H5KLR
MULTI-FUNCTION DIGITAL COUNTER
User's Manual

ANLY

═══ 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.
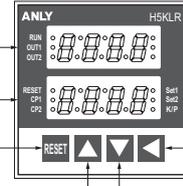
SPECIFICATIONS

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)
Count speed	MAX 30 cps or 1,000 cps
Power consumption	Approx. 2.5VA
Life	Mechanical : 5,000,000 times / Electrical : 100,000 times
Ambient temperature	-10~+50℃
Ambient humidity	MAX 85% RH
Weight	Approx. 120g

NAMES AND FUNCTIONS OF FACEPLATE

LEDs
- RUN: Counting indicator
- OUT1: Control output 1 indicator
- OUT2: Control output 2 indicator
- RESET: Reset indicator
- CP1: Signal input 1 indicator
- CP2: Signal input 2 indicator
- Set1: 1st set value indicator
- Set2: 2nd set value indicator
- K/P: Key protection indicator

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 count values, etc.) or setup items.

Lower display
Display SV values (set count values, 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. And show the first set value or second set value.

SETTING PROCEDURE

POWER ON or **RESET** Reset

SPECIAL FUNCTION KEY

PRESS FOR 3s
▲ ✚ ▼
ON / OFF Key protect

PRESS FOR 3s
RESET ✚ ◄
Switch to input setting mode

(1)Stop ◄ *PRESS FOR 3s* Switch to input setting mode
or
(2)Counting RESET ✚ ◄ *PRESS FOR 3s* Switch to input setting mode

INPUT MODE

1 — Change the mode ▲▼

1-1 UP   1-3 UP/DOWN A
1-2 DOWN 1-4 UP/DOWN B
          1-5 UP/DOWN C

※ UP/DOWN MODE not available on ASK-4DR□, H5KLR-8/-11 type

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

OUTPUT MODE

2 — Change the mode ▲▼

2-1 Mode N   2-4 Mode R   2-7 Mode Q
2-2 Mode F   2-5 Mode K   2-8 Mode A
2-3 Mode C   2-6 Mode P   See reverse page for more details

Switch to output 2 time setting mode ◄ or RESET Save and back to the operation mode

OUTPUT 2 TIME

3 — Change the set value ▲▼

3-1 0.01s 3-4 0.2s 3-7 2s   3-8 20s
3-2 0.05s 3-5 0.5s 3-8 5s
3-3 0.1s   3-6 1s   3-9 10s

※ Not available for Mode N and Mode F

Switch to output 1 time setting mode ◄ or RESET Save and back to the operation mode

OUTPUT 1 TIME

4 — Change the set value ▲▼

4-1 Hold   4-4 0.1s 4-7 1s   4-8 10s
4-2 0.01s 4-5 0.2s 4-8 2s   4-6 20s
4-3 0.05s 4-6 0.5s 4-9 5s

※ Available on H5KLR-11 type only

Switch to count speed setting mode ◄ or RESET Save and back to the operation mode

COUNT SPEED

5 — Change the set value ▲▼

5-1 30 cps
5-2 1k cps

Switch to reset time setting mode ◄ or RESET Save and back to the operation mode

MINIMUM RESET TIME

6 — Change the set value ▲▼

6-1 20ms
6-2 1ms

Switch to the position of decimal point setting mode ◄ or RESET Save and back to the operation mode

DECIMAL POINT

7 — Move the decimal point position ▲▼

7-1 9999
7-2 999.9
7-3 99.99

Switch to prescale value setting mode ◄ or RESET Save and back to the operation mode

PRESCALE VALUE

8 — Change the set value ▲▼ ➡ Changing the digit of prescale value ◄

8-1 0.01~9.99

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

KEY PROTECTION LEVEL

9 — Change the set level ▲▼

9-1 Lock function key ◄
9-2 Lock reset key RESET
9-3 Lock preset value key ▲▼
9-4 Lock all key

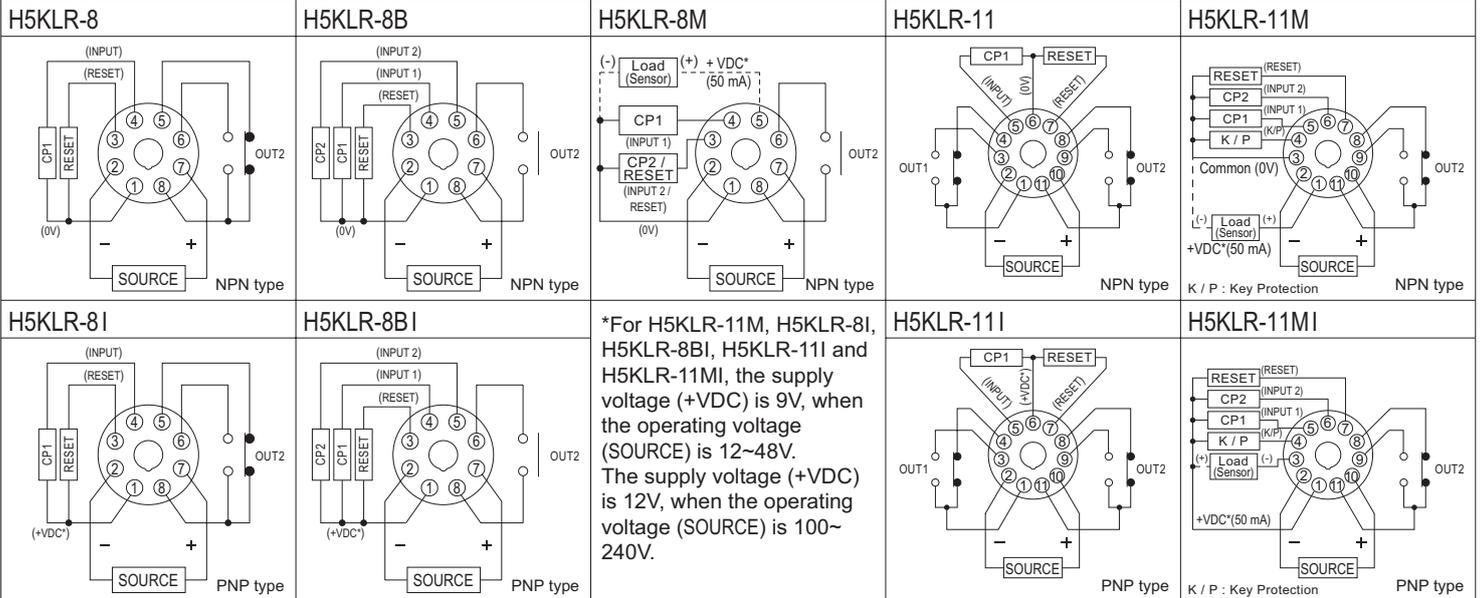Switch to power off setting mode ◄ or RESET Save and back to the operation mode
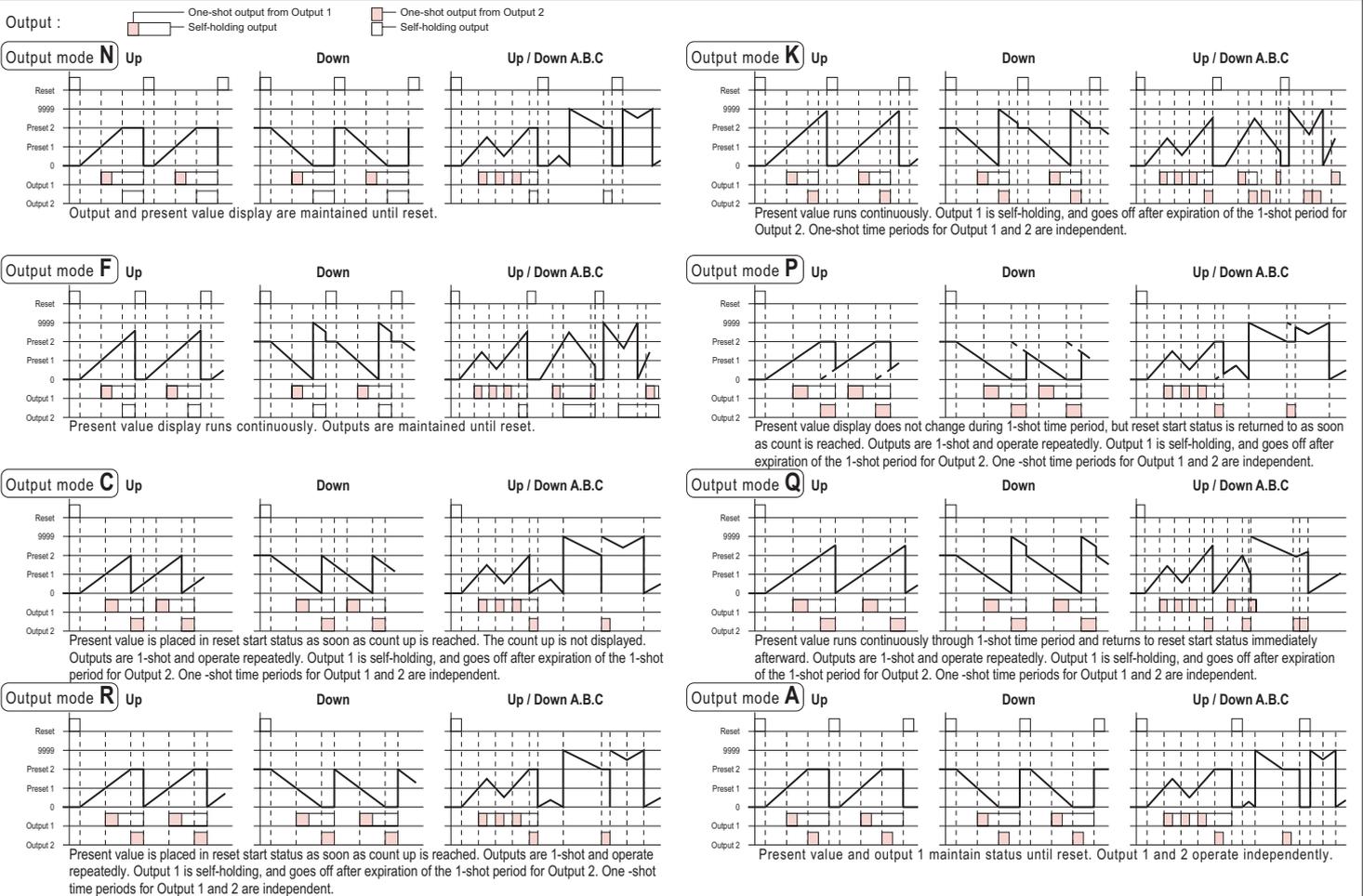
POWER OFF MODE

10 — Change the mode ▲▼

A-1 Power off reset
A-2 Power off memory

Switch to Input setting mode ◄ or RESET Save and back to the operation mode

CONNECTION

H5KLR-8

(INPUT)
(RESET)
CP1 RESET
④ ⑤
③ ⑥
② ⑦
① ⑧
(0V)
OUT2
SOURCE NPN type

H5KLR-8B
(INPUT 2)
(INPUT 1)
(RESET)
CP2 CP1 RESET
④ ⑤
③ ⑥
② ⑦
① ⑧
(0V)
OUT2
SOURCE NPN type

H5KLR-8M
(-) Load (Sensor) (+) + VDC* (50 mA)
CP1 (INPUT 1)
CP2 / RESET (INPUT 2 / RESET)
④ ⑤
③ ⑥
② ⑦
① ⑧
(0V)
OUT2
SOURCE NPN type

H5KLR-11
CP1 RESET
(INPUT) (0V) RESET
④ ⑤ ⑥
③ ⑦
② ⑧
① ⑪ ⑩
OUT1
OUT2
SOURCE NPN type

H5KLR-11M
RESET (RESET)
CP2 (INPUT 2)
CP1 (INPUT 1)
K / P (K/P)
Common (0V)
④ ⑤ ⑥
③ ⑦
② ⑧
① ⑪ ⑩
OUT2
(-) Load (Sensor) (+)
+VDC*(50 mA)
SOURCE NPN type
K / P : Key Protection

H5KLR-8I
(INPUT)
(RESET)
CP1 RESET
④ ⑤
③ ⑥
② ⑦
① ⑧
(+VDC*)
OUT2
SOURCE PNP type

H5KLR-8BI
(INPUT 2)
(INPUT 1)
(RESET)
CP2 CP1 RESET
④ ⑤
③ ⑥
② ⑦
① ⑧
(+VDC*)
OUT2
SOURCE PNP type

*For H5KLR-11M, H5KLR-8I, H5KLR-8BI, H5KLR-11I and H5KLR-11MI, the supply voltage (+VDC) is 9V, when the operating voltage (SOURCE) is 12~48V.
The supply voltage (+VDC) is 12V, when the operating voltage (SOURCE) is 100~240V.

H5KLR-11I
CP1 RESET
(INPUT) (+VDC*) RESET
④ ⑤ ⑥
③ ⑦
② ⑧
① ⑪ ⑩
OUT1
OUT2
SOURCE PNP type

H5KLR-11MI
RESET (RESET)
CP2 (INPUT 2)
CP1 (INPUT 1)
K / P (K/P)
(+) Load (Sensor) (-)
④ ⑤ ⑥
③ ⑦
② ⑧
① ⑪ ⑩
OUT2
+VDC*(50 mA)
SOURCE PNP type
K / P : Key Protection

TIMING CHART

Output :
One-shot output from Output 1
Self-holding output
One-shot output from Output 2
Self-holding output

Output mode N
Up　Down　Up / Down A.B.C

Output and present value display are maintained until reset.

Output mode K
Up　Down　Up / Down A.B.C

Present value runs continuously. Output 1 is self-holding, and goes off after expiration of the 1-shot period for Output 2. One-shot time periods for Output 1 and 2 are independent.

Output mode F
Up　Down　Up / Down A.B.C

Present value display runs continuously. Outputs are maintained until reset.

Output mode P
Up　Down　Up / Down A.B.C

Present value display does not change during 1-shot time period, but reset start status is returned to as soon as count is reached. Outputs are 1-shot and operate repeatedly. Output 1 is self-holding, and goes off after expiration of the 1-shot period for Output 2. One -shot time periods for Output 1 and 2 are independent.

Output mode C
Up　Down　Up / Down A.B.C

Present value is placed in reset start status as soon as count up is reached. The count up is not displayed. Outputs are 1-shot and operate repeatedly. Output 1 is self-holding, and goes off after expiration of the 1-shot period for Output 2. One -shot time periods for Output 1 and 2 are independent.

Output mode Q
Up　Down　Up / Down A.B.C

Present value runs continuously through 1-shot time period and returns to reset start status immediately afterward. Outputs are 1-shot and operate repeatedly. Output 1 is self-holding, and goes off after expiration of the 1-shot period for Output 2. One -shot time periods for Output 1 and 2 are independent.

Output mode R
Up　Down　Up / Down A.B.C

Present value is placed in reset start status as soon as count up is reached. Outputs are 1-shot and operate repeatedly. Output 1 is self-holding, and goes off after expiration of the 1-shot period for Output 2. One -shot time periods for Output 1 and 2 are independent.

Output mode A
Up　Down　Up / Down A.B.C

Present value and output 1 maintain status until reset. Output 1 and 2 operate independently.

DIMENSION(mm)

H5KLR

48　45　48　45
5.5　63.7　14.2
45 +0.5 -0

H5KLR + Y-50 + US-08

ø 3.3 X 2
48　48　13　30　45
48　51　59
5.5　15　48.7　35.7
45 +0.5 -0