



**Family of compact
timers... 1/8 DIN
housing mounts in
standard relay socket**



The DG100 is a solid state timer housed in a 1/8 DIN, molded NORYL® case. The timer uses CMOS integrated circuits for the timing function. The DG100 series timer is available in 16 time ranges from 3.5 seconds to 30 hours. Time is set with a knob referenced to a graduated scale. A pilot light on the front of the unit indicates when the unit is timing.

- All connections make through standard square base relay socket
- Available accessories for conversion into panel mount including a version with plug-in capability
- Standard unit functions as ON-Delay timer in sustained start mode
- Single relay with isolated double pole - double throw relay contact controls outputs
- Timer operation can be configured as: interval output timer with momentary start.

OPERATION

The timing base for the DG100 series timer is generated by an internal oscillator set by a precision capacitor and a dial adjustable potentiometer. This allows accurate control over long time ranges.

The unit times as long as power is applied to the control input terminal. The output contacts change state at the completion of the timing period. The unit resets when power is removed from the control input.

SPECIFICATIONS

Time Ranges:

Sym.	Dial Range	Minimum Setting	Sym.	Dial Range	Minimum Setting
01	3.5 Sec.	.35 Sec.	09	15 Min.	1.5 Min.
02	7 Sec.	.7 Sec.	10	30 Min.	3 Min.
03	15 Sec.	1.5 Sec.	11	60 Min.	6 Min.
04	30 Sec.	3 Sec.	12	120 Min.	12 Min.
05	60 Sec.	6 Sec.	13	4 Hr.	.4 Hr.
06	120 Sec.	12 Sec.	14	8 Hr.	.8 Hr.
07	4 Min.	.4 Min.	15	15 Hr.	1.5 Hr.
08	8 Min.	.8 Min.	16	30 Hr.	3 Hr.

Operating Voltage/Frequency:

- 120 VAC (+10 -15%), 50/60 Hz or 120 VDC (+10 -15%)
- 240 VAC (+10 -15%), 50/60 Hz or 240 VDC (+10 -15%)
- 24 VAC (+10 -15%) 50/60 Hz or 24 VDC (+10 -15%)

Setting Accuracy: Within ±10% of maximum range

Repeatability (Constant Voltage & Temperature):
±0.1% of setting or 25 ms, whichever is larger

Repeatability (Voltage & Temperature Variation):
Variable Voltage: ±1% of setting
Variable Temperature: ±2% of setting
Variable Voltage and Temperature: ±3% of setting

Reset Time: 50 ms

Cycle Progress: Pilot light during timing

Burden:	OFF Time	On Time
120 VAC or DC	.8 VA max.	4.8 VA max.
240 VAC or DC	1.6 VA max.	4.8 VA max.
24 VAC or DC	1.5 VA max.	2.9 VA max.

Power on Response: 30 ms max. after line voltage applied to pins A and B

Operating Temperature: 0° to -60°C (+32° to +140°F)

Output Rating:

- Relay: 10 amp steady state, 120 VAC
- Mechanical Life: over 20 million operations
- Electrical Life: contingent upon load characteristics

Power Interruption:

Line voltage interruptions of 20 ms or less will not reset unit

Transient Voltage Immunity: Unaffected by 50 microseconds, 600 V peak transients superimposed on the line input

Vibration: Unit function is unaffected by 2.5G sinusoidal vibration magnitude in both directions of three perpendicular mounting axes imposed from 10 to 100 Hz

Approvals: UL Recognition E96337
CSA Certification L26861
FM Approved J10C8A4.AF

OUTPUT OPERATING MODES

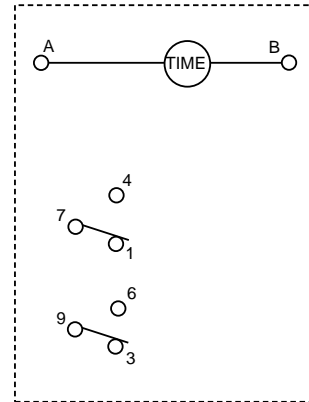
ON-Delay

The unit starts timing when voltage is applied to terminals A and B. When the dial setting is reached, the output relay energizes and remains in the energized state as long as voltage is applied to terminals A and B. Removal of voltage from terminals A and B resets the unit.

Interval

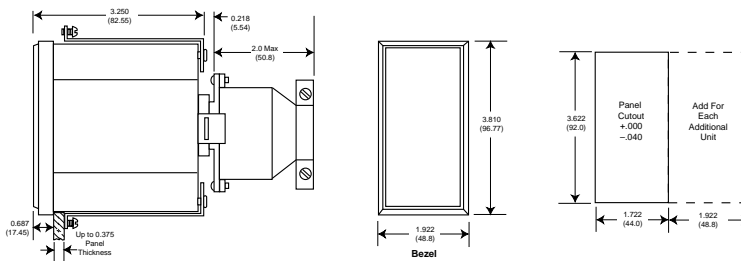
The unit starts timing with the output relay in the energized state when voltage is applied to terminals A and B. When the dial setting is reached, the output relay deenergizes and remains in that state until voltage is reapplied to terminals A and B. Removal of voltage from terminals A and B resets the unit.

DG100 TERMINAL ASSIGNMENTS

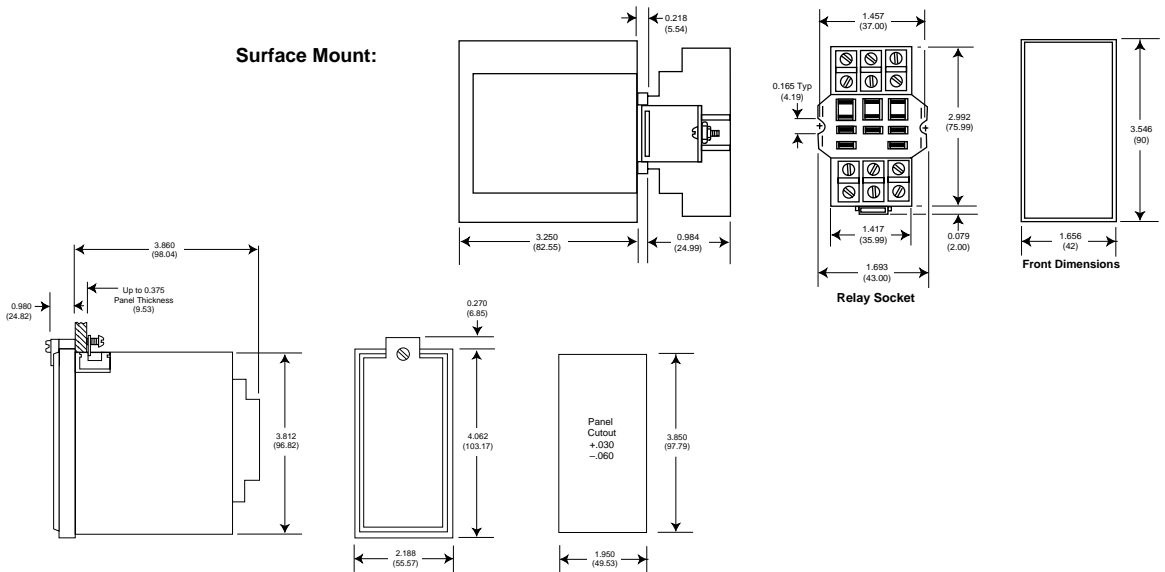


MOUNTING

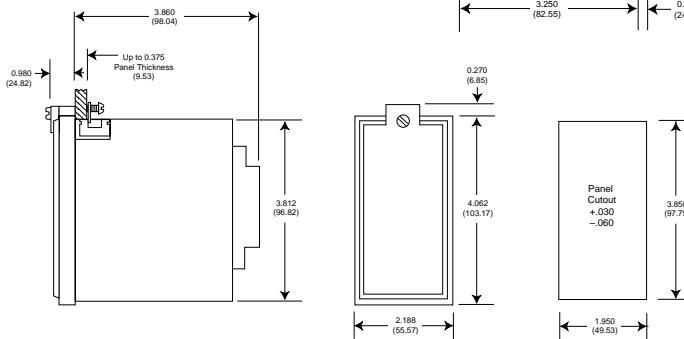
Panel Mount:



Surface Mount:



Plug-In Mount:



ORDERING INFORMATION

Ordering code: **DG1 03 A3 02**

TIME RANGE
See Specifications for Time Range Catalog Symbol

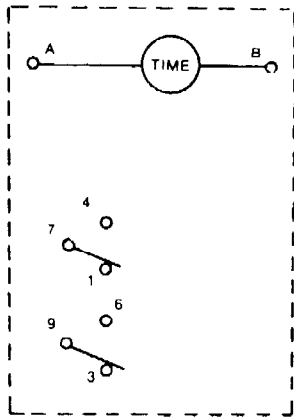
VOLTAGE & FREQUENCY

Sym.	Description
A3	120 VAC, 50/60 Hz or 120 VDC
B3	240 VAC, 50/60 Hz or 240 VDC
Z3	24 VAC, 50/60 Hz or 24 VDC

FEATURES

Sym.	Description
(Blank)	Standard, On-Delay, DPDT Relay Output
02	Interval Timing

DG100 TERMINAL ASSIGNMENTS



OPERATIONAL MODES

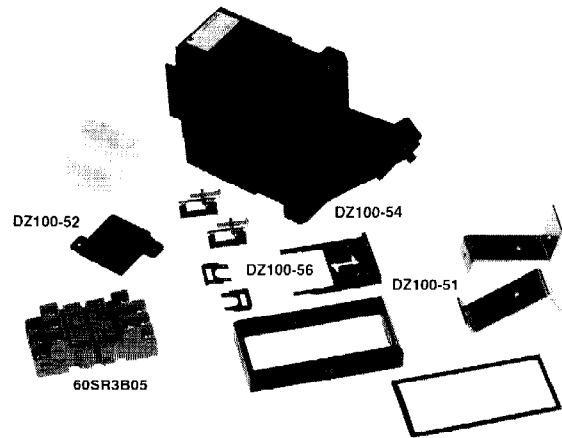
Operation of the DG100 Series Timer is determined by the selected mode of operation. Three factory assembly options are available.

ON DELAY - The unit starts timing when voltage is applied to terminals A and B. When the dial setting is reached, the output relay energizes and remains in the energized state as long as voltage is applied to terminals A and B. Removal of voltage from terminals A and B resets the unit.

INTERVAL - The unit starts timing with the output relay in the energized state when voltage is applied to terminals A and B. When the dial setting is reached, the output relay de-energizes and remains in that state until voltage is re-applied to terminals A and B. Removal of voltage from terminals A and B resets the unit.

OO[X] REPEAT CYCLE PULSE OUTPUT - The unit starts timing when voltage is applied to terminals A and B. The output relay is de-energized during timing. When the dial setting is reached, the output is energized for 200ms typical. After the pulse, the unit starts timing for the next cycle. The cycle continues until voltage is removed from terminals A and B.

ACCESSORIES



DZ100-51 BEZEL KIT for panel mounting. Kit includes bezel, bezel gasket, brackets and mounting hardware.

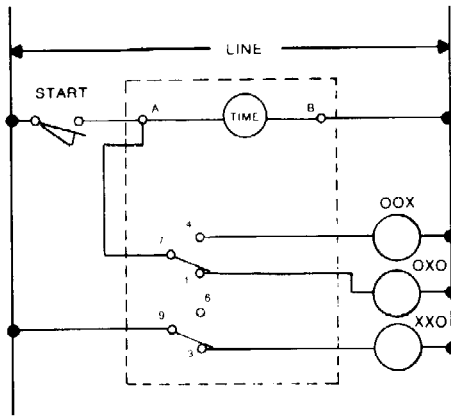
DZ100-52 STRAIN RELIEF KIT provides cable connection to panel mounted unit. Includes H11496 strain relief and 4270-0621 socket and hardware.

DZ100-54 PLUG-IN HOUSING for panel mounting units with plug-in convenience. Kit includes housing and mounting brackets.

DZ100-56 LATCH AND LATCH RELEASE KIT for surface mounting. Kit includes latch, spacer, latch release and mounting hardware (Use with 60SR3B05 Relay Socket).

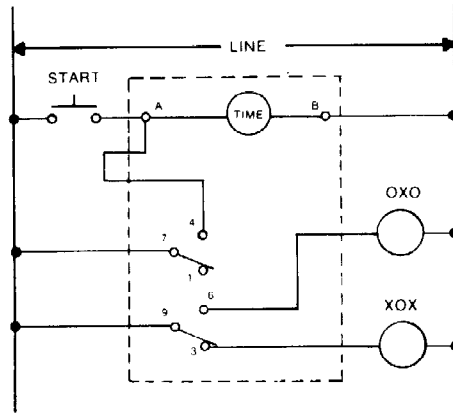
60SR3B05 SQUARE BASE RELAY SOCKET

WIRING DIAGRAMS



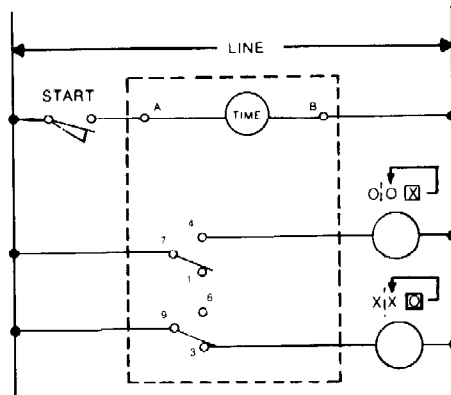
"00" FEATURE

Close switch to start timing; open to reset. Relay contacts provide delay output (OOX, XXO).



"02" FEATURE

Interval Timing — One Shot. Momentary or Maintained start switch. Close switch to start timing. Resets automatically using momentary start. Relay contacts provide interval sequence (OXO, XOx). Contacts 4-7 must be wired as shown for timer control.

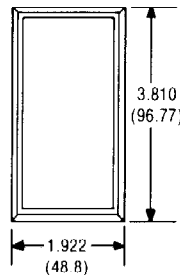
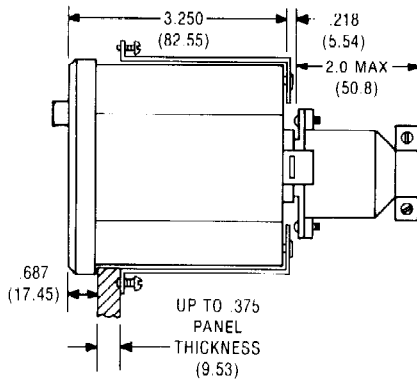


"03" FEATURE

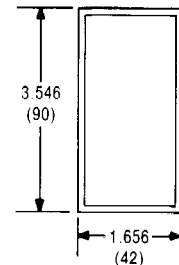
Repeat Cycle Mode - Pulse Output. Output contacts transfer for approximately 200ms at the end of each timing period. Timing cycles continue as long as start switch is closed. A dashed line separates the output status during RESET from the status during TIMING.

MOUNTING DIMENSIONS

Panel Mount

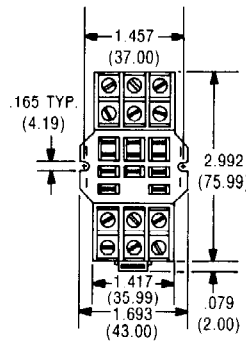
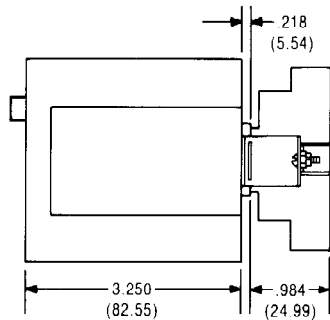


BEZEL

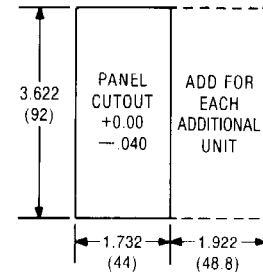


FRONT DIMENSIONS

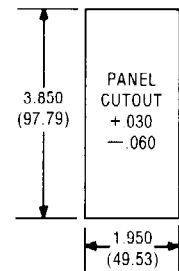
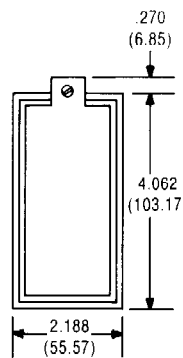
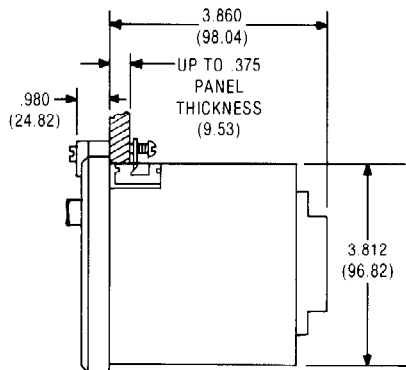
Surface Mount



RELAY SOCKET

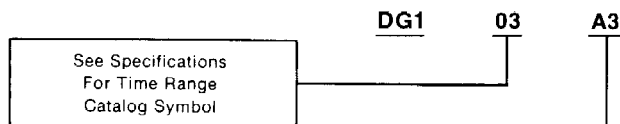


Plug-In Mount



NOTE: PANELS THICKER THAN .140" REQUIRE ENLARGEMENT OF CORNERS TO ALLOW POSITIONING OF CORNER MOUNTING BRACKETS.

ORDERING INFORMATION



VOLTAGE/FREQUENCY

Symbol	Description
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FEATURES

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