Product Details and Certifications

Cross Reference RA Part Number: 700-HR52TA17 C

Product: 700-HR52TA17

Description: 700-HR General Purpose Dial Timing Relay, Multi-Function, 2 Timed Contacts w/ No Voltage Inputs, Multi-Mode (6 Functions), 0.05 seconds to 300 hours, DPDT Timed, 100...240V AC 50/60Hz / 100...125V DC

Representative Photo Only (actual product may vary based on configuration sections)

CONTROL RELAY DATA

Bulletin Number	700-HR Multi-Function Timing Relay
Type of Timer	Multi-Function, 2 Timed Contacts w/ No Voltage Inputs
Timing Mode	Multi-Mode (6 Functions)
Contact Configuration	DPDT Timed Contact Arrangement
Timing Range	0.05 seconds to 300 hours
Coil Voltage	100...240V AC 50/60Hz / 100...125V DC

CERTIFICATIONS AND APPROVALS

UL
CSA
CE
EN
C-Tick
EN
For UL Certifications Directory: http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm

					
Bulletin No.	700-FE	700-FS	700-HR52, -HRP, -HRS, -HRT, -HRV	700-HRM/-HRC	700-HRF
Type	DIN Rail Timer	DIN Rail Timer	Multifunction Timer	On-Delay Timer	Twin Timer
Features	• Only 17.5 mm wide • 5 A contact rating • Multifunction or single function • No additional socket required	• Only 22.5 mm wide • 8 A contact rating • Multifunction or single function • No additional socket required • Optional: • Star-delta timing function • True off-delay timing function • Hazardous location certification	• Dial timing relays • 5 A contact rating • Multiple programmable timing ranges • Tube base pin style terminals • Multi-voltage inputs • Timed contacts and instantaneous contacts • Transistor outputs • Single function and multi-function • 7 different operating modes	• Dial timing relays • 5 A contact rating • Multiple programmable timing ranges • Tube base pin-style terminals • Multi-voltage inputs • Timed contacts and instantaneous contacts • Transistor outputs • Single function and multi-function	• Independent ON and OFF settings • 14 time ranges • 8-pin models available • Dial timing relays • UL508
Control Outputs: Time Limit Instantaneous	1 N.O. or SPDT timed	SPDT or DPDT or 2 N.O. + 1 common	DPDT Timed, Transistor SPDT Timed/Instantaneous	DPDT Timed, Transistor SPDT Timed/Instantaneous	DPDT Timed
Operation Modes:	On-delay Off-delay One shot Repeat cycle-pulse Fleeting off-delay Pulse converter	11 Different timing modes	On-Delay Off-Delay One Shot Repeat Cycle Off Start Repeat Cycle On Start Signal On/Off-Delay On-Delay One Shot	On-Delay	Repeat Cycle Off Start Repeat Cycle On Start
Time Range	0.05 s…10 hr	0.05 s…60 hr	0.05 s…300 h	0.05 s…300 h	0.05 s…300 h
Supply Voltage	24V AC/DC 110…240V AC 24…48V AC/DC 24…240V AC	12V DC 24V…48V DC 24V…240V AC	12…48V DC 24…48V AC 100…240V AC 100…125V DC	12…48V DC 24…48V AC 100…240V AC 100…125V DC	12V DC 24V AC/DC 48…125V DC 100…240V AC
Contact Rating at 120V AC	5 A	8 A	5 A	5 A	5 A
Certifications	CE, cULus	CE, cULus	cURus, CE, C-Tick	cURus, CE, C-Tick	cURus, CE, C-Tick
Socket Cat. No(s).	DIN Rail or panel mount	DIN Rail or panel mount	700-HN100 OR 700-HN101 700-HN125 OR 700-HN126	700-HN100 700-HN125	700-HN100 700-HN125
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Bulletin 700-HR — Dial Timing Relay

- Socket- or panel-mounted
- 5 A contact ratings or transistor outputs
- Single- or Multi-Function
- Timing range from 0.05 s…300 hr
- Multi-voltage inputs

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Standards Compliance and Certifications

See Specification table in this section, page 9-89

Product Selection

Bulletin 700 Multi-Function Timing Relays with Trigger and Reset Switch Options

- Socket or Panel Mounted
- Timing Range From 0.05 s…300 hr
- 11-pin base for socket cat. nos. 700-HN101, -HN126, -HN129
- Trigger: Power on or optional trigger signal
- Reset: Power off or optional reset signal

Timing Mode	Supply Voltage	Trigger Options	Reset Options	Outputs	Cat. No.
On-Delay (A) OFF-Delay (D) One Shot (E) Repeat cycle OFF-Start (B) Repeat Cycle ON-Start (B2) Signal ON/OFF-delay (C)	24…48V AC 12…48V DC	1. Power On 2. Start Signal - contact closure (zero volts) - NPN transistor 3. Gate Signal (pause)	1. Power Off 2. Reset Signal - contact closure (zero volts) - NPN transistor	DPDT	**700-HR52TU24**
				Transistor	* 700-HRT6TTU24
		1. Power On 2. Start Signal - contact closure (voltage) - NPN transistor - PNP transistor	Power Off	DPDT	**700-HRV52TU24**
	100…240V AC 100…125V DC	1. Power On 2. Start Signal - contact closure (zero volts) 3. Gate Signal (pause)	1. Power Off 2. Reset Signal - contact closure (zero volts)	DPDT	**700-HR52TA17**
		1. Power On 2. Start Signal - contact closure (voltage)	Power Off	DPDT	* **700-HRV52TA17**

Bulletin 700 Multi-Function Timing Relays with Power On Trigger

- Socket or Panel Mounted
- Timing Range From 0.05 s…300 hr
- 8-pin base for socket cat. nos. 700-HN100, -HN125, -HN108
- Trigger: Power on
- Reset: Power off

Timing Mode	Supply Voltage	Trigger Options	Reset Options	Outputs	Cat. No.
ON-Delay (A) One Shot (E) Repeat Cycle ON-Start (B2) Delayed One Shot (J)	24…48V AC 12…48V DC	Power On	Power Off	DPDT	**700-HRS42TU24**
				Transistor	* 700-HRT4TTU24
	24…48V AC/DC	Power On	Power Off	SPDT Timed + Instantaneous Contact	* **700-HRP42TU24**
	100…240V AC 100…125V DC	Power On	Power Off	SPDT Timed + Instantaneous Contact	**700-HRP42TA17**
				DPDT	**700-HRS42TA17**

* Voltage input connection to high signal instead of OV signal.

		700-HR, -HRS, -HRV	700-HRP	700-HRC	700-HRM	700-HRF	700-HRY	700-HRQ	700-HRT (Transistor Outputs)
Electrical Ratings									
Pilot Duty Rating		NEMA B300							—
Thermal Current (I_{th})		5 A							100 mA @ 30V DC max.
►][◄	120V AC	30 A							—
Make	240V AC	15 A							—
◄][►	120V AC	3 A							—
Break	240V AC	1.5 A							—
Hp at 120V		1/6 Hp (0.12 kW)	1/4 Hp (0.18 kW)		1/6 Hp (0.12 kW)		1/4 Hp (0.18 kW)	1/6 Hp (0.12 kW)	—
Hp at 240V		1/3 Hp (0.25 kW)							—
Resistive Load		5 A at 250V AC/30V DC							
Inductive Load		AC-15 @ 250V AC, 3 A/DC-13 @ 30V DC, 0.5 A							
Accuracy of Operating Time		±0.2 % FS max. (±0.2 % ±10 ms max. in a range of 1.2 s)							
Setting Error		±5 % FS ±50 ms (The value is ±5 % FS +100 ms to -0 ms max. when the C or D mode signal of the 700-HRVs are OFF.)							
Influence of Voltage		±0.2 % FS max. (±0.2 % ±10 ms max. in a range of 1.2 s)							
Influence of Temperature		±1 % FS max. (±1 % ±10 ms max. in a range of 1.2 s)							
Permissible Leakage Current									
Power Consumption		**-HR52, -HRS**	**-HRV**	**-HRP, -HRC**	**-HRM**	**-HRF**	**-HRY**	**-HRQ**	**-HRT**
240V AC, Output ON		2.1 VA	2.5 VA	2.0 VA	2.1 VA	10 VA	12 VA	0.4 VA	—
240V AC, Output OFF		1.3 VA	1.8 VA	2.0 VA	1.3 VA	10 VA	12 VA	0.4 VA	—
24V DC, Output ON		0.8 W	0.9 W	0.9 W	0.8 W	1.0 W	—	0.2 W	0.3 W
24V DC, Output OFF		0.2 W	0.3 W	0.9 W	0.2 W	1.0 W	—	0.2 W	0.2 W
Design Specifications									
Dielectric Strength		2000V AC (1000V AC for 700-HRT), 50/60 Hz for 1 min (contact to frame) 2000V AC (1000V AC for 700-HRT), 50/60 Hz for 1 min (between control output terminals and operating circuit) 2000V AC, 50/60 Hz for 1 min (pole-to-pole) 1000V AC, 50/60 Hz for 1 min (between contacts not located next to each other) 2000V AC, 50/60 Hz for 1 min (contact to coil)							
Mechanical									
Vibration Resistance		Malfunction: 10…55 Hz with 0.5 mm double amplitude each in three directions for ten minutes each							
Shock Resistance		Malfunction: 100 m/s² (10 G)				98 m/s² (10 G)	294 m/s² (10 G)	98 m/s² (10 G)	100 m/s² (10 G)
Environmental									
Noise Immunity		±1.5 kV for ±600V DC				±400V for 12V DC		±1kV for 48V DC	±1.5 kV for ±600V DC
Static Immunity		Malfunction: 8 kV							
Ambient Temperature		Operating: -10…55 °C (with no icing) Storage: -25…65 °C (with no icing)							
Ambient Humidity		Operating: 35…85 %							
Construction									
Life Rxpectancy (Min. Operations)		Mechanical:20 000 000. (under no load at 1800 operations/h) Electrical: 100 000 (5 A at 250V AC, resistive load at 1800 operations/h)						Mech: 10^7 Electrical: 10^4	
EMC		(EMI) EN50081-2 Emission Enclosure:EN55011 Group 1 class A Emission AC Mains: EN55011 Group 1 class A (EMS) EN50082-2 Immunity ESD:EN61000-4-2:4 kV contact discharge (level 2) 8 kV air discharge (level 3) Immunity RF-interference from AM Radio Waves: ENV50140:10 V/m (80 MHz…1 GHz) (level 3) Immunity RF-interference from Pulse-modulated Radio Waves:ENV50204:10 V/m (900 ±5 MHz) (level 3) Immunity Conducted Disturbance:ENV50141:10 V (0.15…80 MHz) (level 3) Immunity Burst:EN61000-4-4:2 kV power-line (level 3) Immunity Surge:EN61000-4-52 kV I/O signal-line (level 4) 1 kV line to line 2 kV line to ground (level 3)							
Degree of Protection		IP40 (panel surface)							
Weight		Approx. 90 g							
Certifications		CSA Certified (File No. 70751), UL Recognized (File No. E14843 Guide No. NRNT2), CE Marked, C-Tick Marked							
Standards		UL 508, CSA C22.2 No. 14, EN 61812-1, EN 61000-6-2, -6-4							

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