

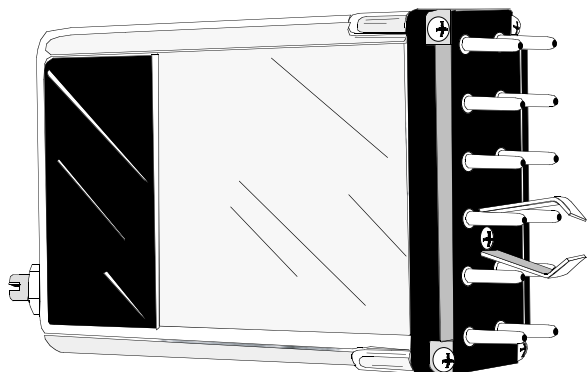
SERIES 236 ON DELAY, 237 OFF DELAY & 238 BATCH CONTROL INTERVAL (SEE NOTE 3)

AC OR DC INPUT

DPDT OR DPDT WITH 1 N.O. CONTACT ON SERIES 236 & 238

12 PIN PLUG-IN WITH LOCKING CLIP

TIMING: SCREWDRIVER ADJUSTABLE OR FIXED



The Series 236, 237 and 238 Time Delay Relays consist of a standard 219 industrial relay and a solid state timing module to provide delayed transfer of relay contacts after application of power or activation of control switch. The relay and timing module are enclosed in a flame resistant polycarbonate cover.

GENERAL SPECIFICATIONS (@ 25⁰ C)

INPUT

Nominal Voltage: AC: 24 to 240, DC: 12 to 125
 Minimum Oper. Voltage: AC - 85% of Nominal
 DC - 80% of Nominal
 Max. allowed voltage: 110% of nominal voltage

CONTACTS

Contact Material: Silver Cadmium Oxide.
 Rating: 10 Amps @ 120 VAC res.
 10 Amps @ 28 VDC

OPERATIONAL CHARACTERISTICS

Repeatability: DC: ± 3% @ 20G. AC: ± 3% +16 mS @ 20⁰ C.
 Accuracy: Adjustable: ± 10% Within temperature & voltage range. Fixed: ± 10% @ 25⁰ C.
 Min. waiting time before starting next cycle (Reset Time): 100 mS (for timing cycle up to 60 sec. 150 mS for timing cycle 60 to 300 sec.)

INSULATION CHARACTERISTICS

Dielectric Strength: 500 V rms across open contacts, 1500 V rms between output contacts and ground (Locking clip). (See note 4).
 Insulation Resistance: 1000 Megohms min. @ 500 VDC.
 Transient Protection: 5 mS, 0 to 2000 V 20 uSec peak
 False Contacting: No false contacting if power is interrupted during timing.
 Inverse polarity protection: DC operated are polarity protected, but will not operate if polarity is reversed.

ENVIRONMENTAL CAPABILITIES

Ambient Temperature Rating: - 10⁰ C to +70 C

LIFE EXPECTANCY

Mechanical: 10 Million Operations no load
 Electrical: 100,000 Operations @ Rated Load.

MISCELLANEOUS

Enclosure: Clear Polycarbonate
 Weight: 8.6 oz approx. (244 g)

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Typical Part Number	236	ABX	P	020	120A
Series	236 - ON DELAY 237 - OFF DELAY (Note 2) 238 - INTERVAL (Note 3)				
Contact Arrangements	ABX (DPDT & 1 N.O. Contact) 236 & 238 only). XBX (DPDT)				
Mounting Options	P (Plug-in)				
Timing Ranges	0.2 - 12 Sec - Code 012** 0.2 - 20 Sec - Code 020 2.0 - 200 Sec - Code 200				
Adjustment Options	Adjustment Screw) - No Code Fixed Delay - Specify Fixed Time & Code F *				
Operating Voltage	AC; 24, 48, 120, 240 (Add "A") DC; 12, 24, 48, 115-125 (Add "D")				

Code 012**: 12 Second timing not available on 237 & 238 models.

(F*Models) - timing code does not apply. Specify single delay time requirement.

Example of typical fixed time delay relay part number- 236XBXP-3.5F-120A (ON DELAY, DPDT, 3.5 SEC FIXED, 120 VAC INPUT POWER).

NOTES:

- 236,237,238 -External resistor (to program time delay) or jumper (for built-in timing) must be connected to terminals 8 & 9.
- 237 models require an external control switch between terminals 5 & 6.
- 238 switches contacts when input power is applied and starts timing. Contacts switch back to original position at end of timing cycle. Power must be removed to reset timer. If input power is interrupted during the timing cycle, timing ends immediately and the relay resets.
- Dielectric withstanding voltage testing of the Control circuit may damage the solid state components.

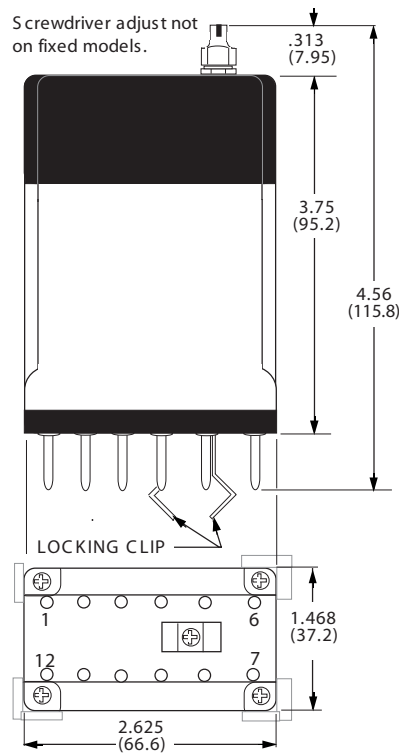
NUCLEAR VERSIONS AVAILABLE

12PIN, 10 AMP, TIME DELAY RELAY

236/237/238
SERIES

OUTLINE DIMENSIONS

Dimensions shown are in INCHES and (millimeters)

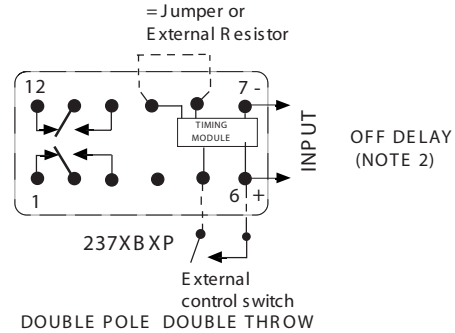
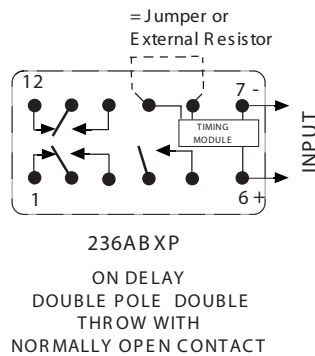


= TIMING * RESISTANCE CHART

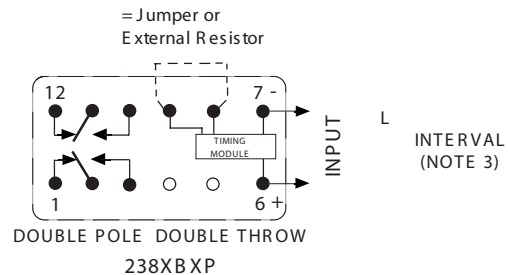
236 RANGE: 0.2 TO 12 SEC 20K OHMS PER EA.3 SEC 100 K OHMS MAX.
236 RANGE: 0.2 TO 20 SEC 100K OHMS PER EA.7 SEC 500 K OHMS MAX
237/238 RANGE: 0.2 TO 20 SEC. 100K OHMS PER EA.6 SEC 500 K OHMS MAX.
236 RANGE: 2.0 TO 200 SEC 200K OHMS PER EA.60 SEC 1 MEG OHM MAX.
237/238 RANGE: 2.0 TO 200 SEC 200K OHMS PER EA.55 SEC. 1 MEG OHM MAX.

* USE RESISTOR RATED 1/4 WATT OR MORE.

EXAMPLE WIRING DIAGRAMS Viewed from Top of Relay



= If the jumper wire shown in each diagram is replaced by a resistor, delay time will be added to that which is produced by an internal fixed resistor on fixed time models (code F) or any setting on screwdriver adjustable models. See timing resistance chart above. Relay will not operate without a jumper or resistor. Also see note 1.



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