

DIN Rail Mounted Timing Relays

Product Overview/Product Selection



Bulletin 700-FS — High Performance Timing Relay

- Adjustable function and timing range timing relays
- DIN Rail mounted without cost of socket
- 22.5 mm wide multi-function or single functions
- Available as SPDT or DPDT contact output, 8 A
- Timing Ranges From 0.05 s...60 hr
- Coil surge protection
- Hazardous location version available

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Standards Compliance and Certifications

See Specification table in this section, 9-72.

Catalog Number Explanation

700	- FS	H	3	U	U23
Bulletin Number	Type of Relay	Operating Mode	Contact Output	Timing Range	Input Voltage

Single-Function (With SPDT 1 C/O contacts)

700-FS	A	3	A	U23
	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>

a

Operating Mode	
Code	Description
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)*
G	Flasher (repeat cycle starts with pause)*
I	On-delay pulse generator*
J	On-delay (pulse controlled)*
K	One shot/watch dog (pulse controlled)*
L	Pulse converter*

b

Contact Output	
All functions:	
3 One changeover contact (SPDT)	1 C/O

c

Timing Range	
Code	Description
A	0.05...1 s
B	0.15...3 s
C	0.5...10 s
D	1.5...30 s
E	0.05...1 min
F	0.15...3 min
G	0.5...10 min
H	1.5...30 min
I	0.05...1 hr
J	0.15...3 hr
K	0.5...10 hr
L	3.0...60 hr
U	0.05 s...60 hr*

d

Input Voltage	
Code	Description
Z12	12V DC
U23	24...48V DC 24...240V AC 50/60 Hz

* Preferred availability item.
 * Valid for functions "A" and "B" only.

Single Function (With 2PDT 2 C/O contacts)

Operating Mode	Contact Output	Timing Range	Input Voltage	Cat. No.
On-delay	(DPDT) 2 C/O	0.05 s...60 hr‡	12V DC	700-FSA4UZ12
On-delay	(DPDT) 2 C/O		24...48V DC 24...240V AC, 50/60 Hz	700-FSA4UU23
Off-delay	(DPDT) 2 C/O		12V DC	700-FSB4UZ12
Off-delay	(DPDT) 2 C/O		24...48V DC 24...240V AC, 50/60 Hz	700-FSB4UU23

‡ The time range of "0.05 s...60 hr" is selectable in 12 smaller ranges plus an ON and OFF function for maintenance needs.
 Note: Information for hazardous location versions of this product (-EX) is available on the Industrial Controls Catalog website: www.ab.com/catalogs.

Single Function With Hazardous Location Certification ⚡ (With SPDT 1 C/O contacts)

Operating Mode	Contact Output	Timing Range	Input Voltage	Cat. No.
One Shot / Watch Dog (Pulse Controlled)	(SPDT) 1 C/O	0.05 s...1 s	24...48V DC	700-FSK3AU23-EX
		0.5 s...10 s	24...240V AC 50/60 Hz	700-FSK3CU23-EX

Multi-Function

(This device allows the flexibility of selecting one of 8 single timing functions.)



Operating Mode	Contact Output	Timing Range	Input Voltage	Cat. No.
Multi-function timing relays 8 Single-functions: A, B, C, D, E, F, I, and L ON and OFF function additional (for installation and maintenance) note: See connection diagrams for further description.	(SPDT) 1 C/O	0.05 s...60 hr	12V DC	700-FSM3UZ12
	(SPDT) 1 C/O		24...48V DC 24...240V AC 50/60 Hz	700-FSM3UU23
	(DPDT) 2 C/O		12V DC	700-FSM4UZ12
	(DPDT) 2 C/O		24...48V DC 24...240V AC 50/60 Hz	700-FSM4UU23

Note: Information for hazardous location versions of this product (-EX) is available on the Industrial Controls Catalog website: www.ab.com/catalogs.

Multi-Function With Hazardous Location Certification ⚡

(This device allows the flexibility of selecting one of 8 single timing functions.)

Operating Mode	Contact Output	Timing Range	Input Voltage	Cat. No.
M Multi-function timing relays 8 Single-functions: A, B, C, D, E, F, I, and L ON and OFF function additional (for installation and maintenance) Note: See connection diagrams for further description.	(SPDT) 1 C/O	0.05 s...60 h*	24...48V DC 24...240V AC 50/60 Hz	700-FSM3UU23-EX
	(DPDT) 2 C/O			700-FSM4UU23-EX

Temp. Code T4A 2A 32VDC MAX.		
	II 3 G, EEx nL IIC T4 DEMKO 04 ATEX 0404974X 2A 32VDC MAX. Ta ≤ 70 °C	Ind. Cont. Eq. for Hazardous Location Listed 87SL Class 1, Div. 2, Groups A,B,C,D Class 1, Zn 2, Group IIC

Mounting: Product shall be installed in an enclosure constructed in accordance with the requirements of EN50021.

DIN Rail Mounted Timing Relays

Product Selection/Accessories

Special Function

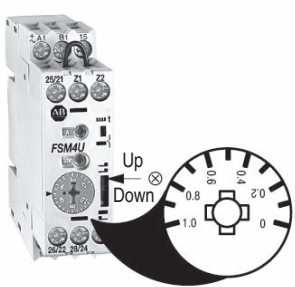

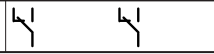

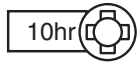
Operating Mode	Contact Output	Timing Range	Input Voltage	Cat. No.
Flasher (repeat cycle starting with pulse or pause)	(SPDT) 1 C/O	0.05 s...60 hr*	12V DC	700-FSH3UZ12
			24...48V DC 24...240V AC 50/60 Hz	700-FSH3UU23
		2 x 0.05 s...60 hr (2 ranges)	12V DC	700-FSH3VZ12
			24...48V DC 24...240V AC, 50/60 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.





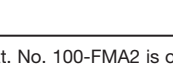
† Due to shock during shipment, the state of the contacts should be verified before initial use. Minimum power on time is 800 msec

Multi-Function Timing Relay Function and Time Range Settings

Description	SPDT	DPDT
 <p>Multi-function timing relays 700-FSM3U includes 10 setting functions:</p> <ul style="list-style-type: none"> (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§ <p>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.</p>		
	Multi-Time Setting Range 0.05 s...60 h	
		

§ For installation and maintenance.

Accessories

Description	Pkg. Quantity	Cat. No.
 <p>Setting Knob with Scale (for time setting without tools)</p>	10	700-FSK
 <p>Panel Mounting Adapter For surface mounting according to drilling plan EN 50 002</p>	5	199-FSA
 <p>Label Sheet 105 self-adhesive paper labels each, 6 x 17 mm</p>	10	100-FMS
 <p>Marking Tag Sheet 160 perforated paper labels each, 6 x 17 mm, to be used with a transparent cover</p>	10	100-FMP
 <p>Transparent Cover To be used with marking tag sheets</p>	100	100-FMC
<p>Marking Tag Adapters To be used with marking tag: System 1492 W</p>	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.