

SPECIFICATIONS :

Type	AT-402 / AT-502 / AT-602 / AT-702 / AT902	
Operating voltage	AC/DC(V) : 100 ~ 240	
Rated frequency	50 / 60 Hz	
Power consumption	Approx. 3.5VA	
Sensor input (DIP SW. Setting)	Thermocouple	K, J, R
	RTD	Pt100
Control output (DIP SW. Setting)	Relay	240VAC 3A
	SSR	DC 24V
Alarm output	240VAC 3A	
Alarm function	See figure 1	
Control method	PID, PI, P, ON/OFF, Dead Band	
Setting	Digital setting using front panel keys	
Indicator	7-segment-display and LED	
Ambient temperature	-10 ~ +50°C	
Storage temperature	-25 ~ +65°C	
Ambient humidity	35 ~ 80%RH (with no icing or condensation)	
Storage humidity	35 ~ 95%RH (with no condensation)	
Weight	AT-402 / 602 Approx. 187g, AT-502 Approx. 145g, AT-702 Approx.200g , AT-902 Approx. 241g	

FEATURES :

Type	AT-402 / AT-502 / AT-602 / AT-702 / AT902
Measuring accuracy	Within $\pm 0.3\%$ of present value or $\pm 2^{\circ}\text{C}$ whichever is greater
Proportional band (P)	0.0 ~ 300.0sec (0.1-second units)
Integral time (I)	0 ~ 7200sec (1-second units)
Derivative time (D)	0 ~ 1800sec (1-second units)
Control period	0 ~ 65sec (1-second units)
Sampling period	250ms
Memory protection	EEPROM non-volatile memory (writing times : Approx. 100,000times)

FIGURE 1 (ALARM FUNCTION) :

AF1	Alarm function selection		
1	Deviation high alarm	7	Deviation high alarm (standby)
2	Deviation low alarm	8	Deviation high alarm (standby)
3	Process high alarm	9	Process high alarm (standby)
4	Process low alarm	10	Process low alarm (standby)
5	Deviation high/low alarm	11	Deviation high/low alarm (standby)
6	Band alarm	12	Band alarm (standby)

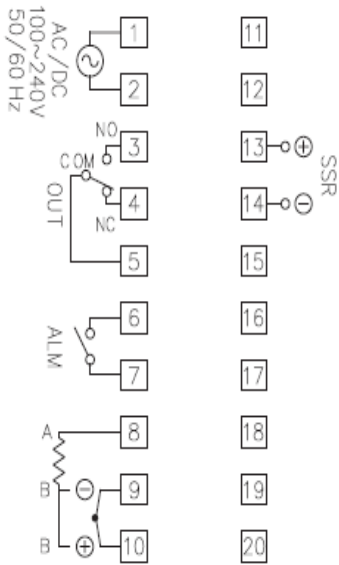
RATED SCALE :

Input type	°C	°F
K	0~1200	32~2192
J	0~500	32~932
R	0~1700	32~3092
PT-100	-50~400	-122~752

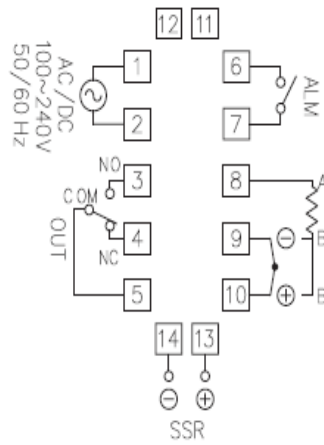


CONNECTION :

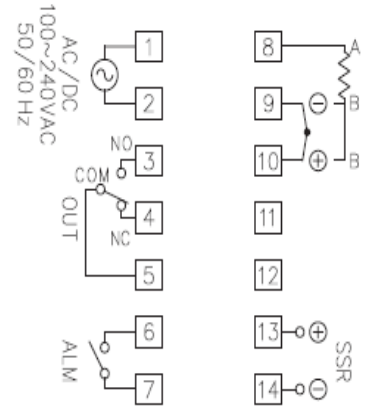
AT-402 / 602 / 902



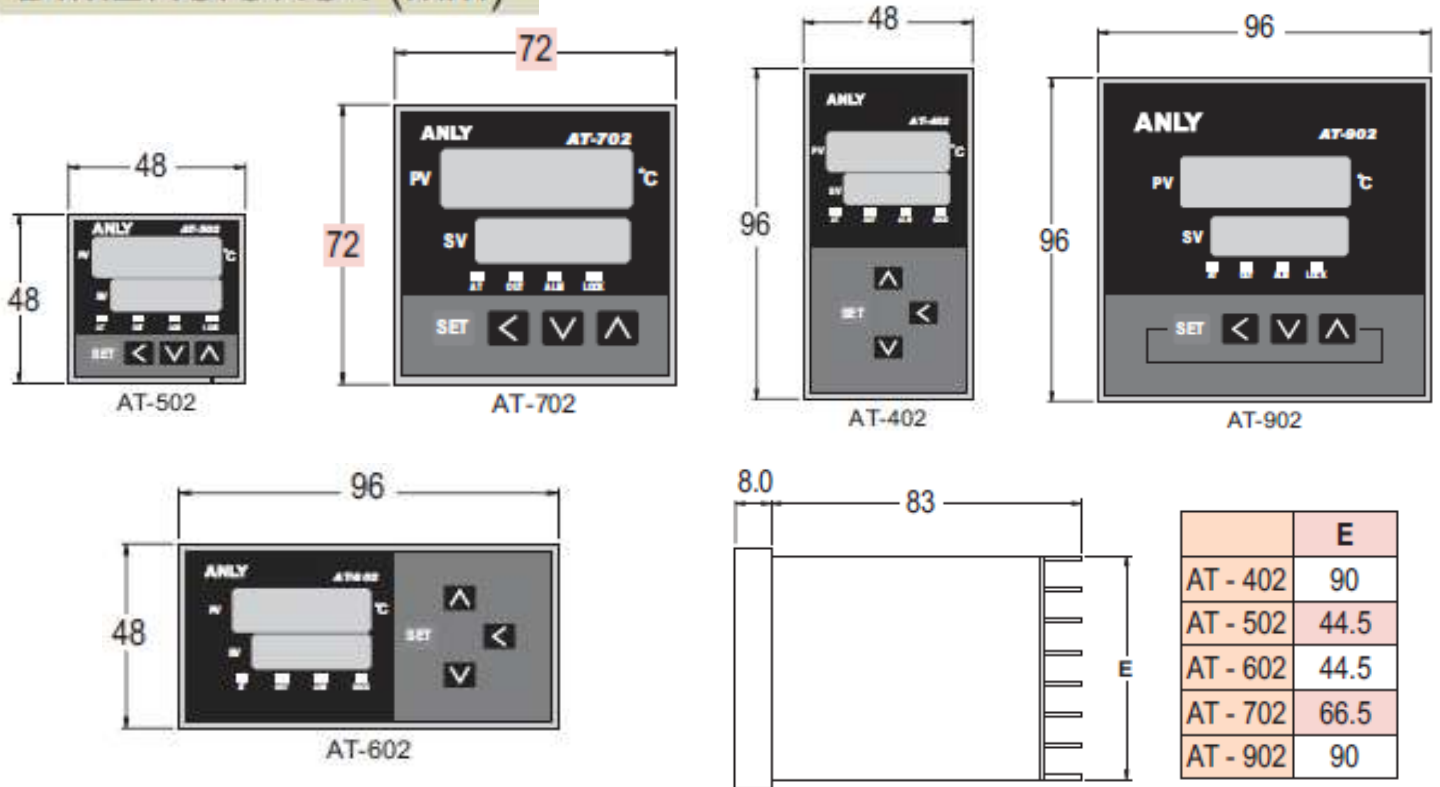
AT-502



AT-702



DIMENSIONS : (mm)



AT03 PID TEMPERATURE CONTROLLER

Guiding of Model

EX. AT-1 03 - 2345 - 678

1 Outline / (W x H) mm. x mm.

403 = (48 x 96)

503 = (48 x 48)

603 = (96 x 48)

703 = (72 x 72)

903 = (96 x 96)

2 Input

1 = Thermocouple or RTD

2 = 0~100 mV

3 = 0~20 mA

4 = 4~20 mA

5 = 0~5 V

6 = 0~10 V

7 = 1~5 V

8 = 2~10 V

9 = 0~1 V

4 Output 2

0 = None

1 = Relay

2 = Pulsed (SSR)

3 = 0~20 mA

4 = 4~20 mA

5 = 0~5 V

6 = 0~10 V

7 = 1~5 V

8 = 2~10 V

A = Trans (0~20 mA)

B = Trans (4~20 mA)

C = Trans (0~5 V)

D = Trans (0~10 V)

E = Trans (1~5 V)

F = Trans (2~10 V)

7 Communication

0 = None

1 = RS - 485

2 = RS - 232



3 Output 1

1 = Relay

2 = Pulsed (SSR)

3 = 0~20 mA

4 = 4~20 mA

5 = 0~5 V

6 = 0~10 V

7 = 1~5 V

8 = 2~10 V

9 = Motor control (not available with (Output 2))

5 Alarm

1 = Alarm x 1

2 = Alarm x 2

3 = Alarm x 3

6 Other

0 = None

1 = DC 24 V

2 = CT

A = R-SP (0~20 mA)

B = R-SP (4~20 mA)

C = R-SP (0~5 V)

D = R-SR (0~10 V)

E = R-SP (1~5 V)

F = R-SP (2~10 V)

8 Program control

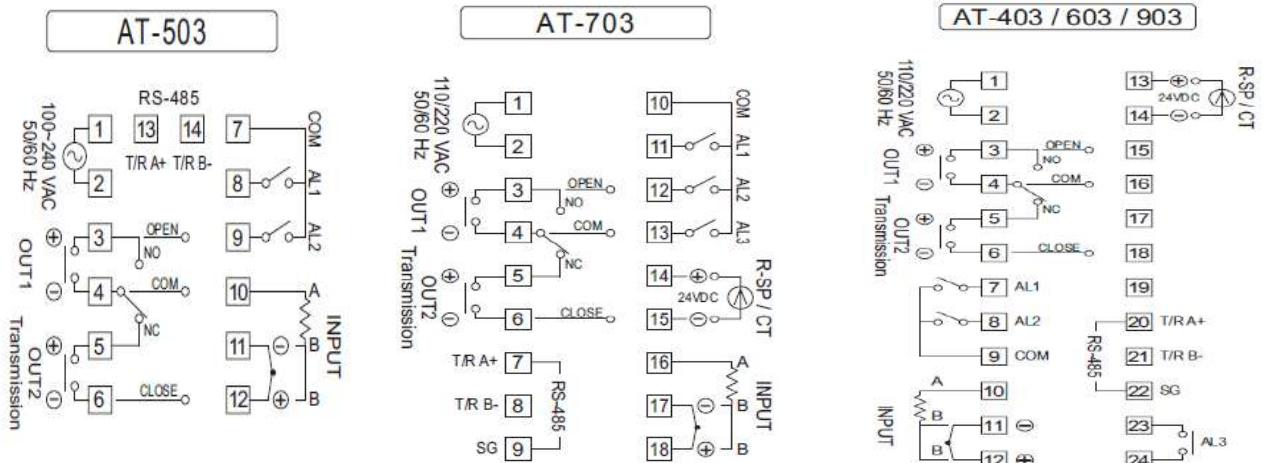
0 = None

1 = Program

PID TEMPERATURE CONTROLLER

Dimension ขนาด (mm.)	รูป	รุ่น	Control Output
48x48x83		AT-503-1102-000	Relay (240VAC 3A)
		AT-503-1202-000	Voltage Pulse
		AT-503-1402-000	Linear (4 ~ 20 mA ,1 ~ 5V)
72x72x83		AT-703-1102-000	Relay (240VAC 3A)
		AT-703-1202-000	Voltage Pulse
		AT-703-1402-000	Linear (4 ~ 20 mA ,1 ~ 5V)
96x96x83		AT-903-1102-000	Relay (240VAC 3A)
		AT-903-1202-000	Voltage Pulse
		AT-903-1402-000	Linear (4 ~ 20 mA ,1 ~ 5V)
48x96x83		AT-403-1102-000	Relay (240VAC 3A)
		AT-403-1202-000	Voltage Pulse
		AT-403-1402-000	Linear (4 ~ 20 mA ,1 ~ 5V)
96x48x83		AT-603-1102-000	Relay (240VAC 3A)
		AT-603-1202-000	Voltage Pulse
		AT-603-1402-000	Linear (4 ~ 20 mA ,1 ~ 5V)

CONNECTION



SPECIFICATIONS :

Type	AT-403 / AT-503 / AT-603 / AT-703 / AT903	
Operating voltage	AC(V) : 90 ~ 260	
Rated frequency	50 / 60 Hz	
Power consumption	Approx. 3.5VA	
Sensor input	Thermocouple	K, J, T, R, E, S, B, N
	RTD	Pt100, JPt100
	Linear	Current(4~20mA), Voltage(1~5V)
Control output	Relay	240VAC 3A
	Voltage	Voltage Pulse
	Linear	4~20mA, 1~5V
	Motor Control	Open loop motor valve
Alarm output	240VAC 3A(3 Channels Optional)	
Alarm function	See figure 1	
Control method	PID, PI, P, ON/OFF, Dead Band	
Communication	RS-232, RS-485	
Setting	Digital setting using front panel keys	
Indicator	7-segment-display and LED	
Ambient temperature	-10 ~ +50°C	
Storage temperature	-25 ~ +65°C	
Ambient humidity	35 ~ 80%RH (with no icing or condensation)	
Storage humidity	35 ~ 95%RH (with no condensation)	
Weight	AT-403 / 603 Approx. 170g , AT-503 Approx. 125g , AT-703 Approx. 200g , AT-903 Approx. 250g	

FEATURES :

Type	AT-403 / AT-503 / AT-603 / AT-703 / AT903
Measuring accuracy	Within $\pm 0.3\%$ of present value or $\pm 2^\circ\text{C}$ whichever is greater
Proportional band (P)	0.0 ~ 3000sec (0.1-second units)
Integral time (I)	0 ~ 3600sec (1-second units)
Derivative time (D)	0 ~ 900sec (1-second units)
Control period	0 ~ 150sec (1-second units)
Sampling period	300ms
Memory protection	EEPROM non-volatile memory (writing times : Approx. 100,000times)

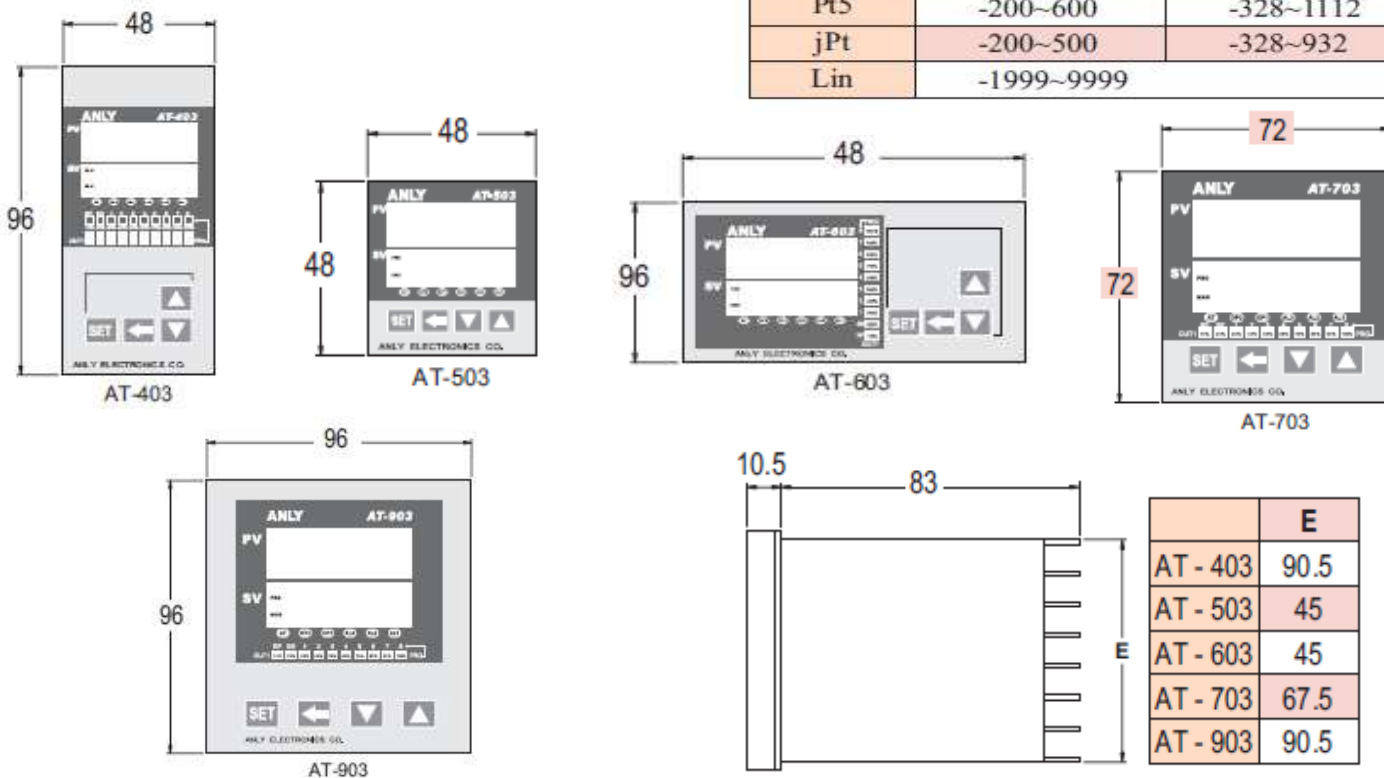
FIGURE 1 (ALARM FUNCTION) :

AL1F	AL2F	AL3F	Alarm function selection
0	0	0	No alarm
1	1	1	Deviation high alarm
2	2	2	Deviation low alarm
3	3	3	Absolute high alarm
4	4	4	Absolute low alarm
5	5	5	Deviation high/low alarm
6	6	6	Band alarm
7	7	7	System failure alarm (when error information happen)
8	8	8	Loop break alarm
9	9	9	Heater break alarm
10	10	10	Segment ending alarm in program control
11	11	11	Program ending alarm in program control
12	12	--	Time signal alarm in program control
13	13	--	Program running alarm in program control





RATED SCALE :

Input type	°C	°F
K1	0~200	32~392
K2	0~400	32~752
K3	0~800	32~1472
K4	0~1000	32~1832
K5	0~1200	32~2192
j1	0~200	32~392
j2	0~400	32~752
j3	0~800	32~1472
j4	0~1000	32~1832
j5	0~1200	32~2192
t1	-50~50	-58~122
t2	-100~100	-148~212
t3	-200~400	-328~752
r	0~1700	32~3092
E	0~1000	32~1832
S	0~1700	32~3092
b	0~1800	32~3272
n	-200~1300	-328~2372
Pt1	-50~50	-58~122
Pt2	0~100	32~212
Pt3	0~200	32~392
Pt4	0~400	32~752
Pt5	-200~600	-328~1112
jPt	-200~500	-328~932
Lin	-1999~9999	







DIMENSIONS : (mm)



ANLY SOLID STATE RELAY

รูป	Model รุ่น	INPUT CONTROL VOLTAGE	MAX Load Current	LOAD VOLTAGE RANGE	SWITCHING TYPE
DC → AC SINGLE PHASE					
	ASR-10DA	4 ~ 32 VDC	10A	24 ~ 280 VAC	ZERO-CROSS
	ASR-15DA		15A		
	ASR-25DA		25A		
	ASR-40DA		40A		
	ASR-50DA		50A		
	ASR-75DA		75A		
	ASR-90DA		90A		
	ASR-100DA		100A		
	ASR-125DA		125A		
	ASR-10DA-H		10A	48 ~ 480 VAC	
	ASR-15DA-H		15A		
	ASR-25DA-H		25A		
	ASR-40DA-H		40A		
	ASR-50DA-H		50A		
	ASR-75DA-H		75A		
	ASR-90DA-H		90A		
	ASR-100DA-H		100A		
	ASR-125DA-H		125A		
AC → AC SINGLE PHASE					
	ASR-10AA	80 ~ 280VAC	10A	24 ~ 280 VAC	ZERO-CROSS
	ASR-15AA		15A		
	ASR-25AA		25A		
	ASR-40AA		40A		
	ASR-50AA		50A		
	ASR-75AA		75A		
	ASR-90AA		90A		
	ASR-100AA		100A		
	ASR-125AA		125A		
	ASR-10AA-H		10A	48 ~ 480 VAC	
	ASR-15AA-H		15A		
	ASR-25AA-H		25A		
	ASR-40AA-H		40A		
	ASR-50AA-H		50A		
	ASR-75AA-H		75A		
	ASR-90AA-H		90A		
	ASR-100AA-H		100A		
	ASR-125AA-H		125A		

ANLY SOLID STATE RELAY

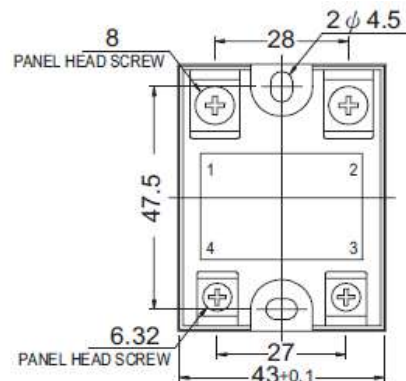
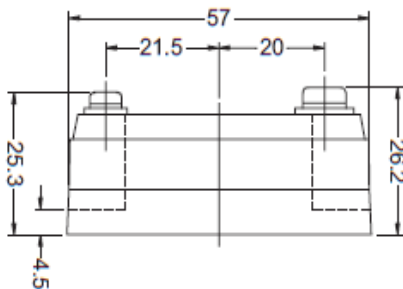
รูป	Model รุ่น	INPUT CONTROL VOLTAGE	MAX Load Current	LOAD VOLTAGE RANGE	SWITCHING TYPE		
DC → DC SINGLE PHASE							
	ASR-05DD	3 ~ 32VDC	05A	5 ~ 120 VDC	NOT / APPLICABLE		
	ASR-10DD		10A				
	ASR-25DD		25A				
	ASR-40DD		40A				
	ASR-50DD		50A				
	ASR-75DD		75A				
	ASR-90DD		90A				
	ASR-10DD-H			10A		5 ~ 240 VDC	
	ASR-25DD-H			25A			
	ASR-40DD-H			40A			
	ASR-50DD-H			50A			
	ASR-75DD-H			75A			
	ASR-90DD-H			90A			
CURRENT → AC SINGLE PHASE							
	ASR-10CA	4 ~ 20 mA	10A	200 ~ 280 VAC	Phase Control		
	ASR-15CA		15A				
	ASR-25CA		25A				
	ASR-40CA		40A				
	ASR-50CA		50A				
	ASR-75CA		75A				
	ASR-90CA		90A				
	ASR-10CA-H			10A		380 ~ 480 VAC	
	ASR-15CA-H			15A			
	ASR-25CA-H			25A			
	ASR-40CA-H			40A			
	ASR-50CA-H			50A			
	ASR-75CA-H			75A			
	ASR-90CA-H			90A			
VARIABLE SINGLE PHASE							
	ASR-10RA	VR 0 ~ 250K Ω	10A	24 ~ 280 VAC	Phase Control		
	ASR-15RA		15A				
	ASR-25RA		25A				
	ASR-40RA		40A				
	ASR-50RA		50A				
	ASR-75RA		75A				
	ASR-90RA		90A				
	ASR-25RA-H	VR 0 ~ 500K Ω	25A	48 ~ 480 VAC			
	ASR-40RA-H		40A				
	ASR-50RA-H		50A				
	ASR-75RA-H		75A				
	ASR-90RA-H		90A				
		VR 0 ~ 1M Ω					

GENERAL DATA :





Type	DC→AC	DC→AC(H)	AC→AC	AC→AC(H)	DC→DC	DC→DC(H)
Must Turn Off Voltage	MAX 1.0VDC	MAX 1.0VDC	MAX 10VAC	MAX 10VAC	MAX 1.0VDC	MAX 1.0VDC
Input Impedance	1.5KΩ	1.5KΩ	1.5KΩ	1.5KΩ	1.5KΩ	1.5KΩ
Min Blocking Voltage	600VAC peak	1200VAC peak	600VAC peak	1200VAC peak	02-04DD:80VDC 05-75DD:140VDC	300VDC
Max Off-State Leakage	2-6DA:LESS 5mA 10-125DA:LESS 7.5mA	2-6DAH:LESS 5mA 10-125DAH:LESS 15mA	LESS 5mA	LESS 15mA	02-04DD:LESS 1mA 05DD:LESS 3mA 10DD:LESS 5mA 25-75DD:LESS 7mA	10DD:H:LESS 7mA 25-75DD:H:LESS 15mA
Frequency Range	47~70Hz	47~70Hz	47~70Hz	47~70Hz	47~70Hz	47~70Hz
Max Off-State dv/dt	2-4DA:100V/μSec 6-100DA:200V/μSec	200V/μSec	2-4AA:100V/μSec 6-100AA:200V/μSec	200V/μSec	200V/μSec	200V/μSec
Max On-State Voltage Drop	02-03DA:1.5VACrms 04-100DA:2.0VACrms	2.0VACrms	02AA:1.5VACrms 04-100AA:2.0VACrms	2.0VACrms	02-04DD:1.2Vrms 05-75DD:2.0Vrms	2.0VACrms
Isolate Impedance	10 ⁹ Ω	10 ⁹ Ω	10 ⁹ Ω	10 ⁹ Ω	10 ⁹ Ω	10 ⁹ Ω
Dielectric Strength Input-Output	4000VACrms	4000VACrms	4000VACrms	4000VACrms	02-04DD:2500Vrms 05-100DD:4000VACrms	4000VACrms
Dielectric Strength Input, Output-Case	02-06DA:N/A 10-100DA:2500VACrms	02-06DAH:H:N/A 10-100DAH:H:2500VACrms	02-06AA:N/A 10-100AA:2500VACrms	2500VACrms	02-04DD:N/A 05-75DD:2500VACrms	2500VACrms
Turn On Time	LESS 2mSec	LESS 2mSec	LESS 2mSec	LESS 2mSec	LESS 2mSec	LESS 2mSec
Turn Off Time	LESS 1/2 AC CYCLE	LESS 1/2 AC CYCLE	LESS 1/2 AC CYCLE	LESS 1/2 AC CYCLE	LESS 1/2 CYCLE	LESS 1/2 CYCLE
Capacitance In-Out	LESS 15 pF	LESS 15 pF	LESS 15 pF	LESS 15 pF	LESS 15 pF	LESS 15 pF

Type	Current → AC	Current→AC(H)	Type	VARIABLE	VARIABLE(H)	AC→DC
Must Turn Off Voltage	MAX 3.0VDC	MAX 3.0VDC	Must Turn Off Voltage	N/A	N/A	MAX 10VAC
Input Impedance	150Ω	150Ω	Input Impedance	1.5KΩ	1.5KΩ	1.5KΩ
Min Blocking Voltage	600VAC peak	1200VAC peak	Min Blocking Voltage	600VAC peak	1200VAC peak	02, 04AD:80VDC 10, 25AD:140VDC 10, 25AD:H:300VDC
Max Off-State Leakage	LESS 4mA	LESS 4mA	Max Off-State Leakage	LESS 5mA	LESS 15mA	02, 04AD:LESS 1mA 10, 25AD:LESS 3mA 10, 25AD:H:LESS 3mA
Frequency Range	40~65Hz	40~65Hz	Frequency Range	47~70Hz	47~70Hz	47~70Hz
Critical dv/dt Off-State Min.	1000V/μSec	1000V/μSec	Max Off-State dv/dt	200V/μSec	200V/μSec	200V/μSec
Critical di/dt @50Hz	100A/μSec	100A/μSec	Max On-State Voltage Drop	2.0VACrms	2.0VACrms	1.2Vrms
Max input Current	50mA	50mA	Isolate Impedance	10 ⁹ Ω	10 ⁹ Ω	10 ⁹ Ω
Dielectric Strength Input-Output	4000Vrms	4000Vrms	Dielectric Strength Input-Output	4000VACrms	4000VACrms	2500Vrms
Dielectric Strength Input, Output-Case	2500Vrms	2500Vrms	Dielectric Strength Input, Output-Case	2500VACrms	2500VACrms	N/A
Pick up Current	4mA	4mA	Turn On Time	LESS 2mSec	LESS 2mSec	LESS 2mSec
Drop out Current	3.5mA	3.5mA	Turn Off Time	LESS 1/2 AC CYCLE	LESS 1/2 AC CYCLE	LESS 1/2 CYCLE
Response time	10mS	10mS	Capacitance In-Out	LESS 15 pF	LESS 15 pF	LESS 15 pF

OUTLINE DIMENSIONS :mm



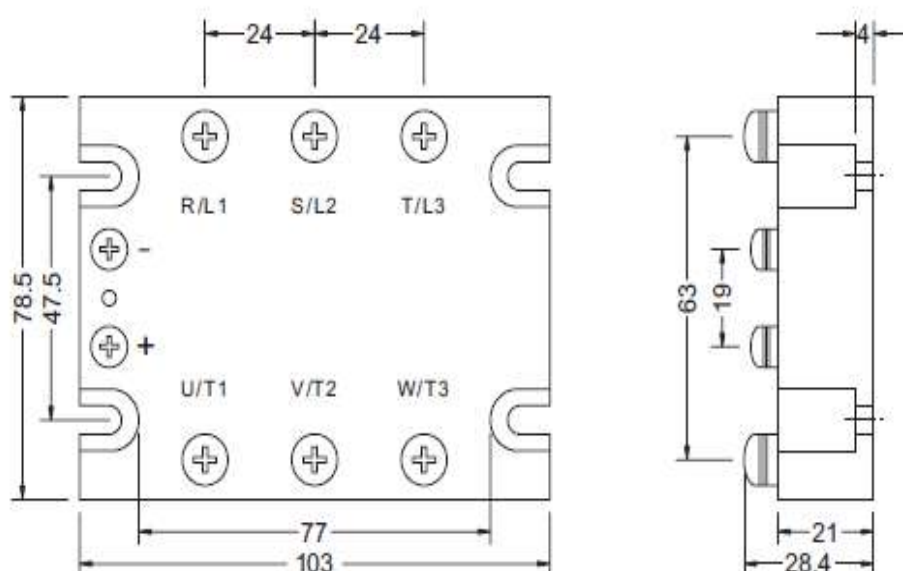
ANLY SOLID STATE RELAY 3 Phase




รูป	Model รุ่น	INPUT CONTROL VOLTAGE	MAX Load Current	LOAD VOLTAGE	SWITCHING TYPE
DC - AC 3 PHASE , Inductive (Motor) Load					
	ASR-3PI25DA	6 ~ 32 VDC	25A	24 ~ 280	RANDOM
	ASR-3PI40DA		40A		
	ASR-3PI50DA		50A		
	ASR-3PI75DA		75A		
	ASR-3PI90DA		90A		
	ASR-3PI100DA		100A		
	ASR-3PI125DA		125A		
	ASR-3PI25DA-H	12 ~ 32VDC	25A	48 ~ 480 VAC	SWITCHING
	ASR-3PI40DA-H		40A		
	ASR-3PI50DA-H		50A		
	ASR-3PI75DA-H		75A		
	ASR-3PI90DA-H		90A		
	ASR-3PI100DA-H		100A		
	ASR-3PI125DA-H		125A		
AC - AC 3 PHASE , Inductive (Motor) Load					
	ASR-3PI25AA	80 ~ 280 VAC	25A	24 ~ 280 VAC	RANDOM
	ASR-3PI40AA		40A		
	ASR-3PI50AA		50A		
	ASR-3PI75AA		75A		
	ASR-3PI90AA		90A		
	ASR-3PI100AA		100A		
	ASR-3PI125AA		125A		
	ASR-3PI25AA-H	48 ~ 480 VAC	25A	SWITCHING	
	ASR-3PI40AA-H		40A		
	ASR-3PI50AA-H		50A		
	ASR-3PI75AA-H		75A		
	ASR-3PI90AA-H		90A		
	ASR-3PI100AA-H		100A		
	ASR-3PI125AA-H		125A		
DC - AC 3 PHASE , Resistive (Heater) Load					
	ASR-3PH25DA	6 ~ 32 VDC	25A	24 ~ 280 VAC	ZERO-CROSS
	ASR-3PH40DA		40A		
	ASR-3PH50DA		50A		
	ASR-3PH75DA		75A		
	ASR-3PH90DA		90A		
	ASR-3PH100DA		100A		
	ASR-3PH125DA		125A		
	ASR-3PH25DA-H	12 ~ 32VDC	25A	48 ~ 480 VAC	
	ASR-3PH40DA-H		40A		
	ASR-3PH50DA-H		50		
	ASR-3PH75DA-H		75A		
	ASR-3PH90DA-H		90A		
	ASR-3PH100DA-H		100A		
	ASR-3PH125DA-H		125A		
AC - AC 3 PHASE , Resistive (Heater) Load					
	ASR-3PH25AA	80 ~ 280 VAC	25A	24 ~ 280 VAC	RANDOM
	ASR-3PH40AA		40A		
	ASR-3PH50AA		50A		
	ASR-3PH75AA		75A		
	ASR-3PH90AA		90A		
	ASR-3PH100AA		100A		
	ASR-3PH125AA		125A		
	ASR-3PH25AA-H	48 ~ 480 VAC	25A	SWITCHING	
	ASR-3PH40AA-H		40A		
	ASR-3PH50AA-H		50A		
	ASR-3PH75AA-H		75A		
	ASR-3PH90AA-H		90A		
	ASR-3PH100AA-H		100A		
	ASR-3PH125AA-H		125A		

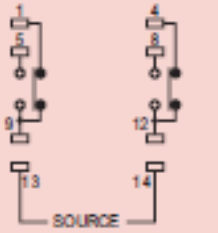
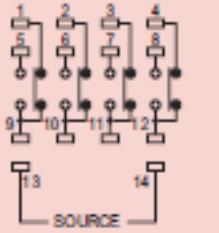
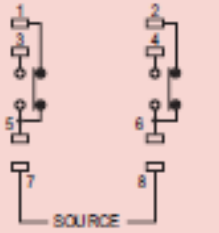
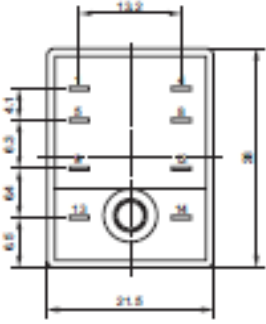
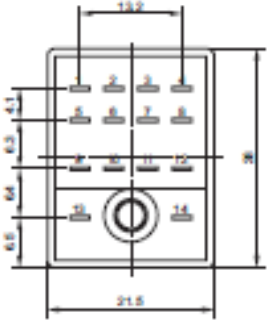
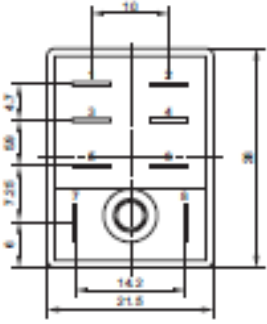
GENERAL DATA :

Type	DC→AC/AC(H) (HEATER LOAD ONLY)	AC→AC/AC(H) (HEATER LOAD ONLY)	DC→AC/AC(H) (INDUCTIVE LOAD ONLY)	AC→AC/AC(H) (INDUCTIVE LOAD ONLY)
Must Turn Off Voltage	MAX 3/9.5VDC	MAX 3/9.5VDC	MAX 3/9.5VDC	MAX 3/9.5VDC
Input Impedance	1.5K Ω	1.5K Ω	1.5K Ω	1.5K Ω
Min Blocking Voltage	600/1200VAC	600/1200VAC	600/1200VAC	600/1200VAC
Max Off-State Leakage	LESS 10mA	LESS 10mA	LESS 10mA	LESS 10mA
Frequency Range	47~63Hz	47~63Hz	47~63Hz	47~63Hz
Max Off-State dv/dt	250/500 V/ μ sec	250/500 V/ μ sec	250/500 V/ μ sec	500 V/ μ sec
Max On-State Voltage Drop	1.6Vrms	1.6Vrms	1.6Vrms	1.6Vrms
Isolate Impedance	10 ⁹ Ω	10 ⁹ Ω	10 ⁹ Ω	10 ⁹ Ω
Dielectric Strength Input - Output	2500Vrms	2500Vrms	2500Vrms	2500Vrms
Dielectric Strength Input , Output-Case	2500Vrms	2500Vrms	2500Vrms	2500Vrms
Turn On Time	LESS 1/2mSec	LESS 1/2mSec	LESS 1/2 AC CYCLE	LESS 1/2 AC CYCLE
Turn Off Time	LESS 1/2 CYCLE	LESS 1/2 CYCLE	LESS 1/2 AC CYCLE	LESS 1/2 AC CYCLE
Capacitance In-Out	LESS 473 pF	LESS 473 pF	LESS 473 pF	LESS 473 pF







OUTLINE DIMENSIONS : mm

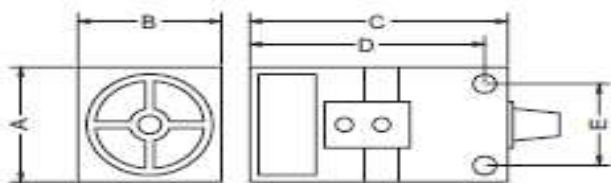


Power Relay					
รูปร่าง	รุ่น	บอกสถานะการทำงาน	หน้าสัมผัส	ความต้านทาน	Operating Voltage
	AHC2	ไม่มี	2P	10A	DC(V): 12, 24 AC(V):100/110, 220/240
	AHC2N	มี LED			
	AHC2NT	มี LED & Test			
	AHC4	ไม่มี	4P		
	AHC4N	มี LED			
	AHC4NT	มี LED & Test			
	AHL2	ไม่มี	2P ขาใหญ่		
	AHL2N	มี LED			
	AHL2NT	มี LED & Test			

Connection Diagram			
Dimensions(mm)			
Relay Socket	PYF-08AE	PYF-14AE	PTF-08AE

INDUCTIVE PROXIMITY SENSOR (SQUARE)

รูป	Model รุ่น	Output Method	Output Status	ระยะจับ	Operating Voltage	Response frequency
	HQ-1705-N1	NPN	NO	5 mm	10 ~ 30 VDC	600Hz
	HQ-1705-N2		NC			
	HQ-1705-P1	PNP	NO			
	HQ-1705-P2		NC			
	HQ-1805-N1	NPN	NO	5 mm	10 ~ 30 VDC	600Hz
	HQ-1805-N2		NC			
	HQ-1805-P1	PNP	NO			
	HQ-1805-P2		NC			
	HQ-1805-A1	SCR	NO		24 ~ 240 VAC	20Hz
	HQ-1805-A2		NC			
	HQ-2507-N1	NPN	NO	7 mm	10 ~ 30 VDC	500Hz
	HQ-2507-N2		NC			
	HQ-2507-P1	PNP	NO			
	HQ-2507-P2		NC			
	HQ-2507-A1	SCR	NO		24 ~ 240 VAC	20Hz
	HQ-2507-A2		NC			
	HQ-3010-N1	NPN	NO	10 mm	10 ~ 30 VDC	500Hz
	HQ-3010-N2		NC			
	HQ-3010-P1	PNP	NO			
	HQ-3010-P2		NC			
	HQ-3010-A1	SCR	NO		24 ~ 240 VAC	20Hz
	HQ-3010-A2		NC			
	HQ-3015-N1	NPN	NO	15 mm	10 ~ 30 VDC	500Hz
	HQ-3015-N2		NC			
	HQ-3015-P1	PNP	NO			
	HQ-3015-P2		NC			
	HQ-3015-A1	SCR	NO		24 ~ 240 VAC	20Hz
	HQ-3015-A2		NC			
	HQ-4020-N1	NPN	NO	20 mm	10 ~ 30 VDC	100Hz
	HQ-4020-N2		NC			
	HQ-4020-P1	PNP	NO			
	HQ-4020-P2		NC			
	HQ-4020-A1	SCR	NO		24 ~ 240 VAC	20Hz
	HQ-4020-A2		NC			






	A	B	C	D	E
HQ-1705	17	17	29	25	10.5
HQ-1805	18	18	35	32	10.5
HQ-2507	25	25	45	41	17.8
HQ-3010	30	30	52	48	22
HQ-4020	40	40	52	46	30

INDUCTIVE PROXIMITY SENSOR (SCREW)

รูป	Model รุ่น	Output Method	Output Status	ระยะจับ	Operating Voltage	Response frequency
	IS-0801-N1	NPN	NO	1 mm	10 ~ 30 VDC	1000Hz
	IS-0801-N2		NC			
	IS-0801-P1	PNP	NO			
	IS-0801-P2		NC			
	IS-0802-N1	NPN	NO	2 mm	10 ~ 30 VDC	1000Hz
	IS-0802-N2		NC			
	IS-0802-P1	PNP	NO			
	IS-0802-P2		NC			
	IS-1202-N1	NPN	NO	2 mm	10 ~ 30 VDC	800Hz
	IS-1202-N2		NC			
	IS-1202-P1	PNP	NO			
	IS-1202-P2		NC			
	IS-1202-A1	SCR	NO		24 ~ 240 VAC	20Hz
	IS-1202-A2		NC			
	IS-1204-N1	NPN	NO	4 mm		
	IS-1204-N2		NC			
	IS-1204-P1	PNP	NO			
	IS-1204-P2		NC			
	IS-1204-A1	SCR	NO		24 ~ 240 VAC	20Hz
	IS-1204-A2		NC			
	IS-1805-N1	NPN	NO	5 mm		
	IS-1805-N2		NC			
	IS-1805-P1	PNP	NO			
	IS-1805-P2		NC			
	IS-1805-A1	SCR	NO		24 ~ 240 VAC	20Hz
	IS-1805-A2		NC			
	IS-1808-N1	NPN	NO	8 mm		
	IS-1808-N2		NC			
	IS-1808-P1	PNP	NO			
	IS-1808-P2		NC			
	IS-1808-A1	SCR	NO		24 ~ 240 VAC	20Hz
	IS-1808-A2		NC			
	IS-3010-N1	NPN	NO	10 mm		
	IS-3010-N2		NC			
	IS-3010-P1	PNP	NO			
	IS-3010-P2		NC			
	IS-3010-A1	SCR	NO		24 ~ 240 VAC	20Hz
	IS-3010-A2		NC			
	IS-3015-N1	NPN	NO	15 mm		
	IS-3015-N2		NC			
	IS-3015-P1	PNP	NO			
	IS-3015-P2		NC			
	IS-3015-A1	SCR	NO		24 ~ 240 VAC	20Hz
	IS-3015-A2		NC			

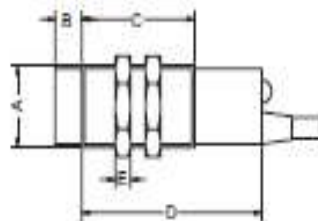
Capacitive Type

รูป	Model รุ่น	Output Method	Output Status	ระยะจับ	Operating Voltage	Response frequency
	KS-1810-N1	NPN	NO	10 mm	10 ~ 30 VDC	60Hz
	KS-3025-N1	NPN	NO	25 mm	10 ~ 30 VDC	60Hz
	CS-3020-N1	NPN	NO	20 mm	10 ~ 30 VDC	60Hz







Sensing object	Ferrous metals
Differential travel	≤10% max. of Sn
Leakage current	DC type: 1.1mA / AC type: 3mA
Max. switching current	DC type: ≤200mA / AC type: 5~300mA
Inverse polarity proof	Yes (DC type only)
Protection	IP-67
Operating temperature	-25 ~ +70°C
Voltage drop	2V max.







	A	B	C	D	E
IS-0801	M8 x 1	--	--	40	4
IS-0802	M8 x 1	5	--	40	4
IS-1202	M12 x 1	--	35	53	4
IS-1204	M12 x 1	5	30	48	4
IS-1805	M18 x 1	--	35	53	4
IS-1808	M18 x 1	7	30	48	4
IS-3010	M30 x 1.5	--	35	53	5
IS-3015	M30 x 1.5	8	30	48	5







Screw type



	A	B	C	D	E
HS-1805	M18 x 1	7	57	77	8.5
CS-1205	M12 x 1	5	30	48	4
CS-3020	M30 x 1.5	8	50	70	5
KS-1808	M18 x 1	7	57	77	8.5
CS-1202	M12 x 1	--	35	53	4
CS-1204	M12 x 1	5	30	48	4
CS-1805	M18 x 1	--	35	53	4
CS-1808	M18 x 1	7	30	48	4
CS-3010	M30 x 1.5	--	35	53	5
CS-3015	M30 x 1.5	8	30	48	5

รูป	Model รุ่น	Output Method	Output Status	ระยะจับ	Operating Voltage	Response frequency
PHOTO SENSOR (Diffuse Reflective)						
	PS-10D-NH	NPN	NO/NC	10 cm	10 ~ 30 VDC	80Hz
	PS-10D-PH	PNP				
	PS-40D-NH	NPN		40 cm		
	PS-40D-PH	PNP				
PHOTO SENSOR (Mirror Relective)						
	PS-300M-NH	NPN	NO/NC	3 m	10 ~ 30 VDC	60Hz
	PS-300M-PH	PNP				
PHOTO SENSOR (Through Beam)						
	PS-2000T-NH	NPN	NO/NC	20 m	10 ~ 30 VDC	80Hz
	PS-2000T-PH	PNP				
PHOTO SENSOR (Diffuse Reflective)						
	PS-10D-N	NPN	NO/NC	10 cm	10 ~ 30 VDC	80Hz
	PS-10D-P	PNP				
	PS-30D-N	NPN		30 cm		
	PS-30D-P	PNP				
PHOTO SENSOR (Mirror Relective)						
	PS-300M-N	NPN	NO/NC	3 m	10 ~ 30 VDC	60Hz
	PS-300M-P	PNP				
PHOTO SENSOR (Through Beam)						
	PS-2000T-N	NPN	NO/NC	20 m	10 ~ 30 VDC	60Hz
	PS-2000T-P	PNP				

รูป	Model รุ่น	Output Method	Output Status	ระยะจับ	Operating Voltage	Response frequency
PHOTO SENSOR (Diffuse Reflective)						
	PF-100D-R	Relay	NO/NC	1 m	AC / DC 24 ~ 240	30Hz
	PF-200D-R			2 m		
	PF-300D-R			3 m		
	PF-400D-R			4 m		
PHOTO SENSOR (Mirror Relective)						
	PF-300M-R	Relay	NO/NC	3 m	AC / DC 24 ~ 240	30Hz
	PF-500M-R			5 m		
	PF-700M-R			7 m		
	PF-800M-R			8 m		
PHOTO SENSOR (Through Beam)						
	PF-1000T-R	Relay	NO/NC	10 m	AC / DC 24 ~ 240	30Hz
	PF-2000T-R			20 m		
PHOTO SENSOR (Diffuse Reflective)						
	PM-10D-1	NPN/PNP	NO	10 cm	10 ~ 30 VDC	100Hz
	PM-10D-2		NC			
	PM-40D-1		NO	40 cm		
	PM-40D-2		NC			
PHOTO SENSOR (Mirror Relective)						
	PM-200M-1	NPN/PNP	NO	2 m	10 ~ 30 VDC	80Hz
	PM-200M-2		NC			
PHOTO SENSOR (Through Beam)						
	PM-500T-1	NPN/PNP	NO	5 m	10 ~ 30 VDC	80Hz
	PM-500T-2		NC			

รูป	Model รุ่น	Output Method	Output Status	ระยะจับ	Operating Voltage	Response frequency
PHOTO SENSOR (Diffuse Reflective)						
	PQ-10D-H	NPN	NO	10 cm	10 ~ 30 VDC	80Hz
PHOTO SENSOR (Mirror Relective)						
	PQ-100M-H	NPN	NO	1 m	10 ~ 30 VDC	60Hz
PHOTO SENSOR (Through Beam)						
	PQ-100T-H	NPN	NO	1 m	10 ~ 30 VDC	60Hz
PHOTO SENSOR (Diffuse Reflective)						
	PT-15D-N	NPN	NO/NC	15 cm	10 ~ 30 VDC	100Hz
	PT-15D-P	PNP				
	PT-30D-N	NPN		30 cm		
	PT-30D-P	PNP				
PHOTO SENSOR (Mirror Relective)						
	PT-200M-N	NPN	NO/NC	2 m	10 ~ 30 VDC	80Hz
	PT-200M-P	PNP				
PHOTO SENSOR (Through Beam)						
	PT-200T-N	NPN	NO/NC	2 m	10 ~ 30 VDC	80Hz
	PT-200T-P	PNP				

MULTI-FUNCTION DIGITAL

H8DA រូប COUNTER / TIMER

រូប H8DA រូប TIMER

រូប H8DA រូប COUNTER



72x72mm 6 digits

CHARACTERISTICS :

- Counter or Timer function selectable
- Scroll-through menu for all parameters
- Proximity and photoelectric switches compatible
- High-speed response allows 10k counts per second
- Online change of set value possible
- 4 levels of key protection provided
- 3 user selectable mode : Count Up, Count Down and Count Up/Down
- Memory function available
- CE certified

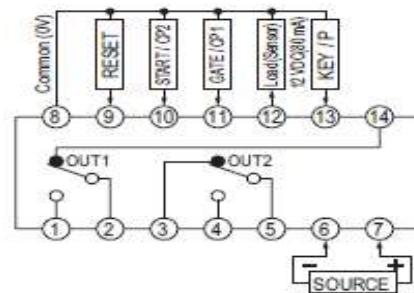
SPECIFICATION :

Operating voltage	AC/DC(V): 12~48 AC/DC(V): 100~240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Count speed	MAX 30, 1k, 5k or 10k cps
Reset time	MAX 0.1s
Power consumption	Approx. 3.5VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	Approx. 260g

TIME RANGE :

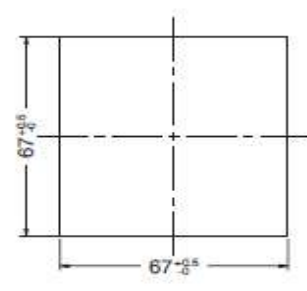
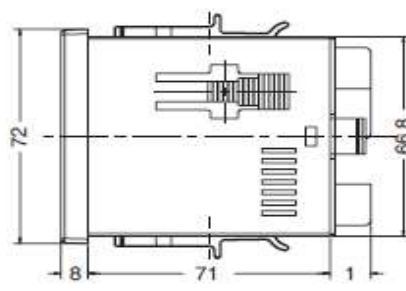
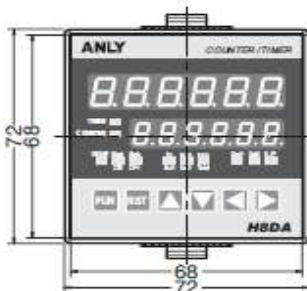
1	0.001s ~ 999.999s	7	0.1m ~ 99999.9m
2	0.01s ~ 9999.99s	8	1m ~ 999999m
3	0.1s ~ 99999.9s	9	1s ~ 99h59m59s
4	1s ~ 999999s	10	1m ~ 9999h59m
5	0.01s ~ 99m59.99s	11	0.1h ~ 99999.9h
6	0.1s ~ 999m59.9s	12	1h ~ 999999h

CONNECTION :



DIMENSIONS : (mm)

Flush Mounting : Using Clamp



MULTI-FUNCTION DIGITAL

H5DA រូប COUNTER / TIMER



48x48mm 6 digits

SPECIFICATION :

Operating voltage	AC/DC(V): 12~48 AC/DC(V): 100~240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Count speed	MAX 30, 1k, 5k or 10k cps
Reset time	MAX 0.1 s
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. 118g

TYPE SELECTION :

Type	H5DA-8	H5DA-8B	H5DA-8M	H5DA-11	H5DA-11D	H5DA-11M
Count speed	Max 30, 1k, 5k or 10k cps(user program selectable)					
Output contact	1C	1a	1a	2C	1a1C	1C
Memory	○	○	○	○	○	○
External Reset	○	○	○	○	○	○
Count Up	○	○	○	○	○	○
Count Down	○	○	○	○	○	○
Count Up/Down	---	○	○	---	○	○

រូប H5DA រូប TIMER

រូប H5DA រូប COUNTER

CHARACTERISTICS :

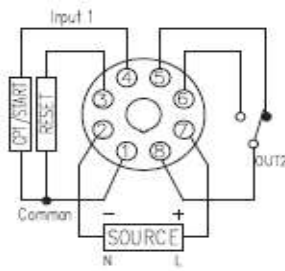
- Counter or Timer function selectable
- Scroll-through menu for all parameters
- Proximity and photoelectric switches compatible
- High-speed response allows 10k counts per second
- Online change of set value possible
- 4 levels of key protection provided
- 3 user selectable mode : Count Up, Count Down and Count Up/Down
- Memory function available
- CE certified

TIME RANGE :

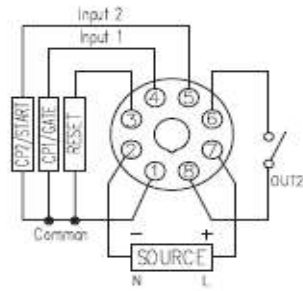
1	0.001s ~ 999.999s
2	0.01s ~ 9999.99s
3	0.1s ~ 99999.9s
4	1s ~ 999999s
5	0.01s ~ 99m59.99s
6	0.1s ~ 999m59.9s
7	0.1m ~ 99999.9m
8	1m ~ 999999m
9	1s ~ 99h59m59s
10	1m ~ 9999h59m
11	0.1h ~ 99999.9h
12	1h ~ 999999h

CONNECTION :

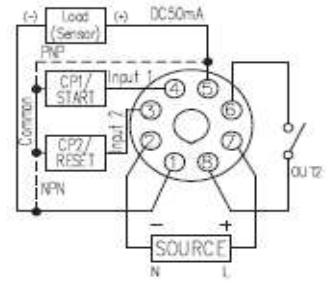
H5DA-8



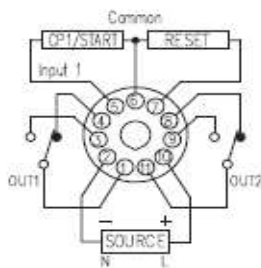
H5DA-8B



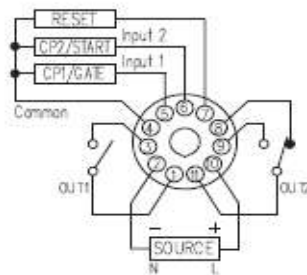
H5DA-8M



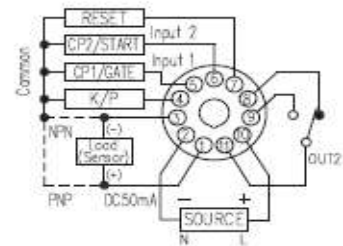
H5DA-11



H5DA-11D



H5DA-11M

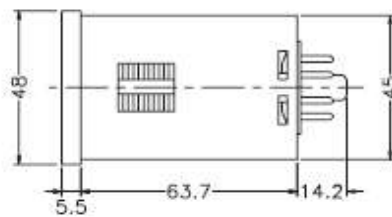
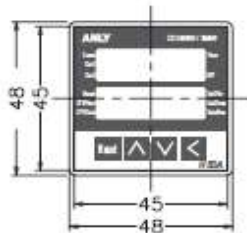


Note 1: When using NPN type Proximity, Common = 0V

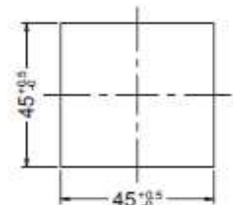
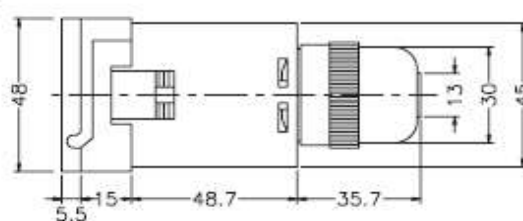
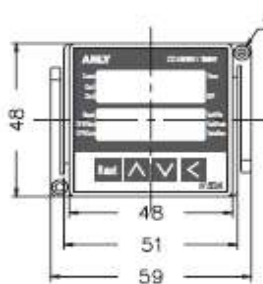
Note 2: When using PNP type Proximity, Common = +V

DIMENSIONS : (mm)

N type(Surface Mounting): Using P2CF-08 , PF085A Socket or PF113A Socket(for H5DA-11/11D/11M use only)



Y type(Flush Mounting): Using Y50 Frame & US-08 Socket , P3G-08 Socket or P3G-11 Socket(for H5DA-11/11D/11M use only)



H5KLR MULTI-FUNCTION DIGITAL COUNTER



CHARACTERISTICS :

- Proximity and photoelectric switch compatible
- Protection against power surge and high frequency interference
- High-speed response allows 1,000 counts per second
- Online change of set value possible
- Four levels of key protection provided
- Count Up, Count Down or Count Up/Down mode user selectable
- Memory function available
- UL, C-UL recognized and CE certified

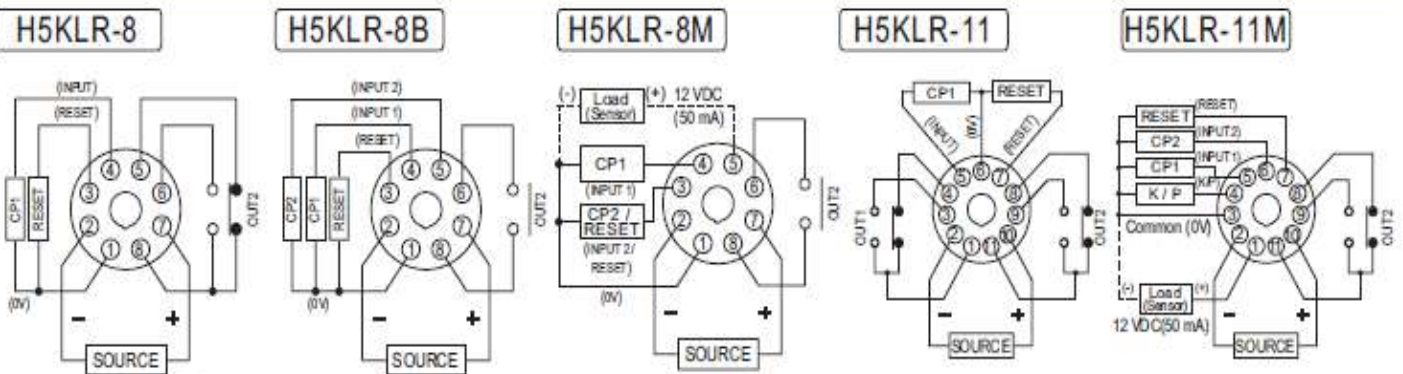
SPECIFICATION :

Operating voltage	AC/DC(V): 12~48 or 100~240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Count speed	MAX 30 cps or 1,000 cps
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

TYPE SELECTION :

Type	H5KLR-8	H5KLR-8B	H5KLR-8M	H5KLR-11	H5KLR-11M
Count speed	Max 30 cps or 1,000 cps(user program selectable)				
Output contact	1C	1a	1a	2C	1C
Memory	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
External Reset	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Count Up	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Count Down	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Count Up/Down	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

CONNECTION :



Note: **H5KLR-8** : When using Proximity(Type NPN) or photoelectric switch, connect (+) to external 12VDC, (-) to pin (1) and (OUT) to pin (4), (OUT2) to pin (5) for H5KLR-8B only. Connect (+) to pin (5) and (OUT) to pin (4), (OUT2) to pin (3) for H5KLR-8M only.
H5KLR-11 : When using Proximity(Type NPN) or photoelectric switch, connect (+) to external 12VDC, (-) to pin (6) and (OUT) to pin (5)
H5KLR-11M: When using Proximity(Type NPN) or photoelectric switch, connect (+) to pin (1), (-) to pin (3), (OUT) to pin (5) and (OUT2) to pin (6)

TIMING CHART :

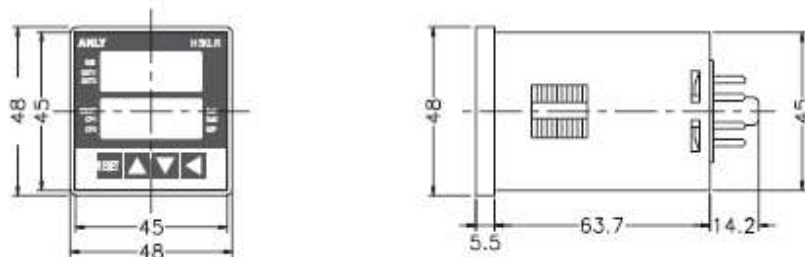
Input Modes and Count Value

Please note: 1. "A" indicates minimum signal width; "B" indicates 1/2 of minimum signal width. Signals may not be counted if the minimums for A and B are not met.
 2. H and L

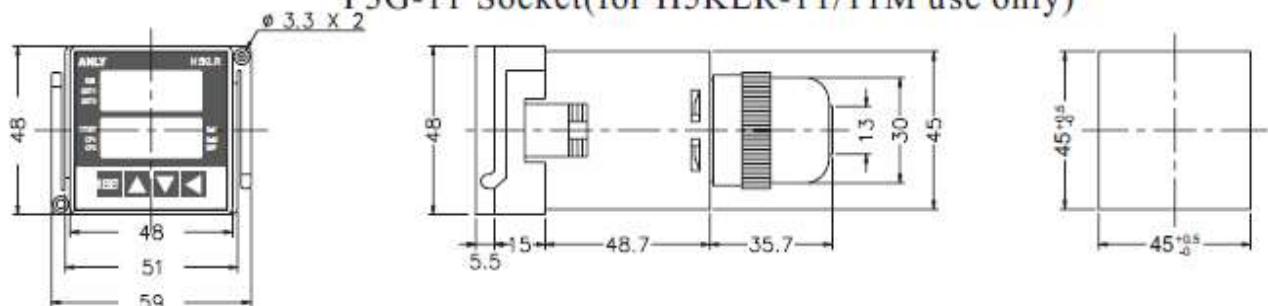
Signal	No-voltage input	Voltage input
H	Short circuit	4.5 ~ 30 VDC
L	Open circuit	0 ~ 2 VDC

DIMENSIONS : (mm)

N type(Surface Mounting): Using P2CF-08 , PF085A Socket or PF113A Socket(for H5KLR-11/11M use only)



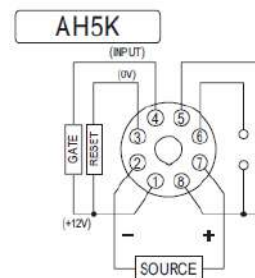
Y type(Flush Mounting): Using Y50 Frame & US-08 Socket , P3G-08 Socket or P3G-11 Socket(for H5KLR-11/11M use only)



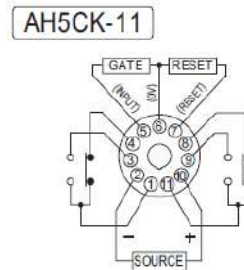
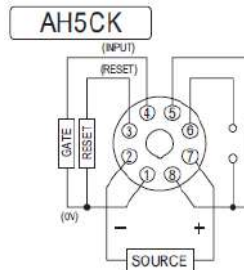
PRESET COUNTER (48x48)mm. 4 digits



Display	4Digits(0~9999)	3Digits(0~999)	2Digits(0~99)
Memory	----	----	----
Output contact	1C	1C	1C
Standard (under 60 cps)	AH5K-4D	AH5K-3D	AH5K-2D
High speed (under 200 cps)	AH5K-4DH	AH5K-3DH	AH5K-2DH
Count down	AH5K-4DD	AH5K-3DD	AH5K-2DD
Auto reset	AH5K-4DR	AH5K-3DR	AH5K-2DR

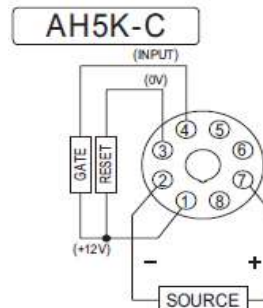


Display	4Digits(0~9999)	
Memory	○	○
Output contact	1C	2C
Standard (under 60 cps)	AH5CK	AH5CK-11
High speed (under 200 cps)	AH5CK-H	AH5CK-11H
Count down	AH5CK-D	AH5CK-11D
Auto reset	AH5CK-R	AH5CK-11R



SPECIFICATION :

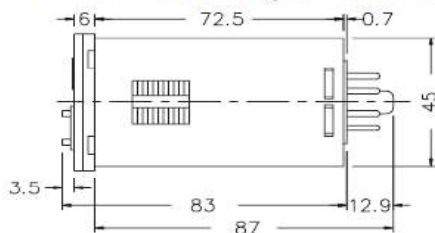
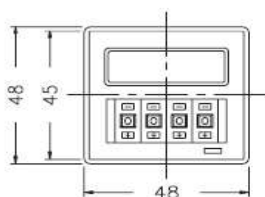
Operating voltage	AH5CK AC/DC(V): 12~48
	AH5K AC/DC(V): 100~240
Allowable operating voltage range	AH5K DC(V): 12, 24
	AC(V): 12, 24, 110, 220, 240
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Count speed	MAX 60 cps or 200 cps
Reset time	MAX 0.1S
Power consumption	AH5CK Approx. 2.5VA
	AH5K, AH5K-C Approx. 2VA
Life	Mechanical: 5,000,000 times
	Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	AH5CK Approx. 130g
	AH5K Approx. 170g
	AH5K-C Approx. 160g



Display	4Digits(0~9999)
Memory	----
Output contact	1C
Standard (under 60 cps)	AH5K-C
High speed (under 200 cps)	AH5K-CH
Count down	AH5K-CD
Auto reset	AH5K-CR

DIMENSIONS : (mm)


N type(Surface Mounting): Using P2CF-08 , PF085A Socket or PF113A Socket(for AH5CK-11 use only)



Note: AH5K, AH5K-C: When using Proximity(Type PNP) or photoelectric switch, connect (+) to pin (1), (-) to pin (3) and (OUT) to pin (4)
 AH5CK: When using Proximity(Type NPN) or photoelectric switch, connect (+) to external 12VDC, (-) to pin (1) and (OUT) to pin (4)
 AH5CK-11: When using Proximity(Type NPN) or photoelectric switch, connect (+) to external 12VDC, (-) to pin (6) and (OUT) to pin (5)



PRESET COUNTER

Model	PRESET COUNTER		TWIN COUNTER	
	ASK-□DN	ASK-□D	ACK-N	ACK-Y
라				

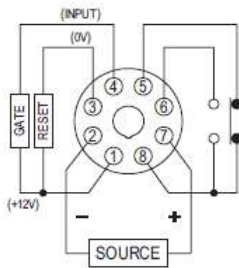
TYPE SELECTION :

Display	1Digit(0~9)	2Digits(0~99)	3Digits(0~999)
STD.(under 60 cps)	ASK-1D	ASK-2D	ASK-3D
H.Speed(under 200 cps)	ASK-1DH	ASK-2DH	ASK-3DH
Count down	ASK-1DD	ASK-2DD	ASK-3DD
Auto reset	ASK-1DR	ASK-2DR	ASK-3DR

SPECIFICATION :

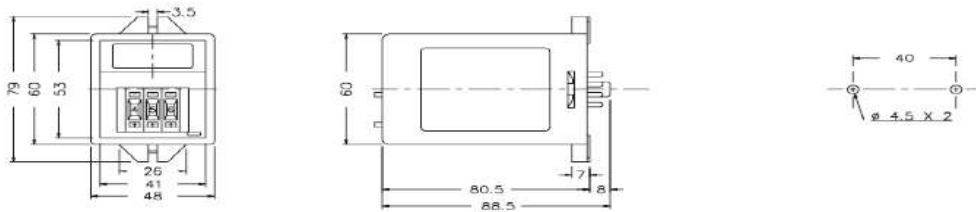
Operating voltage	DC(V): 12, 24 AC(V): 12, 24, 110, 220, 240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Count speed	MAX 60 cps or 200 cps
Reset time	MAX 0.5S
Power consumption	Approx. 3VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	Approx. 230g

CONNECTION :

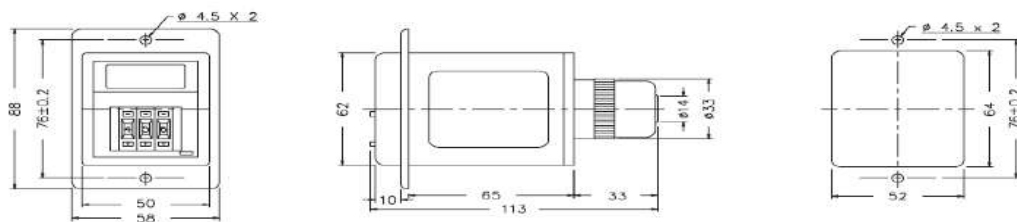


DIMENSIONS : (mm)

N type(Surface Mounting): Using 8PFA Socket



Y type(Flush Mounting): Using US-08 Socket or P3G-08 Socket



H5CLR MULTI-FUNCTION DIGITAL TIMER



CHARACTERISTICS :

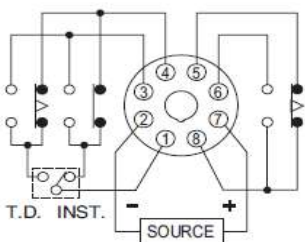
- Eleven field-selectable output modes accommodate a wide variety of applications
- 7-segment-display for clear display and effective monitoring
- All parameters set by scrollthrough menus accessed from the front panel
- Field-selectable time ranges from 0.001 second to 9999 hours
- Precision control possible to 0.001 second
- Four levels of key protection provided
- Count Up or Count Down mode user selectable
- Memory function available
- UL, C-UL recognized and CE certified

TYPE SELECTION :

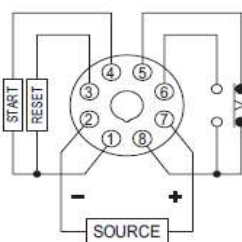
Type	H5CLR-8	H5CLR-8G	H5CLR-11	H5CLR-11M
Time range	9.999s / 99.99s / 999.9s / 9999s / 999.9m / 9999m / 999.9h / 9999h / 99m59s / 99h59m			
Output contact	2C or 1A1C	G Type	2C(1A1C) + G Type	M Type
Memory		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
External Reset		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
External Start		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
External Gate				<input type="radio"/>
Key protect(K/P)				<input type="radio"/>

CONNECTION :

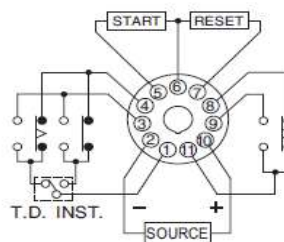
H5CLR-8



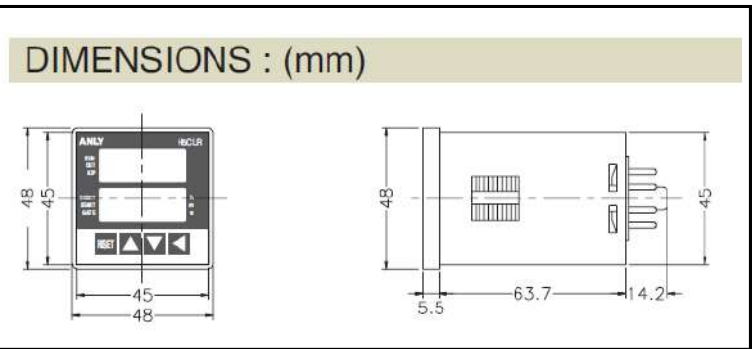
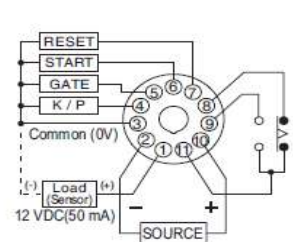
H5CLR-8G



H5CLR-11



H5CLR-11M



SPECIFICATION :

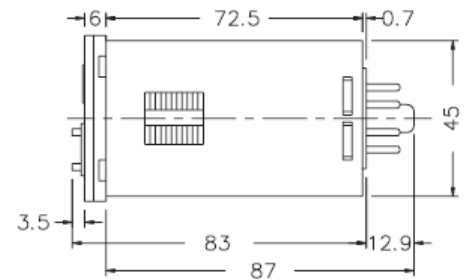
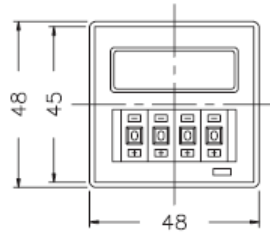
Operating voltage	AC/DC(V): 12~48 or 100~240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Reset time	MAX 0.1s
Reset time	Approx. 2.5VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature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

AH5CN DIGITAL TIMER (Memory switch & Manual reset)



เลือกช่วงเวลาที่ 8 Range

DIMENSIONS : (mm)



CHARACTERISTIC :

- 7-segment-display for clear display and effective monitoring
- Protection against power surge and high frequency interference
- Base-10 (99.99S ~ 99990H) and Base-60 (99M59S or 99H59M) time ranges available
- Memory switch allows users to enable or disable memory function
- Manual reset button on faceplate
- 2 modes selectable via slide switch: Mode A (2C) for DPDT time-limiting output contacts and Mode B (1A1C) for SPDT instantaneous and time-limiting output contacts
- Can be used as a "Hour Meter"
- External pause contact available on G type
- UL, C-UL recognized and CE certified

SPECIFICATION :

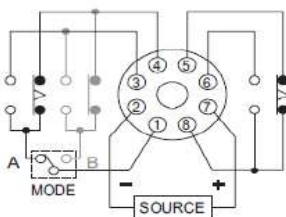
Operating voltage	AC/DC(V): 12~48 or 100~240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Reset time	MAX 0.1S
Power consumption	Approx. 2.5VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	Approx. 130g

TYPE SELECTION :

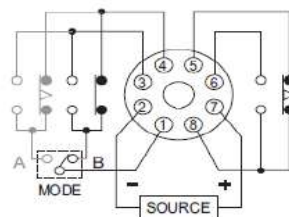
Output contact	Mode A / B	G Type	Mode A / B + G Type
Type	AH5CN-R	AH5CN-RG	AH5CN-R11
Time range	8 Ranges: 99.99S / 999.9S / 9999S / 999.9M / 9999M / 999.9H / 9999H / 99990H		

CONNECTION :

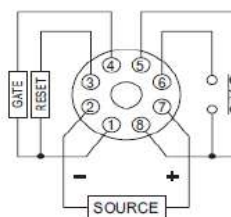
2C, Mode A



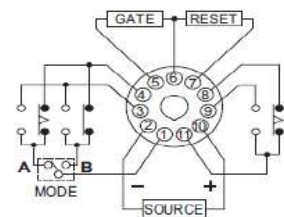
1A1C, Mode B



G Type



AH5CN-11, AH5CN-R11



AH4CN-R MULTI-RANGE DIGITAL TIMER



CHARACTERISTIC :

- 7-segment-display for clear display and effective monitoring
- Protection against power surge and high frequency interference
- 9.99 second ~ 9990 hour time range
- 2 modes selectable via a slide switch: Mode A (2C) for DPDT time-limiting output contacts and Mode B (1A1C) for SPDT instantaneous and time-limiting output contacts
- External pause contact available on G type
- UL, C-UL recognized and CE certified

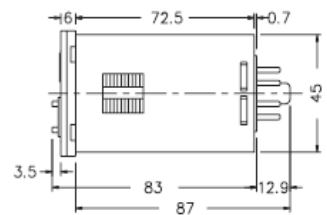
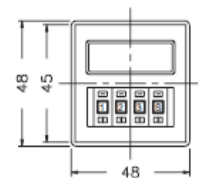
SPECIFICATION :

Operating voltage	AC/DC(V): 12~48 or 100~240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
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. 130g

TYPE SELECTION :

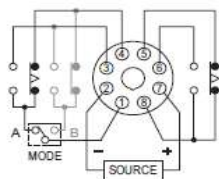
Type	AH4CN-R	AH4CN-RG
Time range	8 Ranges: 9.99S / 99.9S / 999S / 99.9M / 999M / 99.9H / 999H / 9990H	
Output contact	Mode A / B	G Type

DIMENSIONS : (mm)

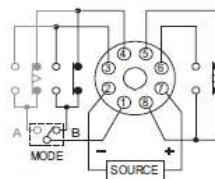


CONNECTION :

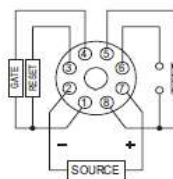
2C, Mode A



1A1C, Mode B



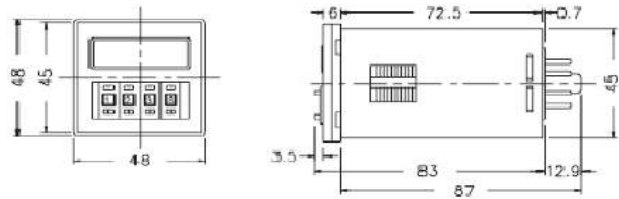
G Type



AH5E DIGITAL TIMER (ต้องระบุช่วงเวลา)



DIMENSIONS : (mm)



CHARACTERISTIC :

- 7-segment-display for clear display and effective monitoring
- Protection against power surge and high frequency interference
- Base-10 (99.99S~99990H) and Base-60 (99M59S or 99H59M) time ranges available
- Available on Count Up model or Count Down model

SPECIFICATION :

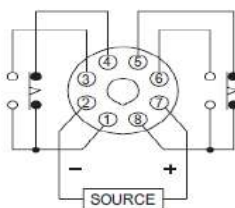
Operating voltage	DC(V): 12, 24 AC(V): 12, 24, 110, 220, 240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Reset time	MAX 0.1S
Power consumption	Approx. 2VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	AH5E Approx. 180g AH5E-C Approx. 160g

TYPE SELECTION :

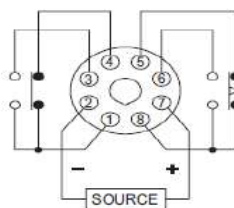
Display \ Output contact	2C	1A1C	G Type
2digits	AH5E-2D	AH5E-2DA	AH5E-2DG
	9.9S, 99S, 9.9M, 99M, 9.9H or 99H		
3digits	AH5E-3D	AH5E-3DA	AH5E-3DG
	9.99S, 99.9S, 999S, 99.9M, 999M, 99.9H or 999H		
4digits	AH5E-4D	AH5E-4DA	AH5E-4DG
	99.99S, 999.9S, 9999S, 99.9M, 9999M, 999.9H, 9999H, 99M59S or 99H59M		

CONNECTION :

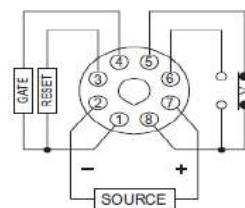
2C



1A1C



G Type



ASY DIGITAL TIMER

รูป



ปรับช่วงเวลาได้โดยเลื่อน switch

MODE

2C	1A1C
ASY-2DN	ASY-2DA
ASY-3DN	ASY-3DA

Mode A / B	Mode A / B
ASY-2SMN	ASY-2SM
9.9S / 99S / 9.9M / 99M	9.9S / 99S / 9.9M / 99M
ASY-2MHN	ASY-2MH
9.9M / 99M / 9.9H / 99H	9.9M / 99M / 9.9H / 99H
ASY-3SMN	ASY-3SM
99.9S / 999S / 99.9M / 999M	99.9S / 999S / 99.9M / 999M
ASY-3MHN	ASY-3MH
99.9M / 999M / 99.9H / 999H	99.9M / 999M / 99.9H / 999H

ต้องระบุช่วงเวลาที่ใช้

9.9S , 99S , 9.9M , 99M , 9.9H or 99H

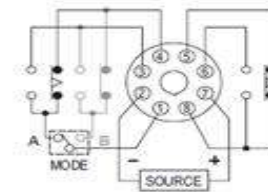
9.99S, 99.9S, 999S,
99.9M, 999M, 99.9H or 999H

SPECIFICATION :

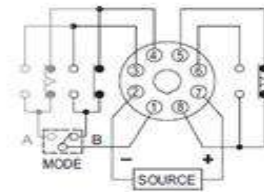
Operating voltage	DC(V): 12, 24 AC(V): 12, 24, 110, 220, 240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Reset time	MAX 0.3S
Power consumption	Approx. 3VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	Approx. 240g

CONNECTION :

2C, Mode A

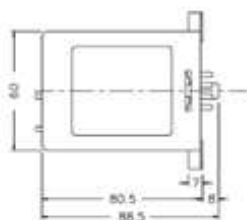
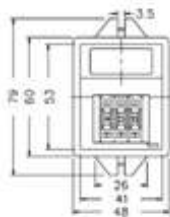


1A1C, Mode B

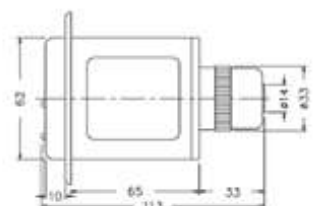
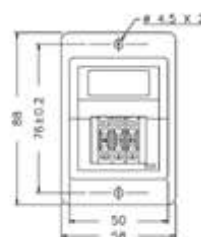


DIMENSIONS : (mm)

N type(Surface Mounting) : Using PF085A Socket



Y type(Flush Mounting) : P3G-08 Socket



ASY-4DR MULTI-FUNCTION DIGITAL TIMER

CHARACTERISTICS :

- Eleven field-selectable output modes accommodate a wide variety of applications
- 7-segment-display for clear display and effective monitoring
- All parameters set by scrollthrough menus accessed from the front panel
- Field-selectable time ranges from 0.001 second to 9999 hours
- Precision control possible to 0.001 second
- Four levels of key protection provided
- Count Up or Count Down mode user selectable
- Memory function available
- CE certified



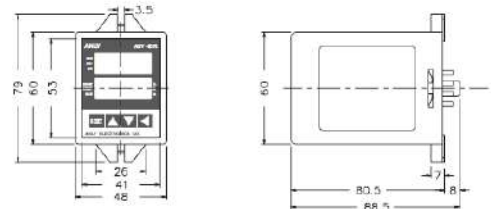
Type	ASY-4DRN	ASY-4DRGN	ASY-4DRY	ASY-4DRGY
Time range	9.999s / 99.99s / 999.9s / 9999s / 999.9m / 9999m / 999.9h / 9999h / 99m59s / 99h59m			
Output contact	2C or 1A1C	G Type	2C or 1A1C	G Type
Memory		○		○
External Reset		○		○
External Start		○		○

SPECIFICATION :

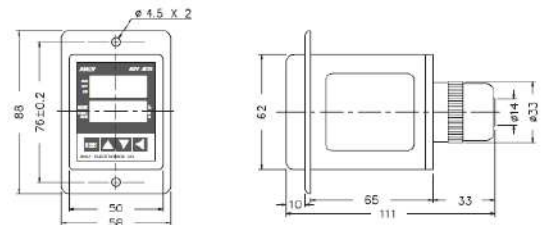
Operating voltage	AC/DC(V): 12~48 or 100~240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Reset time	MAX 0.1s
Reset time	Approx. 2.5VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	Approx. 150g

DIMENSIONS : (mm)

N type(Surface Mounting): Using 8PFA Socket

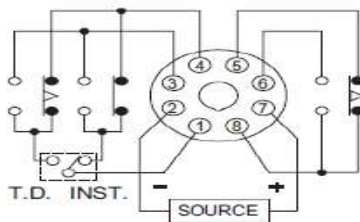


Y type(Flush Mounting): P3G-08 Socket

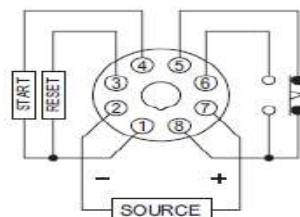


CONNECTION :

ASY-4DR



ASY-4DRG



Weekly Programmable Timer

Figure



Model

APT-6S / APT-6SB

APT-8S

APT-9S

Note: "*" indicates applicable to APT-6SB

Function

Function

1. 8 different timing setting per day
2. 15 different weekly combination
3. Built-in Lithium battery backup
4. Backlit LCD (APT-6SB ONLY)

1. 8 different timing setting per day
2. 15 different weekly combination
3. Built-in Lithium battery backup
4. Up to 99 days holiday suspension
5. Daylight-saving-time function
6. Backlit LCD

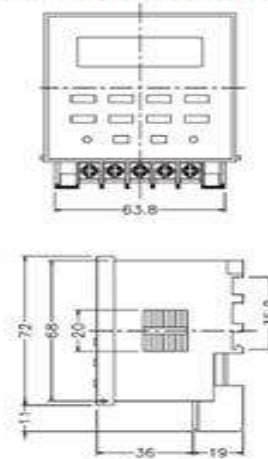
1. 80 different timing setting per day
2. Different weekday combinations
3. Built-in Lithium battery backup
4. Up to 99 days holiday suspension
5. Daylight-saving-time function
6. Backlit LCD

SPECIFICATION :

Operating voltage	AC/DC(V): 12~48 AC/DC(V): 100~240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 7A (resistive load)
Indicator operating	ON - Green OFF - Red
Power consumption	Approx. 3.3 VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 65%RH
Weight	Approx. 170g

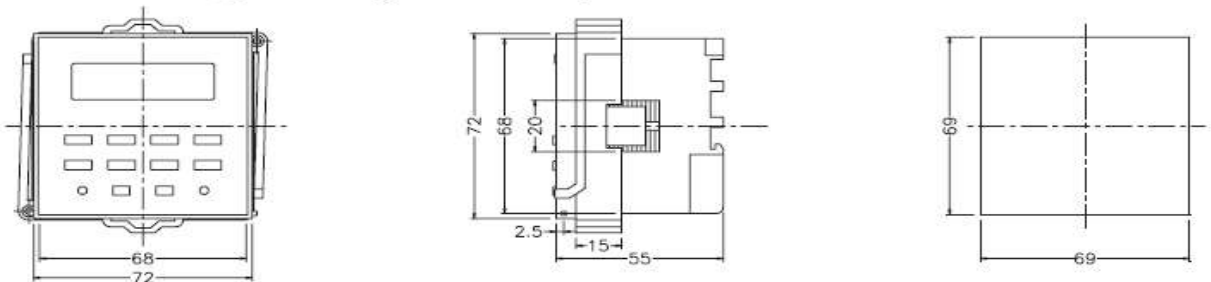
DIMENSIONS : (mm)

N type(Surface Mounting):



DIMENSIONS : (mm)

Y type(Flush Mounting): Using Y70 Adapter



AMY/AMY-N MULTI-RANGE ANALOGUE TIMER

CHARACTERISTIC :

- 8 field-selectable time range, from 1 second to 600 hour*
- Customized CMOS IC for low power consumption, high operation stability and extreme timing accuracy
- SMD components for miniature size
- Flush mount with Type Y-20 adapter and surface mount without adapter
- 2 poles or 4 poles output contacts available
- MY relay socket compatible
- CE certified

Note: "*" indicates applicable to AMY-N multi-range series only



ตั้งระบุช่วงเวลา // เลือกปรับเวลาการใช้งานโดย DIP Switch

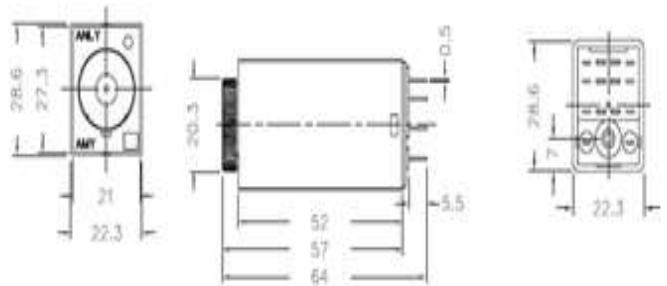
Model	Variable		Multi-Range Variable	
Type	AMY-2	AMY-4	AMY-N2	AMY-N4
Output contact	2C	4C	2C	4C
Time range	1, 3, 6, 10, 30 or 60s 3, 6, 10, 30 or 60m 3h		8 Ranges: 1s / 10s / 1m / 10m / 1h / 10h / 60h / 600h	

SPECIFICATION :

Operating voltage	DC(V): 12, 24 AC(V): 12, 24, 110, 220, 240
Allowable operating voltage range	85~110% of rated operating voltage (90~110% for DC12V only)
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Reset time	MAX 0.2S
Power consumption	DC(W): 1.4, 1.1, 1.2, 1.6 AC(VA): 1.3, 1.6, 1.9, 2.1, 2.6, 2.9
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	Approx. 45g

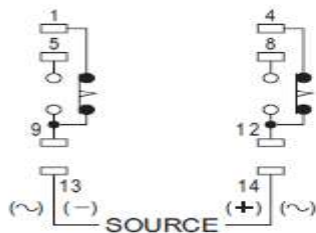
DIMENSIONS : (mm)

N type : AMY-2, AMY-N2 Using PYF08A(E) Socket
AMY-4, AMY-N4 Using PYF14A(E) Socket

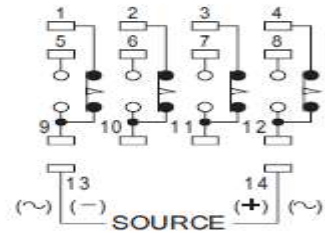


CONNECTION :

AMY-2, AMY-N2



AMY-4, AMY-N4



AH2 MULTI-RANGE ANALOGUE TIMER



CHARACTERISTIC :

- Customized CMOS IC for low power consumption, high operation stability and extreme timing accuracy
- Large transparent knob for easy adjustment and monitoring
- 15 different time ranges available, from 0.1sec to 24hour
- 5(A, B, C, D, E) timing series available*
- Each timing series has 4 time ranges, selectable via DIP switch*
- CE certified

Note: "*" indicates applicable to AH2 multi-range series only

SPECIFICATION :

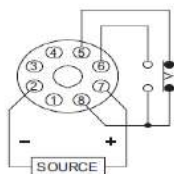
Operating voltage	DC(V): 12, 24 AC(V): 12, 24, 110, 220, 240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Reset time	MAX 0.1S
Power consumption	Approx. 3VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	Approx. 200g

TYPE SELECTION :

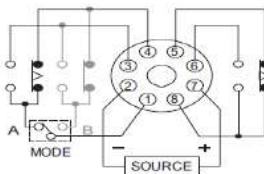
Model	Single Range Variable			Multi-Range Variable		
Output contact	1C	2C	1A1C	Mode A / B		
Type	AH2-N1	AH2-N2	AH2-N	AH2-NA / YA	AH2-NB / YB	AH2-NC / YC
Time range	1, 3, 6, 10, 30 or 60S 3, 6, 10, 30 or 60M, 3, 6, 10 or 24H			1S / 10S / 1M / 10M	3S / 30S / 3M / 30M	6S / 60S / 6M / 60M
Type	AH2-Y1	AH2-Y2	AH2-Y	AH2-ND / YD	AH2-NE / YE	
Time range	1, 3, 6, 10, 30 or 60S 3, 6, 10, 30 or 60M, 3, 6, 10 or 24H			1M / 10M / 1H / 10H	3M / 30M / 3H / 30H	

CONNECTION :

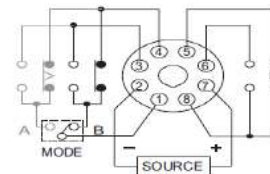
1C



2C, Mode A



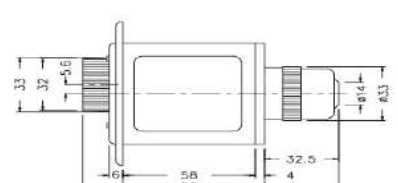
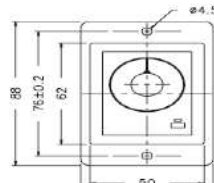
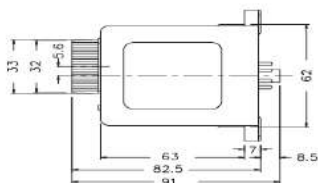
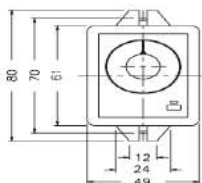
1A1C, Mode B




DIMENSIONS : (mm)

N type(Surface Mounting): Using 8PFA Socket

Y type(Flush Mounting): P3G-08 Socket

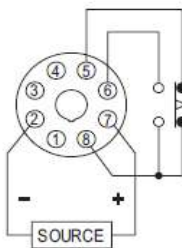


ON DELAY TIMER

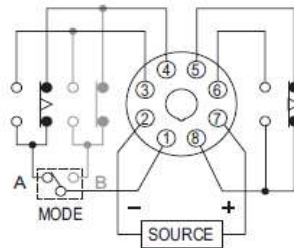
Figure					
Model	AH3-1	AH3-2	AH3-3	AH3-N□	AH3-R□
Range	1, 3, 6, 10, 30, 60s 3, 6, 10, 30, 60m 3, 6, 10, 24h			A: 1s/10s/1m/10m B: 3s/30s/3m/30m C: 6s/60s/6m/60m D: 1m/10m/1h/10h E: 3m/30m/3h/30h □	
Power Supply	DC(V): 12, 24 AC(V): 100~120, 200~240				AC/DC(V)24~240
Output contact	1C	2C	1A1C	Mode A/B	

CONNECTION :

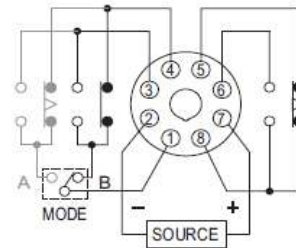
1C



2C, Mode A

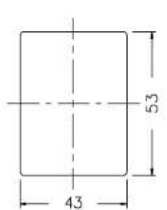
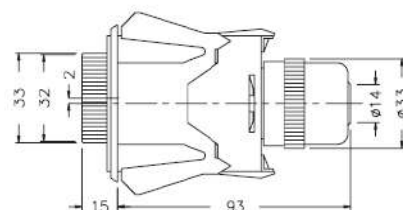
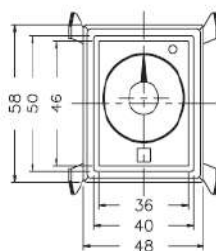
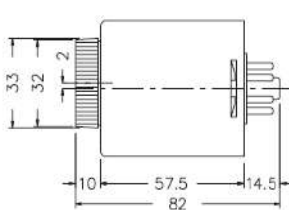
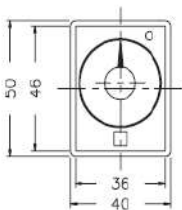


1A1C, Mode B



DIMENSIONS : (mm)





N type(Surface Mounting): Using PF085A Socket



Y type(Flush Mounting): Using Y-40 Frame & P3G-08 Socket

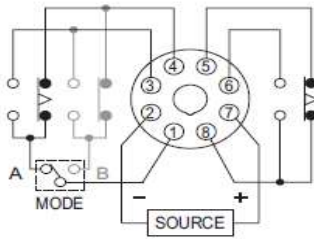


ON DELAY TIMER

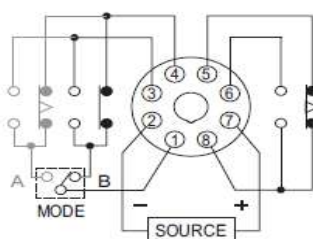
48x48 mm.					
Model	H3B-□	H3B-R□	AH5N	H3C-R	H3C-R11
Power Supply	DC(V): 12, 24 AC(V): 100~120, 200~240	AC/DC(V)24~240			
RANGE	A: 1s/10s/1m/10m B: 3s/30s/3m/30m C: 6s/60s/6m/60m D: 1m/10m/1h/10h E: 3m/30m/3h/30h		1s~600h	1.2s~300h	
			เปลี่ยนช่วงเวลา ได้โดย การกด	เปลี่ยนช่วงเวลา ได้โดย การหมุนไข	
Output contact	Mode A/B			2C or 1A1C	2C(1A1C) + G Type

CONNECTION :

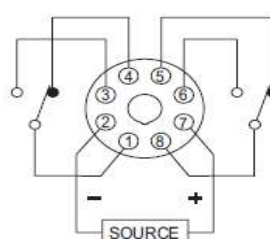
2C, Mode A



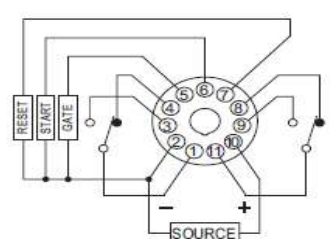
1A1C, Mode B



H3C-R



H3C-R11



DIMENSIONS : (mm)	H3B- □ /H3B-R□	AH5N	H3C-R / H3C-R11

ON DELAY TIMER

CHARACTERISTIC :

- Customized CMOS IC for low power consumption, high operation stability and extreme timing accuracy
- 15 different time ranges available, from 0.1S to 24H
- CE certified

ต้องระบุช่วงเวลา

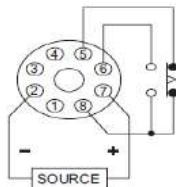


TYPE SELECTION :

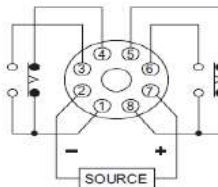
Type	ASTP-N1 / Y1	ASTP-N2 / Y2	ASTP-N / Y
Output contact	1C	2C	1A1C
Time range	1 , 2 , 6 , 12 , 30 , 60 or 180S		
	6 , 12 , 30 or 60M		
	3 , 6 , 12 or 24H		

CONNECTION :

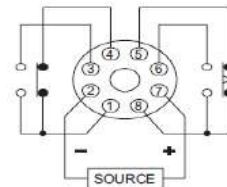
1C



2C

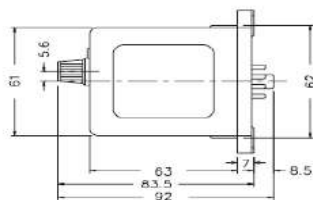
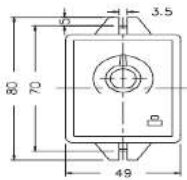


1A1C

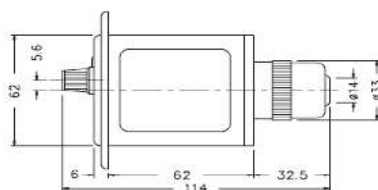
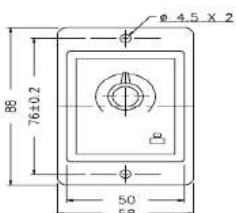


DIMENSIONS : (mm)

N type(Surface Mounting): Using 8PFA Socket





Y type(Flush Mounting): P3G-08 Socket



SPECIFICATION :

Operating voltage	DC(V): 12, 24 AC(V): 12, 24, 110, 220, 240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250 VAC 5A (resistive load)
Reset time	MAX 0.1S
Power consumption	Approx. 3VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	Approx. 220g

ON DELAY TIMER

รูป			
MODEL	H3D-S		H3D-M
RANGE	1, 3, 6, 10, 30, 60s 3, 6, 10, 30, 60m 3, 6, 10, 24h		1.2s~100h
			Output mode 7moder
Power Supply	DC(V): 12, 24 AC(V): 100~120, 200~240		AC/DC(V)12~240

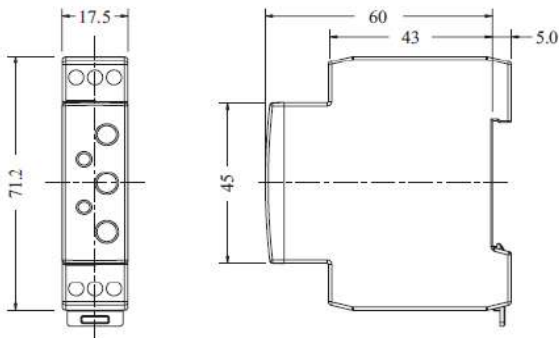
CHARACTERISTICS :

- Wide operating voltage range, AC/DC 12V~240V
- 7 output modes :
 On-delay
 Control contact OFF-delay
 Interval
 Trailing edge interval
 Flasher starting with ON
 Flasher starting with OFF
 Single shot
- 7 time range, from 1 second to 100 hour
- 17.5 mm thin body design
- UL, C-UL recognized and CE certified

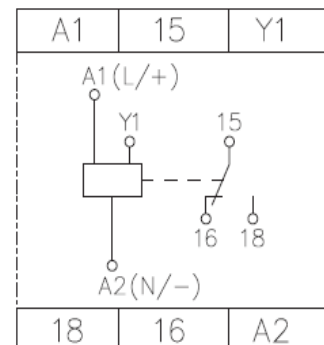
SPECIFICATION :

Allowable operating voltage range	90~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 8A (resistive load)
Reset time	MAX 0.1s
Power consumption	Approx. 1.9VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	Approximatly 62g

DIMENSIONS : (mm)



CONNECTION :



TWIN TIMER

Figure



ATDV-N

ATDV-Y

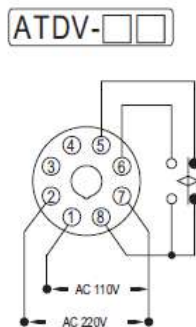
Range

A: 1s/10s/1m/10m
B: 3s/30s/3m/30m
C: 6s/60s/6m/60m
D: 1m/10m/1h/10h
E: 3m/30m/3h/30h

SPECIFICATION :

Operating voltage	DC(V): 12, 24 AC(V): 12, 24, 110, 220, 240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Reset time	MAX 0.2S
Power consumption	Approx. 2VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	Approx. 220g

CONNECTION :



TWIN TIMER

ET2-41

B6

2C / 1A1C

1s/3s/10s/100s/300s

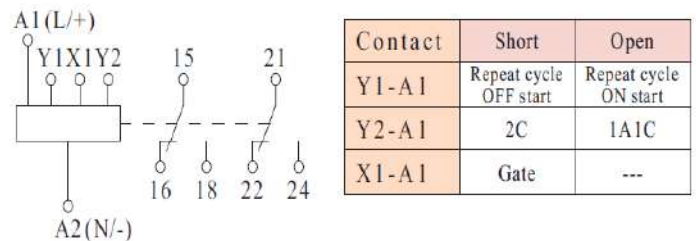
30m/300m

30h/300h

SPECIFICATION :

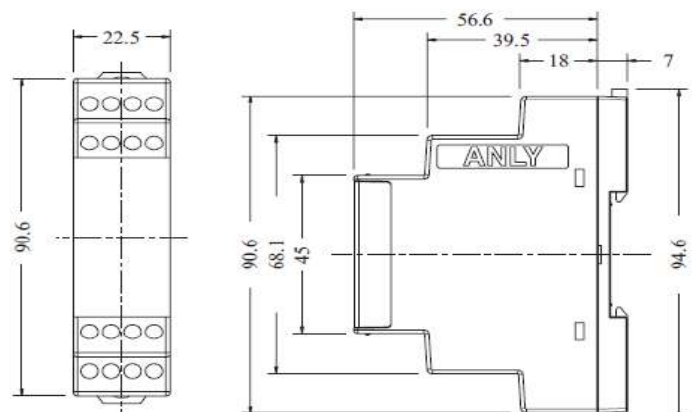
Operating voltage	AC/DC(V): 24~240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Reset time	MAX 0.1S
Power consumption	Approx. 3VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	Approx. 93g

CONNECTION :






DIMENSIONS : (mm)

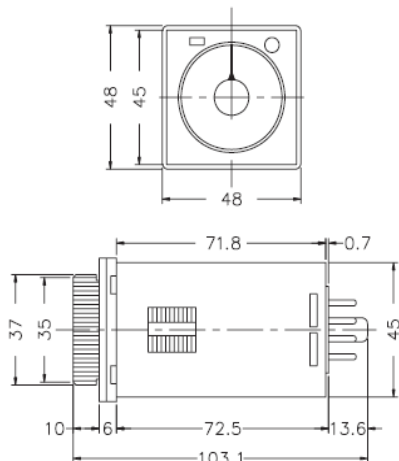
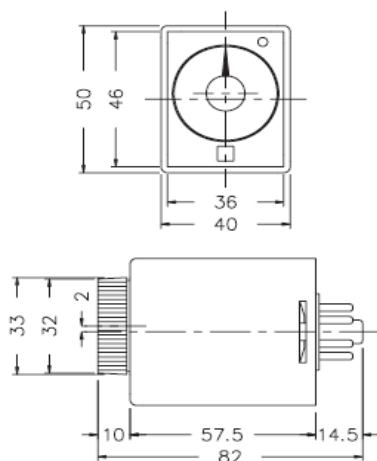
N type(Surface Mounting):



Off Delay Timer

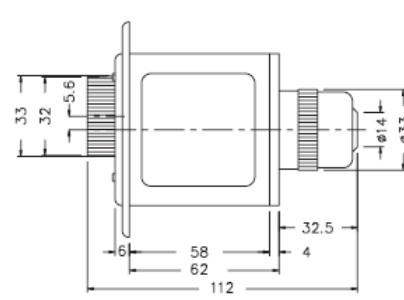
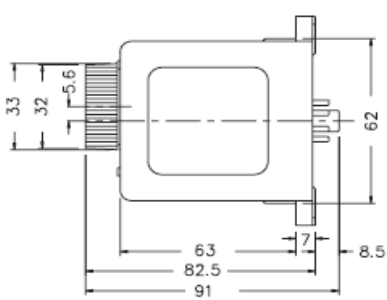
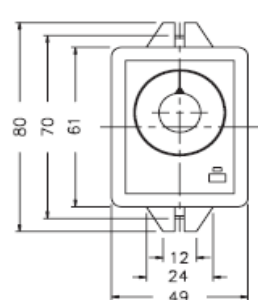
Figure					
Model	ATS	AH5F	AH5F-2	ATF-NF	ATF-NF2
Range	3s,6s,10s,30s,60s	3s,6s,10s,30s,60s		3s,6s,10s,30s,60s	
	3M,6M	3M,6M,10M,30M,60M		3M,10M,30M,60M	
Contact Rated	250VAC 2A/5A	250VAC 5A (resistive load)		250VAC 5A (resistive load)	
	(resistive load)				

DIMENSIONS : mm.

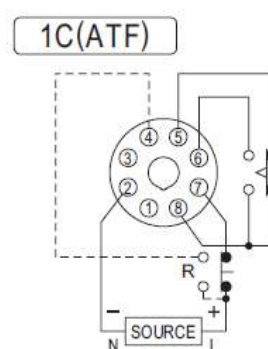
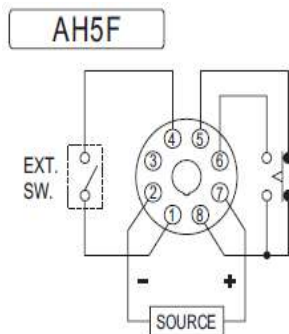
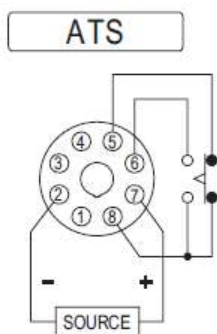


SPECIFICATION :

Operating voltage	DC(V): 12, 24 AC(V): 12, 24, 110, 220, 240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Reset time	MAX 0.3s
Power consumption	Approx. 3VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	Approx. 225g



CONNECTION



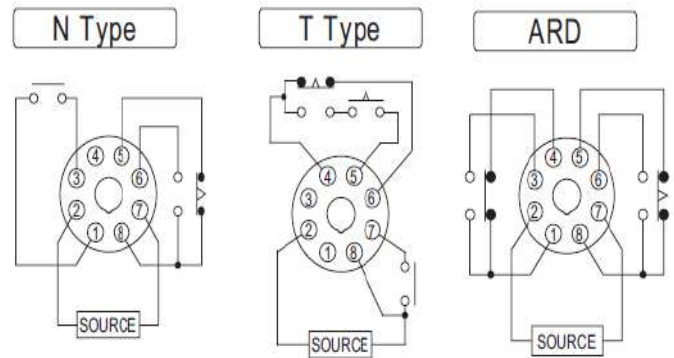
TRD / ARD STAR- DELTA TIMER



SPECIFICATION :

Operating voltage	AC(V): 110, 220, 240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Reset time	TRD MAX 0.3s ARD MAX 0.2s
Power consumption	Approx. 3VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	TRD-N/NT/NC Approx. 230g TRD-ND/NDT Approx. 210g ARD Approx. 160g

CONNECTION :



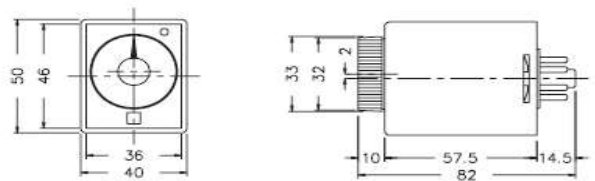
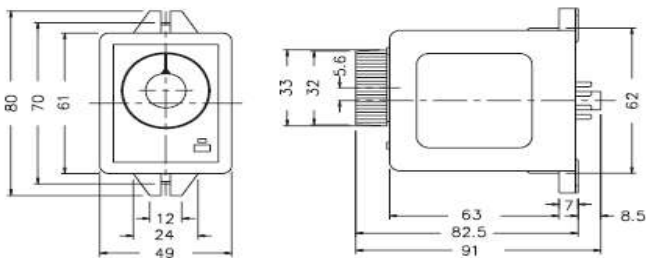
TYPE SELECTION :

Type	TRD-N	TRD-NT	TRD-NC	ARD	TRD-ND	TRD-NDT
Time range	30s, 60s Variable				1 ~ 63s DIP switch setting	
Change time	Standard 0.1s		Variable 0~1s	Standard 0.1s	Standard 0.1s	
Connection	N Type	T Type	N Type	ARD	N Type	T Type
Dimensions	61H x 49W x 70D			50H x 40W x 57.5D	61H x 49W x 70D	

DIMENSIONS : (mm)

TRD N type : Using 8PFA Socket

ARD N type : Using PF085A Socket



TWB-N / TWB-ND FOR- REV RELAY

CHARACTERISTIC :

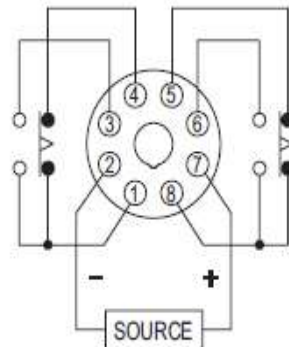
- Customized CMOS IC for low power consumption, high operation stability and extreme timing accuracy
- Symmetric repeating operation
- FOR and REV controlled by independent contact
- Made-to-order reset time intervals
- Made-to-order operating time intervals
- 2 LED indicators for operation status
- CE certified



SPECIFICATION :

Operating voltage	DC(V): 12, 24 AC(V): 12, 24, 110, 220, 240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Reset time	MAX 0.1S
Power consumption	Approx. 2VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	TWB-N Approx. 210g TWB-ND Approx. 230g

CONNECTION :

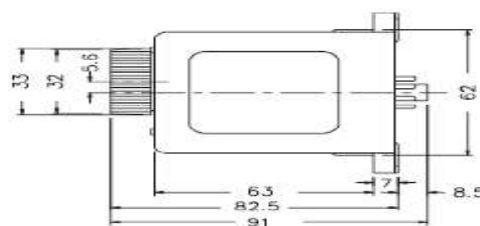
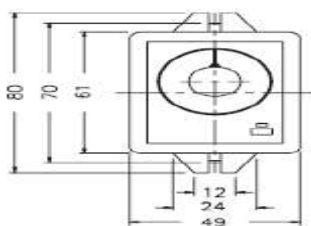


TYPE SELECTION :

Type	TWB-N	TWB-ND
Output contact	250VAC 5A	250VAC 5A
Time range	FOR/REV: 30S fixed, or upon clients' request STOP: 3S fixed, or upon clients' request	FOR/REV: 30S or 60S variable STOP: 6S variable

DIMENSIONS : (mm)

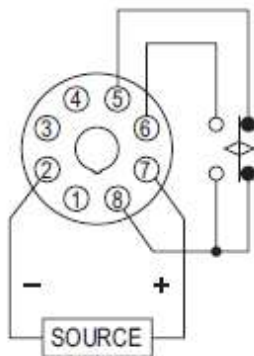
N type(Surface Mounting): Using 8PFA Socket



TFK / AFK FLICKER TIMER



CONNECTION :



TYPE SELECTION :

Type	TFK	AFK
Output contact	1C	1C
Time range	2S	3S

CHARACTERISTIC :

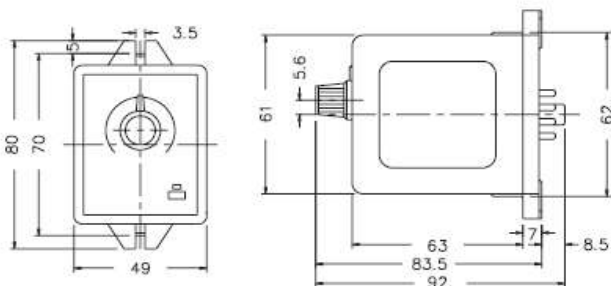
- Customized CMOS IC for low power consumption, high operation stability and extreme timing accuracy
- Equal start-up time and shut-down time
- Adjustable repeat time intervals
- High accuracy, repeat error $\leq \pm 1\%$
- CE certified

SPECIFICATION :

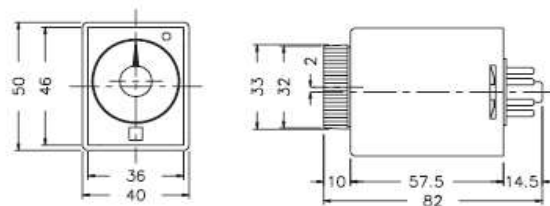
Operating voltage	DC(V): 12, 24 AC(V): 12, 24, 110, 220, 240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Reset time	MAX 0.2S
Power consumption	Approx. 2VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	TFK Approx. 200g AFK Approx. 145g

DIMENSIONS : (mm)

TFK : Using 8PFA Socket



AFK : Using PF085A Socket



TDF / ATDE DEFROST TIMER

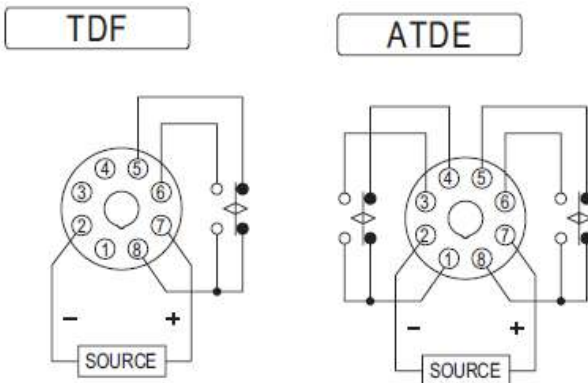


CHARACTERISTIC :

- Specialized for refrigeration equipment
- Automatic control of Cooling - Defrost cycle
- Adjustable delayed-fan-start time*
- Manual "Defrost" button in front*

Note: "*" indicates applicable to ATDE only

CONNECTION :



SPECIFICATION :

Operating voltage	AC(V): 110, 220, 240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Reset time	MAX 0.2S
Power consumption	Approx. 2VA(AC 220V)
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	TDF Approx. 225g ATDE Approx. 210g

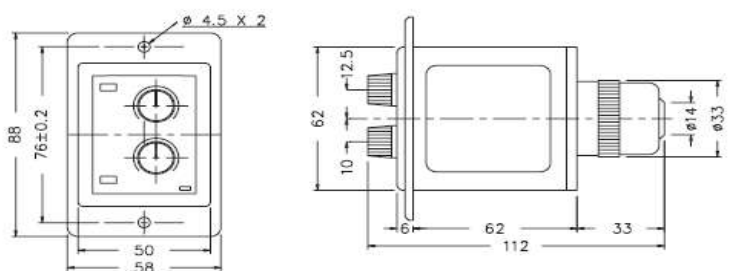
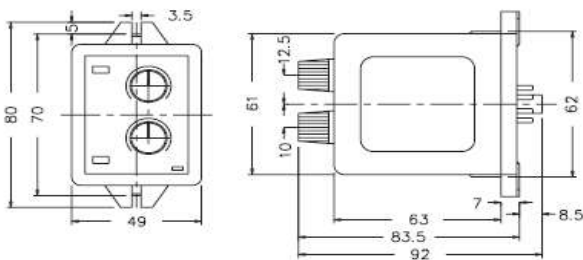
TYPE SELECTION :

Type	TDF	ATDE
Tme setting of cooling and defrost	○	○
Time delay setting of fan	---	○
Manual defrost button	---	○
Time range	12H x 30M or 12H x 60M	12H x 30M or 12H x 60M

DIMENSIONS : (mm)

N type : Using 8PFA Socket

Y type : P3G-08 Socket



PU-N □ CONTROLLER UNIT

CHARACTERISTIC :

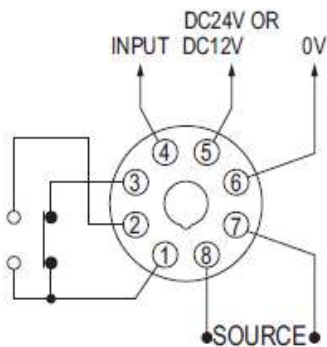
- Proximity and photoelectric swithes power supply controller
- Stabilized power source, DC 24V for PU-NA, PU-NB and DC 12V for PU-NC, PU-NE
- 1C (SPDT) output contact with 5A capacity



TYPE SELECTION :

Type	PU-NA	PU-NB	PU-NC	PU-NE
Output voltage	DC 24V	DC 24V	DC 12V	DC 12V
Connet proximity	P type	N type	P-N type	P-N type
Active	Hi active	Low active	Hi or Low active	Hi or Low active

CONNECTION :

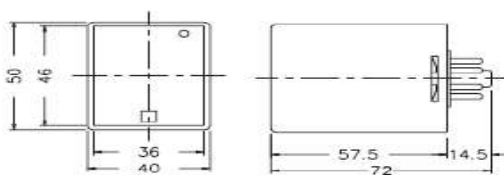


SPECIFICATION :

Operating voltage	AC(V) : 110, 220, 240 AC(V) : 110 / 220(PU-NE)
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Reset time	-----
Power consumption	Approx. 2VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	PU-NA, -NB, -NC Approx. 150g PU-NE Approx. 210g

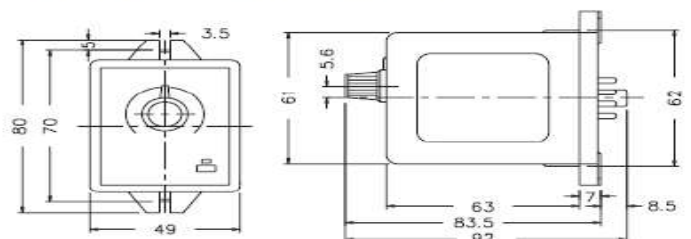
DIMENSIONS : (mm)

N type : Using PF085A Socket



(PU-NA, -NB, -NC)

Y type : Using 8PFA Socket



(PU-NE)

FLOATLESS RELAY



TYPE SELECTION :

Sensing mode	Type			
General	AFS-1	AFR-1	AFR-G	A61F-GP-N
High sensing	AFS-1Y	AFR-1Y	----	----
Long distance	AFS-1L	AFR-1L	----	----
Low density	AFS-1D	AFR-1D	----	----
Two lines	AFS-GR	----	----	----
Number of pins	8P	8P	8P	11P

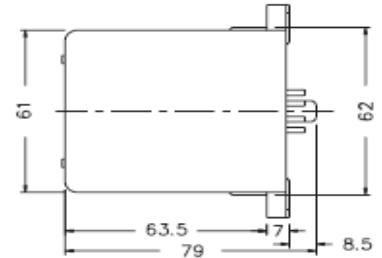
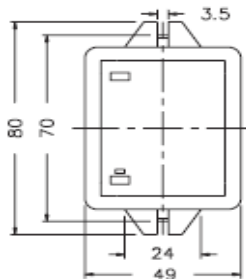
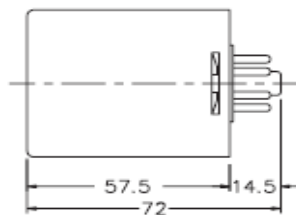
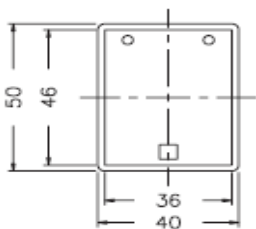
SPECIFICATION :

Type	AFS / AFR / A61F-GP-N
Operating voltage	AC(V): 110, 220, 240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Second voltage	8VAC(except High sensing 24VAC)
Operate resistance	0 ~ 4K Ω
Release resistance	15K ~ ∞ Ω
Length of cable	MAX 1Km
Power consumption	AFS, AFR, A61F-GP-N and A61F-G Approx. 3.2VA
Life	Mechanical: 5,000,000 times, Electrical: 100,000 times
Ambient temperature	-10 ~ +50 $^{\circ}$ C
Ambient humidity	MAX 85%RH
Weight	AFS-1, A61F-GP-N Approx. 160g AFS-GR Approx. 150g, AFR Approx. 200g

DIMENSIONS : (mm)

AFS series: Using PF085A Socket

AFR series: Using 8PFA Socket



ALN / AL2N LEVEL CONTROL RELAY



CHARACTERISTIC :

- Suitable for any electrolytic fluid (NO VOLATILE FLUID)
- AC operating voltage
- Low electrodes AC voltage to prevent electrolysis for longer life expectancy
- Drainage function only available on ALN
- Water supply function available
- Sensitivity adjustable, $5K\Omega \sim 100K\Omega$
- 2C contacts on ALN-11, one of them can be connected to an indicator
- CE certified

SPECIFICATION :

Operating voltage	AC(V): 24, 110, 120, 220, 230, 240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Electrode voltage	20VAC
Adjustable sensitivity	5K ~ 100K Ω
Response time (high level)	Approx. 300 ms
Response time (low level)	Approx. 500 ms
Power consumption	Approx. 3VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	Approx. 160g

TYPE SELECTION :

Type	ALN-08	ALN-08A	ALN-11	AL2N-11
Output contact	1C	1C	2C	1C
Auto water supply	⊙	⊙	⊙	⊙
Auto drainage	⊙	⊙	⊙	
Single tank one step	⊙	⊙	⊙	
Double tanks one step				⊙

APR-3,-3S / ASV-4 / ASM-170 3-PHASE SEQUENCE VOLTAGE RELAY



CHARACTERISTIC :

- Only operational with correct power source voltage and phase sequence
- Suitable for main power source and motor starter circuit to prevent damage from insufficient phase or phase reversal
- Out-of-phase detection while the motor operating*

Note: "*" indicates not applicable to APR-3

SPECIFICATION :

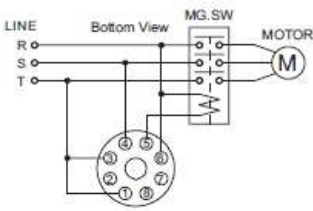
Operating voltage	AC(V) : 220, 240, 380, 415, 440(APR-3) AC(V) : 208-440 (APR-3S, ASV-4, ASM-170)
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 10A resistive load(APR-3) 250VAC 5A resistive load(others)
Reset time	APR-3: none, ASV-4: 300~600msec APR-3S, ASM-170: MAX 200msec
Power consumption	Approx. 2VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	APR-3, ASV-4 Approx. 85g APR-3S Approx. 70g ASM-170 Approx. 100g

TYPE SELECTION :

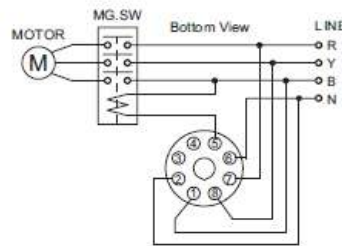
Type	APR-3	APR-3S	ASV-4	ASM-170
Source type	3-Phase 3-Wire	3-Phase 3-Wire	3-Phase 4-Wire	3-Phase 3-Wire or 4-Wire
Number of pins	8P	8P	8P	11P
Indicator operating	none	Red LED(ON) Green LED(PWR)	Red LED(TRIP) Green LED(UP)	Red LED(ON) Green LED(POWER)

CONNECTION :

APR-3,3S

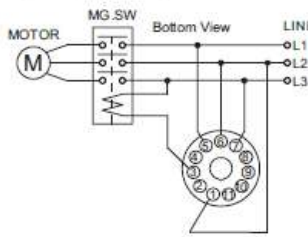


ASV-4

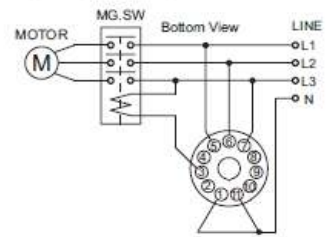


ASM-170

3-Phase 3-Wire



3-Phase 4-Wire



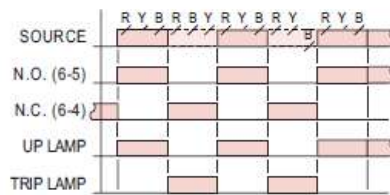
TIMING CHART :

APR-3,3S

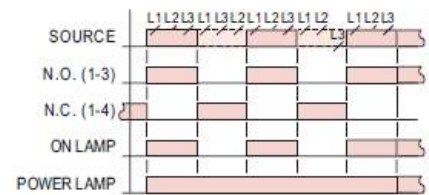


*For APR-3S only

ASV-4

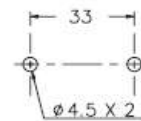
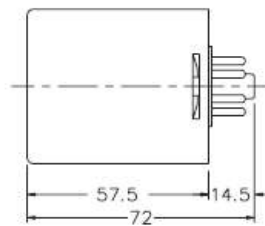
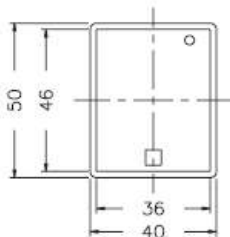


ASM-170

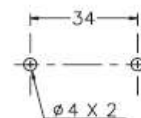
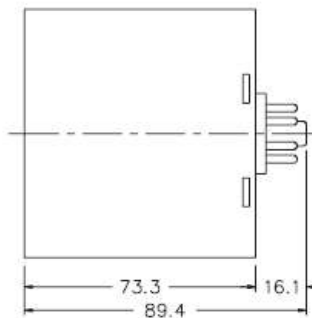
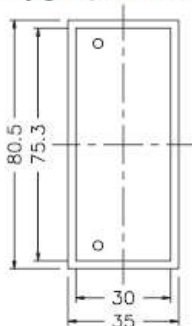


DIMENSIONS : (mm)

APR-3, APR-3S, ASV-4 N type(Surface Mounting): Using PF085A Socket & FH-3



ASM-170 N type(Surface Mounting): Using PF113A Socket



APR-4S 3-PHASE SEQUENCE PROTECTION RELAY

CHARACTERISTIC :

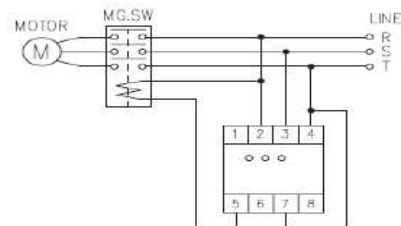
- 3-phase voltage and fault detector
- Can detect abnormal condition to prevent damages to the equipments
- Out-of-phase detection while the motor operating
- Install on DIN rail or fix with screw are available and no socket require



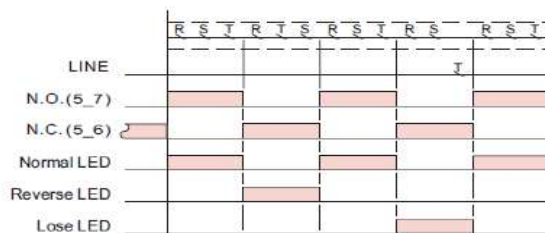
SPECIFICATION :

Operating voltage	AC(V) : 208~380, 380~480
Allowable operating voltage range	+20%, -20%
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A resistive load
Reset time	MAX 3sec
Power consumption	Approx. 2VA(AC 220V 60Hz)
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	Approx. 106g

CONNECTION :

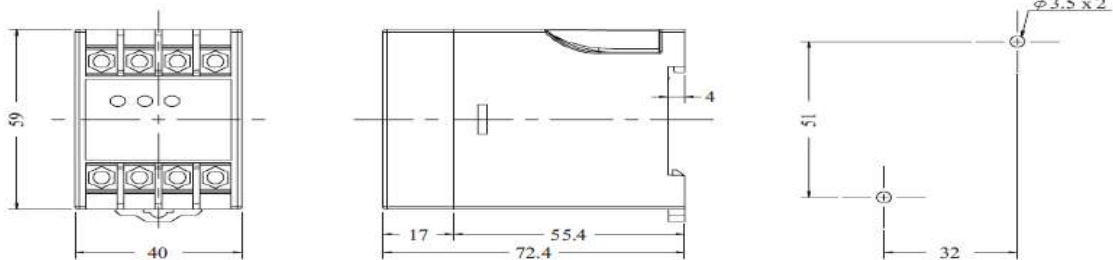


TIMING CHART :



DIMENSIONS : (mm)

N type(Surface Mounting):



APR-4V 3-PHASE SEQUENCE VOLTAGE PROTECTION RELAY

TYPE SELECTION :



APR - **4V** - **1010** - **220**

1010= +10%, -10%
 1212= +12.5%, -12.5%
 1515= +15%, -15%
 1520= +15%, -20%

220V, 230V, 240V,
 380V, 400V, 415V,
 440V, 460V, 480V

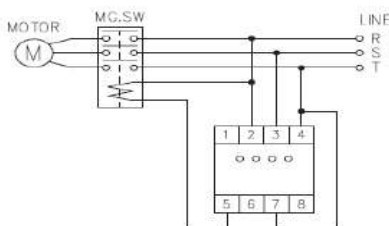
CHARACTERISTIC :

- 3-phase voltage and fault detector
- Can detect abnormal condition to prevent damages to the equipments
- Auto shut-off while detecting excessive or insufficient voltage, range from 5% to 20% available (see TYPE SELECTION for detail)
- Out-of-phase detection while the motor operating
- Install on DIN rail or fix with screw are available and no socket require

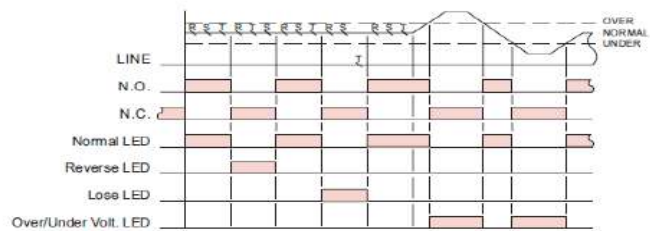
SPECIFICATION :

Operating voltage	AC(V): 220, 230, 240, 380, 400, 415, 440, 460, 480
Allowable operating voltage range	Depend on TYPE SELECTION
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A resistive load
Reset time	MAX 3sec
Power consumption	Approx. 2VA(AC 220V 60Hz)
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	Approx. 106g

CONNECTION :

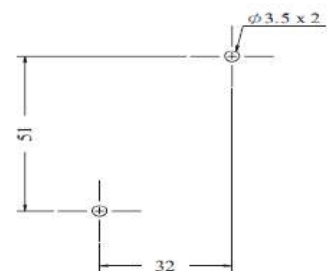
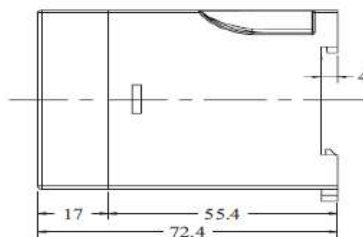
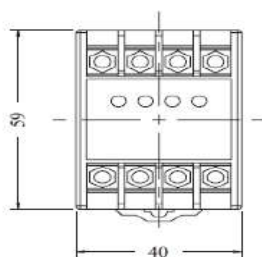


TIMING CHART :



DIMENSIONS : (mm)

N type(Surface Mounting):



AVM MONITORING & PROTECTION RELAY



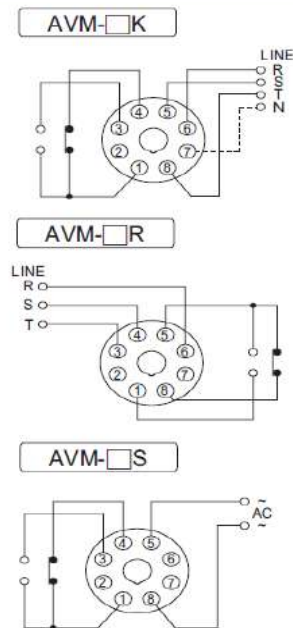
CHARACTERISTIC :

- Can detect abnormal condition to prevent damages to the equipments
- Auto shut-off while detecting excessive or insufficient voltage, range from 5% to 20% variable
- Auto shut-off while detecting insufficient phase or phase reversal

SPECIFICATION :

Operating voltage	AC(V): 220, 240, 380, 415, 440
Allowable operating voltage range	±5%~±20% of rated operating voltage
Rated frequency	50 / 60 Hz
Detecting method	Detect 3-phase supply voltage
Reset time	MAX 2S
Contact rating	250VAC 5A (resistive load)
Power consumption	Approx. 2VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	Approx. 210g

CONNECTION :



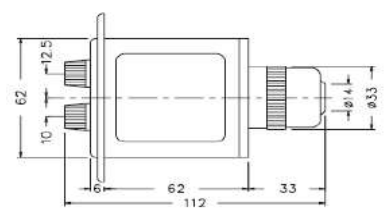
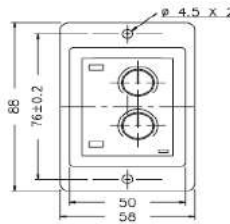
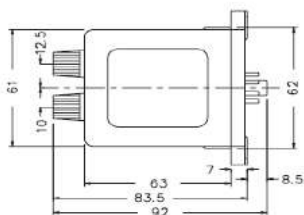
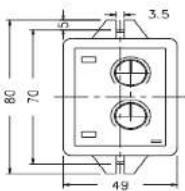
TYPE SELECTION :

Type	3-Phase 3-Wire		1-Phase 2-Wire	
Standard	AVM-NK	----	AVM-NS	AVM-YS
APR-3 Compatible	AVM-NR	AVM-YR	----	----

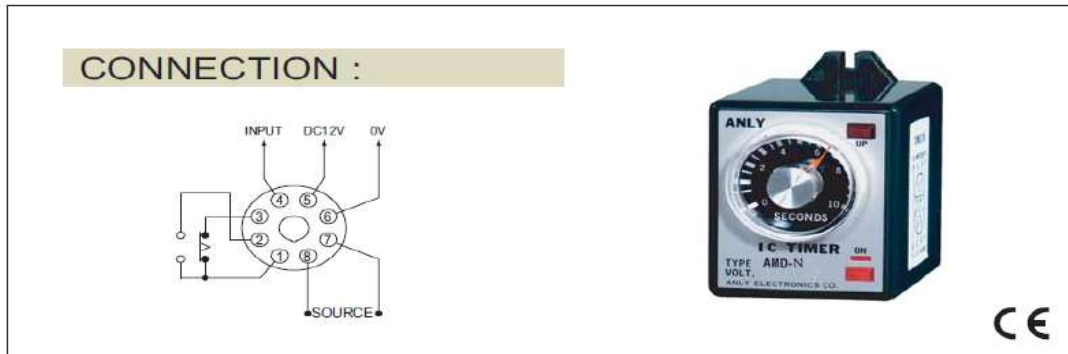
DIMENSIONS : (mm)

N type(Surface Mounting): Using 8PFA Socket

Y type(Flush Mounting): P3G-08 Socket



AMD MOTION DETECTOR



CHARACTERISTIC :

- Scanning speed ranges from 1 to 6000 rpm
- Optional shut-off feature when detecting excessive or insufficient speeds
- Abnormality and fault detection for pumps, clutches, transmissions, conveyer belts and motors
- DC 12V supplied for proximity switch or photoelectric switch
- Effective fault detections and preventions
- CE certified

SPECIFICATION :

Operating voltage	AC(V): 110, 220, 240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Reset time	MAX 0.3S
Power consumption	Approx. 4VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	Approx. 210g

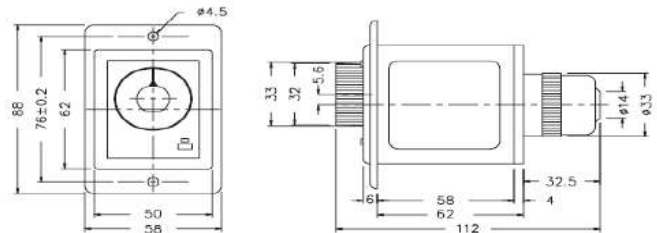
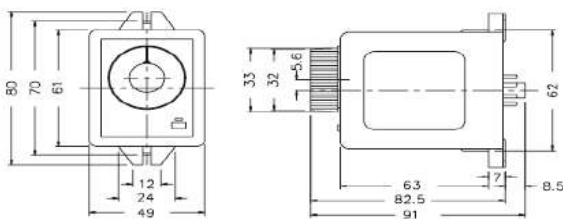
TYPE SELECTION :

Type	AMD-N	AMD-NN	AMD-PN
Proximity switch type	NPN / PNP	NPN	PNP
Time range(Tacho)	0.1S (600~6000RPM)	10S (6~60RPM)	10M (0.1~1RPM)
	1S (60~ 600RPM)	60S (1~ 6RPM)	

DIMENSIONS : (mm)

N type(Surface Mounting): Using 8PFA Socket

Y type(Flush Mounting): P3G-08 Socket



Touch Relay Timer

SOLID STATE TIMER

Figure



Model

ATR-N

ATR-Y

SST-3

SST-4

Range

0.1s~10S

2M,3Mor5M

1023S / 1023M

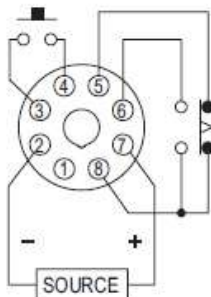
FIXED

DIP switch setting

SPECIFICATION :

Operating voltage	AC(V): 110, 220, 240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	250VAC 5A (resistive load)
Reset time	MAX 0.1S
Power consumption	Approx. 2VA
Life	Mechanical: 5,000,000 times Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	Approx. 210g

CONNECTION :



Out/Con

1a(1Amp)

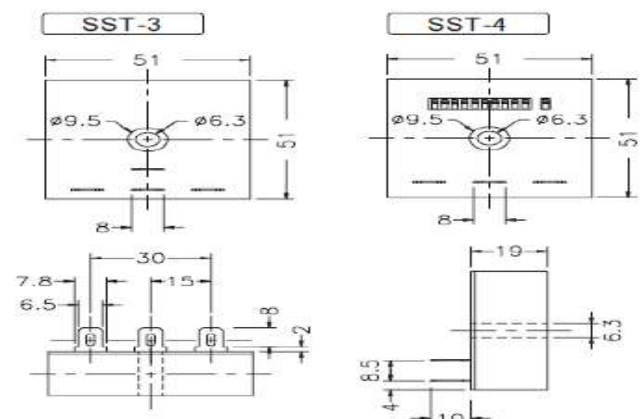
Out/Con

1a(3Amp)

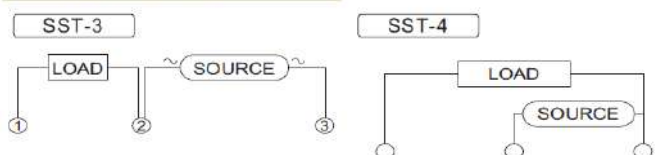
SPECIFICATION :

Operating voltage	SST-3 AC(V): 24, 120, 230 SST-4 AC(V): 80 ~ 240
Allowable operating voltage range	85~110% of rated operating voltage
Rated frequency	50 / 60 Hz
Contact rating	SST-3 250VAC 1A (resistive load) SST-4 250VAC 3A (resistive load)
Reset time	SST-3 MAX 0.2S SST-4 MAX 0.1S
Power consumption	SST-3 Approx. 2VA SST-4 Approx. 1.2VA
Life	Electrical: 100,000 times
Ambient temperature	-10 ~ +50°C
Ambient humidity	MAX 85%RH
Weight	SST-3 Approx. 55g SST-4 Approx. 63g

DIMENSIONS : (mm)



CONNECTION :





ANLY ACCESSORY

8PFA



PF113A



PYF08A-E



PF085A



PF113A-E



PYF14A



PF083A



P3G-08



PYF14A-E



PF083A-E



US-08



PTF08A



P2CF-08



PYF08A



PTF08A-E



Model(Heat Sink)		Description			
		Dimensions(mm)	Length(mm)	Suitable SSR	
SINGLE PHASE SSR		HS-060-50T		50	5A / 10A / 15A
		HS-060-50		50	10A / 15A
		HS-060-80		80	25A
		HS-060-100		100	40A
		HS-060-120		120	50A
		HS-060-150		150	75A
		HS-070-50		50	25A
		HS-070-100		100	40A
		HS-070-150		150	50A
		HS-081-45		45	10A
		HS-081-70		70	25A
		HS-081-100		100	40A
		HS-081-120		120	50A
		HS-081-150		150	75A / 100A
	3 PHASE SSR		HS-060-100TP		100
		HS-081-104P		104	25A / 40A
		HS-081-120P (Fan included)		120	50A
		HS-081-150P (Fan included)		150	75A / 100A
	AH197-100		100	25A / 40A	