DIN Rail Mounted Timing Relays
Overview/Product Selection

Bulletin 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
- Available as 1 N.O. or SPDT contact output, 5 A
- Timing ranges from 0.05 s…10.0 hr
- Coil surge protection

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Standards Compliance and Certifications

See Specification table in this section, page 9-64.

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**

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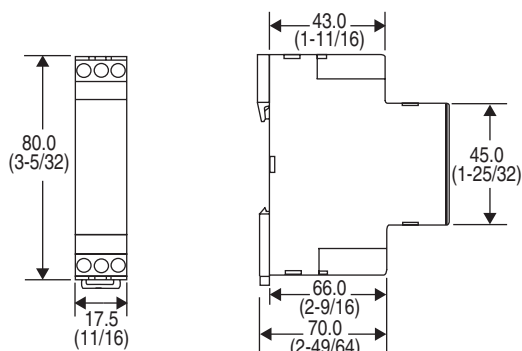
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General Specifications

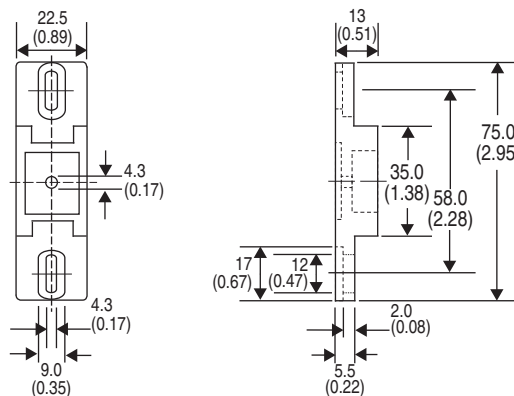|	1 N.O.		SPDT
Insulation Characteristics	2 kV AC/50 Hz test voltage according to VDE 0435 and 4 kV 1.2/50 µs surge voltage according to IEC 60947-1 between all inputs and outputs		
EMC/Interference Immunity	The following requirements are fulfilled: Surge capacity of the supply voltage according to IEC 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/Emmission	electromagnetical 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, Philips 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 mm²…2 x 1.5 mm² (solid) or 2 x 1.5 mm² (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…*

DIN Rail Mounted Timing Relays
Product Selection/Accessories

Special Function

Operating Mode	Contact Output	Timing Range	Input Voltage	Cat. No.
Flasher (repeat cycle starting with pulse or pause)	(SPDT) 1 C/O	0.05 s…60 hr∗	12V DC	700-FSH3UZ12
			24…48V DC 24…240V AC 50/60 Hz	**700-FSH3UU23**
		2 x 0.05 s…60 hr (2 ranges)	12V DC	700-FSH3VZ12
			24…48V DC 24…240V AC, 50/60 Hz	**700-FSH3VU23**
OFF-delay without supply voltages (True OFF-delay)‡	(SPDT) 1 C/O	0.15 s…10 min❋	24…240V DC 24…240V AC 50/60 Hz	**700-FSQ3QU18**
	(DPDT) 2 C/O			**700-FSQ4QU18**
Star-Delta	2 N.O. + 1 Common	0.5 s…10 s	24…48V DC	700-FSY2CU23
		1.5…30 s	24…240V AC 50/60 Hz	**700-FSY2DU23**
		0.05 s…1 min		700-FSY2EU23
		0.15…3 min		700-FSY2FU23
		0.5…10 min		700-FSY2GU23

∗ The time range of "0.05 s…60 hr" is selectable in 12 smaller ranges plus an ON and OFF function for maintenance needs.

❋ This time range is selectable in four smaller ranges: 0.15 s…2.5 s, 0.5 s…10 s, 4 s…80 s, 30 s…10 min.

‡ Due to shock during shipment, the state of the contacts should be verified before initial use. Minimum power on time is 800 msec

Multi-Function Timing Relay Function and Time Range Settings

Description		SPDT			DPDT
Multi-function timing relays 700-FSM3U includes 10 setting functions:		Multi-Time Setting Range 0.05 s…60 h			
(A)On-Delay (B)Off-Delay (C)On- and Off-Delay (D)One shot (E)Fleeting Off-Delay (F)Flasher (repeat cycle starts with pulse) (I)On-Delay pulse generator (L)Pulse converter (On)ON-Function§ (Off)OFF-Function§ **Note**: Switch ⊗ is on DPDT relays only. When switch is down, one contact is instantaneous and one is timed. When switch is up, both contacts are timed.		(1 s) 0.05…1 s (3 s) 0.15…3 s (10 s) 0.5…10 s (1 min) 0.05…1 min (3 min) 0.15…3 min (10 min) 0.5…10 min (1 hr) 0.05…1 hr (3 hr) 0.15…3 hr (10 hr) 0.5…10 hr (60 hr) 3….60 hr		

§ For installation and maintenance.

Accessories

Description	Pkg. Quantity	Cat. No.
Setting Knob with Scale (for time setting without tools)	10	700-FSK
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**
Marking Tag Sheet 160 perforated paper labels each, 6 x 17 mm, to be used with a transparent cover	10	**100-FMP**
Transparent Cover To be used with marking tag sheets	100	**100-FMC**
Marking Tag Adapters To be used with marking tag: System 1492 W	100	∗ 100-FMA2

∗ Cat. No. 100-FMA2 is only a marking tag carrier. Please refer to the Terminal Block Accessories section, page 12-90 of this publication for appropriate marker cards to be used with this carrier.

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