

Product Details and Certifications

Cross Reference RA Part Number: 700-FEM3TU23 B



Product: 700-FEM3TU23

Description: 700-FE General Purpose Economy Timing Relay, Multi-Function Multi-Range, 0.05 s to 10 hr (6 setting), 1 N.O. (Changeover - SPDT), 24-48V DC / 24-240V 50/60Hz



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

CONTROL RELAY DATA

Bulletin Number	700-FE Timing Relay
Timing Function	Multi-Function Multi-Range
Contact Configuration	1 C/O (Changeover - SPDT)
Timing Range	0.05 Seconds to 10 hour (6 settings)
Control Voltage	24-48V DC / 24-240V 50/60 Hz

CERTIFICATIONS AND APPROVALS

cULus

UL

CSA

CE

EN

IEC

For UL Certifications Directory:

<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

Relays, Timers, & Temperature Controllers

Product Overview




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	<ul style="list-style-type: none"> Only 17.5 mm wide 5 A contact rating Multifunction or single function No additional socket required 	<ul style="list-style-type: none"> Only 22.5 mm wide 8 A contact rating Multifunction or single function No additional socket required Optional: <ul style="list-style-type: none"> Star-delta timing function True off-delay timing function Hazardous location certification 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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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DIN Rail Mounted Timing Relays

Overview/Product Selection

	Bulletin 700-FE — Economy Timing Relay	Table of Contents
	<ul style="list-style-type: none"> Adjustable function and timing range timing relays DIN Rail mounted without cost of socket 17.5 mm wide, multi-function or single function Available as 1 N.O. or SPDT contact output, 5 A Timing ranges from 0.05 s...10.0 hr Coil surge protection 	<p>Product Selection this page Accessories..... this page Specifications..... 9-64 Approximate Dimensions..... 9-65</p> <p>Standards Compliance and Certifications</p> <p>See Specification table in this section, page 9-64.</p>

Product Selection

Multi-Function

This device offers you the flexibility of selecting one of 4 single timing functions.

Operating Mode	Contact Output	Timing Range	Input Voltage	Cat. No.
ON-delay, OFF-delay, One Shot, Flasher (repeat cycle starting with pulse)	1 N.O.	0.05 s...10 hr (6 settings)‡	24V AC/DC * 110...240V AC 50/60 Hz	700-FEM1TU22
ON-delay, OFF-delay, One Shot, Flasher (repeat cycle starting with pulse)	SPDT (1 C/O)	0.05 s...10 hr (6 settings)‡	24V...48V AC/DC 24...240V AC 50/60 Hz	700-FEM3TU23



Single-Function

This device offers you one specific timing function.

Operating Mode	Contact Output	Timing Range‡	Input Voltage	Cat. No.
ON-delay	1 N.O.	0.05 s...10 hr (6 settings)	24V AC/DC * 110...240V AC 50/60 Hz	700-FEA1TU22
	SPDT (1 C/O)	0.05 s...10 hr (6 settings)	24V...48V AC/DC 24...240V AC 50/60 Hz	700-FEA3TU23
OFF-delay	1 N.O.	0.05 s...10 hr (6 settings)	24V AC/DC * 110...240V AC 50/60 Hz	700-FEB1TU22
	SPDT (1 C/O)	0.05 s...10 hr (6 settings)	24V...48V AC/DC 24...240V AC 50/60 Hz	700-FEB3TU23
One Shot	1 N.O.	0.05 s...10 hr (6 settings)	24V AC/DC * 110...240V AC 50/60 Hz	700-FED1TU22
	SPDT (1 C/O)	0.05 s...10 hr (6 settings)	24V...48V AC/DC 24...240V AC 50/60 Hz	700-FED3TU23
Fleeting OFF-delay	SPDT (1 C/O)	0.05 s...10 hr (6 settings)	24V...48V AC/DC 24...240V AC 50/60 Hz	700-FEE3TU23
Flasher (repeat cycle starting with pulse)	1 N.O.	0.05 s...10 hr (6 settings)	24V AC/DC * 110...240V AC 50/60 Hz	700-FEF1TU22
	SPDT (1 C/O)	0.05 s...10 hr (6 settings)	24V...48V AC/DC 24...240V AC 50/60 Hz	700-FEF3TU23
Pulse Converter	SPDT (1 C/O)	0.05 s...10 hr (6 settings)	24V...48V AC/DC 24...240V AC 50/60 Hz	700-FEL3TU23

* Voltage is either 24V AC 50/60 Hz or 24V DC.


‡ Time ranges: 0.05 s...1 s, 0.5...10 s, 0.05...1 min, 0.5...10 min, 0.05...1 hr, 0.5...10 hr.

Special Functions

Operating Mode	Contact Output	Timing Range*	Input Voltage	Cat. No.
Star-Delta	2 N.O. with 1 Common	0.15 s...10 min (4 settings)	24V...48V AC/DC 24...240V AC 50/60 Hz	700-FEY2QU23

* Time ranges: 0.15...3 s, 0.5...10 s, 3 s...1 min, 30 s...10 min.



Accessories

	Description	Pkg. Quantity	Cat. No.
	Panel Mounting Adapter For surface mounting according to drilling plan EN 50 002	5	199-FSA
	Label Sheet 105 self-adhesive paper labels each, 6 x 17 mm	10	100-FMS

Bulletin 700-FE
DIN Rail Mounted Timing Relays
 Specifications

 **Specifications***

Time Characteristics (according to VDE 0435, part 2021)

		 1 N.O.	 SPDT
Setting Accuracy		±5% of full scale	
Repeatability		±1% of setting (typical)	
Tolerance		By voltage: ±0.01%/ΔU By temperature: ±0.25%/°C	By voltage: ±0.001%/ΔU By temperature: ±0.025%/°C
Supply			
Supply Voltage		24V AC/DC* and 110...240V AC, 50/60 Hz	24...48V DC and 24...240V AC, 50/60 Hz
Voltage Tolerance	AC	-15%/+10%	
	DC	-15%/+20%	
Power Consumption		0.5 W at 24V DC, 5 VA at 240V AC	
Time Energized		100%	
Reset Time		100 ms	
Cable Length (Supply Voltage Control)		Max. 250 m (750 feet)	
Pulse Control (B1)			
Impulse Duration		≥ 250 ms	≥ 50 ms (AC), ≥ 30 ms (DC)
Input Voltage		supply voltage range	
Input Current		1 mA	
Cable Length		Max. 250 m without parallel load between B1 and A2 Max. 50 m with load (< 3 kΩ) between B1 and A2	
Outputs			
Contact Type		1 N.O. contact	1 Form C – SPDT contact
Dielectric Withstand Voltage	Contact-to-coil	4000 V	
	Power	1250 VA	
Switching Capacity	According to IEC 947-5-1	AC-1	5 A /250V AC (resistive load)
		AC-14	1 A/250V AC (inductive load)
		DC-13	1 A/24V DC (inductive load)
	According to UL 508	NEMA D300 - 1 A/300V AC	
Short-Circuit Resistance		6 A gL (Fast Blow Fuse)	
Life	Mechanical	20 million operations	
	Electrical	0.4 million at 1 A/250V AC, resistive 0.4 million at 0.5 A/250V AC, cos φ = 0.4 0.4 million at 1 A/24V DC, resistive	
State Indicator		1 Bi-Color LED (Supply; Relay)	
Certifications		cULus Listed (File No. E14840, Guide NKCR/NKCR7), CE Marked	
Standards		EN/IEC 60947-1, EN/IEC 60947-5-1, UL 508, CSA 22.2 No. 14	

* Performance Data - See this catalog, Important- 3

* Voltage is either 24V DC or AC 50/60 Hz.



DIN Rail Mounted Timing Relays

Specifications/ Approximate Dimensions



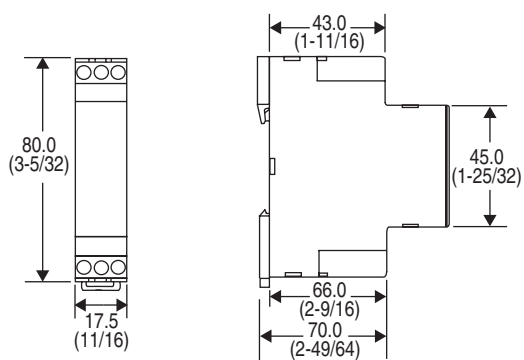
General Specifications

	1 N.O.	SPDT
Insulation Characteristics	2 kV AC/50 Hz test voltage according to VDE 0435 and 4 kV 1.2/50 μs surge voltage according to IEC 60947-1 between all inputs and outputs	
EMC/Interference Immunity	The following requirements are fulfilled: Surge capacity of the supply voltage according to IEC 61000-4-5: Level 3 Burst according to IEC 61000-4-4: Level 3 ESD discharge according to IEC 61000-4-2: Level 3	
EMC/Emission	electromagnetic fields according to EN 55 022: Class B	
Safe Isolation	according to VDE 0106 T 101	
Climatic Withstand	56 cycles (24 hr) at 25...40 °C and 95% relative humidity according to IEC 60068-2-30	
Vibration Resistance	4 g in three axes at 10...500 Hz, test FC according to IEC 60068-2-6	
Shock Resistance	50 g according to IEC 68-2-27	
Protection Class IEC 60947-1	Enclosure: IP 40 Terminal: IP 20	
Weight	60 g	60 g
Certifications	cULus, CE Certified	cULus, Germanischer Lloyd, CE Certified
Ambient Temperature	Open: -25...+60 °C Enclosed: -25...+45 °C Storage: -40...+85 °C	
Connections	Screw terminal M3 for Pozidriv No.1, Phillips and slotted screws No.2. suitable for power screw-driver. Rated tightening torque 8.8 lb.-in. (max. 1.0 Nm) For terminal cross-sections of 1 x 0.5 mm ² ...2 x 1.5 mm ² (solid) or 2 x 1.5 mm ² (stranded with sleeve), #20...14 AWG. Finger protection according to EN 50274	
Mounting	For surface mounting in any position; snap-on mounting on 35 mm DIN Rail or by adapter and two screws (M4 type)	
Disposal	Synthetic materials without dioxin according to EC/EFTA-Notification No. 93/0141/D electrical contacts are AgCdO	

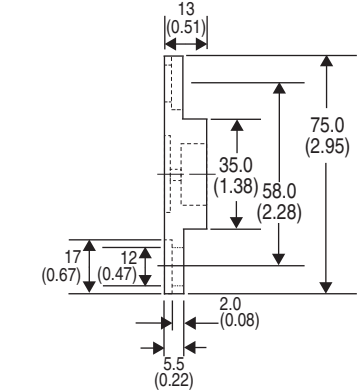
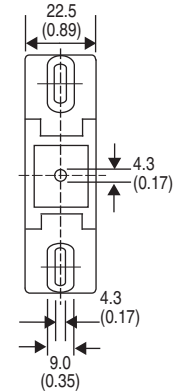
* Voltage is either 24V DC or AC 50/60 Hz.

Approximate Dimensions

Approximate dimensions are shown in millimeters (inches). Dimensions are not intended to be used for manufacturing purposes.



Cat. No. 700-FE...



Cat. No. 199-FSA...