

## 700-FE Economy Timing Relay

- Adjustable function and timing range timing relays
- DIN Rail mounted without cost of socket
- 17.5 mm wide, multi-function or single function
- SPDT contact output, 5 A
- Timing ranges from 0.05 s...100 hr
- Coil surge protection



### Multi-Function

This device offers you the flexibility of selecting one of 7 single timing functions.

Operating Mode	Contact Output	Timing Range <sup>(1)</sup>	Input Voltage	Cat. No.
ON-delay, OFF-delay, One Shot, Flasher (repeat cycle starting with pulse), Fleeting OFF-Delay, Pulse Former, Flasher (Repeat Cycle starting with pause).	SPDT (1 C/O)	0.05 s...100 hr (7 settings)	24...48V DC 24...240V AC 50/60 Hz	700-FEM6TU23
	DPDT (2 C/O)		12...240V AC/DC	700-FEM6TZ12

(1) Time ranges: 0.05...1 s, 0.5...10 s, 5...100 s, 0.5...10 min, 5...100 min, 0.5...10 h, 5...100 h

### Single-Function

This device offers you one specific timing function.

Operating Mode	Contact Output	Timing Range <sup>(1)</sup>	Input Voltage	Cat. No.
ON-delay	SPDT (1 C/O)	0.05 s...100 hr (7 settings)	24V...48V DC 24...240V AC 50/60 Hz	700-FEA6TU23
OFF-delay	SPDT (1 C/O)	0.05 s...100 hr (7 settings)	24V...48V DC 24...240V AC 50/60 Hz	700-FEB6TU23
One Shot	SPDT (1 C/O)	0.05 s...100 hr (7 settings)	24V...48V DC 24...240V AC 50/60 Hz	700-FED6TU23
Flasher (repeat cycle starting with pulse)	SPDT (1 C/O)	0.05 s...100 hr (7 settings)	24V...48V DC 24...240V AC 50/60 Hz	700-FEF6TU23

(1) Time ranges: 0.05...1 s, 0.5...10 s, 5...100 s, 0.5...10 min, 5...100 min, 0.5...10 h, 5...100 h

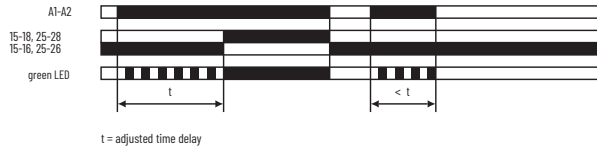
### Special Functions

Operating Mode	Contact Output	Timing Range <sup>(1)</sup>	Input Voltage	Cat. No.
Star-Delta	2 N.O. with 1 Common	0.15 s...10 min (4 settings)	24V...48V DC 24...240V AC 50/60 Hz	700-FEY6QU23

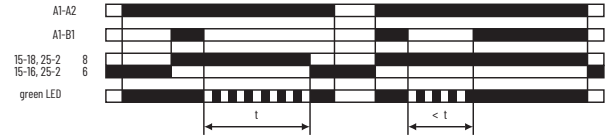
(1) Time ranges: 0.05...1 s, 0.5...10 s, 5...100 s, 0.5...10 min

## Function Diagrams - 700-FE Relays

### (A) On-Delay



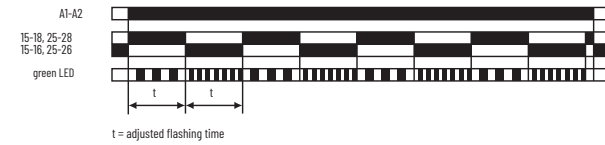
### (B) Off-Delay



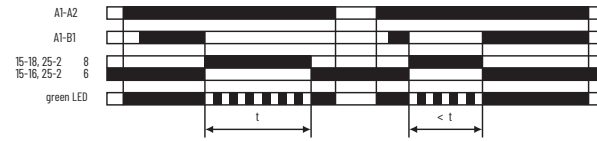
### (D) One Shot [Impulse On]



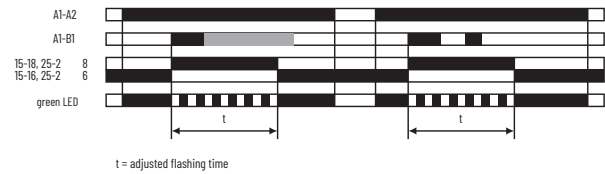
### (F) Flasher [Repeat Cycle Starting with Pulse]



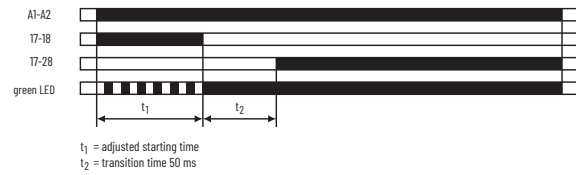
### (E) Fleeting Off-Delay [Impulse Off]



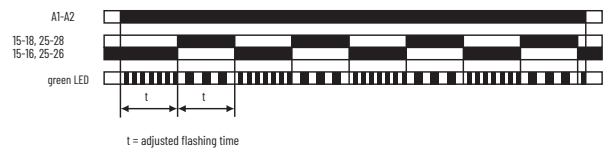
### (L) Pulse Converter [Pulse Former]




### (Y) Star-Delta Timing Relay



### (G) Flasher [Repeat Cycle Starting with Pause]



## Specifications - 700-FE Relays<sup>(1)</sup>

Attribute		700-FE	
			SPDT
Setting Accuracy		±10% of full scale	
Repeatability		±0.5% of setting (typical)	
Tolerance		By voltage: ±0.001%/°ΔU By temperature: ±0.025%/°C	
Supply			
Supply Voltage		24...48V DC and 24...240V AC, 50/60 Hz	
Voltage Tolerance	AC	−15%/+10%	
	DC	−15%/+10%	
Power Consumption		max 3.5 VA	
Time Energized		100%	
Reset Time		50 ms	
Cable Length (Supply Voltage Control)		Max. 50 m	
PulseControl(B1)			
Impulse Duration		20 ms	
Input Voltage		supply voltage range	
Input Current		1 mA	
Outputs			
Contact Type		1 Form C – SPDT contact	
Dielectric Withstand Voltage	Contact-to-coil	4000V	
Switching Capacity	Power	3600 VA (Make) 360VA (Break)	
	According to IEC 947-5-1	AC-12	4 A /230V AC (resistive load)
		AC-15	0.2 A/230V AC (inductive load)
		DC-13	1 A/24V DC (inductive load)
	According to UL 508	NEMA B300 - 5 A/300V AC	
Short circuit Resistance		N/C 6 A, N/O 10 A (Fast Blow Fuse)	
Life	Mechanical	30 million operations	
	Electrical	min 100,000 operations	
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	
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 4 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	
Climatic Class		3K3 according to IEC 60068-2-30	
Vibration Resistance, operating		1 G	
Vibration Resistance, non-operating		4 G	

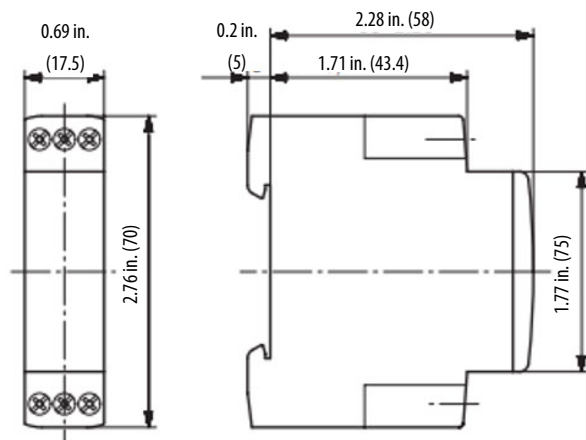
(1) Time Characteristics (according to VDE 0435, part 2021)

Attribute	700-FE
Shock Resistance, operating	7 G
Shock Resistance, non-operating	50G
Protection Class IEC 60947-1	Terminal: IP 20
Relative Humidity	25...85%
Certifications	cULus, Germanischer Lloyd, CE Certified
Ambient Temperature	Operation -20...+60 °C Storage: -40...+85 °C
Connections	Screw terminal M3 for Pozidriv No.1, Philips, and slotted screws No.2. suitable for power screwdriver. Rated tightening torque 8.8 lb.-in. (max 1.0 Nm) For terminal cross-sections of 1 x 0.5 mm <sup>2</sup> ...2 x 1.5 mm <sup>2</sup> (solid) or 2 x 1.5 mm <sup>2</sup> (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
Disposal	Synthetic materials without dioxin according to EC/EFTA-Notification No. 93/0141/D

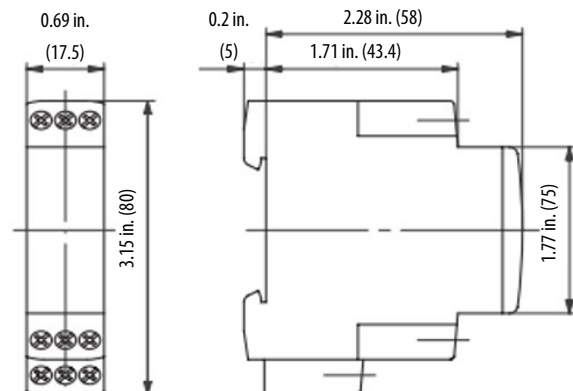
**IMPORTANT** For best long-term performance, allow at least 10 mm (.04 in.) of space on each side of the relay for proper ventilation when operating in temperatures above 40 °C (104 °F).

### Dimensions - 700-FE Relays

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



Cat. No. 700-FE with 1 c/o Contact or 2 n/o Contacts



Cat. No. 700-FE with 2 c/o Contacts