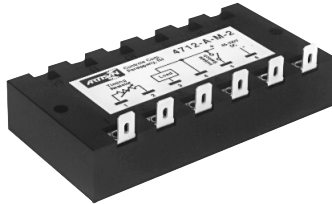




Solid State Timers and Controllers

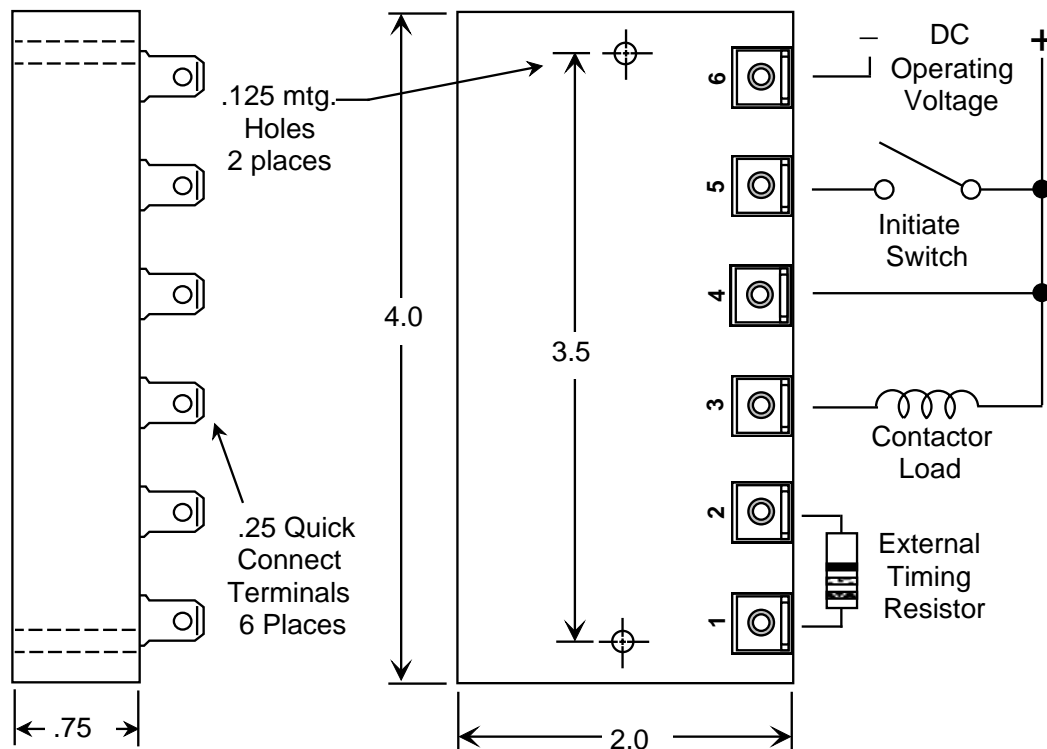
4712

Solid State Delay-On-Make Or Delay-On-Break

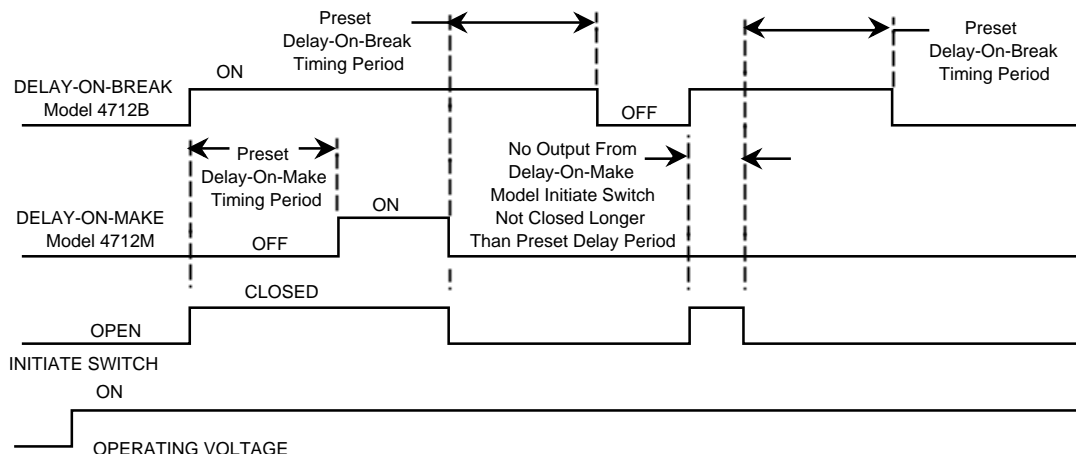


The series 4712 is available as a Delay-On-Make, or as a Delay-On-Break timing module. The 4712 series is intended for use in high electrical noise environments as may be found in electric transit cars and locomotive type applications. This series is controlled by a separate initiate switch that starts the delay period when closed for the Delay-On-Make models, and when opened for the Delay-On-Break models. In the Delay-On-Make model the output energizes after the delay period. In the Delay-On-Break model the output de-energizes after the timing period. Both models provide a full 10A solid state switch as the output.

Mechanical & Wiring



Timing Diagrams



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Artisan Controls Corporation, 5 Eastmans Road, Suite 100, Parsippany, New Jersey 07054, USA



Solid State Timers and Controllers

Specifications

- Voltage:** 45 Volts to 100 Volts DC - Reverse polarity protected.
Standby Current: 25 mA maximum at 100V DC.
Operating Current: 75 mA maximum at 100 volts DC.
Timing Mode: Delay-On-Make (model 4712-M), Delay-On-Break (model 4712-B),
Timing Control: Remote initiate switch for 4712-M, and 4712-B.
Initiate Switch Current: 5 mA max. at 100 volts DC.
Recycle Characteristics: Initiate Switch must be open for a minimum of 100 milliseconds for the 4712M, and closed for a minimum of 100 milliseconds for the 4712B to assure a recycle condition permitting full timing cycle to repeat.
Fixed Timing: 0.1 seconds to 10,000 seconds.
Tolerances On Fixed Timing: $\pm 10\%$.
Adjustable Timing Range: From 0.1 to 8000 seconds in five ranges.

Timing Range vs Timing Resistor

External Resistor (Ohms)	DASH NO.				
	-1	-2	-3	-4	-5
0	0.1	1	2	10	30
1 Meg	4	30	100	500	900
3 Meg	12	90	300	1,500	2,700
5 Meg	20	150	500	2,500	4,500
10 Meg	30	300	1,000	5,000	8,000

Ex: If the -4 timing range were specified, 10-500 seconds could be achieved using a range of resistance from 0 - 1 meg ohm. 30-8000 seconds with 0 - 10 meg ohms.

- Purchase Tolerances**
On Adjustable Timing Range: Timing envelope specified is guaranteed over the resistance range specified for each timing range.
Repeatability Of Timing Period: $\pm 1\%$ nominal.
Output Rating: Solid state switch rated for 10 amperes inductive switching the minus side of the DC operating voltage.
Output Switch Characteristics: 1 volt drop maximum across output switch when ON and load current is 10A, 2mA leakage when OFF.
Transient Protection: Output Switch protected by silicon transient suppressors responding to transients within 1×10^{-12} seconds to a peak pulse power dissipation of 1500 watts, with transient surge currents to 200 amperes for durations up to 1/120 second at 25° C. Maximum transient voltage protection is 6000 volts as delivered through a source resistance of 30 ohms with a maximum duration of 8.3ms.
Dielectric: 1500V rms all terminals to case.
Operating Temperature: -20°C to +85°C
Construction: Encapsulated module with .25 quick connect wiring terminals.
Data Sheet Revision Date: May 31, 1995

Ordering Information All Models

Part Number	Delay Mode	Timing Mode	Time Delay/Ranges
4712 -	-M (Delay-On-Make)	-A (Adjustable)	-1 0.1-30 Sec.
			-2 1-300 Sec.
			-3 2-1000 Sec.
			-4 10-5000 Sec.
	-B (Delay-On-Break)	-F (Fixed)	-5 30-8000 Sec.
			Specify Fixed Times in Seconds

Examples Of Part Numbers.

- 4712 - M - A - 2 Model 4712 operating as a Delay-On-Make with remotely adjustable timing from 1 to 300 seconds.
 4712 - B - A - 3 Model 4712 operating as a Delay-On-Break with remotely adjustable timing from 2 to 1000 seconds.
 4712 - B - F - 250 Model 4712 operating as a Delay-On-Break with fixed timing of 250 seconds.
 4712 - M - F - 0.5 Model 4712 operating as a Delay-On-Make with fixed timing of 0.5 seconds.

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