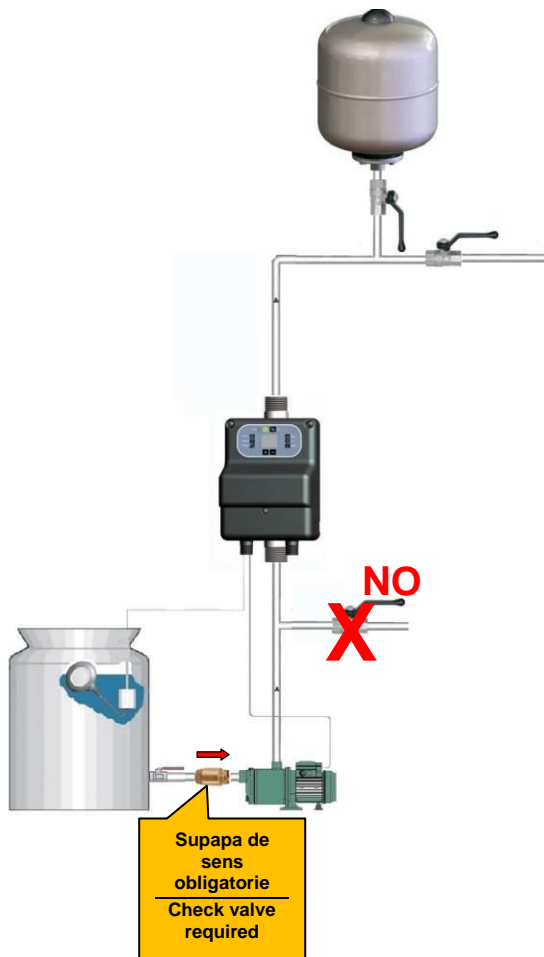


Figura 1



**3.2**

PresSystem este echipat cu un terminal de conexiuni accesibil prin capacul frontal al dispozitivului. Aici se realizeaza conexiunile cu firele de alimentare si de legatura cu pompa.

Pentru efectuarea legaturilor necesare:

- Inlaturati capacul frontal
- Introduceti cablurile in presetupa
- Conectati cablul de alimentare (faza, nul, impamantare) la instalatia electrica monofazata printr-o siguranta dimensionata in functie de puterea pompei.
- Conectati cablul de legatura la pompa (faza, nul, impamantare)
- Cablul de legatura cu pompa trebuie sa fie dimensionat in functie de lungimea traseului.

**Exemplu:**

Sectiune cablu mm <sup>2</sup>	Lungimea max mt
1.5	20
2.5	50

**Atentionari:**



Toate componentele interne ale dispozitivului sunt sub tensiune electrica. In caz de contact exista riscul de moarte.



Instalarea si intretinerea trebuie facuta numai de catre personal calificat, folosind echipament de protectie si unelte potrivite. In cazul unei defectiuni, deconectati alimentarea electrica.

Dispozitive de protectie:

- Folositi Impamantare de siguranta
- Alegeti echipamente de siguranta in conformitate cu reglementarile locale
- Folositi un intrerupator (siguranta) automat de curent static.

The device is provided with a terminal, accessible through the front door to connect the power cords of PresSystem and the cables for the pump.

To make the necessary connections:

- Remove the front door
- Pass the cables in their cable glands
- Connect the input cable (phase, neutral, ground) to the single-phase line through a circuit breaker sized according to the pump rating
- Connect the output cable (phase, neutral, ground) to the pump
- Connect the pump with a cable section adapted according to its length

**Example:**

Section mm <sup>2</sup>	Lenght max mt
1.5	20
2.5	50

**WARNING:**



All internal parts of the drive are under power supply. In case of contact may sussit risk of death.



All installation and maintenance work ,must be performed by qualified staff using suitable instruments! Staff must use suitable protective equipment. In the event of a fault, disconnect or switch off the power supply.

Safety devices

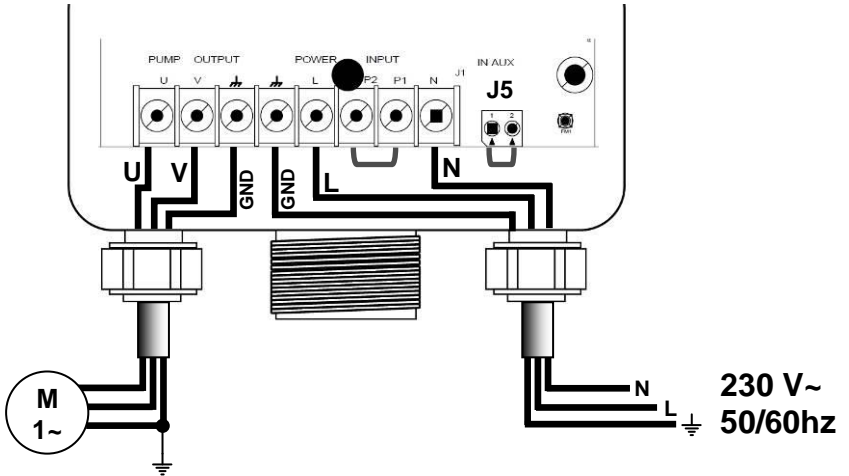
- Safety earthing
- Choose a suitable safety device according to local regulations
- Use an automatic residual-current device

Cateva exemple de legaturi electrice:

Some examples of connection:

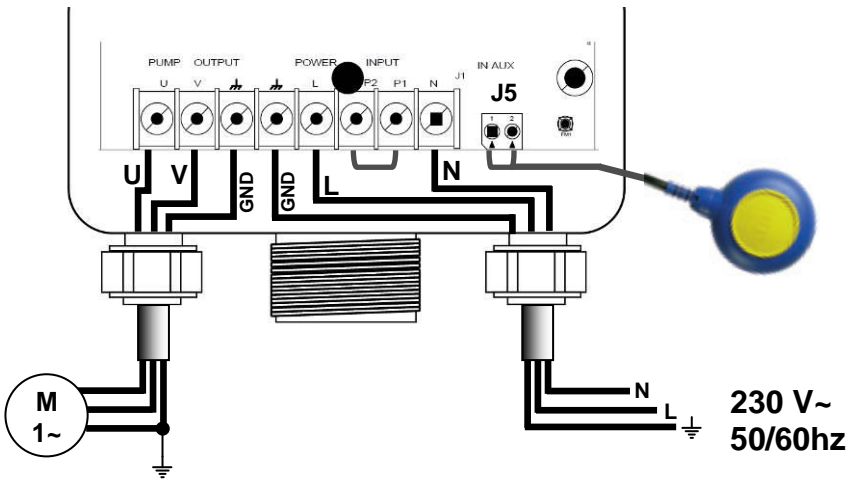
Conexiune standard pentru vers. **230Vac**

Standard connection **230Vac** version



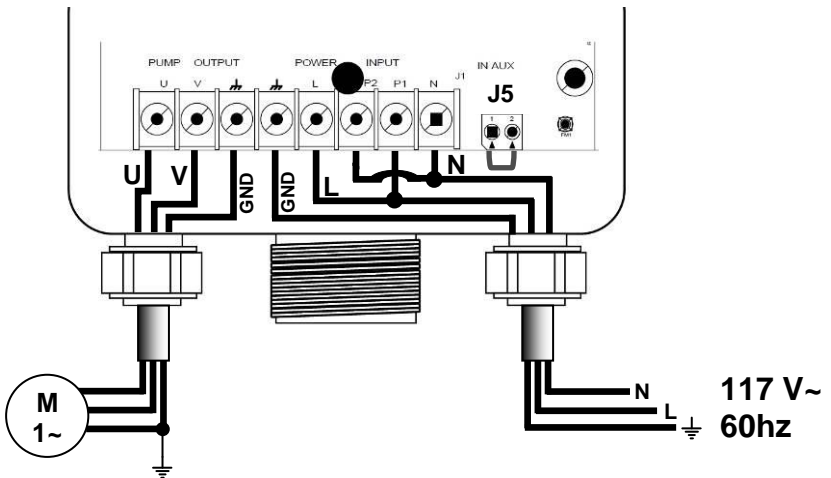
Conexiune cu flotor electric pentru vers. **230Vac**

Connection with float switch  
**230Vac** version



Conexiune standard pentru vers 117Vac

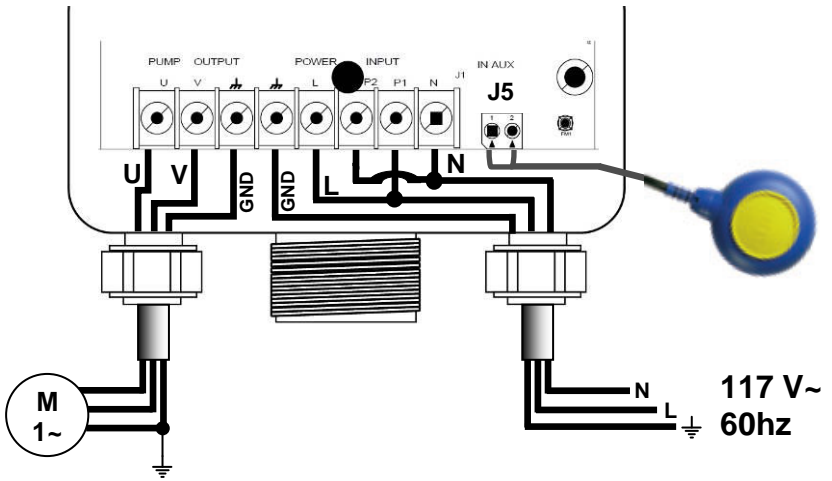
Standard connection 117Vac version



Conexiune cu flotor electric pentru vers. 117Vac

Connection with float switch

**117Vac version**



## 4 PRIMA UTILIZARE - FIRST STARTUP

Dupa realizarea cu succes a legaturilor hidraulice si electrice, puteti porni PresSystem

### Este important ca la prima utilizare sa se faca pornirea dispozitivului cu toti robinetii instalatiei inchisi.

Acest lucru permite PresSystem sa inregistreze corect presiunea maxima ce va fi folosita in instalatie. Inregistrarea presiunii maxime se realizeaza dupa aprox. 40 secunde. Daca cele 40 sec. Nu sunt suficiente pentru umplerea cu apa a instalatiei si atingerea presiunii maxime, puteti tine apasat butonul **ON/OFF** pentru a pastra pompa pornita pana la atingerea presiunii maxime.

**NB:** Daca presiunea instalatiei nu atinge macar valoarea de 1 bar, dispozitivul nu va fi capabil sa detecteze pragurile de presiune si intra in eroare.

1. Cand porniti dispozitivul, va fi afisat numele si versiunea software.

After successful installation of hydraulic and electrical connections, it's possible to turn on the PresSystem.

### It's important that the first power on of the device is made with all taps closed.

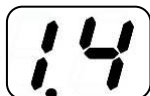
This allows the PresSystem to be able to correctly store the maximum pressure which will be used for the system management. The storage of the maximum system pressure occurs after about 40 seconds. If this time is not sufficient to fill the system and then to be able to reach the maximum pressure, you can press and hold the **ON/OFF** button to keep the pump on regardless of the pressure reached.

**NB:** If the system pressure doesn't reaches the value of at least 1 bar, the device is not able to properly detect the pressure thresholds and goes in error.

1. When you turn on the device, it will display the name of the device and the version of the software.



→ *numele dispozitivului – device name*



→ *versiunea software – software version*

### PresSystem vers. fara Cosφ:

2. După ce va asigurați ca toți robinetii sunt închisi, apăsați butonul **ON/OFF** pentru a porni PresSystem. Dispozitivul pornește pompa pentru aprox. 40 secunde. În acest timp se atinge maximum presiunii ce va fi folosit pentru controlul instalației. La sfârșitul celor 40 sec. PresSystem oprește pompa și astfel se obține:
  - Presiunea minimă (de repornire): LED **PR.RESTART**
  - Pragul presiunii minime pentru protecția Lipsa Apa: LED **DRY RUNNING**

### PresSystem vers. cu Cosφ::

3. LEDul **CURRENT** luminează intermitent și se afișează valoarea implicată a amperajului.
4. Setati valoarea dorită a amperajului conform caracteristicilor tehnice ale pompei:  
Apăsați butonul **+** pentru a crește valoarea și butonul **-** pentru a o scădea.
5. Apăsați butonul **EDIT** pentru a salva datele introduse, sau apăsați butonul **ON/OFF** pentru a ieși fără salvare. După setarea amperajului LEDul **PRESSURE** luminează și pe display va fi afișat:

### PresSystem without Cosφ:

2. After making sure that you have closed all taps, press the **ON/OFF** button to turn on the PresSystem. The PresSystem drives the pump for about 40 seconds. In this time is acquired the maximum pressure which will be used for the system management. At the end of this time the PresSystem turns off the pump and by the maximum pressure acquired is obtained:
  - the restart pressure: LED **PR.RESTART**
  - the pressure threshold for the dry running protection: LED **DRY RUNNING**

### PresSystem Cosφ version:

3. The LED **CURRENT** flashes and displays the current value of default.
4. Set the value of the rated current of the pump: Press the **+** button to increase the value and **-** to decrease it (it is advisable to check the actual maximum current of the pump).
5. Press the **EDIT** button to save the entered data, or press the **ON/OFF** button to exit without saving the data. After setting the current, the LED **PRESSURE** lights up and the device displays:



3. După ce va asigurați ca toți robinetii sunt închisi, apăsați butonul **ON/OFF** pentru a porni PresSystem. Dispozitivul pornește pompa pentru aprox. 40 secunde. În acest timp se atinge maximum presiunii ce va fi folosit pentru controlul instalației. La sfârșitul celor 40 sec. PresSystem oprește pompa și astfel se obține:
  - Presiunea minimă (de repornire): LED **PR.RESTART**
  - Pragul presiunii minime pentru protecția

6. After making sure that you have closed all taps, press the **ON/OFF** button to turn on the PresSystem. The PresSystem drives the pump for about 40 seconds. In this time is acquired the maximum pressure which will be used for the system management. At the end of this time the PresSystem turns off the pump and by the maximum pressure acquired is obtained:
  - the restart pressure: LED **PR.RESTART**

- Lipsa Apa: LED **DRY RUNNING**
- pragul amperajului  $\cos\phi$  pentru protectia Lipsa Apa : LED **COS $\phi$**

- the pressure threshold for the dry running: LED **DRY RUNNING**
- the  $\cos\phi$  threshold for the dry running protection: LED **COS $\phi$**

4.1



Dupa ce initierea primei porniri este realizata, dispozitivul este pregatit sa functioneze in Modul Automat (modul de operare **F0** -vezi sectiunea 5)

PresSystem porneste pompa cand presiunea masurata (LED **Pressure**) scade sub nivelul presiunii minime (LED **PR.RESTART**) cand exista cerere de apa.

PresSystem opreste pompa cand presiunea masurata atinge presiunea maxima setata, cand nu mai exista cerere de apa. Ledul **Pump ON** lumineaza intermitent. In aceste conditii, PresSystem nu opreste pompa imediat, ci dupa aproximativ 20 secunde

After the phase of the first startup the device is ready for automatic operation (operation mode **F0** see paragraph 5).

PresSystem starts the pump when the measured pressure (LED **PRESSURE**) falls below the restart pressure (LED **PR.RESTART**) at the request of water.

The PresSystem turns off the pump when the measured pressure reaches the maximum pressure stored at the end of request water. The led **PUMP ON** starts flashing. In these conditions, the PresSystem turns off the pump not immediately but after about 20 seconds.



PresSystem poate fi configurat sa functioneze ca un presostat clasic. Pentru folosirea acestei functii trebuie schimbat modul de operare folosind instructiunile din sectiunea 5 (LED **ON/OFF**).

Modul de operare ce trebuie selectat pentru functionarea in regim de presostat este **F6**.

Cand dispozitivul este setat sa functioneze in mod Presostat, porneste pompa cand presiunea este mai mica decat presiunea minima de repornire. Pompa este oprita cand presiunea masurata in instalatie atinge presiunea maxima setata.

Presiunea maxima are o setare implicita de 3 bar si presiunea minima are setarea implicita de 2 bar. Valorile implicite pot fi modificate de catre utilizator.

In modul de operare tip Presostat PresSystem permite:

- Protectie contra Lipsa Apa prin controlul amperajului (vers.  $\cos\phi$ ) sau prin configurarea presiunii minime de intrare in protectia Lipsa Apa (LED **DRY RUNNING**) la versiunea fara  $\cos\phi$ .
- Protectie supratensiune (vers.  $\cos\phi$ )
- Protectie impotriva resetarilor dese sau pentru pierderi in vasul de expansiune (ex. cand acesta este spart).

The PresSystem can be configured to work as a pressure switch. To use this option you need to change the operating mode by following the instructions in paragraph 5 (LED **ON/OFF**).

The operation mode that should be selected is the **F6**.

When the device is configured to operate from a pressure switch, it activates the pump when the pressure measured is lower than the restart pressure. The pump is switched off when the measured pressure reaches the maximum pressure.

The maximum pressure has a default value of 3 bar and the restart pressure has a default value of 2 bar.

The default values can be changed by the user. In pressure switch operation the PresSystem allows:

- protection against dry running by controlling the power factor ( $\cos\phi$  version), or configuring the dry running pressure (without  $\cos\phi$ ) (LED **RUNNING DRY**).
- Amperometric protection (vers.  $\cos\phi$ )
- Protection for frequent restarts or for breaking expansion tank.

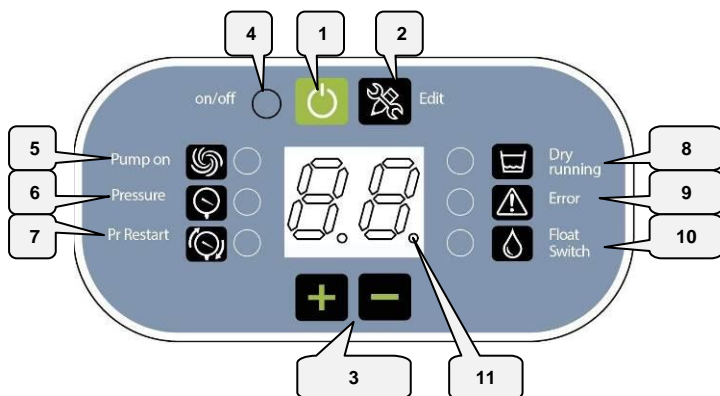
In cazul unei pene de curent, PresSystem porneste automat pompa ca si cand ar fi la prima utilizare (vezi sectiunea 4).

In the case of a break current the PresSystem starts automatically the pump as first startup (see paragraph 4).



## 5 MOD DE FOLOSIRE - OPERATION AND USE

### 5.1



Buton Button	Descriere	Description
1	<p>Butonul <b>ON/OFF</b>:</p> <ul style="list-style-type: none"> <li>Permite pornirea sau oprirea pompei</li> </ul>	<p><b>ON/OFF</b> button:</p> <ul style="list-style-type: none"> <li>Allows to turn on or off the pump</li> </ul>

	<ul style="list-style-type: none"> <li>• Reia operarea normala a dispozitivului dupa o eroare</li> <li>• Permite iesirea din meniu fara a salva setarile</li> </ul>	<ul style="list-style-type: none"> <li>• Reset the normal operation of the device after an error</li> <li>• Allows to exit without storing the modified data</li> </ul>
2	<p><b>Butonul EDIT:</b></p> <ul style="list-style-type: none"> <li>• Permite afisarea valorii setate a functiei selectate</li> <li>• Permite modificarea valorii setate daca este tinut apasat mai mult de 2 secunde</li> </ul> <p>Activarea modificarii este indicata prin sclipirea ledului.</p> <ul style="list-style-type: none"> <li>– Daca se apasa butonul <b>EDIT</b>, valoarea va fi inregistrata permanent.</li> <li>– Daca se apasa butonul <b>ON/OFF</b>, valoarea nu este salvata si se poate iesi din meniu.</li> </ul> <p><b><u>NB: Valoarea de presiune modificate de catre utilizator nu vor mai fi actualizate de catre dispozitiv automat.</u></b></p>	<p><b>EDIT button:</b></p> <ul style="list-style-type: none"> <li>• Allows to display the set value of the selected parameter</li> <li>• Allows to modify the selected parameter if the button is pressed for more than 2 seconds.</li> </ul> <p>Enabling change is indicated by the flashing of the led.</p> <ul style="list-style-type: none"> <li>– if the <b>EDIT</b> button is pressed the value will be stored permanently.</li> <li>– if the <b>ON/OFF</b> button is pressed the value will not be stored and it is possible to exit without saving.</li> </ul> <p><b><u>NB: The pressure values modified by the user will not be managed by the device automatically</u></b></p>
3	<p><b>Butoanele + / -:</b></p> <ul style="list-style-type: none"> <li>• Permit derularea intre parametrii dispozitivului</li> <li>• Permit schimbarea valorii selectate in timpul editarii parametrului.</li> </ul>	<p><b>+ / - button:</b></p> <ul style="list-style-type: none"> <li>• Allows to scroll through the parameters of the device</li> <li>• Allow to change the value of the selected parameter during editing</li> </ul>
4	<p><b>LED ON/OFF:</b></p> <ul style="list-style-type: none"> <li>• Led <b>ON</b>: afiseaza modul de operare folosit (<b>Fx</b>).</li> </ul> <p>PresSystem furnizeaza diferite moduri de operare in functie de cerintele instalatiei. De exemplu:</p> <ul style="list-style-type: none"> <li>• <b>F0</b>: valoarea implicita. Dispozitivul este configurat sa functioneze in Mod Automat</li> <li>• <b>F1</b> (numai la versiunea COSφ): dispozitivul este configurat sa Porneasca/Opreasca pompa</li> </ul>	<p><b>LED ON/OFF:</b></p> <ul style="list-style-type: none"> <li>• Led <b>ON</b>: displays the kind of operation in use (<b>Fx</b>).</li> </ul> <p>The PresSystem provides different kinds of operation according to the different demands of the system. In particular:</p> <ul style="list-style-type: none"> <li>– <b>F0</b>: default value. The device is configured to operate in automatic mode.</li> <li>– <b>F1</b> (only COSφ version): the device is configured to turn on/off the pump</li> </ul>

	<p>printr-o comanda externa prin intrarea auxiliara J5.</p> <p>In acest caz PresSystem asteapta doar comanda externa, fara sa ia in considerare presiunea masurata. In modul F1 este <u>activata</u> protectia de supratensiune amperaj.</p> <ul style="list-style-type: none"> <li>• <b>F2:</b> dispozitivul este configurat sa Porneasca/Opreasca pompa printr-o comanda externa prin intrarea auxiliara J5. In acest caz PresSystem asteapta doar comanda externa, fara sa ia in considerare presiunea masurata. In modul F2 este <u>dezactivata</u> protectia de supratensiune amperaj (numai la versiunea COSφ).</li> <li>• <b>F3:</b> utilizatorul poate porni sau opri pompa din butonul <b>ON/OFF</b>. In acest mod de operare nici o protectie nu este activa, dispozitivul fiind controlat in totalitate manual (utilizatorul porneste sau opreste pompa manual)</li> <li>• <b>F4:</b> dispozitivul este configurat sa functioneze in modul Automat, dar ajustarea presiunii maxime apare doar daca aceasta este mai mare decat presiunea inregistrata la Prima Utilizare.</li> <li>• <b>F5:</b> dispozitivul este configurat sa opereze in mod Automat fara protectia Lipsa Apa. In practica, daca presiunea masurata este mai mica decat presiunea de Lipsa Apa (Led <b>Dry Running</b>), PresSystem nu va afisa nici o eroare.</li> <li>• <b>F6:</b> Dispozitivul este configurat sa foloseasca modul de operare tip Presostat. PresSystem</li> </ul>	<p>with an external command on the auxiliary input J5.</p> <p>In this case the device waits only for the external command without considering the measured pressure. In F1 is <u>enabled</u> overcurrent protection</p> <ul style="list-style-type: none"> <li>- <b>F2:</b> the device is configured to turn on/off the pump with an external command on the auxiliary input J5. In this case the device waits only for the external command without considering the measured pressure. In F1 is <u>disabled</u> overcurrent protection (only COSφ version)</li> <li>- <b>F3:</b> the user can turn on/off the pump pressing the <b>ON/OFF</b> button. In this way, no protection is enabled and the device control is totally manual (user turns on or off the pump)</li> <li>- <b>F4:</b> the device is configured to operate automatically but the updating of the maximum pressure occurs only if this is greater than the stored pressure during the first startup.</li> <li>- <b>F5:</b> The device is configured to operate automatically but is not control of a dry running. In practice, if the measured pressure is lower than the pressure of dry running (Led <b>RUNNING DRY</b>), the device does not indicate any alarm</li> <li>- <b>F6:</b> the device is configured to operate like a pressure switch. The</li> </ul>
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	<p>porneste pompa cand presiunea este mai mica decat presiunea minima de repornire. Pompa este oprita cand presiunea masurata in instalatie atinge presiunea maxima setata.</p> <ul style="list-style-type: none"> <li>• <b>Lumina intermitenta:</b> modul de operare poate fi modificat apasand butoanele + / -</li> <li>a) Daca se apasa butonul <b>EDIT</b>, valoarea va fi inregistrata permanent.</li> <li>b) Daca se apasa butonul <b>ON/OFF</b>, valoarea nu este salvata si se poate iesi din meniu.</li> </ul>	<p>PresSystem activates the pump when the pressure measured is lower than the restart pressure. The pump is switched off when the measured pressure reaches the maximum pressure.</p> <p>For details on the function F6 refer to paragraph: "Pressure switch Operation".</p> <ul style="list-style-type: none"> <li>• <b>Blinking:</b> the operating mode ON/OFF can be modified by using the + / - buttons. <ul style="list-style-type: none"> <li>a) If the <b>EDIT</b> button is pressed the value will be stored permanently</li> <li>b) If the <b>ON/OFF</b> button is pressed the value will not be stored and it is possible to exit without saving.</li> </ul> </li> </ul>
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5	<p><b>LED PUMP ON:</b></p> <ul style="list-style-type: none"> <li>• Led <b>Activ:</b> pompa functioneaza</li> <li>• Led <b>Stins:</b> pompa este oprita</li> <li>• Led <b>Intermitent:</b> pompa functioneaza dar dispozitivul se va opri pentru a permite atingerea presiunii necesare.</li> </ul>	<p><b>LED PUMP ON:</b></p> <ul style="list-style-type: none"> <li>• Led <b>ON:</b> the pump is running</li> <li>• Led <b>OFF:</b> the pump is not running</li> <li>• Led <b>Blinking:</b> the pump is running but the device is going to stop for the achievement of the system pressure</li> </ul>
6	<p><b>LED PRESSURE:</b></p> <ul style="list-style-type: none"> <li>• Led <b>Activ:</b> afiseaza presiunea masurata a instalatiei. Daca se apasa butonul <b>EDIT</b>, este afisata presiunea maxima setata a instalatiei.</li> <li>• Led <b>Stins:</b> nici o actiune</li> <li>• Led <b>Intermitent:</b> presiunea afisata reprezinta presiunea maxima setata si poate fi modificata cu butoanele + / -. Daca aceasta valoare este modificata se vor schimba automat si valorile presiunii minime si presiuni de intrare</li> </ul>	<p><b>LED PRESSURE:</b></p> <ul style="list-style-type: none"> <li>• Led <b>On:</b> displays the measured pressure. If the <b>EDIT</b> button is pressed, the maximum pressure of the system is displayed.</li> <li>• Led <b>Off:</b> no action</li> <li>• Led <b>Blinking:</b> the pressure on the display represents the maximum pressure system and can be changed with the + / - keys. If the value will be store, it will change the value of restart pressure and the</li> </ul>

	<p>in protectia Lipsa Apa.</p> <p>a) Daca se apasa butonul <b>EDIT</b>, valoarea va fi inregistrata permanent.</p> <p>b) Daca se apasa butonul <b>ON/OFF</b>, valoarea nu este salvata si se poate iesi din meniu.</p> <p><b>NB:</b> <u>Daca presiunea nu a fost modificata in prealabil, valoarea afisata este valoarea maxima a presiunii instalatiei masurata in mod automat de catre PresSystem.</u> <u>Daca valoarea presiunii maxime este schimbata de utilizator, aceasta nu va fi actualizata in mod automat de catre PresSystem.</u></p>	<p>value of dry running pressure.</p> <p>a) If the <b>EDIT</b> button is pressed the value will be stored permanently</p> <p>b) If the <b>ON/OFF</b> button is pressed the value will not be stored and it is possible to exit without saving.</p> <p><b>NB:</b> <u>NB: If the pressure has not been previously modified, the value displayed is the maximum pressure of system acquired automatically by the device.</u> <u>If the maximum pressure is changed by the user, this will not be managed automatically by the device.</u></p>
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7	<p><b>LED PR.RESTART:</b></p> <ul style="list-style-type: none"> <li>• Led <b>Activ:</b> afiseaza presiunea minima (de repornire). Daca este apasat butonul <b>EDIT</b>, presiunea minima poate fi modificata</li> <li>• Led <b>Stins:</b> nici o actiune</li> <li>• Led <b>Intermitent:</b> presiunea minima poate fi modificata cu butoanele + / - <ul style="list-style-type: none"> <li>a) Daca se apasa butonul <b>EDIT</b>, valoarea va fi inregistrata permanent.</li> <li>b) Daca se apasa butonul <b>ON/OFF</b>, se iese din setare fara salvarea valorii.</li> </ul> </li> </ul>	<p><b>LED PR.RESTART:</b></p> <ul style="list-style-type: none"> <li>• Led <b>On:</b> displays the restart pressure. If the <b>EDIT</b> button is pressed, the restart pressure can be modified</li> <li>• Led <b>Off:</b> no action</li> <li>• Led <b>Blinking:</b> the restart pressure can be modified by using the + / - buttons. <ul style="list-style-type: none"> <li>a) If the <b>EDIT</b> button is pressed the value will be stored permanently</li> <li>b) If the <b>ON/OFF</b> button is pressed the value will not be stored and it is possible to exit without saving.</li> </ul> </li> </ul>
8	<p><b>LED DRY RUNNING</b></p> <ul style="list-style-type: none"> <li>• Led <b>Activ:</b> afiseaza presiunea minima sub care se intra in protectia Lipsa Apa. Daca este apasat butonul <b>EDIT</b>, presiunea minima poate fi modificata.</li> <li>• Led <b>Stins:</b> nici o actiune</li> </ul>	<p><b>LED DRY RUNNING</b></p> <ul style="list-style-type: none"> <li>• Led <b>On:</b> displays the pressure below will be the dry running alarm. If the <b>EDIT</b> button is pressed, the restart pressure can be modified</li> </ul>

	<ul style="list-style-type: none"> <li>• Led <b>Intermitent</b>: presiunea minima poate fi modificata cu butoanele +/-</li> </ul> <p>a) Daca se apasa butonul <b>EDIT</b>, valoarea va fi inregistrata permanent.</p> <p>b) Daca se apasa butonul <b>ON/OFF</b>, se iese din setare fara salvarea valorii.</p>	<ul style="list-style-type: none"> <li>• Led <b>Off</b>: no action</li> <li>• Led <b>Blinking</b>: the pressure threshold for the dry running restart can be modified by using the +/- buttons. <ul style="list-style-type: none"> <li>a) If the <b>EDIT</b> button is pressed the value will be stored permanently</li> <li>b) If the <b>ON/OFF</b> button is pressed the value will not be stored and it is possible to exit without saving.</li> </ul> </li> </ul>
9 (vers.cosφ)	<p><b>LED CURRENT:</b></p> <ul style="list-style-type: none"> <li>• Led <b>Activ</b>: afiseaza amperajul fazei masurat. Daca este apasat butonul <b>EDIT</b>, este afisat amperajul setat</li> <li>• Led <b>Stins</b>: nici o actiune</li> <li>• Led <b>Intermitent</b>: <ul style="list-style-type: none"> <li>– Amperajul masurat depaseste pragul setat</li> <li>– Amperajul poate fi modificat cu butoanele +/-</li> </ul> </li> </ul> <p>a) Daca se apasa vutonul <b>EDIT</b>, valoarea va fi inregistrata permanent.</p> <p>b) Daca se apasa butonul <b>ON/OFF</b>, se iese din setare fara salvarea valorii.</p>	<p><b>LED CURRENT:</b></p> <ul style="list-style-type: none"> <li>• Led <b>On</b>: displays the measured current. If the <b>EDIT</b> button is pressed, the current value is displayed.</li> <li>• Led <b>Off</b>: no action</li> <li>• Led <b>Blinking</b>: <ul style="list-style-type: none"> <li>– the measured current has exceeded the current threshold.</li> <li>– The current can be modified with +/- buttons.</li> </ul> </li> </ul> <p>a) If the <b>EDIT</b> button is pressed the value will be stored permanently</p> <p>b) If the <b>ON/OFF</b> button is pressed the value will not be stored and it is possible to exit without saving.</p>
9	<p><b>LED ERROR:</b></p> <ul style="list-style-type: none"> <li>• Led <b>Activ</b>: Dispozitivul este blocat pentru o eroare activa. Codul erorii este afisat (codurile de eroare sunt listate in sectiunea "Depanare si Intretinere")</li> </ul>	<p><b>LED ERROR:</b></p> <ul style="list-style-type: none"> <li>• Led <b>On</b>: The device is blocked for an alarm in progress. The error code is displayed (error codes are listed in the section "Troubleshooting and Maintenance").</li> </ul>
10 (vers.cosφ)	<p><b>LED COSφ:</b></p> <ul style="list-style-type: none"> <li>• Led <b>Activ</b>: afiseaza valoarea cosφ masurata. Daca apasati butonul <b>EDIT</b>, va fi afisata valoarea cosφ setata.</li> <li>• Led <b>Stins</b>: nici o actiune</li> <li>• Led <b>Intermitent</b>: valoarea cosφ poate fi mopdficata cu butoanele +/-</li> </ul>	<p><b>LED COSφ:</b></p> <ul style="list-style-type: none"> <li>• Led <b>On</b>: displays the measured cosφ value. If the <b>EDIT</b> button is pressed, the cosφ value is displayed.</li> <li>• Led <b>Off</b>: no action</li> <li>• Led <b>Blinking</b>: The cosφ value can be modified with +/- buttons.</li> </ul>

	<p>a) Daca se apasa vutonul <b>EDIT</b>, valoarea va fi inregistrata permanent.</p> <p>b) Daca se apasa butonul <b>ON/OFF</b>, se iese din setare fara salvarea valorii.</p>	<p>a) If the <b>EDIT</b> button is pressed the value will be stored permanently</p> <p>b) If the <b>ON/OFF</b> button is pressed the value will not be stored and it is possible to exit without saving.</p>
10	<p><b>LED FLOAT SWITCH:</b></p> <ul style="list-style-type: none"> <li>• Led <b>Activ</b>: afiseaza starea intrarii auxiliare J5: <ul style="list-style-type: none"> <li>– 0 indica contactul J5 deschis</li> <li>– 1 indica contactul J5 inchis</li> </ul> </li> </ul>	<p><b>LED FLOAT SWITCH:</b></p> <ul style="list-style-type: none"> <li>• Led <b>On</b>: displays the status of the auxiliary input J5: <ul style="list-style-type: none"> <li>– 0 the contact J5 is open</li> <li>– 1 the contact J5 is closed</li> </ul> </li> </ul>
11	<ul style="list-style-type: none"> <li>• Led <b>Activ</b>: indica faptul ca parametrul selectat a fost modificat de utilizator</li> <li>• Led <b>Intermitent</b>: valoarea presiunii masurate este in afara plajei de presiune (limitele de presiune sunt intre 0 bar si 9.9 bar)</li> </ul>	<ul style="list-style-type: none"> <li>• Led <b>On</b>: the parameter was changed by the user</li> <li>• Led <b>Blinking</b>: the measured pressure is outside from the pressure range (the range must be between 0 bar and 9.9 bar)</li> </ul>

5.2

PresSystem actualizeaza **automat** presiunea maxima a instalatiei in timpul functionarii normale, daca valoarea creste sau scade in comparatie cu presiunea maxima setata la Prima Utilizare (vezi sectiunea 4)

Actualizarea presiunii maxime va actualiza automat si presiunea minima si presiunea de intrare in protectia Lipsa Apa..

Presiunea maxima poate fi deasemenea setata si manual de catre utilizator, asigurand un control mai corect in functie de instalatie,

The PresSystem **automatically** updates the maximum pressure of the system during normal operation if the value increases or decreases compared to the stored maximum pressure during the phase of "First Startup" (see paragraph 4).

The update of the maximum pressure will be updated restart pressure and the pressure for the dry running.

The pressure can also be set manually, allowing the user the better manage for every type of



**NB: Valorile presiunii modificate de catre utilizator nu vor mai fi actualizate automat.**

installation.



**NB: The pressure values modified by the user will not be managed by the device automatically**

5.3

Presiunea maxima poate fi deasemenea setata si manual de catre utilizator, asigurand un control mai corect in functie de instalatie

**NB: Valorile presiunii modificate de catre utilizator nu vor mai fi actualizate automat.**

The pressure can also be set manually, allowing the user the better manage for every type of installation.

**NB: The pressure values modified by the user will not be managed by the device automatically**



Pentru setarea manuala a parametrilor:

- Derulati cu butoanele + si - pana la parametrul ce trebuie modificat.
- Apasati butonul **EDIT** aprox. 2 secunde pana cand LEDul parametrului selectat incepe sa clipeasca.
- Cu butoanele + si - setati valoarea dorita.
- Valoarea va fi salvata apasand butonul **EDIT** inca o data: LEDul se opreste din clipit.

Daca nu doriti salvarea noii valori, apasati butonul **ON/OFF**

Parametrii modificati sunt evidentiati prin aparitia celui de-al doilea punct pe afisaj (vezi sectiunea **Error! Reference source not found.**).

**NB:** Modificarea presiunii maxime ce poate fi facuta selectand LED **PRESSURE**, duce automat la modificarea presiunii minime (LED **PR.RESTART**) si a presiunii de protectie Lipsa Apa (LED **DRY RUNNING**). Odata ce valorile de presiune au fost modificate manual, **acestea NU vor mai fi actualizate automat de catre dispozitiv**. Pentru a reporni din nou in Modul Automat, PresSystem trebuie **RESETAT** (vezi sectiunea urmatoare - 6)

To set the parameters manually you need to:

- Go with the + and - buttons on the parameter you want to change.
- Press **EDIT** button for about 2 seconds until the LED of the selected parameter starts blinking.
- Use the + and - keys to set the desired value.
- The value will be stored pressing the **EDIT** button again: the led stops flashing.

If you don't want to save the new value, press the **ON/OFF** button.

The modified parameters are highlighted by the presence of the second point on the display (see section 5.1).

**NB:** Changing the maximum pressure, which is done by selecting the LED **PRESSURE**, introduces automatically the change of the restart pressure (led **PR.RESTART**) and the dry running pressure (LED **DRY RUNNING**). Once the pressures have been changed manually, **they will NOT be managed automatically by the device**. To restart again in automatic mode, the PresSystem must be **RESET** (see section 6).

## 6 RESETAREA DISPOZITIVULUI - RESET DEVICE

**Resetarea** PresSystem permite stergerea din memorie a setarilor manuale sau iesirea din orice functionare defectuoasa, restaurand setarile din fabrica.

Pentru Resetarea dispozitivului trebuie apasate butoanele **EDIT** si - pana cand toate LEDurile se aprind.

Dupa aceasta operatie trebuie parcursi din nou toti pasii de la Prima Utilizare (vezi sectiunea 4)

The reset of PresSystem allows you to erase from memory the manual settings, or to exit from any abnormalities, restoring the device to factory settings.

To reset you need to press the **EDIT** and - buttons until all the LEDs on the device light up. After this operation is necessary to repeat the first startup (see paragraph 4).

## 7 DEPANARE SI INTRETINERE - TROUBLESHOOTING AND MAINTENANCE

Daca o anumita eroare este prezenta in instalatie, PresSystem este prevazut cu un **LED ERROR** ce se aprinde si pe Display se afiseaza codul erorii active.

(Numai pentru Versiunea Cosφ): Daca o anumita eroare este prezenta, PresSystem va aprinde si stinge intermitent toate LEDurile si pe Display va aparea codul erorii active

Codurile de eroare sunt urmatoarele:

If a fault is present the PresSystem lights up the **LED ERROR** and displays the error code of the current fault.

(Version Cosφ only): If a fault is present the PresSystem turns on and off all the LEDs, and displays the error code of the fault.

Error codes:

Cod Code	Eroare Error	Descriere	Description
01	- Lipsa apa - No Water	<p>Presiunea masurata este sub pragul de activare al erorii Lipsa Apa (LED <b>DRY RUNNING</b>). PresSystem va incerca repornirea automat:</p> <p>I° tentativa dupa 1 secunda II° tentativa dupa 15 secunde III° tentativa dupa 15 minute IV° tentativa dupa 1 ora V° tentativa dupa 24 ore</p> <p>La epuizarea primelor 5 incercari, se va efectua o</p>	<p>The measured pressure is below the threshold pressure of dry running (LED <b>DRY RUNNING</b>). The PresSystem attempts the restart in different periods of time. In particular:</p> <p>I° attempt after 1 second II° attempt after 15 seconds III° attempt after 15 minutes IV° attempt after 1 hour V° attempt after 24 hours</p>

		<p>tentativa de repornire la fiecare 24 ore.</p> <p><u>Ce trebuie facut:</u></p> <ol style="list-style-type: none"> <li>1. Pentru a reporni sistemul si a iesi din eroare trebuie apasat butonul <b>ON/OFF</b> pana se afiseaza "OF".</li> <li>2. Apasati din nou butonul <b>ON/OFF</b> pentru a reporni dispozitivul.</li> </ol> <p><u>Solutii:</u></p> <ul style="list-style-type: none"> <li>• Verificati prezenta efectiva a apei in instalatie.</li> <li>• Amorsati pompa corect</li> <li>• Daca aveti montat un filtru, verificati ca acesta sa nu fie blocat/obturat de impuritati.</li> </ul>	<p>If the error persists after 5 attempts, an attempt will be made every 24 hours.</p> <p><u>ACTIONS:</u></p> <ol style="list-style-type: none"> <li>1. To restart the system and exit from the error you must press the <b>ON/OFF</b> button to display "OF".</li> <li>2. Press again <b>ON/OFF</b> button to restart the system.</li> </ol> <p><u>SOLUTIONS:</u></p> <ul style="list-style-type: none"> <li>• Check for water presence</li> <li>• Reset the correct priming pump function</li> <li>• If there is a filter, check if it is blocked</li> </ul>
02	<p>- Lipsa vas de expansiune</p> <p>- No expansion tank</p>	<p>PresSystem sesizeaza lipsa unui vas de expansiune daca pompa porneste foarte des.</p> <p><u>Ce trebuie facut:</u></p> <ol style="list-style-type: none"> <li>1. Pentru a reporni sistemul si a iesi din eroare trebuie apasat butonul <b>ON/OFF</b> pana se afiseaza "OF".</li> <li>2. Apasati din nou butonul <b>ON/OFF</b> pentru a reporni dispozitivul.</li> </ol> <p><u>SOLUTII:</u></p> <ul style="list-style-type: none"> <li>• Verificati prezenta unui vas de expansiune</li> <li>• Verificati ca presiunea de pre-incarcare a vasului de expansiune sa fie cea corecta.</li> <li>• Verificati ca dimensiunea vasului de expansiune sa fie in concordanta cu cerintele sistemului.</li> </ul>	<p>The PresSystem detects the lack of expansion tank for continuous restarts of the pump.</p> <p><u>ACTIONS:</u></p> <ol style="list-style-type: none"> <li>1. To restart the system and exit from the error you must press the <b>ON/OFF</b> button to display "OF".</li> <li>2. Press again <b>ON/OFF</b> button to restart the system.</li> </ol> <p><u>SOLUTIONS:</u></p> <ul style="list-style-type: none"> <li>• Check for expansion tank presence</li> <li>• Check that the expansion tank has a correct pre-charge pressure</li> <li>• Check that the size of the expansion tank is correct for the system</li> </ul>

<p>03</p>	<ul style="list-style-type: none"> <li>- Eroare Control extern prin flotor</li> <li>- Float switch control</li> </ul>	<p>PresSystem este configurat sa porneasca/opreasca pompa prin comanda externa de la intrarea auxiliara J5.</p> <p>Daca auxiliarul J5 nu este folosit trebuie facuta o punte (scurt-circuit) in terminalul J5 (vezi sectiunea 3.2)</p> <p><u>SOLUTII:</u></p> <ul style="list-style-type: none"> <li>• Daca nu folositi un flotor, verificati ca jumperul sa faca o punte in terminalul J5</li> <li>• Daca este folosit un flotor, verificati ca acesta inchide in pozitia ce indica prezenta apei.</li> </ul>	<p>The PresSystem is configured to turn on/off the pump with an external command on the auxiliary input J5.</p> <p>If J5 is not used it is necessary to short-circuit the terminal J5 (see section 3.2).</p> <p><u>SOLUTIONS:</u></p> <ul style="list-style-type: none"> <li>• If you are not using a float switch, check for the jumper in J5</li> <li>• In case of use of a float switch, check that it closes in the position that indicates the presence of water.</li> </ul>
<p>04</p>	<ul style="list-style-type: none"> <li>- Presiune prea mica</li> <li>- Low pressure</li> </ul>	<p>Presiunea masurata de PresSystem in instalatie la Prima Utilizare este sub 1 bar.</p> <p><u>Ce trebuie facut:</u></p> <ol style="list-style-type: none"> <li>1. Pentru a reporni sistemul si a iesi din eroare trebuie apasat butonul <b>ON/OFF</b> pana se afiseaza <b>"OF"</b>.</li> <li>2. Apasati din nou butonul <b>ON/OFF</b> pentru a reporni dispozitivul.</li> </ol> <p><u>SOLUTII:</u></p> <ul style="list-style-type: none"> <li>• Verificati sa nu aveti pierderi mari in instalatie</li> <li>• Verificati presiunea efectiva a apei</li> <li>• Verificati amorsarea corecta a pompei.</li> </ul>	<p>The pressure measured by the PresSystem during the first startup is below 1 bar.</p> <p><u>ACTIONS:</u></p> <ol style="list-style-type: none"> <li>1. To restart the system and exit from the error you must press the <b>ON/OFF</b> button to display <b>"OF"</b>.</li> <li>2. Press again <b>ON/OFF</b> button to restart the system.</li> </ol> <p><u>SOLUZIONI:</u></p> <ul style="list-style-type: none"> <li>• Check that there is no a big leakage on the system.</li> <li>• Check for water presence.</li> <li>• Check for correct pump priming.</li> </ul>
<p>05 (Vers.Cosφ)</p>	<ul style="list-style-type: none"> <li>-Protectie SupraAmperaj</li> <li>- Current protection</li> </ul>	<p>Curentul Absorbit(amperajul) de la pompa este mult mai mare decat pragul setat (LED <b>CURRENT</b>).</p> <p><u>Ce trebuie facut:</u></p>	<p>The current absorbed from the pump is more high than the threshold set on PresSystem (LED <b>CURRENT</b>).</p> <p><u>ACTIONS:</u></p>

		<p>1. Pentru a reporni sistemul si a iesi din eroare trebuie apasat butonul <b>ON/OFF</b> pana se afiseaza "<b>OF</b>".</p> <p>2. Apasati din nou butonul <b>ON/OFF</b> pentru a reporni dispozitivul.</p> <p><u>SOLUTII:</u></p> <ul style="list-style-type: none"> <li>• Verificati amperajul absorbit real al pompei si setati pragul la parametrul "<b>CURRENT</b>".</li> <li>• Asigurati-va ca nu exista conditii de frecare sau blocare in corpul pompei.</li> <li>• Verificati ca pompa este folosita conform conditiilor descrise in cartea tehnica a pompei.</li> </ul>	<p>1. To restart the system and exit from the error you must press the <b>ON/OFF</b> button to display "<b>OF</b>".</p> <p>2. Press again <b>ON/OFF</b> button to restart the system.</p> <p><u>SOLUTIONS:</u></p> <ul style="list-style-type: none"> <li>• Check the current measure of pump and set the threshold value on the parameter <b>CURRENT</b>.</li> <li>• Make sure that there are no conditions of friction or locking of the pump.</li> <li>• Check that the pump is used under the conditions prescribed.</li> </ul>
<p><b>06</b> (Vers.Cosφ)</p>	<p>- <b>Curent de varf maxim</b></p> <p>- <b>Max pick current</b></p>	<p>Curentul absorbit al pompei masurat de PresSystem este mai mare decat permite dispozitivul (LED <b>CURRENT</b>).</p> <p><u>Ce trebuie facut:</u></p> <p>1. Pentru a reporni sistemul si a iesi din eroare trebuie apasat butonul <b>ON/OFF</b> pana se afiseaza "<b>OF</b>".</p> <p>2. Apasati din nou butonul <b>ON/OFF</b> pentru a reporni dispozitivul.</p> <p><u>SOLUTII:</u></p> <ul style="list-style-type: none"> <li>• Asigurati-va ca nu exista conditii de frecare sau blocare in corpul pompei.</li> <li>• Verificati ca pompa este folosita conform conditiilor descrise in cartea tehnica a pompei.</li> </ul>	<p>PresSystem has measured the maximum current allowed (LED <b>CURRENT</b>).</p> <p><u>ACTIONS:</u></p> <p>1. To restart the system and exit from the error you must press the <b>ON/OFF</b> button to display "<b>OF</b>".</p> <p>2. Press again <b>ON/OFF</b> button to restart the system.</p> <p><u>SOLUTIONS:</u></p> <ul style="list-style-type: none"> <li>• Make sure that there are no conditions of friction or locking of the pump.</li> <li>• Check that the pump is used under the conditions prescribed.</li> </ul>

<p>07 (Vers.Cosφ)</p>	<p>- Lipsa apa - Dry running</p>	<p>Valoarea <math>\cos\phi</math> masurata de PresSystem este inferioara pragului setat (LED <b>COSφ</b>).</p> <p><u>Ce trebuie facut:</u></p> <ol style="list-style-type: none"> <li>1. Pentru a reporni sistemul si a iesi din eroare trebuie apasat butonul <b>ON/OFF</b> pana se afiseaza "OF".</li> <li>2. Apasati din nou butonul <b>ON/OFF</b> pentru a reporni dispozitivul.</li> </ol> <p><u>SOLUTII:</u></p> <ul style="list-style-type: none"> <li>• Verificati prezenta efectiva a apei in instalatie</li> <li>• Asigurati-va ca nu exista bule de aer in instalatie</li> <li>• Verificati amorsarea corecta a pompei</li> <li>• Daca aveti instalat un filtru, verificati ca acesta sa nu fie blocat de impuritati.</li> </ul>	<p>The value of <math>\cos\phi</math> measured is below than the threshold set on PresSystem (LED <b>COSφ</b>).</p> <p><u>ACTIONS:</u></p> <ol style="list-style-type: none"> <li>1. To restart the system and exit from the error you must press the <b>ON/OFF</b> button to display "OF".</li> <li>2. Press again <b>ON/OFF</b> button to restart the system.</li> </ol> <p><u>SOLUTIONS:</u></p> <ul style="list-style-type: none"> <li>• Check for water presence</li> <li>• Check there is no air in the system</li> <li>• Reset the correct priming pump function</li> <li>• If there is a filter, check if it is blocked</li> </ul>
<p>08</p>	<p>- Eroare setare parametru - Parameter error</p>	<p>Aceasta eroare indica faptul utilizatorul a setat manual presiunea minima dar presiunea maxima inca este administrata automat de catre PresSystem.</p> <p><u>Ce trebuie facut:</u></p> <ol style="list-style-type: none"> <li>1. Pentru a reporni sistemul si a iesi din eroare trebuie apasat butonul <b>ON/OFF</b> pana se afiseaza "OF".</li> <li>2. Apasati din nou butonul <b>ON/OFF</b> pentru a reporni dispozitivul.</li> </ol> <p><u>SOLUTII:</u></p> <ul style="list-style-type: none"> <li>• Verificati ca presiunea minima setata manual este</li> </ul>	<p>The error indicates that the user has manually changed the restart pressure and the maximum pressure is still handled automatically by the device.</p> <p><u>ACTIONS:</u></p> <ol style="list-style-type: none"> <li>1. To restart the system and exit from the error you must press the <b>ON/OFF</b> button to display "OF".</li> <li>2. Press again <b>ON/OFF</b> button to restart the system.</li> </ol> <p><u>SOLUTIONS:</u></p> <ul style="list-style-type: none"> <li>• Check that the restart</li> </ul>

		<p>mai mica decat presiunea maxima masurata de PresSystem.</p>	<p>pressure changed by the user is less than the maximum pressure measured by the device.</p>
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7.1





In acea sectiune sunt descrise instructiunile pentru inlocuirea placii electronice si/sau a senzorului de presiune intern al PresSystem. Cand inlocuirea este finalizata este necesara calibrarea senzorului. Calibrarea permite citirea corecta a presiunii.

#### Inlocuirea placii electronice:

1. Desurubati surubul (1) si inlaturati capacul cablurilor(Figura 2)
2. Desurubati suruburile (2) si (3) ale capacului frontal (Figura 3).
3. Dupa inlaturarea tuturor suruburilor, deschideti usor capacul frontal inspre dreapta cu atentie la Oringul din pozitia (4) (Figura 3). Este important sa deschideti capacul cu mare grija pentru a nu deteriora cablul tastaturii (5) (Figura 4).



Figura 2

In this section are described the instruction for the replacement of the electronic board and/or the pressure sensor internal to PresSystem. When the replacement is finished, it's necessary to calibrate the pressure sensor. The calibration allows to have a right reading pressure.

#### Replacing electronic board:

1. Unscrew the screw (1) and remove the cable door (Figura 2)
2. Unscrew the screws (2) and (3) of the cover (Figura 3).
3. After removing all the screws, open gently the cover to the right and be careful to the ORing (4) (Figura 3). It is important to open the cover with care to avoid damaging the flat cable of the keyboard (5) (Figura 4).



Figura 3

4. Pentru inlaturarea cablului de legatura al tastaturii, trebuie sa deblocati sistemul tragand spre dreapta in punctele (6) si (7) (Figura 4).
5. Inlaturati cu grija cablul tastaturii din conectorul (8) (Figura 5).
4. To remove the flat cable of the keyboard, you need to release the lock that stops the cable by pushing to the right the points (6) and (7) (Figura 4).
5. Remove gently the cable of the keyboard from the connector (8) (Figura 5).

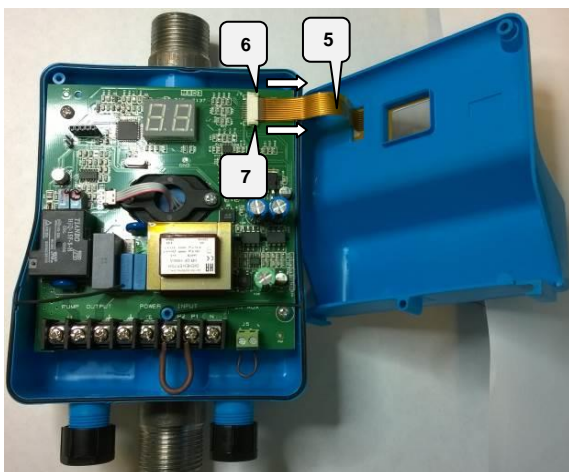


Figura 4

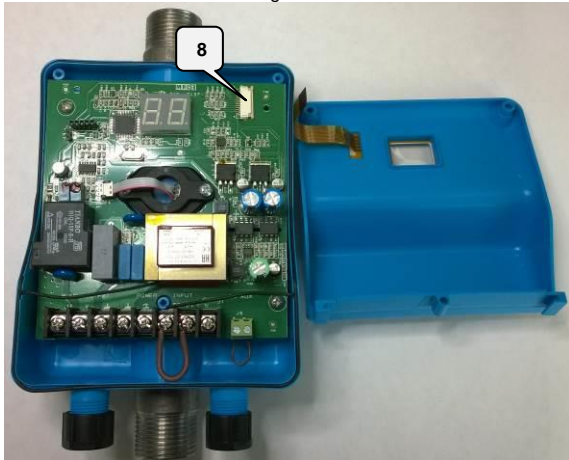


Figura 5

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>6. Scoateti clema senzoriului de presiune (9) (Figura 6).</li> <li>7. Desurubati suruburile (10) si (11) ale placii electronice (Figura 6).</li> <li>8. Dupa scoaterea suruburilor este posibila inlaturarea placii electronice (Figura 7). Pentru montarea placii noi folositi instructiunile in sens invers descrierii de mai sus.</li> </ol> | <ol style="list-style-type: none"> <li>6. Unclip the connector of the pressure sensor (9) (Figura 6).</li> <li>7. Unscrew the screw (10) and (11) of the electronic board (Figura 6).</li> <li>8. After removing the screws is possible to remove the electronic board for the replacement (Figura 7) and follow in reverse mode the assembly operations described above for the new board.</li> </ol> |
|--|--|

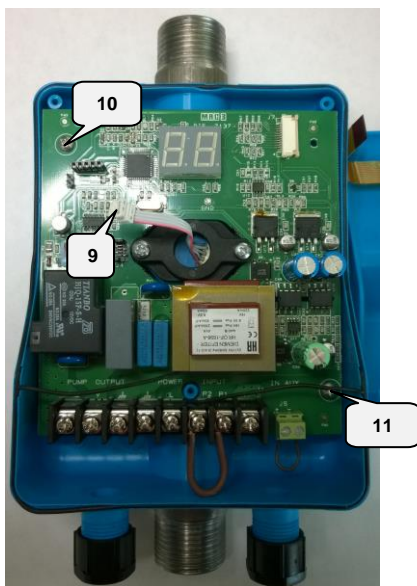


Figura 6



Figura 7

### Inlocuirea senzorului de presiune:

1. Pentru inlocuirea senzorului de presiune urmati pasii 1-2-3 din sectiunea "Inlocuirea placii electronice", si apoi scoateti clema senzorului de presiune (1) (Figura 8).
2. Desurubati suruburile (2) si (3) ale garniturii (inelului) senzorului (4) (Figura 8).
3. Odata ce ati scos suruburile si garnitura senzorului, este posibila inlaturarea senzorului de presiune din lacasul lui (Figura 9) .

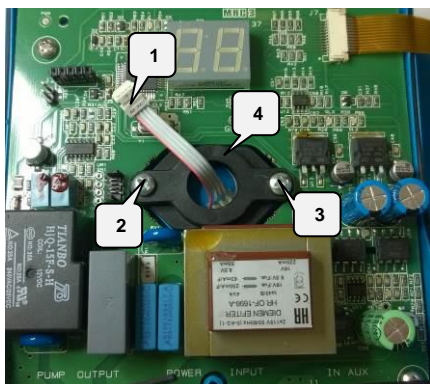


Figura 8

### Replacing the pressure sensor:

1. To replace the pressure sensor it is necessary to follow the same steps as in points 1-2-3 on the "replacing electronic board " and then continues to unclip the pressure sensor connector (1) (Figura 8).
2. Unscrew the screws (2) and (3) of the sensor ring (4) (Figura 8).
3. Once the screws and the sensor ring have been removed, it is possible to remove the pressure sensor from its slot (Figura 9) .



Figura 9

4. Dupa scoaterea senzorului din lacas trebuie sa inlaturati si ORingul (8) (Figura 10).
5. Inainte de a monta noul senzor, introduceti ORingul in acesta (Figura 11) si apoi folositi instructiunile de mai sus in sens invers, pentru montare.

4. After removing the sensor from the slot you need to remove the ORing (8) (Figura 10).
5. Before placing the new sensor, insert the ORING into the new sensor (Figura 11) and follow in reverse mode the assembly operations described above.



Figura 10



Figura 11



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