DH48S-S Repeating Cycle Time Delay Relay User Manual

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1. General

Lorentzzi brand DH48S - S digital display time relay is a circular delay-type time relay suitable for control circuits with an operating supply voltage of up to and including 380V AC (50/60Hz) or a DC operating supply voltage of 220V. It serves as a time - delay component to make or break circuits based on preset time. This product adopts a large-scale integrated circuit as a processor and possesses excellent EFT (Electrical Fast Transient) and ESD (Electrostatic Discharge) anti - interference performance.

2. Terminology Interpretation

Circular delay: After setting the make and break time for the time relay and powering it on, the product will always operate in a circular OFF - ON state, where the ON and OFF durations correspond to the preset make and break time.

3. Time Setting Method
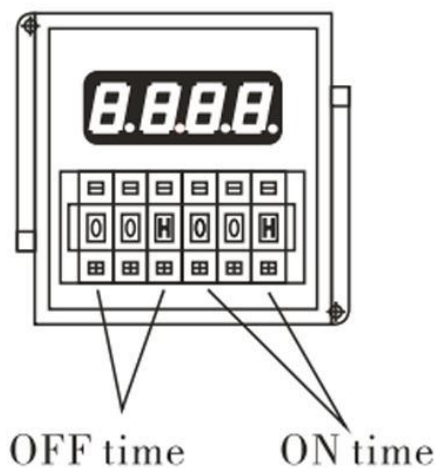
NO.	Unit	Time Delay Range
1	0.1 S	0.1~9.9 S
2	1.0 S	1.0~99 S
3	0.1 M	0.1~9.9 M
4	1.0 M	1.0-99 M
5	10 S	10~990 S
6	0.1 H	0.1~9.9 H
7	1.0 H	1.0~99 H

Time setting example: Suppose we need a cycle where the circuit breaks for 5 minutes and closes for 3 minutes, we can select this product. Set the OFF time as "0", "5", "M" and the ON time as "0", "3", "M". After power - on, it will operate in accordance with the preset working mode.

4. Main Technical Data

Model	DH48S - S
Operating Power Supply	36VAC, 110VAC, 220VAC or 380 VAC, 50/60 Hz; 12VDC, 24VDC
Operation Model	Circular delay
Time Delay Range	0.1~9.9 S, 1.0~99 S, 0.1~9.9 M, 1.0-99 M, 10~990 S, 0.1~9.9 H, 1.0~99 H
Repetitive Error	≤ 1%
Number of Contacts	1 group of contact output (model: DH48S - S - 1Z); 2 groups of contact output (model: DH48S - S - 2Z)
Contact Capacity	AC250V, 5A; DC24V, 7A
Service Life	Electrical life: > 100,000 cycles; Mechanical life: > 1,000,000 cycles
Installation Type	Panel - mount, rail - mount
Temperature Range	Operating ambient temperature: -5°C – 45°C; Storage ambient temperature: -20°C – 70°C

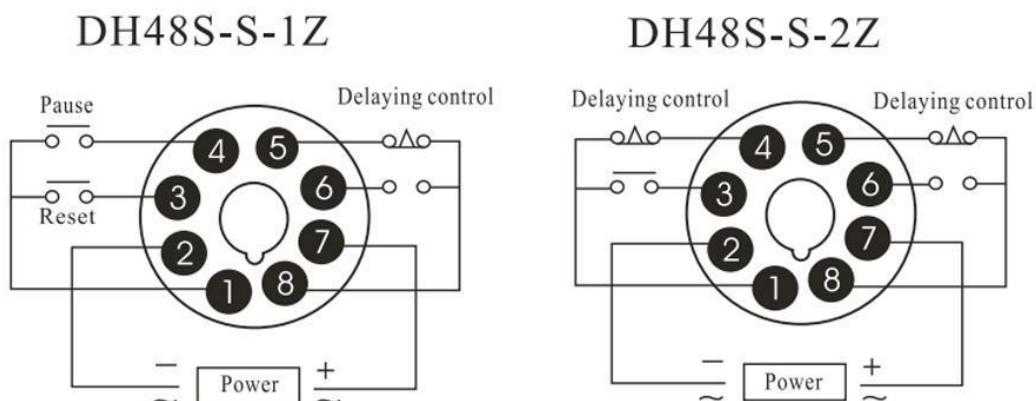## 5. Outline And Installation Dimensions (unit: mm)
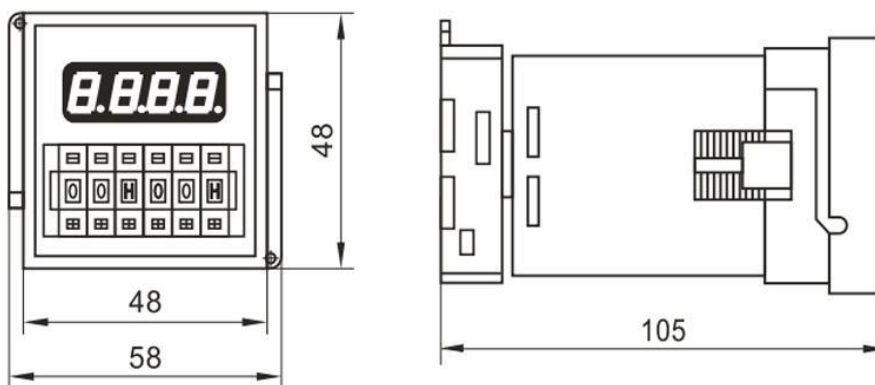
Installation dimensions:

Panel type: Cut - out size is 46mm × 46mm.

Rail type: Compatible with 35mm rails.

Installation type: Hole spacing is 33mm, and mounting screws are 2 - M4 × 20mm.

6. Wiring Diagram

7. Notices

7.1. For the relay's memory function, preset the delay time before powering on, as presets made after power - on won't take effect. Also, ensure the interval between repeated startups is at least 0.5 seconds.

7.2. Strictly follow the wiring diagram on the time relay's enclosure for proper wiring. The operating voltage and frequency must meet specifications.

7.3. Reset function: The relay resets to zero when the reset terminals (① and ③) are connected. It starts timing when these terminals are disconnected.

7.4. Pause function: During timing, connecting the pause terminals (① and ④) pauses timing and displays the current time. Disconnecting them resumes timing.

7.5. In high - current environments, use shielded conductors if "reset" and "pause" terminals connect to long wires. Never apply voltage to these terminals to avoid product damage.