

General:

This product is developed for hydrophore pump systems that contain 2 or 3 to make the pumps work in sequence and with equal time periods.
The operating time can be set by the user between 1 and 100 minutes.

MODE : 2 or 3 pumping operations can be selected.



If operation is selected for 3 pumps; 3 pressure switches are connected to the pressure tank(P1,P2,P3).
The upper and lower setpoints of the pressure switches must be as follows.
P1 max. \geq P2max. \geq P3max.
P1min. $>$ P2min. $>$ P3min.



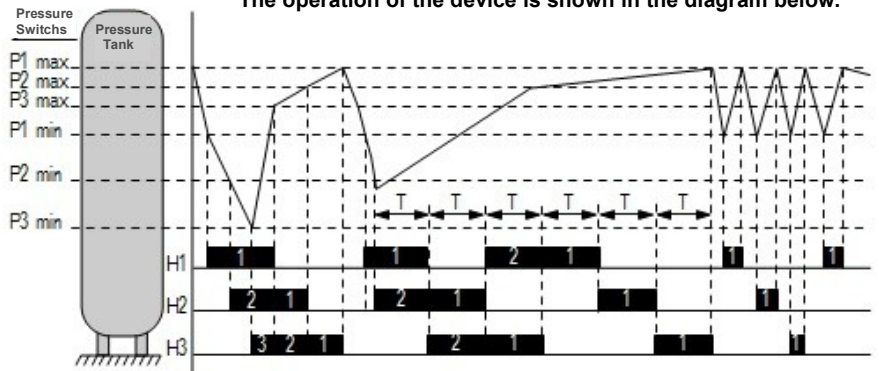
If operation is selected for 2 pumps; 2 pressure switches are connected to the pressure tank(P1,P2).
The upper and lower setpoints of the pressure switches must be as follows.
P1 max. \geq P2max.
P1min. $>$ P2min.

TIME :It is a time delay that can be adjusted between 1min and 100min to ensure that each pump works equally.



www.kael.com.tr
info@kael.com.tr
ISO 9001:2008
Made in
TURKEY

The operation of the device is shown in the diagram below.



Operation Principle :

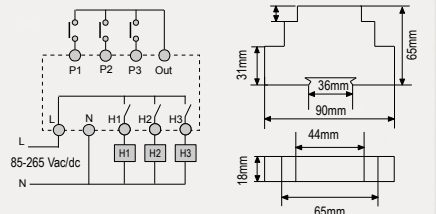
Hydrophore sequencing relay HSR, depending on the pressure switches that it commands, accepts P1 to be the highest pressure switch, then P2 and then P3 to be the lowest pressure switch and though it takes pumps in sequence when the pressure in the tank decreases starting from the highest to the lowest . When only P1 pressure switch is on, the device turns on the pump output H1 (if already on then it takes the next one) and for the following next (T) minutes (as long as P1 is on it keeps this position). After 10 minutes if P1 is still on then the device turns off H1 and turns on H2. Same way after (T) minutes if P1 is still on then the device turns off H2 and turns on H3. This way the device sequences the use of the pumps and divide the time between them. The device remembers the sequence and takes always the following pump.
When P1 is off , the hydrophore output which is on goes off too, and next time when P1 goes on the device takes the next output (pump). For example: if H1 was switched off after P1 switch was off , next time when P1 switch goes on the device takes the next output H2 on. If P2 switch goes on while P1 is on then the device takes the next pump that is not already on. The pumps then are shared in time the same way two by two. As long as P1 and P2 are on, the pumps will work as H1-H2, H2-H3, H3-H1 f or (T) minutes for each couple. If P2 goes off , the device turns off the pump is row and works as mentioned above with one pump. While P1 and P2 are on, if P3 goes on too then the device takes the three pumps H1, H2 and H3 until P3 is off . When the pressure switches go off the device turns off the pump that is in the row sharing time between the pumps again as mentioned before.
If P2 goes on before P1 (P1 may be out of order) then the device will start turning H1 on.



Technical Data

- Operational Voltage (Un)** : 85 - 265 Vac/dc
- A1 – A2 terminals** : 50/60 Hz
- Frequency** : Max.5A/250VAC
- Contact Current** : < 4 VA
- Power Consumption** : IP20
- Device Protection Class** : IP00
- Connector Protection Class** : -20°C....+60°C
- Ambient Temperature** : To connection rail in electrical panel
- Connection Type** : 18x90x65 mm

Dimensions



It's strictly advised to well exam technical data of device and fully match connection diagram.

Do not apply any energy to the Out, P1, P2, P3 inputs otherwise the device or system may be harmed.