700-HT Plug-in Timing Relay

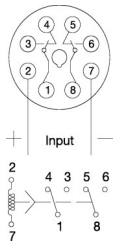
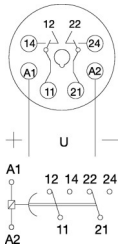
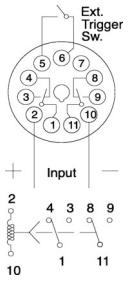
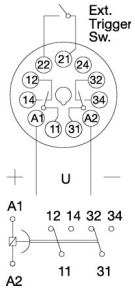
- Timing Relay (On-Delay or Off-Delay)
- Rugged Pin Style Socket Mounting
- 10 A, DPDT Contact Ratings
- 0.1 s...30 min Fixed Timing Relay
- 0.1 s...3 min Single Adjustable Timing Relay
- Single or Fixed Timing

Single Range Timing Relay with Pin Style Terminations

700	–	HT	2	2	A	A2
a		b	c	d	e	f

Catalog Number Explanation - 700-HT Relays

a Bulletin Number	-	b Type of Relay	c Operating Mode	d Number of Poles	e Timing Range	f Coil Voltage
700		HT - Tube Base Adjustable Timing Relay	1–On-delay 2–Off-delay	2 - 2PDT	A– 0.1…10 s B– 1.0…100 s C– 0.1…10 min D– 1.0…100 min E – 0.1…10 hr	U12– 12V DC U24– 24V AC/DC, 50/60 Hz U120– 120V AC/DC, 50/60 Hz A2 – 240V AC, 50/60 Hz

	Operating Mode	Wiring Diagrams	
		U.S./Canada	International
	On-Delay		
	Socket	700-HN125 or 700-HN100	700-HN100
	Off-Delay		
700-HT DPDT 2-Pole — 2 Form C Contacts	Socket	700-HN126 or 700-HN101	700-HN101

Fixed Timing Relays

700-HTF Fixed Timing Relays feature a plug-in tube base. Construction is the same as the 700-HT relay except that the adjustment knob has been removed to help prevent unwanted tampering. The timing and output specifications are identical to those of the 700-HT relay. Setting time will be ±5% of the time ordered.

700	–	HTF	2	2	025	S	A2
a		b	c	d	e	f	g

Catalog Number Explanation - 700-HTF Relays

a Bulletin Number	-	b Type of Relay	c Operating Mode	d Number of Poles	e Timing Range	f Timing Units	g Coil Voltage
700		HTF- Tube Base Fixed Timing Relay	1–On-delay 2–Off-delay	2 - 2PDT	001…999 – The three digit code represents a numeric value with one decimal place. For example: code 001 is 0.1, code 025 is 2.5, and code 999 is 99.9 The acceptable range for each time unit is listed below: Seconds - 001…999 Minutes - 001…999 Hours - 001…100	S –Seconds M –Minutes H –Hours	U12– 12V DC U24– 24V AC/DC, 50/60 Hz U120– 120V AC/DC, 50/60 Hz A2 – 240V AC, 50/60 Hz

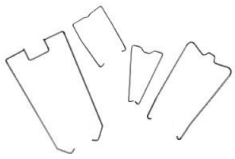
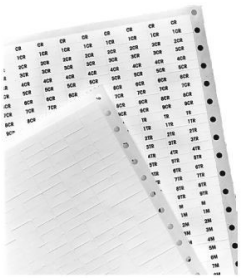
Socket and Retainer Clip Reference

Relay Type	Socket Cat. No.	Retainer Clip Cat. No.
700-HT12	700-HN100	700-HN110
	700-HN125	Not Required(1)
700-HT22	700-HN101	700-HN110
	700-HN126	Not Required(1)

(1) Design of these sockets holds the relays securely and does not require retainer clips.

Accessories - 700-HT Relays

	Description	Pkg. Qty.	Cat. No.
	**Screw Terminal Tube Base Socket — Panel or DIN Rail Mounting; Guarded Terminal Construction.** 8-Pin for use with DPDT 700-HA Relays, -HX Digital Timing Relays, -HT (On-Delay) and -HRM, -HRC and -HV (Repeat Cycle) Timing Relays. Order ten or multiples of ten	10	700-HN100
	**Screw Terminal Tube Base Socket — Panel or DIN Rail Mounting; Open Style Construction.** 8-Pin for use with DPDT 700-HA Relays, -HT (On-Delay) and -HRM, -HRC and -HV (Repeat Cycle) Timing Relays. Order must be for 10 sockets or multiples of 10. No retainer clip required.	10	700-HN125

	Description	Pkg. Qty.	Cat. No.
	**Screw Terminal Tube Base Sockets — Panel or DIN Rail Mounting; Guarded Terminal Construction.** 11-pin for use with 3PDT 700-HA relays.	10	700-HN101
	**Screw Terminal Tube Base Sockets — Panel or DIN Rail Mounting; Open Style Terminal Construction.** 11-pin for use with 3PDT 700-HA relays. No retainer clip required.	10	700-HN126
	**DIN (#3) symmetrical hat rail** 35 x 7.5 x 1 m	10	199-DR1
	**Retainer Clip for Cat. Nos. 700-HN100 and -HN101 Sockets with 700-HT Timing Relays**[1] Secures relay in socket. Order must be for 10 clips or multiples of 10.	10	700-HN110
	**Pre-Printed Identification Tags —** contains 10 sheets of pre-printed and blank tags. Each sheet contains 13 sets of the markings CR…9CR, TR…9TR, M…9M, F, R, 1S, and 117 blank tags. Tags are peel-off with sticky backing for easy placement on relays.	10	700-N40
	Blank Identification Tags — contains 10 sheets of blank identification tags for customer specialized printing. Each sheet contains 546 blank tags. Tags are peel-off with sticky backing for easy placement on relays.	10	700-N41

(1) Refer to 700-HT Timing Relay, Socket, and Retainer Clip Reference Chart.

Specifications - 700-HT

			Cat. No. 700-HT…			Cat. No. 700-HTF…		
Electrical Ratings								
Pilot Duty Rating [1]			NEMA B300					
Rated Thermal Current (I_{th})			10 A					
Rated Insulation Voltage (U_i)			250V IEC, 300V UL/CSA					
Contacts		Inductive	Make	Break	HP	Make	Break	HP
			►][◄	◄][►		►][◄	◄][►	
		120V AC	30 A	3 A	1/2 N.O. 1/3 N.C	30 A	3 A	1/3
		240V AC	15 A	1.5 A	1/2 N.O. 1/3 N.C	15 A	1.5 A	1/2
		Resistive 28V DC	10 A	10 A	—	10 A	10 A	—
Permissible Coil Voltage Variation			85…110% of Nominal Voltage at 50 Hz 85…110% of Nominal Voltage at 60 Hz 80…110% of Nominal Voltage at DC					
Power Consumption ±10%	AC	24V AC	2 VA					
		120V AC	4 VA					
		240V AC	4 VA					
	DC		1.3 W					
Design Specification/Test Requirements								
Dielectric Withstand Voltage		Pole-to-Pole, same circuit (VRMS)	1000V AC					
		Pole-to-Pole, different circuits (VRMS)	2000V AC					
		Contact-to-Coil (VRMS)	2000V AC					
Electrical Life Operations			100,000 minimum					
Switching Frequency Operations			1800/hr					
Coil Voltages			See product selection					
Mechanical								
Degree of Protection			Open Type (Guarded Terminal Sockets)					
Mechanical Life Operations			10×10^6					
Switching Frequency Operations			18,000/hr					
Timing	Duty Cycle		Continuous					
Repeat Accuracy (constant voltage and temperature)			±2% (Time Delay: 0.1…2 s) ±1% (Time Delay: >2 s)					
Repeat Accuracy (variable voltage and temperature)			±10%					
Fixed Time Setting Accuracy			—			±5% (Time Delay: 0.1…2 s) ±1% (Time Delay: >2 s)		
Scale Tolerance	High End of Range		+5%			—		
	Low End of Range		-50%			—		
Reset Time	ON Delay		100 ms					
	OFF Delay		40 ms					

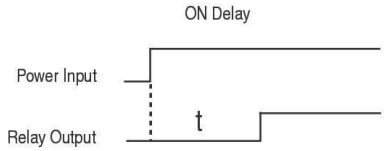
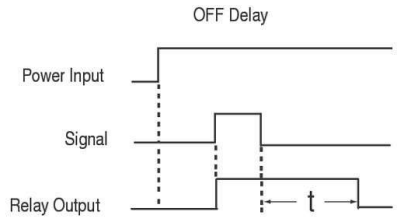
		Cat. No. 700-HT…	Cat. No. 700-HTF…
Environmental			
Temperature	Operating	–28…+65 °C (50 °C max., 240V AC coil) (–18…+149 °F) (122 °F max., 240V AC coil)	
	Storage	–55…+85 °C (–67…+185 °F)	
Altitude		2000 m (6560 ft)	
Construction			
Insulating Material		Molded High Dielectric Material	
Enclosure		Impact Resistant Dust Cover	
Contact Material		Silver Cadmium Oxide	
Terminal Markings on Socket		In accordance with EN50 005	
Sockets		8- or 11-Pin Socket (On = 8, Off = 11) 700-HN100, -HN125 700-HN101, -HN126	
Certifications		CSA Certified, File 223833, UL Recognized, File E3125 Guide NLDX 2,UL Listed,whe used with 700-HN100, 700-HN101, 700-HN125, and 700-HN126 Sockets, File No. E3125 Guide NLDX, CE Marked	
Standards		EN 61812-1, CSA 22.2 No. 14, UL 508	

(1) See NEMA Ratings and Test Values on page 5.

Trigger Signal Cat. Nos. 700-HT

Contact closure provides signal to timer. A low energy signal is generated by the 700-HT timing relay. For optimum reliability, use contacts designed for low energy switching (10V, 1 mA) (Bul. 800F-X__V, 800T-X__V). No external voltage should be connected to the contact signal.

Timing Diagrams - 700-HT Relays

		
ON Delay		OFF Delay