# Level control relay JARL8-03

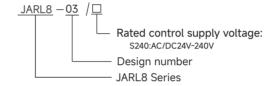
### Instruction Manual





#### General

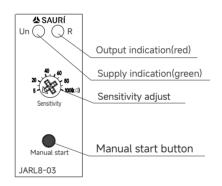
- ■Applications
  - The function is used to ensure the water supply by means of a water tower and a well.
- ■Function Features
  - -It has a button to manually start the water pump, and can also be connected to an external start button.
  - -When the well is short of water, it can prevent the water pump from running empty.
  - -Sensitivity adjustable by a potentiometer (5–100 $k\Omega$ ).
  - -Galvanically separated supply voltage AC/DC 24-240V.
  - Relay status is indicated by LED.
  - 1-MODULE, DIN rail mounting.
- Model and connotation



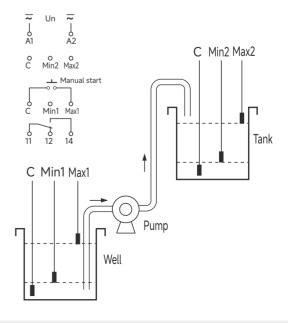
### **Technical parameters**

	JARL8-03
Function	well-tank level contorl
Supply terminals	A1-A2
Voltage range	AC/DC 24-240V(50/60Hz)
Input	max.2VA
Supply voltage tolerance	-15%;+10%
Sensitivity (input resistance)	adjustable in range 5 k $\Omega$ –100 k $\Omega$
Voltage in electrodes	max. AC 5 V
Current in probe	AC <0.1 mA
Time response	max. 400 ms
Max. capacity length	800 m (sensitivity 25k $\Omega$ ), 200 m (sensitivity 100 k $\Omega$ )
Max. capacity of probe cable	400 nF (sensitivity 25k $\Omega$ ), 100 nF (sensitivity 100 k $\Omega$ )
Supply indication	green LED
Accuracy in setting (mechanical)	≤10 %
Output	1×SPDT
Current rating	10A/AC1
Switching voltage	250VAC/24VDC
Min.breaking capacity DC	500mW
Output indication	red LED
Mechanical life	1×10 <sup>7</sup>
Electrical life(AC1)	1×10 <sup>5</sup>
Reset time	max.200ms
Operating temperature	-20°C to +55°C
Storage temperature	-35°C to +75°C
Mounting/DIN rail	Din rail EN/IEC 60715
Protection degree	IP40 for front panel/IP20 terminals
Operating position	any
Overvoltage cathegory	III.
Pollution degree	2
Max.cable size(mm²)	solid wire max.1×2.5or 2×1.5/with sleeve max.1×2.5(AWG 12)
Tightening torque	0.4Nm
Dimensions	90×18×64mm
Weight	80g
Standards	EN 62055-1

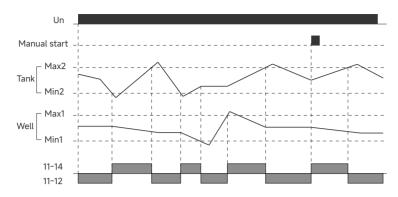
# **Panel Diagram**



# **Wiring Diagram**



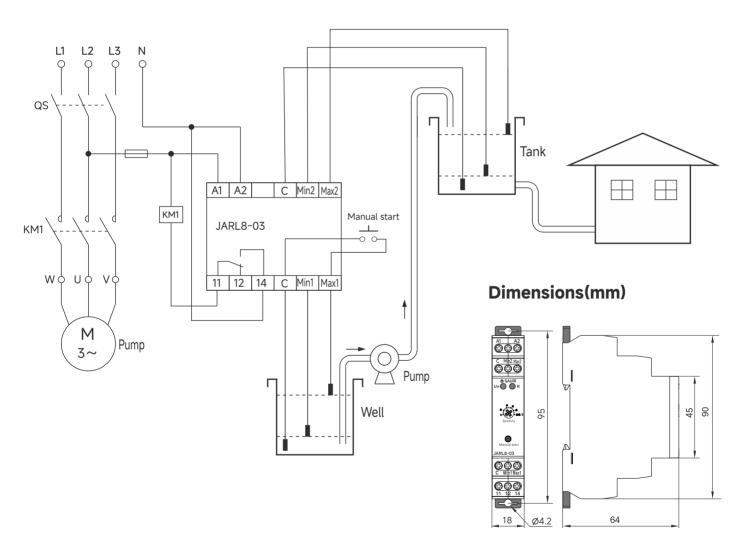
#### **Functions Diagram**



This product is used to control high water towers to pump water from low water wells. The working principle is as follows:

- 1. When the water level in the high water tower is lower than Min2, if the water level in the well is higher than Min1, the pump will start working until the water level in the tower reaches Max2, and the pump will stop working.
- 2. When the water level in the well reaches Max1, if the water level in the tower is lower than Max2, the pump will start working until the water level in the tower reaches Max2, and the pump will stop working. If this function is not required, please do not connect the Max1 probe.
- 3. When the water level in the water tower is between Max2 and Min2, the water pump can be started by pressing the "manual start" button until the water level in the tower reaches Max2, and the water pump stops working.
- 4. When the water pump is running, if the water level in the well is lower than Min1, the pump will stop working to avoid empty load to prevent damage to the pump. At this time, the red light will flash to indicate that the well is short of water.

# **Application Examples**





#### **Disposal of Electrical Waste**

All electrical waste should be disposed of in compliance with current WEEE regulations.



#### Caution

The products must be installed by qualified electricians. All and any electrical connections of the time relay shall comply with the appropriate safety standards.

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