GT5Y Series Miniature Electronic Timers

Four Selectable Operation Modes. Six Selectable Time Ranges. Delayed Output 4PDT/3A or DPDT/5A.

- Four operation modes: ON Delay, Interval ON, Cycle OFF, and Cycle ON
- Repeat error: ±0.2% ±20 ms maximum
- Miniature size
- LED indicators for output and power
- Complies with safety standards. UL/c-UL listed. EN compliant.



Note: When using as a UL Listing approved product, use IDEC timer sockets under the below conditions.

SY4S-05*, SM2S-05* (Specify A, B, C, DF, DN, or U in place of *)

- Wire conductor temperature rating: 60°C min.
- Copper wire only: AWG14 max. (2mm² max.), AWG14 max. (0.9mm² max.)
- Tightening torque: 0.6 to 1.0N·m

SU4S-11L, SU2S-11L

(1) Operation

Mode

A: ON Delay

B: Interval ON

C: Cycle OFF

D: Cycle ON

• Wire conductor temperature rating: 60°C min.

Contact

DPDT

4PDT

• Copper wire only: AWG16 max. (solid wire 1.5mm² max., stranded wire 1.25mm² max.), AWG18 max. (0.9mm² max.)



Time Range

0.1 sec to 1 sec

0.2 sec to 10 sec

1 sec to 1 min

10 sec to 10 min 1 min to 1 hr

10 min to 10 hr

0.1 sec to 3 sec

0.5 sec to 30 sec

3 sec to 3 min

30 sec to 30 min

3 min to 3 hr

30 min to 30 hr

0.1 sec to 6 sec

1 sec to 60 sec

6 sec to 6 min

1 min to 60 min

6 min to 6 hr

60 min to 60 hr

Time Ranges

			Package Quantity: 1		nine nanye	.0	
Output	Time Ranges	Operating Voltage	Part No. (Ordering No.)		Code	Scale	(2) Time Range Indication
	0.1S to 10H		GT5Y-2SN1A100				1S
	0.1S to 30H	100 to 120V AC	GT5Y-2SN3A100				10S
	0.1S to 60H		GT5Y-2SN6A100				1M
	0.1S to 10H	200 to 240V AC	GT5Y-2SN1A200		1: 0.1S to 10H	0 to 1	10M
220V AC/	0.1S to 30H	200 10 240 710	GT5Y-2SN3A200				1H
30V DC, 5A	0.1S to 10H		GT5Y-2SN1D12				10H
001 00, 01	0.1S to 30H	12V DC	GT5Y-2SN3D12			0 to 3 0 to 6	15
	0.1S to 60H		GT5Y-2SN6D12				105
	0.1S to 10H	_	GT5Y-2SN1D24		3: 0.1S to 30H		
	0.1S to 30H	24V DC	GT5Y-2SN3D24				1M
	0.1S to 60H		GT5Y-2SN6D24				10M
	0.1S to 10H		GT5Y-4SN1A100				1H
	0.1S to 30H	100 to 120V AC	GT5Y-4SN3A100				10H
	0.1S to 60H		GT5Y-4SN6A100				1S
	0.1S to 10H	-	GT5Y-4SN1A200				10S
30V DC, 3A	0.1S to 30H	200 to 240V AC	GT5Y-4SN3A200				1M
30V D0, 3A	0.1S to 60H		GT5Y-4SN6A200		6: 0.1S to 60H		10M
	0.1S to 30H	12V DC	GT5Y-4SN3D12				1H
	0.1S to 10H		GT5Y-4SN1D24				10H
	0.1S to 30H	24V DC	GT5Y-4SN3D24				1011
	0.1S to 60H		GT5Y-4SN6D24				

Package Quantity: 1

Note: S and M of the time range indicate second, and minute respectively.

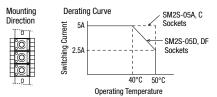
Contact Ratings

Part No.		GT5Y-4	GT5Y-2
Contact Configuration		4PDT	DPDT
Rated Load	Resistive Load	220V AC, 3A/30V DC, 3A	220V AC, 5A/30V DC, 5A
naleu Luau	Inductive Load cosø=0.3, L/R=7ms	220V AC, 0.8A/30V DC, 1.5A	220V AC, 2A/30V DC, 2.5A
Maximum Switch	ing Voltage	250V AC/125V DC	250V AC/125V DC
Maximum Switch	ing Current	3A	5A (Note)
Maximum Switch	ing Frequency	1800 operations/hour	1800 operations/hour
Allowable	Resistive Load	AC: 660VA/DC: 90W	AC: 1100VA/DC: 150W
Contact Power	Inductive Load cosø= 0.3, L/R=7ms	AC: 176VA/DC: 45W	AC: 440VA/DC: 75W
Minimum Applicable Load		5V DC, 10mA (reference value)	5V DC, 20mA (reference value)
		24V DC, 5mA (reference value)	24V DC, 10mA (reference value)
External Protection Element		Fuse 250V 3A	Fuse 250V 5A
Life	Electrical	200,000 operations minimum (220V AC, 3A)	500,000 operations minimum (220V AC, 5A)
LIIC	Mechanical	50 million operations minimum	50 million operations minimum

Note: See Operating Temperature - Maximum Switching Current Characteristics.

Operating Temperature - Maximum Switching Current Characteristics

Check the derating curve described below when mounting more than two GT5Y-2 timers and SM2S-05* sockets.

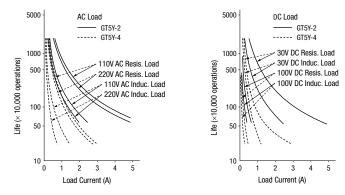


General Specifications

Operation ON Delay / Interval ON / Cycle OFF / Cycle ON Pollution Degre 2 (IEC60664-1) Overvoltage Category III (IEC60664-1) Rated Operational Voltage A200 200 to 240V AC (50/60Hz) D24 24V DC D12 12V DC A100 85 to 132V AC (50/60Hz) Voltage Range A100 85 to 132V AC (50/60Hz) D24 21.6 to 26.4V DC D12 10.8 to 13.2V DC Reset Voltage Rated Voltage × 20% minimum Operating Temperature -10 to +50°C (no freezing and condensation) Storage/Transportation Temperature -30 to +80°C (no freezing and condensation) Storage Humidity 35 to 85% RH (no condensation) Storage Humidity 35 to 85% RH (no condensation) Attude 0 to 2000m (operation), 0 to 3000m (transportation) Reset Time 100 ms maximum Repeat Error ±3% Setting Error ±10% Insulation Resistance 100 MΩ minimum (500V DC megger) Dielectric Streig Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between co	Model		GT5Y-□SN		
Overvoltage Category III (IEC60664-1) Rated Operational Voltage A200 200 to 240V AC (50/60Hz) D24 24V DC D24 24V DC D12 12V DC Notage A100 85 to 132V AC (50/60Hz) Pange D12 12V DC D12 12V DC 21.6 to 26.4V DC D12 10.8 to 13.2V DC Rated Voltage × 20% minimum Operating Temperature -10 to +50°C (no freezing and condensation) Storage/Transportation Temperature -30 to +80°C (no freezing and condensation) Storage Humidity 35 to 85% RH (no condensation) Storage Humidity 35 to 85% RH (no condensation) Attitude 0 to 2000m (operation), 0 to 3000m (transportation) Reset Time 100 ms maximum Repeat Error Within ±0.5%, ±20 ms Temperature Error ±10% Insulation Resistance 100 MΩ minimum (500V DC megger) Dielectric Strength Between power and output terminals: 2000V AC, 1 minute Between contacts of different poles: 2000V AC, 1 minute Between contacts of different poles: 2000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Borrer ton ta 3 directions <td colspan="2">Operation</td> <td>ON Delay / Interval ON / Cycle OFF / Cycle ON</td>	Operation		ON Delay / Interval ON / Cycle OFF / Cycle ON		
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Rated Operational VoltageA100100 to 120V AC (50/60Hz)D2424V DCD1212V DCVoltage RangeA200170 to 264V AC (50/60Hz)A10085 to 132V AC (50/60Hz)D2421.6 to 26.4V DCD1210.8 to 13.2V DCReset Voltage Operating TemperatureRated Voltage × 20% minimumOperating Temperature Temperature-10 to +50°C (no freezing and condensation)Storage/Transportation Temperature-30 to +80°C (no freezing and condensation)Operating Humidity35 to 85% RH (no condensation)Storage Humidity35 to 85% RH (no condensation)Altitude0 to 2000m (operation), 0 to 3000m (transportation)Reset Time Repeat Error100 ms maximumNotage ErrorWithin $\pm 0.2\%, \pm 20$ msVoltage Error±3%Setting Error±10%Insulation Resistance100 MΩ minimum (500V DC megger)Dielectric Strery±10%Dielectric Strery±20%Vibration Resistance0 operating extremes: 10 to 55 Hz, amplitude 0.5 mm, 10 minutes each in 3 directionsDegree of ProtectionIP40 (timer), IP20 (socket) (IEC60529)Power Consumption (approx.)A2001.2 VA (200V AC/60Hz), 1.2 VA (200V AC/50Hz)Dimensions27.7H × 21.0W × 58.3D mm	Overvoltage Ca	tegory	III (IEC60664-1)		
		A200	200 to 240V AC (50/60Hz)		
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Operating Temperature -10 to +50°C (no freezing and condensation) Storage/Transportation Temperature -30 to +80°C (no freezing and condensation) Operating Humidity 35 to 85% RH (no condensation) Storage Humidity 35 to 85% RH (no condensation) Altitude 0 to 2000m (operation), 0 to 3000m (transportation) Reset Time 100 ms maximum Repeat Error Within ±0.2%, ±20 ms Voltage Error Within ±0.5%, ±20 ms Voltage Error ±3% Setting Error ±10% Insulation Resistance 100 MΩ minimum (500V DC megger) Between power and output terminals: 2000V AC, 1 minute Between power and output terminals: 2000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Dielectric Strength Operating extremes: 10 to 55 Hz, amplitude 0.5 mm, 2 hours each in 3 directions Damage limits: 490 m/s², 3 shocks each in 6 directions Degree of Protetion IP40 (timer), IP20 (socket) (IEC60529) Power Consumption (approx.) A200 1.2 VA (200V AC/60Hz), 1.2 VA (200V AC/50Hz) </td <td></td> <td>D12</td> <td>10.8 to 13.2V DC</td>		D12	10.8 to 13.2V DC		
Storage/Transportation Temperature -30 to +80°C (no freezing and condensation) Operating Humidity 35 to 85% RH (no condensation) Storage Humidity 35 to 85% RH (no condensation) Altitude 0 to 2000m (operation), 0 to 3000m (transportation) Reset Time 100 ms maximum Repeat Error Within ±0.2%, ±20 ms Voltage Error Within ±0.5%, ±20 ms Setting Error ±3% Setting Error ±10% Insulation Resistance 100 MΩ minimum (500V DC megger) Between power and output terminals: 2000V AC, 1 minute Between contacts of different poles: 2000V AC, 1 minute Between contacts of different poles: 2000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contact	Reset Voltage		Rated Voltage × 20% minimum		
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Storage Humidity 35 to 85% RH (no condensation) Altitude 0 to 2000m (operation), 0 to 3000m (transportation) Reset Time 100 ms maximum Repeat Error Within ±0.2%, ±20 ms Voltage Error Within ±0.5%, ±20 ms Setting Error ±3% Setting Error ±10% Insulation Resistance 100 MΩ minimum (500V DC megger) Between power and output terminals: 2000V AC, 1 minute Between power and output terminals: 2000V AC, 1 minute Between contacts of different poles: 2000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Deprating extremes: 10 to 55 Hz, amplitude 0.5 mm, 2 hours each in 3 directions Damage limits: 10 to 55 Hz, amplitude 0.75 mm, 2 hours each in 3 directions Degree of Protetion IP40 (timer), IP20 (socket) (IEC60529) Power Consumption (approx.) A200 1.2 VA (200V AC/60Hz), 1.2 VA (200V AC/50Hz) Di24 1.0W Di2 <t< td=""><td>Storage/Transpo</td><td></td><td></td></t<>	Storage/Transpo				
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Reset Time 100 ms maximum Repeat Error Within ±0.2%, ±20 ms Voltage Error Within ±0.5%, ±20 ms Temperature Error ±3% Setting Error ±10% Insulation Resistance 100 MΩ minimum (500V DC megger) Between power and output terminals: 2000V AC, 1 minute Between contacts of different poles: 2000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Vibration Resistance Operating extremes: 10 to 55 Hz, amplitude 0.5 mm, 10 minutes each in 3 directions Shock Resistance Operating extremes: 98 m/s², Damage limits: 490 m/s², 3 shocks each in 6 directions Degree of Protection IP40 (timer), IP20 (socket) (IEC60529) Power Consumption (approx.) A200 1.2 VA (200V AC/60Hz), 1.2 VA (200V AC/50Hz) Did 1.1 VA (100V AC/60Hz), 1.2 VA (100V AC/50Hz) Did 0.9W Dimensions Dimensions 27.7H × 21.0W × 58.3D mm	Storage Humid	ity	35 to 85% RH (no condensation)		
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Voltage Error Within ±0.5%, ±20 ms Temperature Error ±3% Setting Error ±10% Insulation Resistance 100 MΩ minimum (500V DC megger) Between power and output terminals: 2000V AC, 1 minute Between contacts of different poles: 2000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 5 mm, 10 minutes each in 3 directions Damage limits: 10 to 55 Hz, amplitude 0.75 mm, 2 hours each in 3 directions Shock Resistance Operating extremes: 98 m/s², Damage limits: 490 m/s², 3 shocks each in 6 directions Degree of Protection IP40 (timer), IP20 (socket) (IEC60529) Power Consumption (approx.) A200 1.2 VA (200V AC/60Hz), 1.2 VA (200V AC/50Hz) Dimensions 27.7H × 21.0W × 58.3D mm	Reset Time		100 ms maximum		
Temperature Error ±3% Setting Error ±10% Insulation Resistance 100 MΩ minimum (500V DC megger) Dielectric Strength Between power and output terminals: 2000V AC, 1 minute Between contacts of different poles: 2000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Vibration Resistance Operating extremes: 10 to 55 Hz, amplitude 0.5 mm, 10 minutes each in 3 directions Shock Resistance Operating extremes: 98 m/s², Damage limits: 490 m/s², 3 shocks each in 6 directions Degree of Protection IP40 (timer), IP20 (socket) (IEC60529) Power Consumption (approx.) A200 1.2 VA (200V AC/60Hz), 1.2 VA (200V AC/50Hz) Did 1.1 VA (100V AC/60Hz), 1.2 VA (100V AC/50Hz) Did 0.9W Dimensions 27.7H × 21.0W × 58.3D mm	Repeat Error		Within ±0.2%, ±20 ms		
Setting Error ±10% Insulation Resistance 100 MΩ minimum (500V DC megger) Dielectric Strength Between power and output terminals: 2000V AC, 1 minute Between contacts of different poles: 2000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 5 mm, 10 minutes each in 3 directions Damage limits: 10 to 55 Hz, amplitude 0.75 mm, 2 hours each in 3 directions Shock Resistance Operating extremes: 98 m/s², Damage limits: 490 m/s², 3 shocks each in 6 directions Degree of Protection IP40 (timer), IP20 (socket) (IEC60529) Power Consumption (approx.) A200 1.2 VA (200V AC/60Hz), 1.2 VA (200V AC/50Hz) Dimensions 27.7H × 21.0W × 58.3D mm	Voltage Error		Within ±0.5%, ±20 ms		
Insulation Resistance 100 MΩ minimum (500V DC megger) Dielectric Strength Between power and output terminals: 2000V AC, 1 minute Between contacts of different poles: 2000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Vibration Resistance Operating extremes: 10 to 55 Hz, amplitude 0.5 mm, 10 minutes each in 3 directions Damage limits: 10 to 55 Hz, amplitude 0.75 mm, 2 hours each in 3 directions Shock Resistance Operating extremes: 98 m/s², Damage limits: 490 m/s², 3 shocks each in 6 directions Degree of Protection IP40 (timer), IP20 (socket) (IEC60529) Power Consumption (approx.) A200 1.2 VA (200V AC/60Hz), 1.2 VA (200V AC/50Hz) Dimensions 0.9W Dimensions 27.7H × 21.0W × 58.3D mm	Temperature E	rror	±3%		
Dielectric Strength Between power and output terminals: 2000V AC, 1 minute Between contacts of different poles: 2000V AC, 1 minute Between contacts of different poles: 2000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Vibration Resistance Operating extremes: 10 to 55 Hz, amplitude 0.5 mm, 10 minutes each in 3 directions Damage limits: 10 to 55 Hz, amplitude 0.75 mm, 2 hours each in 3 directions Shock Resistance Operating extremes: 98 m/s², Damage limits: 490 m/s², 3 shocks each in 6 directions Degree of Protection IP40 (timer), IP20 (socket) (IEC60529) Power Consumption (approx.) A200 1.2 VA (200V AC/60Hz), 1.2 VA (200V AC/50Hz) D12 0.9W Dimensions 27.7H × 21.0W × 58.3D mm	Setting Error		±10%		
Dielectric Strength Between contacts of different poles: 2000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Between contacts of the same pole: 1000V AC, 1 minute Vibration Resistance Operating extremes: 10 to 55 Hz, amplitude 0.5 mm, 10 minutes each in 3 directions Damage limits: 10 to 55 Hz, amplitude 0.75 mm, 2 hours each in 3 directions Shock Resistance Operating extremes: 98 m/s², Damage limits: 490 m/s², 3 shocks each in 6 directions Degree of Protection IP40 (timer), IP20 (socket) (IEC60529) Power Consumption (approx.) A200 1.2 VA (200V AC/60Hz), 1.2 VA (200V AC/50Hz) Dimensions 0.9W	Insulation Resi	stance	100 MΩ minimum (500V DC megger)		
10 minutes each in 3 directions Damage limits: 10 to 55 Hz, amplitude 0.75 mm, 2 hours each in 3 directions Shock Resistance Operating extremes: 98 m/s², Damage limits: 490 m/s², 3 shocks each in 6 directions Degree of Protection Power Consumption (approx.) A200 1.2 VA (200V AC/60Hz), 1.2 VA (200V AC/50Hz) A100 1.1 VA (100V AC/60Hz), 1.2 VA (100V AC/50Hz) D24 1.0W Dimensions 27.7H × 21.0W × 58.3D mm	Dielectric Strer	ngth	Between contacts of different poles: 2000V AC, 1 minute		
Shock Hesistance Damage limits: 490 m/s², 3 shocks each in 6 directions Degree of Protection IP40 (timer), IP20 (socket) (IEC60529) Power Consumption (approx.) A200 1.2 VA (200V AC/60Hz), 1.2 VA (200V AC/50Hz) D24 1.0W D24 1.0W Dimensions 27.7H × 21.0W × 58.3D mm 28.3D mm	Vibration Resistance		10 minutes each in 3 directions Damage limits: 10 to 55 Hz, amplitude 0.75 mm,		
A200 1.2 VA (200V AC/60Hz), 1.2 VA (200V AC/50Hz) Power A100 1.1 VA (100V AC/60Hz), 1.2 VA (200V AC/50Hz) Dimensions D12 0.9W Dimensions 27.7H × 21.0W × 58.3D mm	Shock Resistance				
Power Consumption (approx.) A100 1.1 VA (100V AC/60Hz), 1.2 VA (100V AC/50Hz) D24 1.0W D12 0.9W Dimensions 27.7H × 21.0W × 58.3D mm	Degree of Protection				
A100 1.1 VA (100V AC/60Hz), 1.2 VA (100V AC/50Hz) Consumption (approx.) D24 1.0W D12 0.9W Dimensions 27.7H × 21.0W × 58.3D mm	Dowor	A200			
D24 1.0W D12 0.9W Dimensions 27.7H × 21.0W × 58.3D mm		A100	1.1 VA (100V AC/60Hz), 1.2 VA (100V AC/50Hz)		
D12 0.9W Dimensions 27.7H × 21.0W × 58.3D mm		D24	1.0W		
	(approx.)	D12	0.9W		
Weight (approx.) 42g	Dimensions		27.7H × 21.0W × 58.3D mm		
	Weight (approx	.)	42g		

Note: See Operating Temperature - Maximum Switching Current Characteristics.

Electrical Life Curves



Operation Charts and Internal Connections

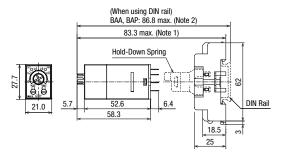
Operation Mode	Item	Operation
	Terminal No.	Set Time
	13-14 (POWER)	
Delay	1-9, 2-10, 3-11, 4-12 (NC)	
: ON Delay	5-9, 6-10, 7-11, 8-12 (NO)	
A	POWER Indicator	
	OUT Indicator	
	Terminal No.	Set Time
z	13-14 (POWER)	
B: Interval ON	1-9, 2-10, 3-11, 4-12 (NC)	
: Inter	5-9, 6-10, 7-11, 8-12 (NO)	
В	POWER Indicator	
	OUT Indicator	
	Terminal No.	Set Time
÷	13-14 (POWER)	
C: Cycle OFF	1-9, 2-10, 3-11, 4-12 (NC)	
C: CV	5-9, 6-10, 7-11, 8-12 (NO)	
	POWER Indicator	
	OUT Indicator	
	Terminal No. 13-14 (POWER)	Set Time
ile ON	1-9, 2-10, 3-11, 4-12 (NC)	
D: Cycle ON	5-9, 6-10, 7-11, 8-12 (NO)	
	POWER Indicator	
	OUT Indicator	
(Internal Connections)		• CTEV 0
• GT5Y-4 5 1 6 2 7 3 8 4 14 (~)/(+) 		• GT5Y-2 5 1 8 4 14 (~)/(+)

Dimensions

(When using DIN Rail Mount Socket)

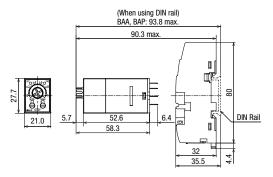
GT5Y-4

See Relay Sockets catalog for SY4S-05B, SY4S-05C, SY4S-05D, SY4S-05DF.



Note 1: SY4S-05B: 83.3 max., SY4S-05C: 83.3 max., SY4S-05D: 88.3 max.,SY4S-05DF: 88.3 max. Note 2: SY4S-05B: 86.8 max., SY4S-05C: 86.8 max., SY4S-05D: 91.8 max.,SY4S-05DF: 91.8 max.

GT5Y-4 and SU4S-11L, GT5Y-2 and SU2S-11L



Applicable hold-down spring: SFA-202

Accessories

Accessories

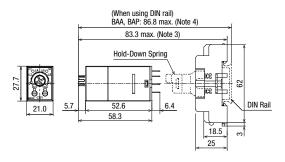
Both SY4S-05B, SY4S-05C, SY2S-05B, SM2S-05B, and SM2S-05C are UL recognized, CSA certified, and TÜV approved. Others are UL recognized and CSA certified, except for SY4S-05A and SM2S-05A. When ordering, specify the Ordering No.

Item		Part No.	Ordering No.	Package Quantity	Remarks
		SY4S-05B	SY4S-05A	1	For 4PDT contact (Screw)
		SY4S-05C	SY4S-05C	1	For 4PDT contact (Screw)
		SY4S-05DF	SY4S-05DF	1	For 4PDT contact (Screw)
	Socket	SU2S-21L	SU2S-21L	1	For DPDT contact (Push-in)
	SUCKEL	SU4S-21L	SU4S-21L	1	For 4PDT contact (Push-in)
DIN Rail		SM2S-05B	SM2S-05A	1	For DPDT contact (Screw)
Mount Socket		SM2S-05C	SM2S-05C	1	For DPDT contact (Screw)
		SM2S-05DF	SM2S-05DF	1	For DPDT contact (Screw)
		SFA-202	SFA-202PN20	10 sets (20 pcs)	For SY4S-05A, SM2S-05A (2 pcs/set)
	Hold-Down Spring	SFA-511	SFA-511PN20	20	For SY4S-05D, SY4S-05DF, SM2S-05D, SM2S-05DF
		SU9Z-S21T	SU9Z-S21T	10	For SU2S-21L, SU4S-21L
		SY4S-51	SY4S-51	1	For 4DPT contact, Solder Terminal
Panel/PC Board Mount Socket	Socket	SY4S-61	SY4S-61	1	For 4DPT contact, PC Board Terminal
	JUCKEL	SM2S-51	SM2S-51	1	For DPDT contact, Solder Terminal
		SM2S-61	SM2S-61	1	For DPDT contact, PC Board Terminal
	Hold-Down Spring	SFA-302	SFA-302PN20	10 sets (20 pcs)	For SY4S-51, SY4S-61, SM2S-51, SM2S-61 (2 pcs/set)

All dimensions in mm.

GT5Y-2

See Relay Sockets catalog for SM2S-05B, SM2S-05C, SM2S-05D, SM2S-05DF.



Note 3: SM2S-05B: 83.3 max., SM2S-05C: 83.3 max., SM2S-05D: 88.3 max.,SM2S-05DF: 88.3 max. Note 4: SM2S-05B: 86.8 max., SM2S-05DF: 86.8 max., SM2S-05D: 91.8 max.,SY4S-05DF: 91.8 max.

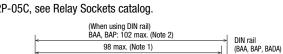
Dimensions

(When using DIN Rail Mount Socket) SR2P-05B

For SR2P-05C, see Relay Sockets catalog.

SR2P-06B





98 max. (Note 1)

Hold-Down Spring

13

33

ø25

0

61

74

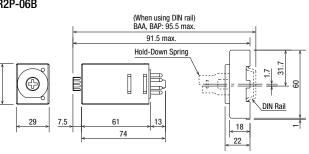


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16.5 ŝ

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Note 1: SR2P-05C: 99.5 max.

7.5

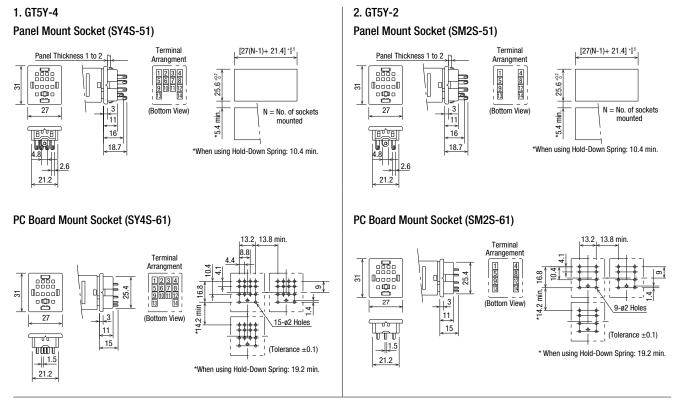
0

29

33

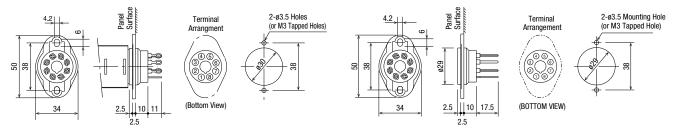
Note 2: SR2P-05C: 103.5 max.

Mounting Hole Layout (for Panel/PC Board Mount Socket)



3. GT5P

Solder Terminal (SR2P-511)



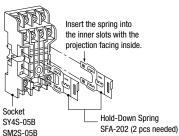
Wire Wrap Terminal (SR2P-70)

IDEC

Accessories

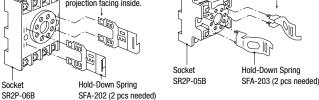
lt	Item		Ordering No.	Package Quantity	Remarks
		SR2P-06B	SR2P-06B	1	
	Socket	SR2P-05B	SR2P-05B	1	
DIN Rail Mount Socket		SR2P-05C	SR2P-05C	1	UL/CSA/TÜV
	Hold-Down Spring	SFA-202	SFA-202PN20	10 sets (20 pcs)	For SR2P-06A (2 pcs/set)
		SFA-203	SFA-203PN20	10 sets (20 pcs)	For SR2P-05A (2 pcs/set)
Panel Mount Socket	w/Solder Terminals	SR2P-511	SR2P-511	1	UL/CSA
Fallel Woullt Socket	w/Wire Wrap Terminals	SR2P-70	SR2P-70	1	

Installation of Hold-Down Springs **DIN Rail Mount Socket**



Recommended Tightening Torque and Terminal Screw

Timer	Applicable Socket	Terminal Screw	Recommended Tightening Torque
GT5Y	SY4S-05 SM2S-05	М3	0.6 to 1.0 N·m
BBB	Insert the spring into the inner slots with the projection facing inside	1 104	Insert the springs into the slots.



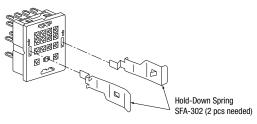
Note 1: Once installed into sockets, the hold-down springs cannot be removed. Note 2: Hold-down springs cannt be used on SR2P-511 for GT5P.

Recommended Tightening Torque and Terminal Screw

Timer	Applicable Socket	Terminal Screw	Recommended Tightening Torque
GT5P	SR2P-05 SR2P-06	M3.5	1.0 to 1.3 N·m

Panel/PC Board Mount Socket

The SFA-302 Hold-Down Springs can be installed to the SY4S-51, SY4S-61, SM2S-51, and SM2S-61 sockets.

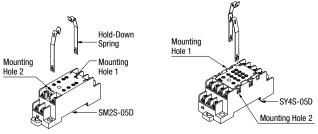


Hold-down springs cannot be installed to SR2P-511 and SR2P-70 panel mount sockets.

Installation/Removal of Hold-Down Springs

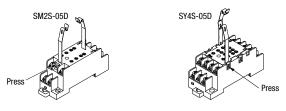
(Installation)

Insert the hold-down springs (SFA-511) into mounting holes 1 and 2 with the projection facing outside.



(Removal)

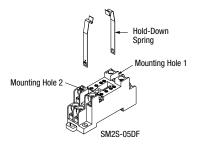
Press the projections of Hold-Down Springs (SFA-511) in the direction shown in the arrow and pull upward to remove.



Installation/Removal of Hold-Down Springs

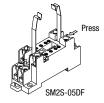
(Installation)

Insert the springs (SFA-511) into mounting holes 1 and 2 with the projection facing outside.



(Removal)

Press the projections of Hold-Down Springs (SFA-511) in the direction shown in the arrow and pull upward to remove.



Note: Apply the same method to SY4S-05DF.

A Safety Precautions

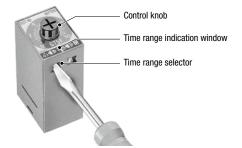
- Be sure to turn off power before mounting, removal, wiring, maintenance and inspection. Otherwise, electric shock or fire could occur.
- Be sure to use timers within rated specification values. Otherwise, electric shock or fire may occur.

Instructions

Time Range Setting

The time range is calibrated at its maximum time scale, therefore it is desirable to use the timer at a setting as close to its maximum time scale as possible for accurate time delay. For a more accurate time delay, adjust the control knob by measuring the operating time with a watch before application.

On the GT5Y timers, a desired time range can be selected using the time range selectors on the side surface. Turn the multiplier and time unit selectors using a flat screwdriver until they click.



Timing Accuracy

Timing accuracies are calculated from the following formulas:

Repeat Error

 $=\pm\frac{1}{2}\times\frac{\text{Max. measured value} - \text{Min. measured value}}{\text{Maximum scale value}}\times100 \text{ (\%)}$

Voltage Error

 $=\pm \frac{Tv - Tr}{Tr} \times 100 \text{ (\%)} \qquad \frac{Tv: \text{Average of measured values at voltage V}}{Tr: \text{Average of measured values at the raged voltage}}$

Temperature Error

 $=\pm \ \frac{Tt - T_{20}}{T_{20}} \times 100 \ (\%) \qquad \begin{array}{c} Tt: \mbox{ Average of measured values at } t^\circ C \\ T_{20}: \mbox{ Average of measured values at } 20^\circ C \end{array}$

Setting Error

= Average of measured values — Set value Maximum scale value × 100 (%)

Use of External Input (GT5P-P Only)

- Do not apply voltage to external input terminals 3 and 4. Be sure not to connect external inputs to other terminals because the internal circuit may be damaged.
- 2. Use reliable mechanical contacts capable of switching approximately 22V DC, 1 mA to close input terminals 3 and 4. (Closed: 1 k Ω maximum, Open: 100 k Ω minimum) The input terminals should not be connected to a ground wire of other devices.
- Do not install input lines in parallel with high-voltage or motor lines. Use shielded wires or separate conduit for input lines, and make the input lines as short as possible.

Load Current

The rated current of the contact (or control output) should not be exceeded. Especially for inductive, capacitive, and incandescent lamp loads, the inrush current as large as a few to several tens times the rated current may cause welded contacts and other troubles. The amount of inrush current as well as steady-state current must be taken into consideration. • Be sure to use wires to meet voltage and current requirements and tighten M3.5 terminal screws to a tightening torque of 1.0 to 1.3 N·m. Be sure to solder the terminals correctly. Loose terminal screws or incomplete soldering may cause abnormal heat and fire.

Contact Protection

Switching an inductive load generates a counter-electromotive force in the coil. The counter emf will cause arcing, which may shorten the contact life. Application of a protection circuit is recommended for contact protection.

Rest Time

When turning power off after time-out, allow a rest time of 0.1 sec, and during operation, 1 sec at least.

Power

Since DC types are designed to operate on DC power containing 10% or less ripple, insert a smoothing circuit when using a rectified AC power to operate DC type timers.

Continuous Energizing

Continuous energizing for a long period of time may damage the electrical characteristics of the timer because of internal heating. Use an additional relay to the output circuit and refrain from continuous energizing of the timer.

Dielectric Strength Test

When performing an insulation resistance or dielectric strength test on control panels containing timers, make sure that the dielectric strength of the timer is not exceeded. In case the dielectric strength is exceeded, remove the timers from the panels.

Operating Environment

Temperature and Humidity

Use the timer within the operating temperature and operating humidity ranges and prevent freezing and condensation. After storing below the operation temperature, leave the timer at room temperature for a sufficient period of time before use.

Environment

Prevent a corrosive gas such as sulfurous or ammonia gas, organic solvents (alcohol, benzine, thinner, etc.), strong alkaline substances or strong acids from touching to the timer, and do not use the timer in such an environment. Keep the timer from water splashes or steam. **Vibration and Shock**

Since excessive vibrations or shocks cause the output contacts to open, the timer should be used within the operating extremes of vibration and shock resistance. Use of hold-down springs is recommended for secure mounting on sockets.

Others

- Use a mechanical-contact switch or relay to supply power to the time.
- When driving the timer using a solid-state output device such as two-wire proximity switch, photoelectric switch or solid-state relay directly, malfunction may be caused by a leakage current from the solid-state device. Be sure to check thoroughly before using.
- Since AC types (such as A100 and A200) comprise a capacitive load, the SSR dielectric strength should be two or more times as large as the power voltage when switching the timer power using an SSR.
- To make a sequence circuit by connecting timer and relay, check the timer operation sufficiently in consideration of the reset time of the timer.

EP5402A_GT5Y_P October 2023

Ordering Terms and Conditions

Thank you for using IDEC Products.

By purchasing products listed in our catalogs, datasheets, and the like (hereinafter referred to as "Catalogs") you agree to be bound by these terms and conditions. Please read and agree to the terms and conditions before placing your order.

1. Notes on contents of Catalogs

(1) Rated values, performance values, and specification values of IDEC products listed in this Catalog are values acquired under respective conditions in independent testing, and do not guarantee values gained in combined conditions.

Also, durability varies depending on the usage environment and usage conditions.

- (2) Reference data and reference values listed in Catalogs are for reference purposes only, and do not guarantee that the product will always operate appropriately in that range.
- (3) The specifications / appearance and accessories of IDEC products listed in Catalogs are subject to change or termination of sales without notice, for improvement or other reasons.
- (4) The content of Catalogs is subject to change without notice.

2. Note on applications

- (1) If using IDEC products in combination with other products, confirm the applicable laws / regulations and standards. Also, confirm that IDEC products are compatible with your systems, machines, devices, and the like by using under the actual conditions. IDEC shall bear no liability whatsoever regarding the compatibility with IDEC products.
- (2) The usage examples and application examples listed in Catalogs are for reference purposes only. Therefore, when introducing a product, confirm the performance and safety of the instruments, devices, and the like before use. Furthermore, regarding these examples, IDEC does not grant license to use IDEC products to you, and IDEC offers no warranties regarding the ownership of intellectual property rights or non-infringement upon the intellectual property rights of third parties.
- (3) When using IDEC products, be cautious when implementing the following.
 i. Use of IDEC products with sufficient allowance for rating and performance
 - ii. Safety design, including redundant design and malfunction prevention design that prevents other danger and damage even in the event that an IDEC product fails
 - iii. Wiring and installation that ensures the IDEC product used in your system, machine, device, or the like can perform and function according to its specifications
- (4) Continuing to use an IDEC product even after the performance has deteriorated can result in abnormal heat, smoke, fires, and the like due to insulation deterioration or the like. Perform periodic maintenance for IDEC products and the systems, machines, devices, and the like in which they are used.
- (5) IDEC products are developed and manufactured as general-purpose products for general industrial products. They are not intended for use in the following applications, and in the event that you use an IDEC product for these applications, unless otherwise agreed upon between you and IDEC, IDEC shall provide no guarantees whatsoever regarding IDEC products.
 - i. Use in applications that require a high degree of safety, including nuclear power control equipment, transportation equipment (railroads / airplanes / ships / vehicles / vehicle instruments, etc.), equipment for use in outer space, elevating equipment, medical instruments, safety devices, or any other equipment, instruments, or the like that could endanger life or human health
 - ii. Use in applications that require a high degree of reliability, such as provision systems for gas / waterworks / electricity, etc., systems that operate continuously for 24 hours, and settlement systems
 - iii. Use in applications where the product may be handled or used deviating from the specifications or conditions / environment listed in the Catalogs, such as equipment used outdoors or applications in environments subject to chemical pollution or electromagnetic interference If you would like to use IDEC products in the above applications, be sure to consult with an IDEC sales representative.

3. Inspections

We ask that you implement inspections for IDEC products you purchase without delay, as well as thoroughly keep in mind management/maintenance regarding handling of the product before and during the inspection.

4. Warranty

(1) Warranty period

The warranty period for IDEC products shall be one (1) year after purchase or delivery to the specified location. However, this shall not apply in cases where there is a different specification in the Catalogs or there is another agreement in place between you and IDEC.

(2) Warranty scope

Should a failure occur in an IDEC product during the above warranty period for reasons attributable to IDEC, then IDEC shall replace or repair that product, free of charge, at the purchase location / delivery location of the product, or an IDEC service base. However, failures caused by the following reasons shall be deemed outside the scope of this warranty.

- i. The product was handled or used deviating from the conditions / environment listed in the Catalogs
- ii. The failure was caused by reasons other than an IDEC product
- iii. Modification or repair was performed by a party other than IDEC
- iv. The failure was caused by a software program of a party other than $\ensuremath{\mathsf{IDEC}}$
- v. The product was used outside of its original purpose
- vi. Replacement of maintenance parts, installation of accessories, or the like was not performed properly in accordance with the user's manual and Catalogs

vii. The failure could not have been predicted with the scientific and technical standards at the time when the product was shipped from $\ensuremath{\mathsf{IDEC}}$

viii. The failure was due to other causes not attributable to IDEC (including cases of force majeure such as natural disasters and other disasters)

Furthermore, the warranty described here refers to a warranty on the IDEC product as a unit, and damages induced by the failure of an IDEC product are excluded from this warranty.

5. Limitation of liability

The warranty listed in this Agreement is the full and complete warranty for IDEC products, and IDEC shall bear no liability whatsoever regarding special damages, indirect damages, incidental damages, or passive damages that occurred due to an IDEC product.

6. Service scope

The prices of IDEC products do not include the cost of services, such as dispatching technicians. Therefore, separate fees are required in the following cases.

- Instructions for installation / adjustment and accompaniment at test operation (including creating application software and testing operation, etc.)
- (2) Maintenance inspections, adjustments, and repairs
- (3) Technical instructions and technical training
- (4) Product tests or inspections specified by you

The above content assumes transactions and usage within your region. Please consult with an IDEC sales representative regarding transactions and usage outside of your region. Also, IDEC provides no guarantees whatsoever regarding IDEC products sold outside your region.

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