

## TECHNICAL BULLETIN FOR ECOMAR PRESSURE SWITCH UPGRADING

### Pressure Switch Installation

Remove the safety valve and all the fittings connected, by unscrewing the elbow installed on the inspection flange, on the top of the ECOMar treatment tank.



### APPENDIX A: Table of items required for the upgrade

ITEM No.	CODE	Q.ty	DESCRIPTION
01	204ES000000010	1	Pressure switch (0.1-1) calibrated at 0.2 bar
02	201RXMF1214R00	1	Reduction 1/2"-1/4" M/F threaded
03	A24SC000ECTIBB	1	TIBBO programmable module (firmware version $\geq$ SW2-23)
04	204RP000140000	1	Cable gland CLS14 - GAS 1/4"
05	204CR000000139	2	Unipolar Terminal P5mm-2.5mm <sup>2</sup> - 24A

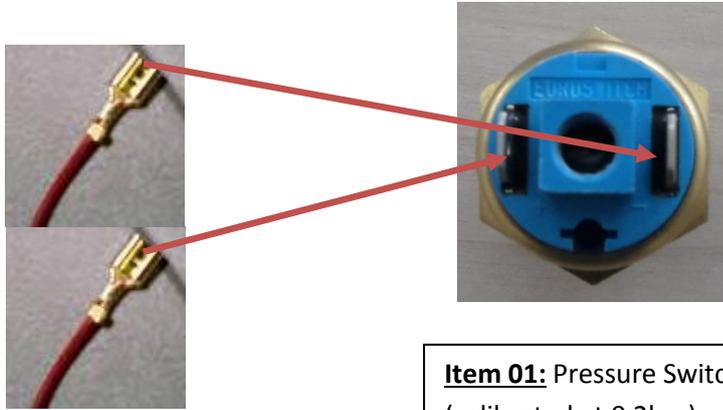
Screw and fix the reduction 1/2"-1/4" M/F on the inspection flange, where the safety valve was installed.

Fix the pressure switch on the reduction fitting. Remove the plastic cap from the top of the pressure switch.



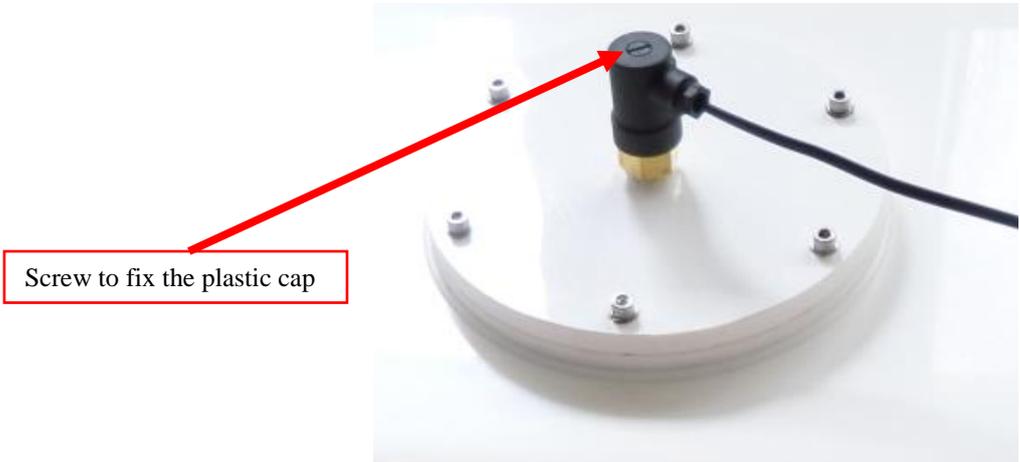
**Item 02:** Reduction (1/2"-1/4" M/F)

Insert 1 meter of F.R.O.R. (2 x 075mq) cable into the cable gland of the pressure switch plastic cap and connect the cable faston connectors to the pressure switch terminals as below:



**Item 01:** Pressure Switch  
(calibrated at 0.2bar)

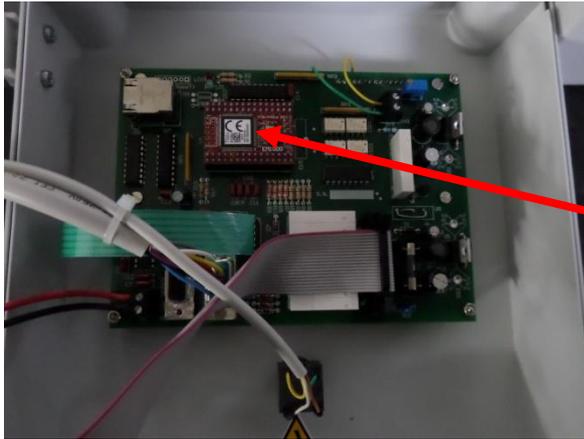
Re-insert the plastic cap in the pressure switch and fix it by tightening the screw on the top of the cap. Tighten the cable gland to secure the cable.



## TIBBO Programmable Module Replacement

Open the Ecomar control box and replace the TIBBO programmable module with a new one on cover board.

Use a firmware version  $\geq$  SW2-23.



**Item 03:** Programmable module  
(firmware version  $\geq$  2-23)

## Mother Board Upgrading and Pressure Switch Connection

Drill a threaded hole 1/4" GAS at the bottom side of the control box and fix the cable gland to the control box.

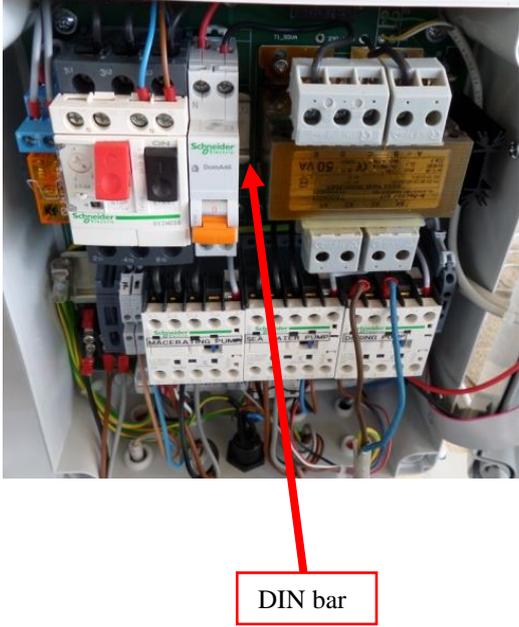
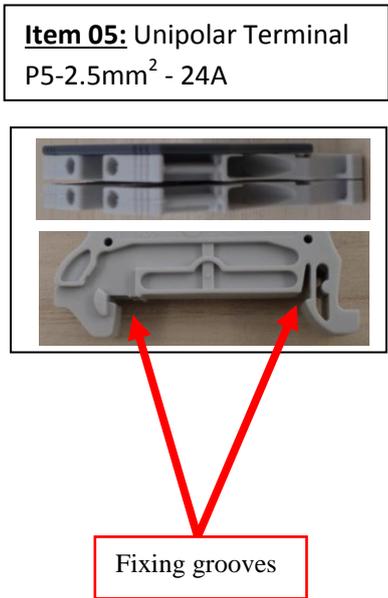


Drill and insert the cable gland here

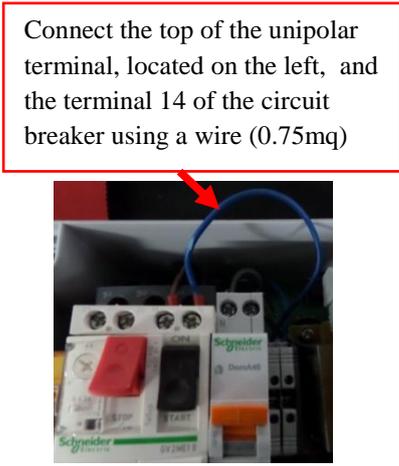


**Item 04:** Cable Gland  
(CLS14 - GAS 1/4")

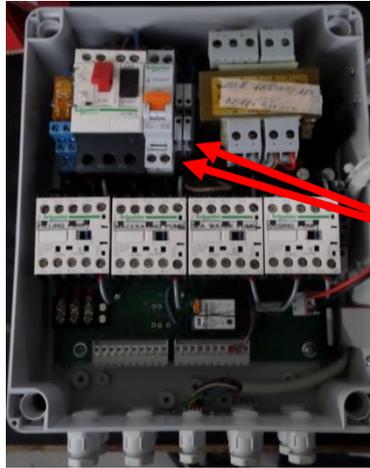
Insert the two unipolar terminals in the control box, by fixing their grooves on the DIN bar, located on the left of the transformer.



Disconnect the wire from the terminal 14 of the thermal-magnetic circuit breaker and connect it to the top of the unipolar terminal located on the right side. Connect the top of the unipolar terminal, located on the left side, to the terminal 14 of the thermal-magnetic circuit breaker by a wire (0.75mq). Insert the pressure switch cable in the previously installed cable gland.

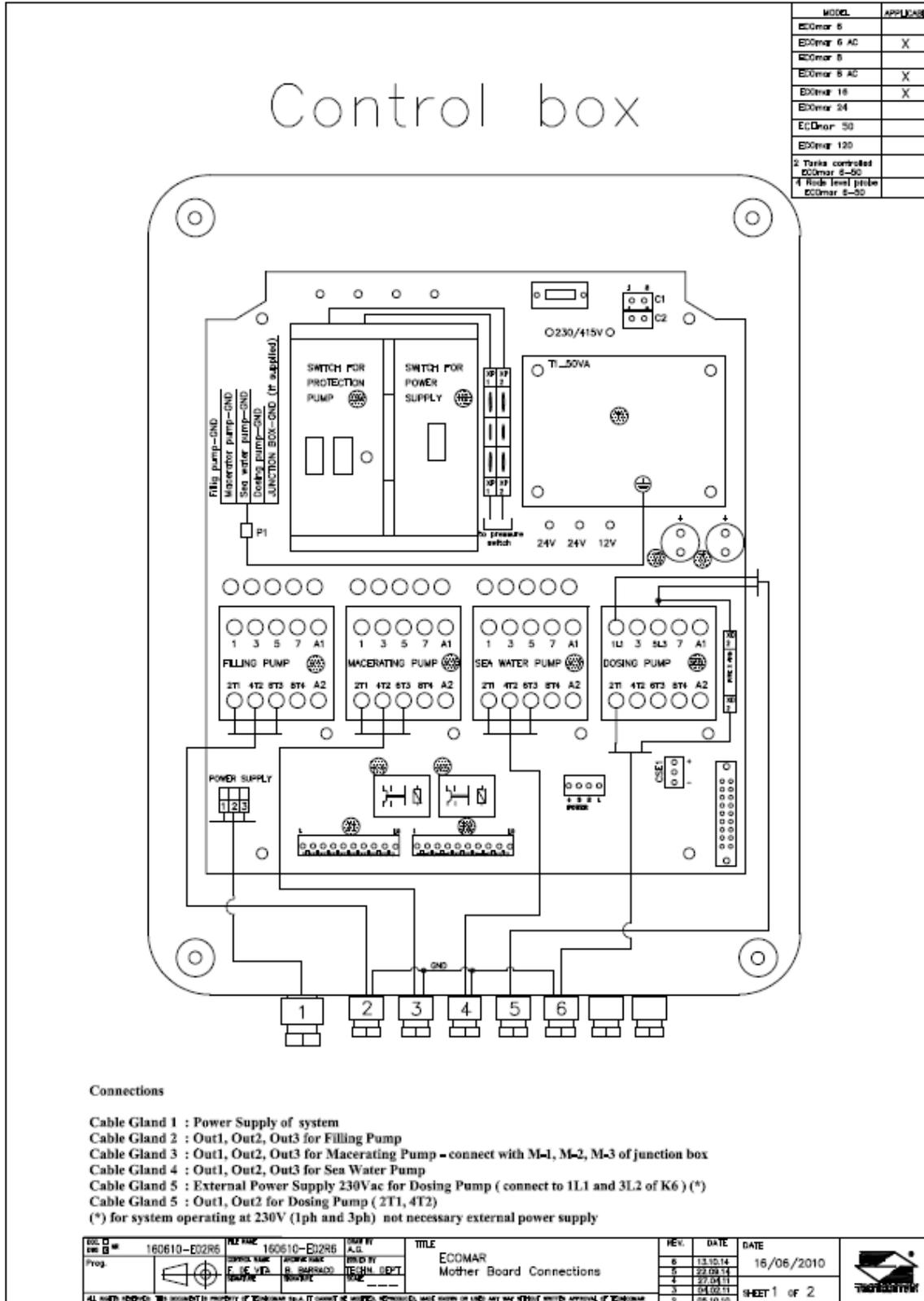


Connect the tips of the pressure switch cable to the bottom side of the two new terminals and tighten the cable gland.



Connect the tips of the pressure switch cable here

**APPENDIX B: Wiring diagram for upgraded system**



POWER SUPPLY 3-phase	POWER SUPPLY 1-phase																
<p>1. R (3ph) 2. S (3ph) 3. T (3ph) K1 2T1. Out filling pump 1 4T2. Out filling pump 1 6T3. Out filling pump 1</p> <p>K2 2T1. Out macerating pump 4T2. Out macerating pump 6T3. Out macerating pump</p> <p>K3 2T1. Out sea water pump 4T1. Out sea water pump 6T1. Out sea water pump</p> <p>K6 (3 phase system) 1L1. 230V ac - external power supply for dosing pump (*) 2T1. Power Supply for Dosing pump 5L3. 230V ac - external power supply for dosing pump (*) 6T3. Power Supply for Dosing pump</p> <p>J1 3. Supply 3-way valve (black "-") 4. Supply 3-way valve (red "+") 5. Start opening 3-way valve (white "open")</p> <p>J2 1. Max level tank storage 2 2. Max level sensor 3. Min. level sensor 4. Min. level storage tank 2 5. Absolute max. level treatment tank 6. Max. level storage tank 1 7. Min. level storage tank 1 8. Alarm current overload 9. Alarm current overload 10. Common</p> <p>P1 ( ground wiring connector): -Filling pump GND -Macerator pump GND -Sea water pump GND -Dosing pump GND -Junction box GND (if supplied)</p> <p>POWER 4. Common Alarm 3. Common Alarm 4.</p> <p>XP-1 /XP-2 terminals for pressure switch of ECOMar system( set 0.2 bar ) (* for system operating at 230V (1ph and 3ph) not necessary external power supply</p>	<p>1. Line ( 1ph )  3. Line ( 1ph ) K1 2T1. Out filling pump 1  6T3. Out filling pump 1</p> <p>K2 2T1. Out macerating pump  6T3. Out macerating pump</p> <p>K3 2T1. Out sea water pump  6T1. Out sea water pump</p> <p>K6 (3 phase system) 1L1 2T1. Power Supply for Dosing pump 5L3 6T3. Power Supply for Dosing pump</p> <p>J1 3. Supply 3-way valve (black "-") 4. Supply 3-way valve (red "+") 5. Start opening 3-way valve (white "open")</p> <p>J2 1. Max level tank storage 2 2. Max level sensor 3. Min. level sensor 4. Min. level storage tank 2 5. Absolute max. level treatment tank 6. Max. level storage tank 1 7. Min. level storage tank 1 8. Alarm current overload 9. Alarm current overload 10. Common</p> <p>P1 ( ground wiring connector): -Filling pump GND -Macerator pump GND -Sea water pump GND -Dosing pump GND -Junction box GND (if supplied)</p> <p>POWER 4. Common Alarm 3. Common Alarm</p> <p>XP-1 /XP-2 terminals for pressure switch of ECOMar system( set 0.2 bar )</p>																
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