DH48S−S Digital Display Time Relay Operation Instruction

1. General

DH48S−S digital display time relay is a kind of circular delay type time relay suitable for control circuit with operating supply voltage below and including 380V AC 50/60Hz or DC operating supply voltage of 220V, and it's made as time delay component to make or break circuit according to preset time. This product uses large integrated circuit as a processor and owns excellent EFT and ESD anti−interference performance.

2. Terminology Interpretation

Circular delay: when make and break time is set for time relay, after power−on, the product will always work in circular OFF−ON status, and the ON and OFF time is the make and break time preset.
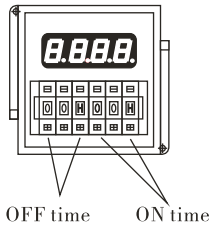
3. Time Setting Method

OFF time   ON time

Fig. 1: Time Setting Location Chart

No.	Multiplying factor (MF)	Meaning of MF	Delay time
1	0.1s	0.1S	0.1s−9.9s
2	S	1S	1s−99s
3	0.1m	0.1m	0.1m−9.9m
4	1m	1m	1m−99m
5	10s	10s	10s−990s
6	0.1h	0.1h	0.1h−9.9h
7	1h	1h	1h−99h

Fig. 2: Delay Time Interval Table

Time setting example: suppose we need to break for 5 minutes and make for 3 minutes as a cycle, we can choose this product and set the OFF time as "0" "5" "M" and set the ON time as "0" "3" "M", and it will work according to preset work mode after power−on.

4. Main Technical Data

| Technical parameter / Model of product	DH48S−S
Operating supply	Subject to operating supply marked on enclosure, voltage fluctuation range: 85%~110%UE
Operation mode	Circular delay
Time delay range	(1)0.1s−9.9s (2)1s−99s (3)0.1m−9.9m (4)1m−99m (5)10s−990s (6)0.1h−9.9h (7)1h−99h
Repetitive error	≤1%
Number of contacts	1 group of passive contact output (DH48S−S−1Z) 2 groups of passive contact output (DH48S−S−2Z)
Contact capacity	AC250V 5A COSφ=1; DC24V 7A
Life	Electric life:>10^5times mechanical life: >10^6times
Type of installation	Panel type, rail type, installation type
Temperature	Ambient temperature for use: −5℃~45℃, ambient temperature for storage: −20℃~70℃

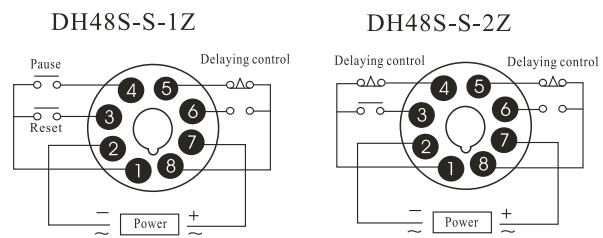## 5. Outline & Installation Size (unit: mm)
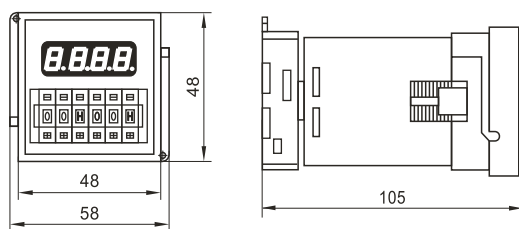
Fig. 3: Outline Size

Installation size：

Panel type: cut−out size 46mm × 46mm

Rail type: 35mm rail

Installation type: hole distance 33mm, mounting screw2−M4 × 20mm www.en-relay.com

Wiring Diagram

DH48S-S-1Z

DH48S-S-2Z

7. Notices

7.1 For the memory function of relay, it needs to preset the delay time before power−on as the time preset after power−on is ineffective, and the repeated start−up interval of relay shall be equal to or more than 0.5s.

7.2 Please properly connect the wire strictly as per wiring diagram indicated on enclosure of time relay, and the operating voltage and frequency must meet the requirement.

7.3 Reset function: the relay will return to zero when making reset terminal (making terminal ① and ③), and it will start to count time when breaking reset terminal.

7.4 Pause function: it stops counting time and displays the moment time when making pause terminal (making terminal ① and ④) during time counting process, and it continues to count time when breaking.

7.5 In case that the "reset" and "pause" terminals are connected to long conductors in heavy current environment, please use shielded conductor ; don't input voltage to "reset" and "pause" terminals so as to prevent the product from damage.