H5CLR-11

MULTI-FUNCTION DIGITAL TIMER

User's Manual

RESTRICTIONS ON USE

When using this product in applications that require particular safety or when using this product in important facilities, please pay attention to the safety of the overall system and equipment. Install fail-safe mechanisms, perform redundancy checks and periodic inspections and adopt other appropriate safety measures when it is necessary.

SAFETY PRECAUTION This manual uses the following symbols to ensure safe operation of this timer.

⚠ **WARNING** Warnings are indicated when mishandling this product might result in death or serious injury to user.

⚠ **CAUTION** Cautions are indicated when mishandling this product might result in minor injury to the user, or only physical damage to the timer.

⚠ WARNING

- Note this incorrect wiring of this product can damage it and lead to other hazards. Make sure the product has been correctly wired before turning the power ON.
- Before wiring, or removing / mounting the product, be sure to turn the power OFF. Failure to do so might cause electric shock.
- Do not touch electrically charged parts such as the power terminals. Doing so might cause electric shock.
- Do not disassemble the product. Doing so might cause electric shock or faulty operation.

⚠ CAUTION

- Use the product within the operating ranges recommended in the specification (temperature, humidity, voltage, shock, mounting direction, atmosphere and etc.). Failure to do so might cause fire or faulty operation.
- Firmly tighten the wires to the socket. Insufficient tightening of the wires to the socket might cause fire.

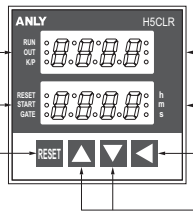
SPECIFICATIONS

Operating voltage	AC/DC : 12～48V / AC/DC : 100～240V
Allowable operating voltage range	85 ~ 110% of rated operating voltage
Rated frequency	50 / 60Hz
Contact rating	250VAC 5A (Resistive load)
Reset time	MAX 0.1s
Power consumption	Approx. 2.5VA
Life	Mechanical : 5,000,000 times / Electrical : 100,000 times
Ambient temperature	-10～+50°C
Ambient humidity	MAX 85% RH
Weight	Approx. 120g

NAMES AND FUNCTIONS OF FACEPLATE

LEDs
- RUN: Timing indicator
- OUT: Control output indicator
- K/P: Key protection indicator
- RESET: Reset indicator
- START: Start indicator
- GATE: Gate indicator
- h: Time unit display (Hour)
- m: Time unit display (Minute)
- s: Time unit display (Second)

RESET key : Reset the output or save the value of setting.(after save than back to the operation mode)



Upper display: Display PV values (current time, etc.) or setup items.

Lower display: Display SV values (set time, etc.) and other parameter values.

◀ key : Performing arithmetic shift operations and switches the display. Hold down for at least 3 seconds to enter setting modes.

▲▼ key : Used for incrementing or decrementing numeric values.

SETTING PROCEDURE

POWER ON or RESET (Reset)

SPECIAL FUNCTION KEY

PRESS FOR 3s ▲+▼ Switch ON / OFF Key protection

PRESS FOR 3s RESET+◀ Switch to input setting mode

(1)Stop ◀ *PRESS FOR 3s* Switch to input setting mode

or

(2)Timing RESET+◀ *PRESS FOR 3s* Switch to input setting mode

OUTPUT TIME

4 — Select output time (▲▼)

4-1 Hold, 4-2 0.1s, 4-3 0.5s, 4-4 1s, 4-5 5s, 4-6 10s, 4-7 15s, 4-8 20s

※ Not functionable on MODE C,D,E and F

Switch to input signal time setting mode ◀ or RESET Save and back to the operation mode

TIME RANGE

1 — Select the time range (▲▼)

1-1 9.999s, 1-2 99.99s, 1-3 999.9s, 1-4 9999s, 1-5 999.9m, 1-6 9999m, 1-7 999.9h, 1-8 9999h, 1-9 99m59s, 1-A 99h59m

Switch to count up/down setting mode ◀ or RESET Save and back to the operation mode

INPUT SIGNAL TIME

5 — Select input signal time (▲▼)

5-1 20ms, 5-2 1ms

Switch to key protection level setting mode ◀ or RESET Save and back to the operation mode

UP / DOWN MODE

2 — Select count up or count down (▲▼)

2-1 Count up, 2-2 Count down

Switch to output setting mode ◀ or RESET Save and back to the operation mode

KEY PROTECTION LEVEL

6 — Select key protection level (▲▼)

6-1 Lock function key ◀, 6-2 Lock reset key RESET, 6-3 Lock preset value key ▲▼, 6-4 Lock all key

Switch to output contact setting mode ◀ or RESET Save and back to the operation mode

OUTPUT MODE

3 — Select output mode (▲▼)

3-1 Mode A, 3-2 Mode A1, 3-3 Mode A2, 3-4 Mode A3, 3-5 Mode B, 3-6 Mode B1, 3-7 Mode B2, 3-8 Mode C, 3-9 Mode D, 3-A Mode E, 3-b Mode F

See reverse page for more details

Switch to output time setting mode ◀ or RESET Save and back to the operation mode

OUTPUT CONTACT

7 — Select output contact (▲▼)

7-1 2C, 7-2 1A1C

Switch to time range setting mode ◀ or RESET Save and back to the operation mode

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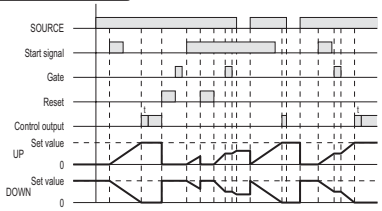
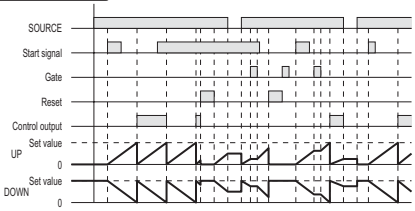
TIMING CHART(Output mode)

A : Signal ON delay 1 (Timer resets when power comes ON.)



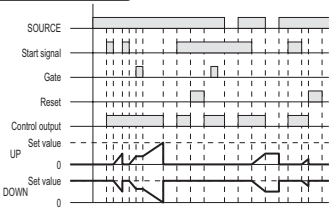
Timing starts when the start signal goes ON. *Note1
The control output is controlled using a sustained or one-shot time period.

B : Repeat cycle 1 (Timer resets when power comes ON.)



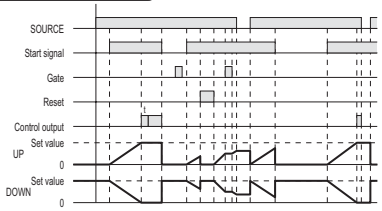
Timing starts when the start signal goes ON. *Note1
The status of the control output is reversed when time is up (OFF at start).

D : Signal OFF delay (Timer resets when power comes ON.)



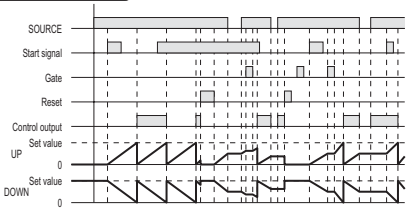
The control output is ON when the start signal is ON (except when the power is OFF or the reset is ON).
The timer is reset when the time is up.

A-1 : Signal ON delay 2 (Timer resets when power comes ON.)



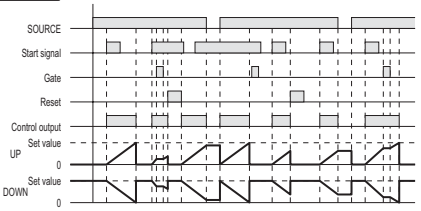
Timing starts when the start signal goes ON, and is reset when the start signal goes OFF. *Note1
The control output is controlled using a sustained or one-shot time period.

B-1 : Repeat cycle 2 (Timer dose not reset when power comes ON.)



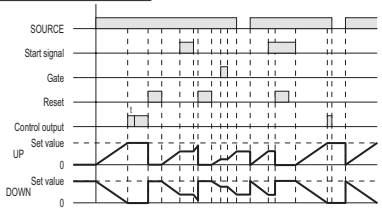
Timing starts when the start signal goes ON. *Note1
The status of the control output is reversed when time is up (OFF at start).

E : Interval (Timer resets when power comes ON.)



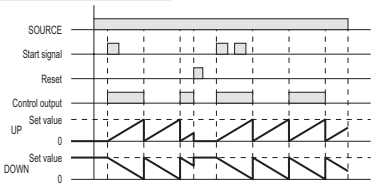
Timing starts when the start signal comes ON. *Note1
The control output is reset when time is up.

A-2 : Power ON delay 1 (Timer resets when power comes ON.)



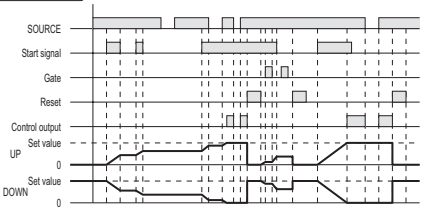
Timing starts when the reset input goes OFF.
The start signal disables the timing function (ie., same function as the gate input).
The control output is controlled using a sustained or one-shot time period.

B-2 : Repeat cycle ON start (Timer resets when power comes ON.)



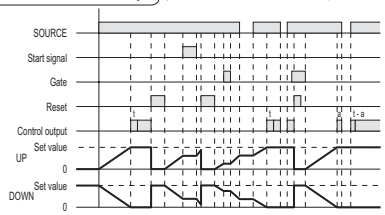
Timing starts when the start signal goes ON. *Note1
The status of the control output is reversed when time is up (OFF at start).

F : Cumulative (Timer does not reset when power comes ON.)



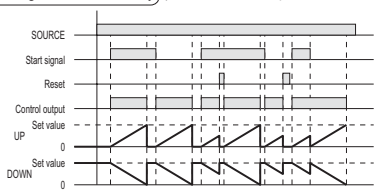
Start signal enables timing (timing is stopped when the start signal is OFF or when the power is OFF)
A sustained control output is used.

A-3 : Power ON delay 2 (Timer dose not reset when power comes ON.)



Timing starts when the reset input goes OFF.
The start signal disables the timing function (ie., same function as the gate input).
The control output is controlled using a sustained or one-shot time period.

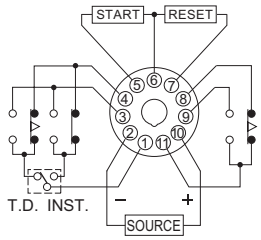
C : Signal ON/OFF delay (Timer resets when power comes ON.)



Timing starts when the start signal goes ON or OFF.
The status of the control output is ON when the start signal goes ON or OFF.

*Note1. While the start signal is ON, the timer starts when power comes ON or when the reset input goes OFF.

CONNECTION



DIMENSION(mm)