Irrigation of Greenhouse Plants.........................

1. Requirement

The irrigation system of greenhouse plants is to be controlled using SR. There are 3 different kinds of plants. Type 1 is hydrophytes in a pool whose water level must be kept within a certain range. Type 2 must be watered each morning and evening for 4 minutes. Type 3 must be watered every other evening for 2 minutes.

2. SR Solution

Watering for plant 1
The water level is always kept in the set range via the float switches for maximum and minimum value (IA0 and IA1);
Watering for plant 2
Via the time switch, the watering system is switched on for 4 minutes from AM5:30 to AM5:34 and from PM8:30 to PM8:34.
Watering for plant 3
Via the function of Current Impulse Relay, this plant is watered for 2 minutes every other evening when the photosensitive switch (IA2) responds.

3. Components used

Input	Output
IA0 float switch for maximum value(NC contact)	QA0 electromagnetic valve for type 1
IA1 float switch for minimum value(NC contact)	QA1 electromagnetic valve for type 2
IA2 switch for automatic watering	QA2 electromagnetic valve for type 3
IA3 photosensitive switch(NO contact)	

4. Advantages and Specialties

The watering time can be changed in the morning and evening by your desired.

The lighting and ventilation in the greenhouse can also be controlled by using of SR in addition to watering plants.

5. Software Circuit Diagram