

IDEC GE1A SERIES ELECTRONIC TIMERS INSTRUCTION SHEET

B-483-5

Confirm that the delivered product is what you have ordered. Read this instruction sheet to make sure of correct operation. Make sure that the instruction sheet is kept by the end user.

●GENERAL SPECIFICATIONS

Type	GE1A-B	GE1A-C	
Operation Mode	ON Delay		
Pollution Degree	2 (IEC 60664-1)		
Overvoltage Category	III (IEC 60664-1)		
Time Range	0.1 second to 30 hours		
Rated Operational Voltage	220 to 240V AC (50/60Hz), 200 to 220V AC (50/60Hz), 110 to 120V AC (50/60Hz), 100 to 110V AC (50/60Hz), 24V AC (50/60Hz) / 24V DC		
Voltage Tolerance	AC: Rated voltage × 85 to 110% DC: Rated voltage × 90 to 110%		
Ambient Operating Temperature Range	-10 to +55 °C (without freezing)		
Ambient Storage Temperature Range	-30 to +70 °C (without freezing)		
Ambient Transport Temperature Range	-30 to +70 °C (without freezing)		
Relative Humidity Range	35 to 85 % RH (without condensation)		
Atmospheric Pressure	80kPa to 110kPa (Operating), 70kPa to 110kPa (Transport)		
Recovery Time	100ms maximum		
Repeatability	±0.2% ±10ms		
Voltage Influence	±0.5% ±10ms		
Temperature Influence	±3%		
Setting Accuracy	±10%		
Insulation Resistance	100 MΩ minimum (500V DC)		
Dielectric Strength	Between power and output terminals	2,000V AC, 1 minute	2,000V AC, 1 minute
	Between contact circuits	750V AC, 1 minute	750V AC, 1 minute
	Between contact circuits (opposite pole)	2,000V AC, 1 minute	2,000V AC, 1 minute
Vibration Resistance	Operating extremes	10 to 55Hz amplitude 0.5mm, 2 hours in each of 3 axes	
	Damage limits	10 to 55Hz amplitude 0.75mm, 2 hours in each of 3 axes	
Shock Resistance	Operating extremes	98m/s ² (Approx. 10G), 3 times in each of 3 axes	
	Damage limits	490m/s ² (Approx. 50G), 3 times in each of 3 axes (Panel mount) 249m/s ² (Approx. 25G), 3 times in each of 3 axes (Surface mount)	
Degree of Protection (IEC 60529)	IP40 (Enclosure), IP20 (Socket)		
Power Consumption (Approx.)	A220: 220V AC 60Hz/50Hz	7.7VA/6.6VA	8.0VA/7.0VA
	A200: 200V AC 60Hz/50Hz	7.0VA/6.0VA	8.0VA/7.0VA
	A110: 110V AC 60Hz/50Hz	3.8VA/3.3VA	3.5VA/3.0VA
	A100: 100V AC 60Hz/50Hz	3.5VA/3.0VA	3.5VA/3.0VA
	AD24: 24V AC/24V DC	1.6VA/1.0W	2.0VA/0.8W
Mounting Position	Free		
Dimension	48.0H × 48.0W × 94.2D mm		
Weight (Approx.)	101g	95g	

●APPLICABLE STANDARDS

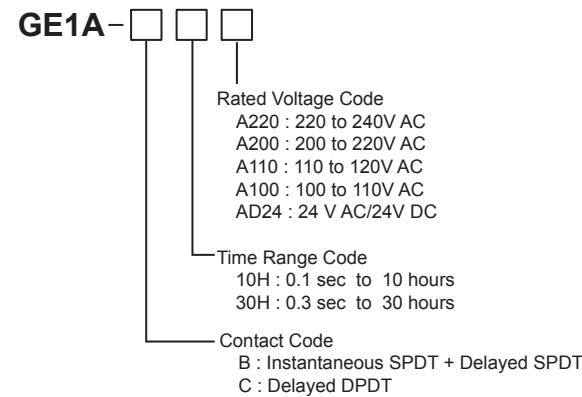
Standard	UL508, CSA C22.2 No.14, IEC61812-1, EN61812-1
Safety standard	UL508, CSA C22.2 No.14, IEC61812-1, EN61812-1
EMC	IEC61812-1, EN61812-1
Electrostatic Discharge	IEC61000-4-2, EN61000-4-2
Radiated Radio-Frequency Electromagnetic Field	IEC61000-4-3, EN61000-4-3
Electrical Fast Transient/Burst	IEC61000-4-4, EN61000-4-4
Surge	IEC61000-4-5, EN61000-4-5
Radio-Frequency Conducted Disturbances	IEC61000-4-6, EN61000-4-6
Voltage Dips	IEC61000-4-11, EN61000-4-11
Voltage Short Interruptions	IEC61000-4-11, EN61000-4-11
Radiation Emission	CISPR 11, EN55011

NOTE:
 GE1A series are UL Listed when used in combination with IDEC's SR2P-06* or SR6P-M08G type socket.
 (*-May suffix A, B or U)
 The socket to be used as follows:
 -Conductor Temperature Rating 60°C min.,
 -Use 14AWG max. (2mm² max.) Copper Conductors Only,
 -Terminal Torque 1.0 to 1.3 N·m.

●CONTACT RATINGS

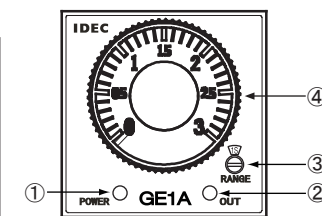
Type	GE1A-B	GE1A-C
Contact Configuration	SPDT + SPDT	DPDT
Contact Material	Ag alloy	
Allowable Contact Power	1250VA/140W	
Allowable Voltage	250V AC/28V DC	
Allowable Current	5A	
Rated Load	5A, 240V AC/24V DC (Resistive Load)	
Utilization categories (IEC 60947-5-1)	AC-15 2A, 240V AC AC-14 2A, 240V AC AC-13 2A, 240V AC AC-12 5A, 240V AC DC-13 1A, 24V DC DC-12 5A, 24V DC	
Conditional Short Circuit	1,000A	
Protect Device	Fuse 5A, 250V high breaking	
Mechanical Endurance	10,000,000 operations	5,000,000 operations
Electrical Endurance	100,000 operations (360 cycle per hour, Resistive)	100,000 operations (600 cycle per hour, Resistive)

●TYPE NO. DEVELOPMENT



●TIME RANGES

Time Range Code	Magnification	Time Range
10H	1S	0.1 sec to 1 sec
	10S	1 sec to 10 sec
	1M	0.1 min to 1 min
	10M	1 min to 10 min
	1H	0.1 hour to 1 hours
30H	1S	0.3 sec to 3 sec
	10S	3 sec to 30 sec
	1M	0.3 min to 3 min
	10M	3 min to 30 min
	1H	0.3 hours to 3 hours
10H	3 hours to 30 hours	

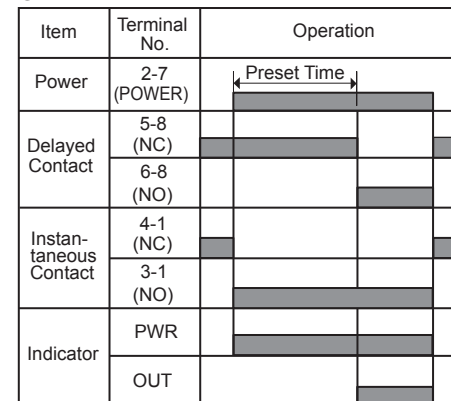


- ① Power Indicator ② Output Indicator
 ③ Time Range Selector (6 different time ranges)
 ④ Setting Knob

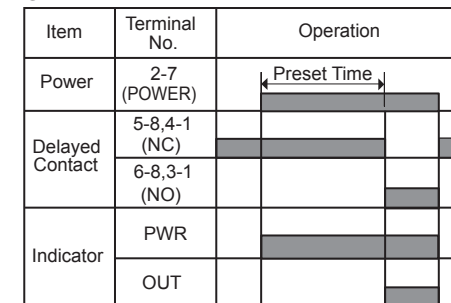
- (1) The switches should be securely turned using a flat screwdriver 4mm wide maximum. Note that incomplete setting may cause malfunction. The letter should be centered in the display window. The switches, which do not turn infinitely, should not be turned beyond the limits.
 (2) Since changing the setting during timer operation may cause malfunction, power should be turned off before changing the setting.

●OPERATION CHARTS

GE1A-B

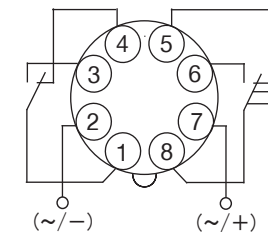


GE1A-C

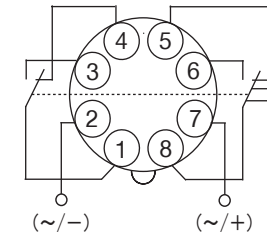


●INTERNAL CONNECTIONS

GE1A-B



GE1A-C



Safety Precautions

Special expertise is required to use the Electronic Timer.

- All Electronic Timer modules are manufactured under IDEC's rigorous quality control system, but users must add a backup or failsafe provision to the control system using the Electronic Timer in applications where heavy damage or personal injury may be caused in case the Electronic Timer should fail.
- Install the Electronic Timer according to instructions described in this instruction sheet and the catalog.
- Make sure that the operating conditions are as described in the catalog. If you are uncertain about the specifications, contact IDEC in advance.
- In this instruction sheet, safety precautions are categorized in order of importance to Warning and Caution.

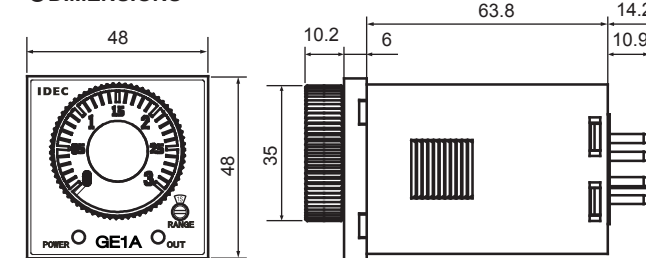
Warning Warning notices are used to emphasize that improper operation may cause severe personal injury or death.

- Turn power off to the Electronic Timer before starting installation, removal, wiring, maintenance, and inspection on the Electronic Timer. Failure to turn power off may cause electrical shocks or fire hazard.
- Do not use the Electronic Timer for an emergency stop circuit and interlocking circuit. If the Electronic Timer should fail, a machine disorder, breakdown, or accident may occur.

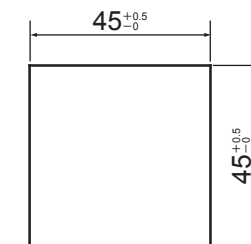
Caution Caution notices are used where inattention might cause personal injury or damage to equipment.

- The Electronic Timer is designed for installation in equipment. Do not install the Electronic Timer outside equipment.
- Install the Electronic Timer in environments described in this instruction sheet and the catalog. If the Electronic Timer is used in places where the Electronic Timer is subjected to high-temperature, high-humidity, condensation, corrosive gases, excessive vibrations, and excessive shocks, then electrical shocks, fire hazard, or malfunction will result.
- Use an IEC60127-approved fuse and circuit breaker on the power and output line outside the Electronic Timer.
- Do not disassemble, repair, or modify the Electronic Timer.
- When disposing of the Electronic Timer, do so as an industrial waste.

●DIMENSIONS



Panel Cut-out Dimensions



(UNIT : mm)

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