Digital counter & timer

GF series

INSTRUCTION MANUAL

Thank you for purchasing Hanyoung Nux products. Please read the instruction manual carefully before using this product, and use the product correctly. Also, please keep this manual where you can view it any time.

HANYOUNGNUX CO.,LTD
28, Gilpa-ro 71beon-gil, Michuhol-gu,
Incheon, Korea TEL : +82-32-876-4697
http://www.hanyoungnux.com

MF0601KE220330

Safety information

Please read the safety information carefully before the use, and use the product correctly.
The alerts declared in the manual are classified into **Danger** and **Warning** according to their importance.

⚠ **DANGER**	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury
⚠ **WARNING**	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury
⚠ **CAUTION**	Indicates a potentially hazardous situation which, if not avoided, may result in minor injury or properties damage

⚠ DANGER

- The electric shock may occur in the input/output terminal so please never let your body and/or conductive substance to be contacted by the input/output terminal.

⚠ WARNING

- Use other than the method specified by the manufacturer may result in personal injury or property damage.
- If there is a risk that a breakdown or abnormality of this product may lead to a serious accident in the system, install an appropriate external protection circuit.
- Since the power switch and fuse are not attached to this unit, install them separately outside. (Fuse rating: 250 V 0.5 A)
- To prevent electric shock and malfunction of the device, do not supply power until all wiring is completed.
- Never disassemble, process, improve or repair this device. there is a risk of abnormal operation or electric shock.
- Turn off the power before attaching or detaching this device. It may cause electric shock, malfunction or failure.
- To prevent damage and breakdown of this device, supply the power voltage appropriate to the rating.
- Since it is not of explosion-proof structure, do not use it in a place with flammable or explosive gas.
- There is a risk of electric shock, so please use this product while it is installed on a panel.

⚠ CAUTION

- The contents of this manual are subject to change without prior notice or notice.
- Please check if it matches the specifications you ordered.
- Check whether there is any damage or abnormality in the product during transportation.
- Use in a place where corrosive gas (especially harmful gas,ammonia, etc.) and combustible gas are not generated.
- Use in a place where vibration or impact is not applied directly to the body.
- Use in a place free from water, oil, chemicals, steam, dust, salt, iron, etc.
- Do not use outdoors
- Do not wipe this unit with organic solvents such as alcohol or benzene. (Wipe with a neutral detergent.)
- Avoid places where inductive obstacles are large and static electricity and magnetic noise are generated.
- Avoid places where heat accumulation occurs due to direct sunlight or radiant heat.
- Use it at an altitude of 2,000 m or less.
- When water enters, there is a risk of a short circuit or fire, so be sure to inspect it.
- If there is a lot of noise from the power supply, it is recommended to use an insulation transformer and a noise filter. The noise filter must be attached to a panel that is grounded, and the wiring between the noise filter output side and the power supply terminal of the instrument must be short.
- If the instrument power cable is twisted closely, it is effective against noise.
- Do not wire anything to unused terminals.
- Connect the wiring correctly after checking the polarity of the terminal.
- Install a switch or circuit breaker so that the operator can turn off the power immediately and mark it appropriately.
- Install a switch or circuit breaker at a close distance for easy operator operation.
- Since a switch or breaker is installed, please state on the panel that the power will be cut off when the switch or breaker is operated.
- Regular maintenance is recommended in order to continue to use this device safely.
- Some mounting parts of this instrument have a life span and some that change over time.
- The warranty period of this device including accessories is 1 year under normal use.
- When the power is turned on, a preparation period for contact output is required. When used as a signal for an external interlock circuit, etc., use a delay relay together.
- Power input and relay output wires are at least 75 °C of heat resistance and, use copper wires from 18 AWG to 24 AWG.
- ★ Product usage: This device is a timer/counter that is installed and used in industrial equipment for time control and counting.
- ★ Overvoltage category II (OVC II)

Suffix code

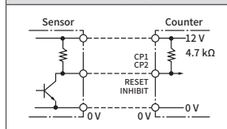
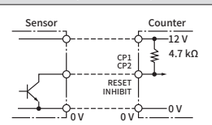
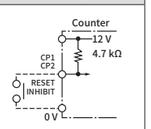
Model	Code							Description
GF	□-	□	□	□	□	□	□	Digital counter/timer
Appearance	4A							48(W) X 48(H) mm
	7A							72(W) X 72(H) mm
Model		P						Preset counter/timer
		T						Total counter/timer
Display digits			4					4 Digit-display (9999)
			6					6 Digit-display (999999) ※ GF7A model only
Control output				0				No output (Display only)
				1				1-Stage output
				2				2-Stage output ※ GF7A model only
Terminal structure					T			Terminal
					S			8 Pin plug ※ GF4A model only

■ Product composition

Terminal structure	GF4A Terminal	GF4A 8 Pin plug	GF7A Terminal
Model	GF4A- P41T / T40T	GF4A- P41S / T40S	GF7A- P41T / P42T / P61T / P62T / T60T

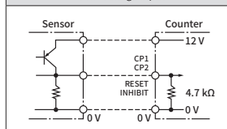
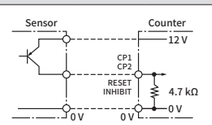
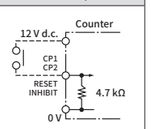
Input wiring method

■ When selected as non-voltage input (NPN)

NPN Voltage input	NPN Open collector input	Contact input
		

※ Note) When using a contact point, set the counting speed to 30 cps or 1 cps to prevent chattering.

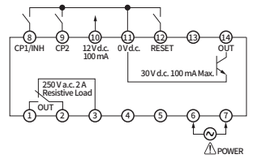
■ When selected by voltage input (PNP)

PNP Voltage input	PNP Open collector input	Contact input
		

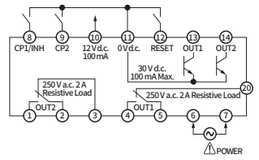
※ Note) When using a contact point, set the counting speed to 30 cps or 1 cps to prevent chattering.

Connection diagram

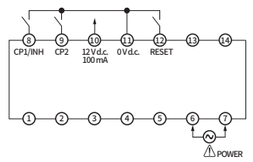
■ GF7A-P41T / P61T



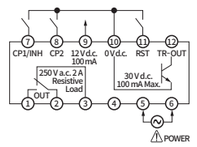
■ GF7A-P42T / P62T



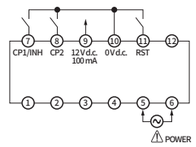
■ GF7A-T60T



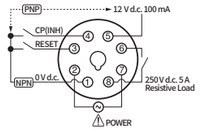
■ GF4A-P41T



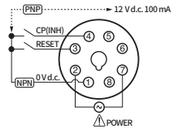
■ GF4A-T40T



■ GF4A-P41S



■ GF4A-T40S



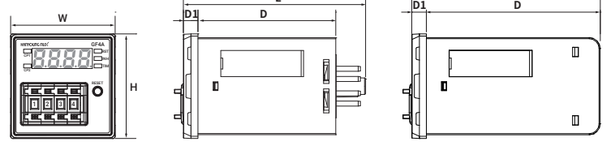
Specification

Model			GF7A	GF4A	GF4A-□□□S
Power supply voltage			100 ~ 240 V a.c. 50/60 Hz (Voltage fluctuation rate : ± 10 %)		
Power Consumption			• P41T (6.6 VA), P42T (7.3 VA) • P61T (6.6 VA), P62T (7.6 VA) • T60T (5.6 VA)	• P41T (6.4 VA) • T40T (5.6 VA)	• P41S (5.9 VA) • T40S (5.4 VA)
Display method			White 7 segment LED		
Character size			• P62T/P61T/T60T (11.5 X 5.2 mm) • P42T/P41T (13.6 X 7.8 mm)	8.5 X 5.0 mm	
Counting speed			1 / 30 / 1k / 5k cps	30 / 5k cps	
Blackout compensation			10 Years (nonvolatile memory used)		
Return time			500 ms or less		
Timer operation error			Power start : ± 0.01 % ± 0.05 seconds or less (ratio to setting value)		
Input			• Input method selection by external switch (voltage input / no-voltage input) • Counter (composed of CP1, CP2, RESET), timer (composed of INHIBIT, RESET) • Voltage input : HIGH level (5 V — 30 V d.c.), LOW level (0 V — 2 V d.c.), input resistance (about 4.7 kΩ) • No-voltage input : Impedance in case of short circuit (1 kΩ or less), residual voltage in case of short-circuit (2 V d.c. or less)		
Min. input signal time			20 ms or more (RESET, INHIBIT input)		
One-shot output time		1st stage	0.5 seconds fixed	-	-
		2st stage	0.05 to 5.8 seconds		
External power supply			12 V d.c. 100 mA max.		
Control output	Contact	1st stage	OUT (SPDT, 1c)		OUT (SPST, 1a)
		2st stage	OUT1 (SPDT, 1c), OUT2 (SPDT, 1c)	-	
		Capacity	SPDT : NC (250 V a.c. 2 A, 250 V a.c. 5 A), NO (250 V a.c. 5 A), Resistance load		250 V a.c. 5 A Resistance load
	Non-contact	1st stage	OUT (NPN Open collector)		-
		2st stage	OUT1, OUT2 (NPN 2 open collector circuits)	-	
		Capacity	30 V d.c. 100 mA max.		
Relay life			Electrical (more than 50,000 times), Mechanical (more than 10 million times)		
Insulation Resistance			100 MΩ or more (based on 500 V d.c. mega)		
Dielectric strength			2,000 V a.c. 60 Hz 1 minute (between the conductive part terminal and the case)		
Noise resistance			Square wave noise by noise simulator ±2,000 V (Pulse width 1 μs)		
Vibration			• Durability : 10 — 55 Hz (1 minute cycle), Double amplitude 0.75 mm, X · Y · Z 2 hours each direction • Malfunction : 10 — 55 Hz (1 minute cycle), Double amplitude 0.5 mm, X · Y · Z 10 minutes each direction		
Ambient temperature& humidity			-10 ~ 55 °C, 35 ~ 85 % R.H.		
Storage temperature			-20 ~ 65 °C		
Approval			CE		
Weight (g)			• P41T : 184 g • P42T : 190 g • P61T : 180 g • P62T : 198 g • T60T : 150 g	• P41T : 108 g • T40T : 100 g	• P41S : 92 g • T40S : 84 g

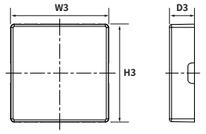
Appearance and panel processing dimensions

Unit : mm

■ Appearance

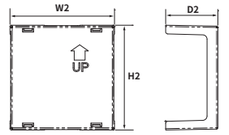


■ Front Protective Cover



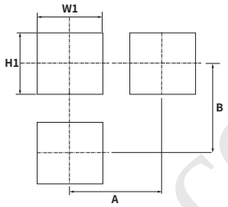
Order code	
GF4A	W-SAFETY COVER 48
GF4A-S	W-SAFETY COVER 48
GF7A	W-SAFETY COVER 72

■ Terminal Protective cover



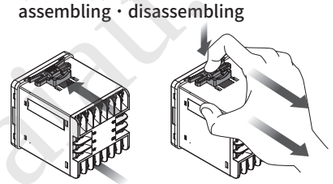
Order code	
GF4A	TC4A-COV
GF7A	TC7A-COV

■ Panel cutout

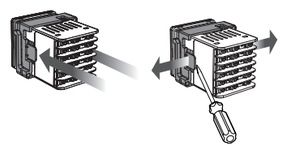


Classification	Type	GF4A	GF4A-S	GF7A
Product dimensions	W	48.0	48.0	72.0
	H	48.0	48.0	72.0
	D	79.8	63.3	75.0
	D1	6.7	6.7	8.2
	L	86.5	83.7	83.2
Panel cutout	W1	45.0(±0.5)	45.0(±0.5)	68.0(±0.7)
	H1	45.0(±0.5)	45.0(±0.5)	68.0(±0.7)
	A	60.0	60.0	82.0
	B	60.0	60.0	100.0
Terminal Protective cover (※Option)	W2	48.0	X	71.8
	H2	48.1	X	71.8
	D2	24.0	X	26.9
Front Protective Cover (※Option)	W3	50.8	50.8	75.2
	H3	50.8	50.8	75.2
	D3	12.9	12.9	16.7

■ GF7A Bracket assembling · disassembling

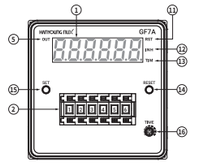


■ GF7A Bracket assembling · disassembling

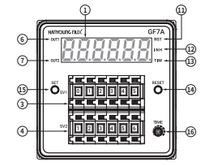


Function and name of each part

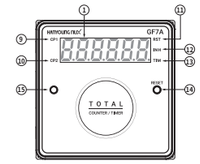
■ GF7A-P41T / P61T



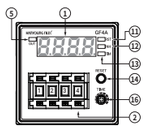
■ GF7A-P42T / P62T



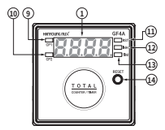
■ GF7A-T60T



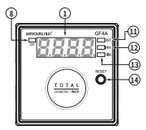
■ GF4A-P41T / P41S



■ GF4A-T40T



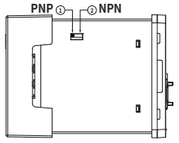
■ GF4A-T40S



NO.	Name	Function
1	PV display	Time value and counting value display
2	SV setting switch	Time value and counting value setting switch, prescale value setting switch (※ GF7A only)
3	SV 1-stage setting switch	P42T / P62T Switch for setting time value and counting value of 1st output in the model
4	SV 2-stage setting switch	P42T / P62T Switch for setting time value and counting value of 2-stage output in the model, P42T / P62T Switch for setting prescale value in model (※ GF7A only)
5	Output indicator	Light on when output operates in P41T / P61T model
6	Output 1 indicator	Light on when output 1 operates in P42T / P62T model
7	Output 2 indicator	Light on when output 2 operates in P42T / P62T model
8	CP Input indicator	Lights up when CP signal is applied in counter mode (※ GF4A-T40S only)
9	CP1 Input indicator	Lights up when CP 1 signal is applied in counter mode
10	CP2 Input indicator	Light on when CP 2 signal is applied in counter mode
11	Reset input indicator	Light on when external RESET signal is applied in timer/counter mode
12	Prohibited input indicator	Light on when external INHIBIT signal is applied in timer mode
13	Timekeeping indicator	Light on when selecting the timer mode, blinks when timer timing is running
14	Reset-key	Used for time value and count value initialization, output state initialization, and function switch setting value change
15	Set-key	Used when setting prescale in counter mode (※ GF7A only, when function switch SW1-8 is set to'PRE')
16	Volume for setting output time	Set the output time using a (+)-shaped screwdriver (setting range 0.05 seconds to 5.8 seconds)

Function

■ Input logic selection



1) Turn off the product.
2) Select the input switch attached to the side of the case according to the input logic voltage (PNP) or non voltage (NPN) you want to use.
3) If power is supplied after selection, timer/counter operates according to input status.

※ **After turning off the power, change the voltage input and no-voltage input selection.**

■ ERROR indication

indiciation	Explanation
Err.0	• When the SV setting switch is set to '0000' or '000000' in the P41T / P61T models. • When the SV 2-stage setting switch is set to '0000' or '000000' in the P42T / P62T models.
Err.1	• When the prescale setting value is in error in the GF7A model

■ Counting speed

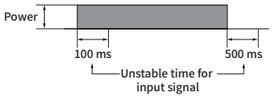
① The maximum counting speed is the maximum response speed when the duty ratio (ON/OFF ratio) of the counting input signal is input as 1 : 1.

② If the ON time or OFF time is less than the specified value of the minimum signal time, the counter may not be performed.
③ For contact input, use a contact with excellent contact reliability.

Counting speed	Minimum signal time
1 cps	500 ms or more
30 cps	16.7 ms or more
1k cps	0.5 ms or more
5k cps	0.1 ms or more

■ Power on/off

- During 100ms after power-on or 500ms after power-off, the internal power, and external output power rise and fall. To prevent malfunction due to the unsafe output operation of the external sensor, please do not operate it during unstable times.
- Apply the signal 100 ms after turning on the power.
- Apply the signal 500 ms after turning on the power.



■ Sensor power supply

- Since it has a built-in power supply (12 V d.c. 100 ㎃ Max.) that can be supplied to the sensor, it can be used within the rated current value. (Proximity switch : about 10 ㎃, Rotary encoder : about 30 ㎃)

■ Output time setting

TIME

- Set the output time (One-shot time) using the (+) driver on the front TIME volume.
- The time setting range can be set from 0.05 seconds to 5.8 seconds.

How to set the prescale

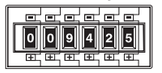
■ What is prescale?

- This function counts the number of input signals and converts them into arbitrary values.

※ This function is only supported on the GF7A model.

■ How to use prescale

- When winding the wire around the drum, refer to the example below to display the winding length or to control the actual length.



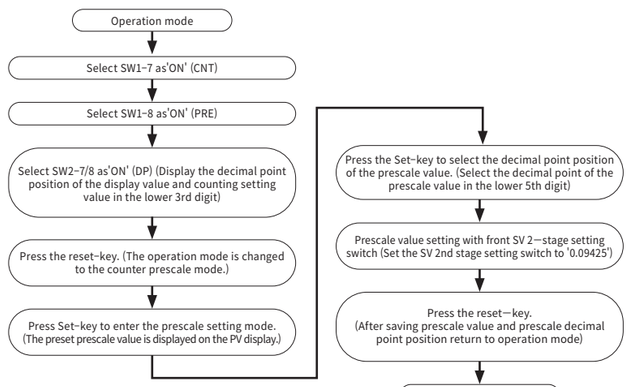
- Diameter of the roller through which the electric wire is drawn (D) : 600 ㎜
- Encoder used: 1 rotation / 20 pulses
- Unit of display value: meter (m)

▸ Front digital switch

- Circumference = D x π = 600 x 3.1416 = 1884.96 ㎜ under the above conditions (1 Length of winding per turn)
- The winding length per pulse is (1884.96 ÷ 20) = 94.248 ㎜
- Converting the unit to meters (M) is '0.094248 m'. (94.248 ÷ 1000)
- Since it is possible to set up to 5 digits after the decimal point, in the case of the P61T / P62T model, it is rounded and '0.09425' is the prescale value.

① To select as a counter, set the side 'SW1-7' switch to 'ON'.
② To select the prescale mode, set the 'SW1-8' switch on the side to 'ON'.
③ To make the decimal point of the displayed value and the decimal point of the count setting value into the lower 3 digits, set the 'SW2-7' and 'SW2-8' switches to the 'ON' direction and press the reset-key.
④ Since the decimal point moves each time the set-key is pressed, the decimal point position of the prescale value is set to the 5th lower digit using the set-key.
⑤ After setting the front SV setting switch (SV 2-stage setting switch in the case of P42T / P62T models) to '0.09425', press the reset key to complete the prescale value setting.

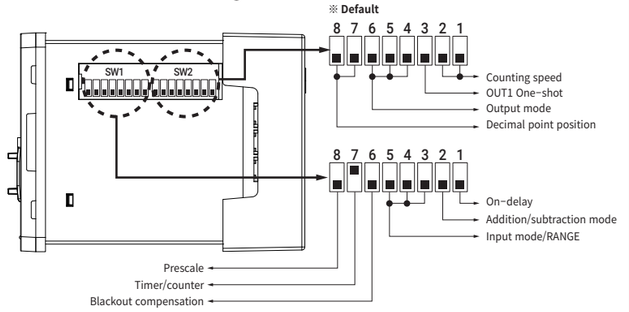
※ If the prescale value exceeds the setting range, 'Err.1' is displayed on the PV display, so please reset the prescale value to within the setting range.



Function setting method

■ GF7A Function switch configuration

※ Default



■ GF7A-SW1 Function chart

Function	On-delay		Addition / Subtraction mode		Blackout compensation		Timer / Counter		Prescale	
	On-delay	Off-delay	Addition mode	Subtraction mode	Blackout compensation	Power reset	Timer	Counter	General coefficient	Prescale
	1 ON / 1 OFF		2 ON / 2 OFF		6 ON / 6 OFF		7 ON / 7 OFF		8 ON / 8 OFF	
TIME RANGE P62/P61/T6	99999.9s	999999s	99m59.99s	999m59.9s	99999.9m	99h59m59s	9999h59m	99999.9h		
	5 4 3 ON / OFF									
TIME RANGE P42/P41	99.99s	999.9s	9999s	99m59s	999.9m	99h59m	999.9h	9999h		
	5 4 3 ON / OFF									
COUNTER (Input)	U-A		U-B		UD-A	UD-B	UD-C			
	5 4 3 ON / OFF									

■ GF7A-SW2 Function chart

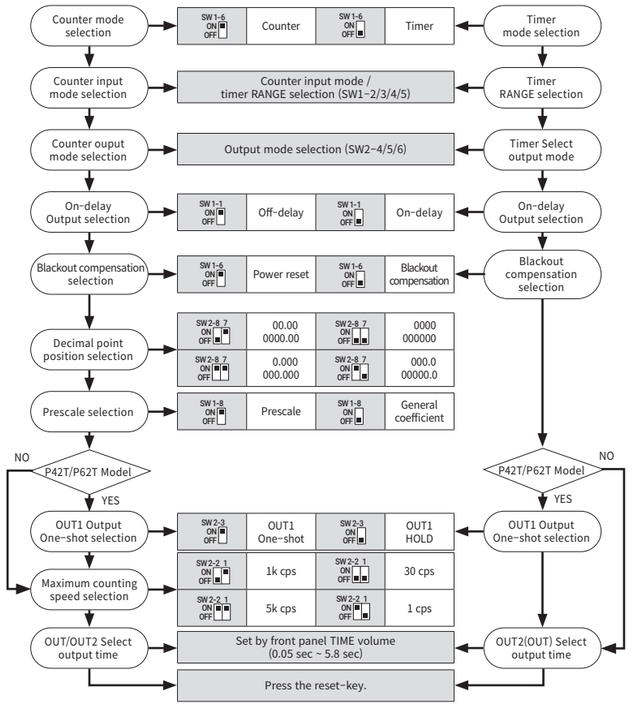
CPS	30	1	1k	5k
	2 1 ON / OFF			

Function	OUT1 HOLD	OUT1 One-shot
	3 ON / OFF	

	F	N	C	R	K	P	Q	A
TIMER (Output)	6 5 4 ON / OFF							
COUNTER (Output)	F	N	C	R	K	P	Q	S
	6 5 4 ON / OFF							
Decimal point position	4 digit	6 digit	4 digit	6 digit	4 digit	6 digit	4 digit	6 digit
	0000	000000	000.0	00000.0	00.00	0000.00	0.000	000.000
	8 7 ON / OFF							

※ Note) When selecting the decimal point position, the selected decimal point position is equally applied to the SV setting value.
※ Note) When OUT1 output is selected as One-shot, OUT1 output time is fixed for 0.5 seconds.

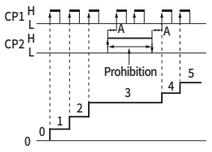
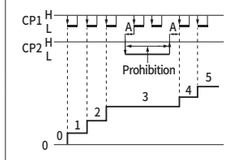
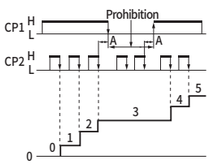
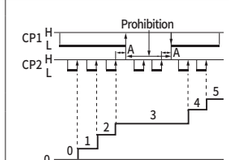
■ GF7A How to set



Counter input mode

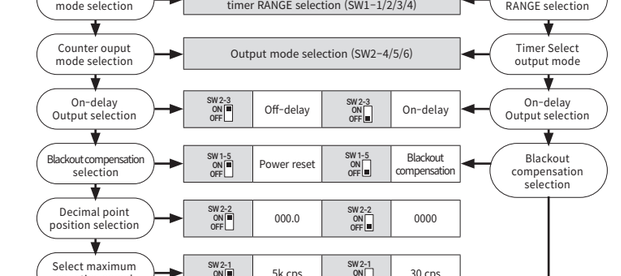
■ Addition input

• Counting in the rising state of the input signal (⎍) • Counting in the Falling state of input signal (⎍)

Input mode		Voltage input (PNP)	Non voltage input (NPN)
UP-A Inhibit Input	GF7A-SW1 5 4 3 2 ON / OFF		
	GF4A-SW1 4 3 2 1 ON / OFF		
UP-B Inhibit Input	GF7A-SW1 5 4 3 2 ON / OFF		
	GF4A-SW1 4 3 2 1 ON / OFF		

■ GF4A Function switch configuration

※ Default



■ GF4A-SW1 Function chart

Function	Addition / Subtraction mode		Blackout compensation		Timer / Counter	
	Addition mode	Subtraction mode	Blackout compensation	Power reset	Timer	Counter
	1 ON / OFF		5 ON / OFF		6 ON / OFF	

	99.99s	999.9s	9999s	99m59s	999.9m	99h59m	999.9h	9999h
TIME RANGE	4 3 2 ON / OFF							
COUNTER (Input) GF4A	U-A		U-B		UD-A	UD-B	UD-C	
	4 3 2 ON / OFF							
COUNTER (Input) GF4A-S	U-A							
	4 3 2 ON / OFF							

■ GF4A-SW2 Function chart

CPS	30	5k
	1 ON / OFF	

Decimal point position	0000	000.0
	2 ON / OFF	

Function	On-delay	Off-delay
	3 ON / OFF	

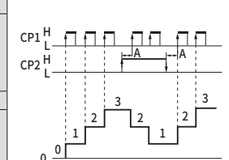
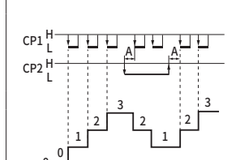
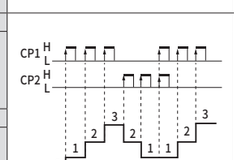
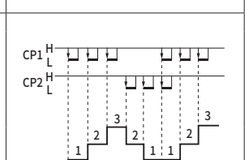
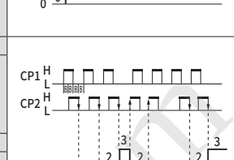
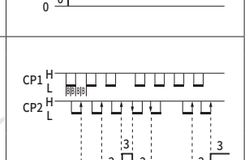
	F	N	C	R	K	P	Q	A
TIMER (Output)	6 5 4 ON / OFF							
COUNTER (Output)	F	N	C	R	K	P	Q	S
	6 5 4 ON / OFF							

※ Note) When selecting the decimal point position, the selected decimal point position is applied equally to the SV setting value.

■ GF4A How to set

■ Addition input

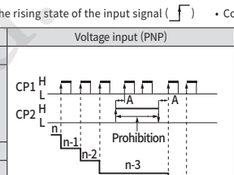
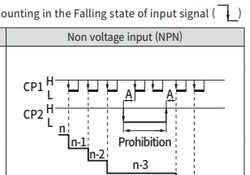
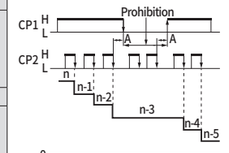
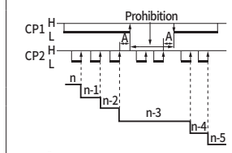
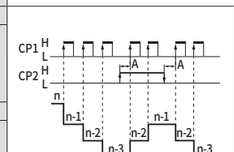
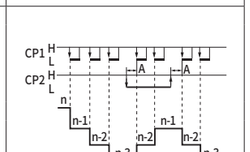
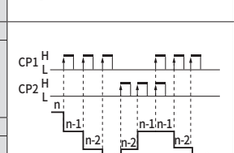
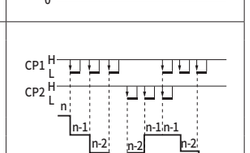
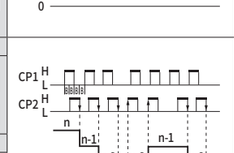
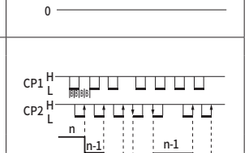
• Counting in the rising state of the input signal (⎍) • Counting in the Falling state of input signal (⎍)

Input mode		Voltage input (PNP)	Non voltage input (NPN)
UP/DOWN-A Command input	GF7A-SW1 5 4 3 2 ON / OFF		
	GF4A-SW1 4 3 2 1 ON / OFF		
UP/DOWN-B Individual input	GF7A-SW1 5 4 3 2 ON / OFF		
	GF4A-SW1 4 3 2 1 ON / OFF		
UP/DOWN-C Phase difference input	GF7A-SW1 5 4 3 2 ON / OFF		
	GF4A-SW1 4 3 2 1 ON / OFF		

※ Note)'A' needs more than the minimum signal width, and'B' needs more than ½ of the minimum signal width.

■ Subtraction input

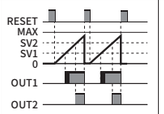
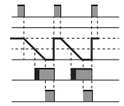
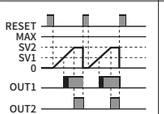
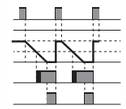
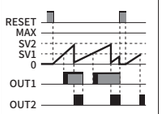
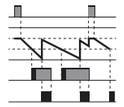
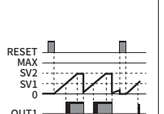
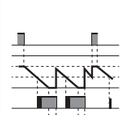
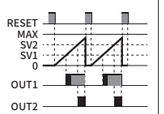
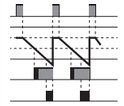
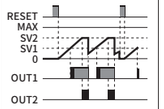
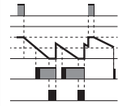
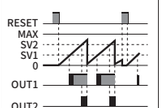
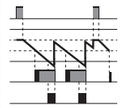
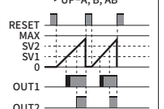
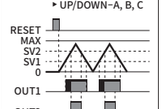
• Counting in the rising state of the input signal (⎍) • Counting in the Falling state of input signal (⎍)

Input mode		Voltage input (PNP)	Non voltage input (NPN)
DOWN-A Inhibit Input	GF7A-SW1 5 4 3 2 ON / OFF		
	GF4A-SW1 4 3 2 1 ON / OFF		
DOWN-B Inhibit Input	GF7A-SW1 5 4 3 2 ON / OFF		
	GF4A-SW1 4 3 2 1 ON / OFF		
UP/DOWN-D Command input	GF7A-SW1 5 4 3 2 ON / OFF		
	GF4A-SW1 4 3 2 1 ON / OFF		
UP/DOWN-E Individual input	GF7A-SW1 5 4 3 2 ON / OFF		
	GF4A-SW1 4 3 2 1 ON / OFF		
UP/DOWN-F Phase difference input	GF7A-SW1 5 4 3 2 ON / OFF		
	GF4A-SW1 4 3 2 1 ON / OFF		

※ Note)'A' needs more than the minimum signal width, and'B' needs more than ½ of the minimum signal width.

Output mode

One-shot output (OUT2, 0.05 ~ 5.8 sec) → | Self-holding output (OUT2, Hold) →
← One-shot output (OUT1, fixed for 0.5 sec) | ← Self-holding output (OUT1, Hold)

Output mode		Addition mode	Subtraction mode	Operation description
F	SW2 6 5 4 ON / OFF			• Even if the counting value reaches the SV2 setting value, the counting value is displayed continuously increasing or decreasing. • OUT2 output is maintained. • One-shot output of OUT1 turns off after 0.5 seconds regardless of OUT2 output. • Count value, display value, and output are initialized upon reset input.
N	SW2 6 5 4 ON / OFF			• When the counting value reaches the SV2 set value, counting stops and the display value is maintained. • OUT2 output is maintained. • One-shot output of OUT1 turns off after 0.5 seconds regardless of OUT2 output. • Count value, display value, and output are initialized upon reset input.
C	SW2 6 5 4 ON / OFF			• When the counting value reaches the SV2 setting value, the counting value is displayed continuously increasing or decreasing after being initialized. • OUT2 output turns off after one-shot output. • The self-holding output of OUT1 turns OFF together with the OUT2 output. • One-shot output of OUT1 turns off after 0.5 seconds regardless of OUT2 output. • Count value, display value, and output are initialized upon reset input.
R	SW2 6 5 4 ON / OFF			• When the counting value reaches the SV2 setting value, the counting value is stopped and displayed during the OUT2 output setting time. • The counting value is initialized after the output setting time, and the counting value is displayed continuously increasing or decreasing. • OUT2 output turns off after one-shot output. • The self-holding output of OUT1 turns OFF together with the OUT2 output. • One-shot output of OUT1 turns off after 0.5 seconds regardless of OUT2 output. • Count value, display value, and output are initialized upon reset input.
K	SW2 6 5 4 ON / OFF			• Even if the counting value reaches the SV2 setting value, the counting value is continuously increased or decreased and displayed. • OUT2 output turns off after one-shot output. • The self-holding output of OUT1 turns OFF together with the OUT2 output. • One-shot output of OUT1 turns off after 0.5 seconds regardless of OUT2 output. • Count value, display value, and output are initialized upon reset input.
P	SW2 6 5 4 ON / OFF			• When the counting value reaches the SV2 setting value, the counting value continues to increase or decrease after being initialized. • Count value display stops during the output set time, and increases or decreases count value is displayed after the output set time. • OUT2 output turns off after one-shot output. • The self-holding output of OUT1 turns OFF together with the OUT2 output. • One-shot output of OUT1 turns off after 0.5 seconds regardless of OUT2 output. • Count value, display value, and output are initialized upon reset input.
Q	SW2 6 5 4 ON / OFF			• Even when the counting value reaches the SV2 set value, the counting value is displayed continuously increasing or decreasing. • Count value is initialized after OUT2 output setting time. • OUT2 output turns off after one-shot output. • The self-holding output of OUT1 turns OFF together with the OUT2 output. • One-shot output of OUT1 turns off after 0.5 seconds regardless of OUT2 output. • Count value, display value, and output are initialized upon reset input.
S	SW2 6 5 4 ON / OFF ※ Counter Dedicated mode	▸ UP-A, B, AB  ▸ UP/DOWN-A, B, C 	▸ DOWN-A, B, AB ▸ UP/DOWN-D, E, F 	• In addition mode, OUT1 output is ON when 'counter value >= SV1 set value'. • In addition mode, OUT2 output is ON when 'counter value >= SV2 set value'. • When using subtraction mode, OUT1 output is ON when 'counter value =< SV1 set value'. • When using subtraction mode, OUT2 output is ON when ' counter value =< 0'. • One-shot output of OUT1 turns off after 0.5 seconds regardless of OUT2 output. • Count value, display value, and output are initialized upon reset input.
A	SW2 6 5 4 ON / OFF ※ Timer Dedicated mode			• In addition mode, OUT1 output is ON when OUT2 output is OFF and 'counter value >= SV1 set value'. • In addition mode, OUT2 output is inverted when 'counter value >= SV2 set value', and the display value is initialized. • When using subtraction mode, OUT1 output is ON when OUT2 output is OFF and 'counter value =< SV1 set value'. • When using subtraction mode, OUT2 output is inverted when'count value =< 0' and the display value is initialized. • One-shot output of OUT1 turns off after 0.5 seconds regardless of OUT2 output.

※ For P41T/P61T models, SV and OUT operate as SV2 and OUT2.
※ Apply reset signal to the front reset key or external RESET terminal.