

SPECIFICATIONS

(All values shown are at nominal operating voltage and 77°F (25°C) unless otherwise noted.)

Operating Modes

Model 7012/7014: On-Delay (Delay on pick-up)
Model 7022/7024: Off-Delay (Delay on drop-out)
Model 7032: On-Delay, Off-Delay (Double Head)

Timing Adjustment: Timing is set by simply turning the calibrated dial to the desired time value. In the zone of approximately 25° separating the high and low end of timing ranges A,D,E, and K, instantaneous operation (no time delay) will occur. All other ranges produce an infinite time delay when the dial is set in this zone.

Models 7014 and 7032 are available with letter-calibrated dials only. The upper end of the time ranges in these models may be twice the values shown.

Linear Timing Ranges

Time Range Code	Models 7012, 7022, 7024	Models 7014, 7032
A	.1 to 1 Sec.	.2 to 2 Sec.
B	.5 to 5 Sec.	.7 to 7 Sec.
C	1.5 to 15 Sec.	2 to 20 Sec.
D	5 to 50 Sec.	10 to 100 Sec.
E	20 to 200 Sec.	30 to 300 Sec.
F	1 to 10 Min.	1.5 to 15 Min.
H	3 to 30 Min.	3 to 30 Min.
I	6 to 60 Min.	Not Avail.
J	3 to 120 Cyc.	Not Avail.
K	1 to 300 Sec.	Not Avail.

Repeat Accuracy:

For delays of 200 seconds or less:

7012*, 7022, 7024	±5%
7014*	±10%
7032	±15%

For delays greater than 200 seconds:

7012*, 7022, 7014*, 7024	±10%
7032	±15%

* The first time delay afforded by Model 7012 with H (3 to 30 min.) and I (6 to 60 min.) time ranges or Model 7014 with H time range will be approximately 15% longer than subsequent delays due to coil temperature rise.

Reset Time: 50 msec. (except model 7032)

Relay Release Time: 50 msec. for on-delay models (7012/7014)

Relay Operate Time: 50 msec. for off-delay models (7022/7024)

Operating Voltage Coil Data (for DPDT)

Coil Part #	Code Letter	Rated Voltage	Operating* Voltage Range @ 60Hz	Rated Voltage	Operating Voltage Range @50Hz	
7000	A	120	102-132	110	93.5-121	
	B	240	204-264	220	187-242	
	C	480	408-528			
	D	550	468-605			
	E	24	20.5-26.5			
	AC	F			127	108-140
		G			240	204-264
		H	12	10.2-13.2		
		I	6	5.1-6.6		
		J	208	178-229		
7010	M	28	22.4-30.8			
		N	48	38.4-52.8		
	O	24	19.2-26.4			
		P	125	100-137.5		
	Q	12	9.6-13.2			
		R	60	48-66		
	DC	S	250	200-275		
		T	550	440-605		
		U	16	12.8-17.6		
		V	32	25.8-35.2		
W		96	76.8-105.6			
Y		6	4.8-6.6			
Z		220	176-242			
X			Special DC Coils (X1, X2, etc.)			

Minimum operating voltages are based on vertically mounted 7012 units. 7012 horizontally mounted or 7022 vertically or horizontally mounted units will operate satisfactorily at minimum voltages approximately 5% lower than those listed.

AC units drop out at approximately 50% of rated voltage. DC units drop out at approximately 10% of rated voltage. All units may be operated on intermittent duty cycles at voltages 10% above the listed maximums (intermittent duty - maximum 50% duty cycle and 30 minutes "on" time.)

*Four pole Models: Operational voltage range 90% to 110% for AC units; 85% to 110% for DC units.

Surge / Transient Protection Option

Characteristics (For D.C. Timers Only)

Coil Voltage Nominal (DC)	Max Excess Energy Capacity	Max De-energization Transient Voltage
12 V	0.4j	48 V
24 V	1.8j	93 V
28 V	1.8j	93 V
32 V	2.5j	135 V
48 V	3.57j	145 V
60 V	6j	250 V
96 V	10j	340 V
110 V	10j	340 V
125 V	10j	340 V
220 V	17j	366 V
250 V	17j	366 V

Surge Life

Applied 100,000 times continuously with the interval of 10 seconds at room temperature. Below 68 VAC: 12A Above 68 VAC: 35A

Temperature Range

Operating: -22°F to +167°F (-30°C to +75°C)
Storage: -40°F to +167°F (-40°C to +75°C)