GE1A Series — ON Delay Timers

Single Function

Key features:

- DPDT or SPDT + instantaneous SPDT
- 8-pin, octal base
- Repeat error ±0.2% maximum
- Large, clear knob for easy setting
- Instant monitoring of operational status by LED indicators

$C \epsilon$
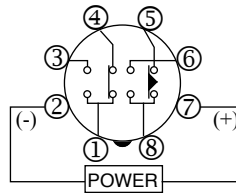
UL, c-UL Listed
File No. E55996

TÜV Rheinland

Specifications

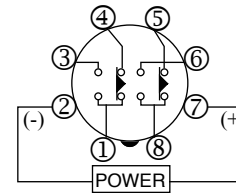|	
Rated Operating Voltage	24V AC/DC 100 to 120V AC 220 to 240V AC
Voltage Tolerance	AC: 85 to 110% DC: 90 to 110%
Contact Rating	240V AC/5A 24V DC/5A
Contact Form	DPDT or SPDT+ instantaneous SPDT
Repeat Error	±0.2% ±10msec maximum
Voltage Error	±0.5% ±10msec maximum
Temperature Error	±3% maximum
Setting Error	±10% maximum
Reset Time	0.1 sec maximum
Insulation Resistance	100MΩ minimum (500V DC megger)
Dielectric Strength	Between power and output terminals: 1,500V AC, 1 minute Between contact circuits: 750V AC, 1 minute
Vibration Resistance	Damage limits: Amplitude 0.75mm, 10 to 55 Hz Operating extremes: Amplitude 0.5mm, 10 to 55 Hz
Shock Resistance	Damage limits: 500m/s^2 (Approx. 50G)
Power Consumption	GE1A-B	24V AC type: 1.6 VA
		24V DC type: 1.0W
		110V AC type: 3.8 VA
		220V AC type: 7.7 VA
	GE1A-C	24V AC type: 2.0 VA
		24V DC type: 0.8W
		110V AC type: 3.5 VA
		220V AC type: 8.0 VA
Electrical Life	100,000 operations minimum (at full rated load)
Mechanical Life	10,000,000 operations minimum
Operating Temperature	−10 to +55°C (without freezing)
Operating Humidity	35 to 85% RH (without freezing)

Part Numbering List

Mode of Operation	Contact	Output	Rated Voltage	Time Range	Complete Part Number
ON-Delay	Delayed SPDT + Instantaneous SPDT	24V DC/120V AC, 5A 240V AC, 5A	220-240V AC	0.1s - 10h	GE1A-B10HA220
			110-120V AC		GE1A-B10HA110
			24V AC/DC		GE1A-B10HAD24
			220-240V AC	0.3s - 30h	GE1A-B30HA220
			110-120V AC		GE1A-B30HA110
			24V AC/DC		GE1A-B30HAD24
	Delayed DPDT		220-240V AC	0.1s - 10h	GE1A-C10HA220
			110-120V AC		GE1A-C10HA110
			24V AC/DC		GE1A-C10HAD24
			220-240V AC	0.3s - 30h	GE1A-C30HA220
			110-120V AC		GE1A-C30HA110
			24V AC/DC		GE1A-C30HAD24

Timing Diagrams/Schematics

GE1A-B
Delayed SPDT + Instantaneous SPDT

GE1A-C
Delayed DPDT

Operation Mode Selection

ON-Delay 1

MODE

A

Item	Terminal Number		Operation
Set Time			
Power	2 - 7 (8p)		
Delayed Contact	5 - 8 (8p)	(NC)	
	6 - 8 (8p)	(NO)	
Instantaneous Contact	1 - 4	(NC)	
	1 - 3	(NO)	
Indicator	POWER		
	OUT		

Item	Terminal Number		Operation
Set Time			
Power	2 - 7 (8p)		
Delayed Contact	5 - 8 (8p)	(NC)	
	6 - 8 (8p)	(NO)	
Indicator	POWER		
	OUT		
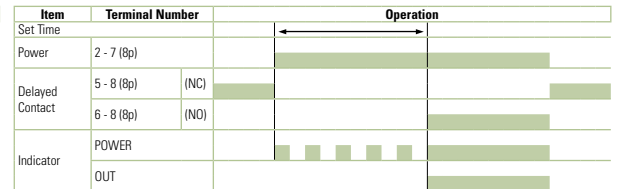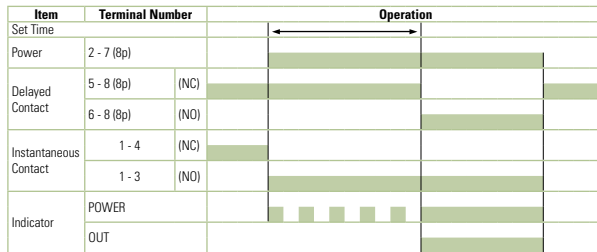
Note: Terminals 1, 3, and 4 are for the instantaneous contact

Switches & Pilot Lights

Signaling Lights

Relays & Sockets

Timers

Contactors

Terminal Blocks

Circuit Breakers

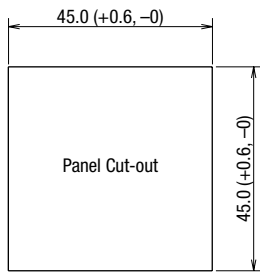## Accessories

Mounting Accessories & Sockets

Item		Appearance	Part No.
DIN Rail/Surface Mounting Accessories	8-Pin Screw Terminal (dual tier)		SR2P-05
	8-Pin Fingersafe Socket		SR2P-05C
	8-Pin Screw Terminal		SR2P-06
	DIN Mounting Rail Length 1000mm		BNDN1000
Panel Mounting Accessories	8-Pin Solder Terminal		SR2P-51
	Screw Terminal Socket		SR6P-M08G
	Panel Mount Adapter		GE9Z-AD

Other Accessories

Item	Appearance	Part No.
Dust Cover		GE9Z-C48

Dimensions

GE1A Timer

GE1A Timer Panel Cutout

```
45.0 (+0.6, −0)
```

Panel Cut-out

45.0 (+0.6, −0)

8-Pin SR2P-05

36
8
M3.5 Screw
52
3
29
ø4.2 Mounting Hole

32 when using BAA
33
ø25
16.5
20
28.5
3

DIN Rail (BAA)
2-ø4.2 Mounting Hole (M4 screw hole)
29
4.4max.
5min.
7.9max.
ø3.6min.

Terminal Arrangement
(TOP VIEW)

8-Pin SR2P-06

40
8
M3.5 Screw
60
33
ø4.2 Mounting Hole
1

25.5 when using BAA
ø25
18
22

DIN Rail (BAA)
2-ø4.2 Mounting Hole (M4 screw hole)
33
4.9max.
5min.
7.9max.
ø3.6min.

Terminal Arrangement
(TOP VIEW)
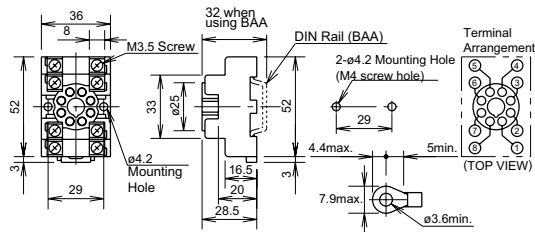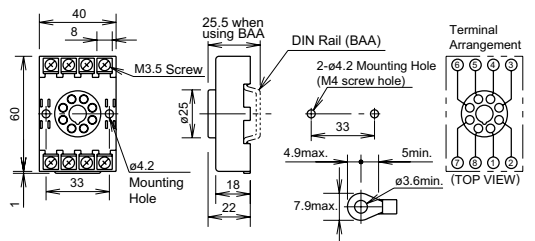
General Instructions for All Timer Series

Load Current

With inductive, capacitive, and incandescent lamp loads, inrush current more than 10 times the rated current may cause welded contacts and other undesired effects. The inrush current and steady-state current must be taken into consideration when specifying a timer.

Contact Protection

Switching an inductive load generates a counter-electromotive force (back EMF) in the coil. The back EMF will cause arcing, which may shorten the contact life and cause imperfect contact. Application of a protection circuit is recommended to safeguard the contacts.

Temperature and Humidity

Use the timer within the operating temperature and operating humidity ranges and prevent freezing or condensation. After the timer has been stored below its operating temperature, leave the timer at room temperature for a sufficient period of time to allow it to return to operating temperatures before use.

Environment

Avoid contact between the timer and sulfurous or ammonia gases, organic solvents (alcohol, benzine, thinner, etc.), strong alkaline substances, or strong acids. Do not use the timer in an environment where such substances are prevalent. Do not allow water to run or splash on the timer.

Vibration and Shock

Excessive vibration or shocks can cause the output contacts to bounce, the timer should be used only within the operating extremes for vibration and shock resistance. In applications with significant vibration or shock, use of hold down springs or clips is recommended to secure a timer to its socket.

Time Setting

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

Input Contacts

Use mechanical contact switch or relay to supply power to the timer. When driving the timer with a solid-state output device (such as a two-wire proximity switch, photoelectric switch, or solid-state relay), malfunction may be caused by leakage current from the solid-state device. Since AC types comprise a capacitive load, the SSR dielectric strength should be two or more times the power voltage when switching the timer power using an SSR.

Generally, it is desirable to use mechanical contacts whenever possible to apply power to a timer or its signal inputs. When using solid state devices, be cautious of inrushes and back-EMF that may exceed the ratings on such devices. Some timers are specially designed so that signal inputs switch at a lower voltage than is used to power the timer (models designated as "B" type).

Timing Accuracy Formulas

Timing accuracies are calculated from the following formulas:

Repeat Error

$$= \pm \frac{1 \times \text{Maximum Measured Value} - \text{Minimum Measured Value}}{2 \text{ Maximum Scale Value}} \times 100\%$$

Voltage Error

$$= \pm \frac{T_v - T_r}{T_r} \times 100\%$$

T_v: Average of measured values at voltage V
T_r: Average of measured values at the rated voltage

Temperature Error

$$= \pm \frac{T_t - T_{20}}{T_{20}} \times 100\%$$

T_t: Average of measured values at °C
T_{20}: Average of measured values at 20°C

Setting Error

$$= \pm \frac{\text{Average of Measured Values} - \text{Set Value}}{\text{Maximum Scale Value}} \times 100\%$$

Switches & Pilot Lights
Signaling Lights
Relays & Sockets
Timers
Contactors
Terminal Blocks
Circuit Breakers

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Time Delay & Timing Relays *category:*

Click to view products by Idec *manufacturer:*

Other Similar products are found below :

7012GD 7012L10BN 7012L10DY1N 7012L10FN 7012L10HN 7012L26K 7012L8AI2LLSN 7012L8BN 7012L8KN 7012OBILM 7012OIT 7012PALL 7012PDM 7012PFX 7022L10DN 7022L8BN 7022L8EN 7022L8HN 7022ODN 7022X3D 7024NB 7024SCT H3BG-N8H AC110V H3CRF8AC2448DC1248 1423151-3 1423154-8 1423618-6 1423151-5 2112AH1SDC947 2122DH1NJC467 2122DH1PE K61C-08 286XCXC-300-24D SCBRX022XXACXAC991 SHS10S110A 1755074-5 SSC12AKA FAASPRING2 2112DH3NDC50-13 2122DH34NDC629 2-1437479-8 PM-17DY-110 286XCXC-060-120VAC CKB-38-78180 CKH-38-31009 CLA-41-70010 CLH-41-20030 3-1423152-9 3-1437470-5 8-1393138-1