

Contents

Plug-in Relays

3TX71 Plug-in Relays	18-2
Multifunction Timer Modes	18-7
Socket Accessories	18-7

Plug-In Relays

3TX71 Plug-in Relays


Selection

Siemens offers a wide range of plug-in relays to meet your industrial needs. Basic style relays are the most economical and are equipped with a mechanical flag indicator only. Premium style relays are full featured with LED and mechanical flag indication, push to test button and typically a latching hold down door which provides a method of activating the contacts without applying power to the coil. This feature is very handy during commissioning and troubleshooting. Premium Bifurcated style relays are ideal for low minimum holding current requirements on the contacts. Typical minimum holding current for bifurcated contacts is 3mA instead of 100mA.

Relays are divided up by the following functions for selection:

- Base style
- Contact Arrangement
- Contact Rating
- Coil Voltage
- Optional Features (Basic, Premium and Premium Bifurcated)

Square Base (Narrow)



Contacts	Contact Rating (A)	Coil Voltage	Basic Relay	Premium Relay	Premium Bifurcated	Uses Socket 3TX7144-	Uses Clip 3TX7144-	Socket Access Set	Panel Mount Adaptor 3TX7144-	DIN Rail Mount Adaptor 3TX7144-
SPDT	20	12 VDC	3TX7109-5BB03C	3TX7109-5JB03	—	3TX7144-4E6	1L6	B	3L7	3L6
		24 VDC	3TX7109-5BC03C	3TX7109-5JC03	—	3TX7144-4E6	1L6	B	3L7	3L6
		24 VAC	3TX7109-5BC13C	3TX7109-5JC13	—	3TX7144-4E6	1L6	B	3L7	3L6
		120 VAC	3TX7109-5BF13C	3TX7109-5JF13	—	3TX7144-4E6	1L6	B	3L7	3L6
SPDT	20A for Basic and Premium and 3A for Bifurcated	24 VDC	3TX7110-5BC03C	3TX7110-5JC03	3TX7110-5JC03B	3TX7144-4E7	1L7	B	3L5	3L4
		24 VAC	3TX7110-5BC13C	3TX7110-5JC13	3TX7110-5JC13B	3TX7144-4E7	1L7	B	3L5	3L4
		120 VAC	3TX7110-5BF13C	3TX7110-5JF13	3TX7110-5JF13B	3TX7144-4E7	1L7	B	3L5	3L4
DPDT	10A for Basic and Premium and 3A for Bifurcated	24 VDC	3TX7111-3DC03C	3TX7111-3LC03	—	3TX7144-4E5	1L6	B	3L7	3L6
		24 VAC	3TX7111-3DC13C	3TX7111-3LC13	—	3TX7144-4E5	1L6	B	3L7	3L6
		120 VAC	3TX7111-3DF13C	3TX7111-3LF13	—	3TX7144-4E5	1L6	B	3L7	3L6
DPDT	20	12 VDC	3TX7114-5DB03C	3TX7114-5LB03	—	3TX7144-4E6	1L6	B	3L7	3L6
		24 VDC	3TX7114-5DC03C	3TX7114-5LC03	—	3TX7144-4E6	1L6	B	3L7	3L6
		24 VAC	3TX7114-5DC13C	3TX7114-5LC13	—	3TX7144-4E6	1L6	B	3L7	3L6
		110 VDC	—	3TX7114-5LF03	—	3TX7144-4E6	1L6	B	3L7	3L6
		120 VAC	3TX7114-5DF13C	3TX7114-5LF13	—	3TX7144-4E6	1L6	B	3L7	3L6
240 VAC	3TX7114-5DH13C	3TX7114-5LH13	—	3TX7144-4E6	1L6	B	3L7	3L6		
3PDT	15	24 VDC	3TX7116-5FC03C	3TX7116-5NC03	—	3TX7144-4E8	1L9	A	1M3	1M4
		120 VAC	3TX7116-5FF13C	3TX7116-5NF13	—	3TX7144-4E8	1L9	A	1M3	1M4
4PDT	10A for Basic and Premium and 3A for Bifurcated	24 VDC	3TX7111-3HC03C	3TX7111-3PC03	3TX7111-5PC03B	3TX7144-4E5	1L6	B	3L7	3L6
		24 VAC	3TX7111-3HC13C	3TX7111-3PC13	3TX7111-5PC13B	3TX7144-4E5	1L6	B	3L7	3L6
		120 VAC	3TX7111-3HF13C	3TX7111-3PF13	3TX7111-5PF13B	3TX7144-4E5	1L6	B	3L7	3L6
4PDT	15	24 VDC	3TX7117-5HC03C	3TX7117-5PC03	—	3TX7144-4E9	1L10	A	1M5	1M6
		24 VAC	3TX7117-5HC13C	3TX7117-5PC13	—	3TX7144-4E9	1L10	A	1M5	1M6
		120 VAC	3TX7117-5HF13C	3TX7117-5PF13	—	3TX7144-4E9	1L10	A	1M5	1M6

Option	Basic	Premium	Premium Bifurcated
Mechanical Flag	✓	✓	✓
Push To Test	—	✓	✓
Lock Down Door	—	✓	✓
LED	—	✓	✓


Note: See page 18-7 for socket accessories.

Plug-In Relays

3TX71 Plug-in Relays


Selection

Square Base (Standard)



	Contacts	Contact Rating (A)	Coil Voltage	Basic Relay	Premium Relay	Premium Bifurcated	Uses Socket 3TX7144-	Uses Clip 3TX7144-	Socket Access Set	Panel Mount Adaptor 3TX7144-	DIN Rail Mount Adaptor 3TX7144-
	DPDT	16	12 VDC	3TX7115-5DB03C	—	—	3TX7144-4E4	1L12	A	—	—
			24 VDC	3TX7115-5DC03C	3TX7115-5LC03	—	3TX7144-4E4	1L12	A	—	—
			24 VAC	3TX7115-5DC13C	3TX7115-5LC13	—	3TX7144-4E4	1L12	A	—	—
	3PDT	16	12 VDC	3TX7115-5FB03C	3TX7115-5NB03	—	3TX7144-4E4	1L12	A	—	—
			24 VDC	3TX7115-5FC03C	3TX7115-5NC03	—	3TX7144-4E4	1L12	A	—	—
			24 VAC	3TX7115-5FC13C	3TX7115-5NC13	—	3TX7144-4E4	1L12	A	—	—
	DPDT Note: No Lock Down Door on Premium Style	20	12 VDC	—	3TX7119-5LB03	—	3TX7144-4E4	1L12	A	—	—
			24 VDC	—	3TX7119-5LC03	—	3TX7144-4E4	1L12	A	—	—
			24 VAC	—	3TX7119-5LC13	—	3TX7144-4E4	1L12	A	—	—
			120 VAC	—	3TX7119-5LF13	—	3TX7144-4E4	1L12	A	—	—
			240 VAC	—	3TX7119-5NH13	—	3TX7144-4E4	1L12	A	—	—
			240 VAC	—	3TX7119-5LH13	—	3TX7144-4E4	1L12	A	—	—

Specialty Relay



	Contacts	Contact Rating (A)	Coil Voltage	Basic Relay	Premium Relay	Premium Bifurcated	Uses Socket 3TX7144-	Uses Clip 3TX7144-	Socket Access Set	Panel Mount Adaptor 3TX7144-	DIN Rail Mount Adaptor 3TX7144-
	DPDT Latching	16	24 VDC	3TX7137-5DC03	—	—	3TX7144-1E4	1L12	—	—	—
			24 VAC	3TX7137-5DC13	—	—	3TX7144-1E4	1L12	—	—	—
			120 VAC	3TX7137-5DF13	—	—	3TX7144-1E4	1L12	—	—	—

Option	Basic	Premium	Premium Bifurcated
Mechanical Flag	✓	✓	✓
Push To Test	—	✓	✓
Lock Down Door	—	✓	✓
LED	—	✓	✓


Note: See page 18-7 for socket accessories.

Plug-In Relays



3TX71 Plug-in Relays

Selection

Octal Base (Standard)

	Contacts	Contact Rating (A)	Coil Voltage	Basic Relay	Premium Relay	Premium Bifurcated	Uses Socket 3TX7144-	Uses Clip 3TX7144-	Socket Access Set	Panel Mount Adaptor	DIN Rail Mount Adaptor
										3TX7144-	3TX7144-
	DPDT	16	12 VDC	3TX7112-1DB03C	3TX7112-1LB03	—	3TX7144-4E2	1L14	A	—	—
			24 VDC	3TX7112-1DC03C	3TX7112-1LC03	—	3TX7144-4E2	1L14	A	—	—
			24 VAC	3TX7112-1DC13C	3TX7112-1LC13	—	3TX7144-4E2	1L14	A	—	—
			110 VDC	3TX7112-1DF03C	3TX7112-1LF03	—	3TX7144-4E2	1L14	A	—	—
			120 VAC	3TX7112-1DF13C	3TX7112-1LF13	—	3TX7144-4E2	1L14	A	—	—
			120 VAC	3TX7112-1FB03C	3TX7112-1FB03	—	3TX7144-4E2	1L14	A	—	—
	3PDT	16	12 VDC	3TX7112-1FB03C	—	—	3TX7144-4E3	1L14	A	—	—
			24 VDC	3TX7112-1FC03C	3TX7112-1NC03	—	3TX7144-4E3	1L14	A	—	—
			24 VAC	3TX7112-1FC13C	3TX7112-1NC13	—	3TX7144-4E3	1L14	A	—	—
			110 VDC	—	3TX7112-1NF03	—	3TX7144-4E3	1L14	A	—	—
			120 VAC	3TX7112-1FF13C	3TX7112-1NF13	—	3TX7144-4E3	1L14	A	—	—
			220/230 VAC	—	3TX7112-1NG13	—	3TX7144-4E3	1L14	A	—	—
			—	—	—	—	3TX7144-4E3	1L14	A	—	—
			—	—	—	—	3TX7144-4E3	1L14	A	—	—

Hermetically Sealed (Class 1 Div 2)

	Contacts	Contact Rating (A)	Coil Voltage	Basic Relay	Premium Relay	Premium Bifurcated	Uses Socket 3TX7144-	Uses Clip 3TX7144-	Socket Access Set	Panel Mount Adaptor	DIN Rail Mount Adaptor
										3TX7144-	3TX7144-
	DPDT (Octal)	12	12 VDC	3TX7127-5HB00	—	—	3TX7144-4E2	1L12	A	—	—
			24 VDC	3TX7127-5HC00	—	—	3TX7144-4E2	1L12	A	—	—
			110 VDC	3TX7127-5HF00	—	—	3TX7144-4E2	1L12	A	—	—
			120 VAC	3TX7127-5HF10	—	—	3TX7144-4E2	1L12	A	—	—
	4PDT (Square)	3	12 VDC	3TX7127-3HB00	—	—	3TX7144-4E5	1L11	B	—	—
			24 VDC	3TX7127-3HC00	—	—	3TX7144-4E5	1L11	B	—	—
			24 VAC	3TX7127-3HC10	—	—	3TX7144-4E5	1L11	B	—	—
			120 VAC	3TX7127-3HF10	—	—	3TX7144-4E5	1L11	B	—	—
	4PDT (Square)	5	12 VDC	3TX7127-3HB03	—	—	3TX7144-4E5	1L11	B	—	—
			24 VDC	3TX7127-3HC03	—	—	3TX7144-4E5	1L11	B	—	—
			120 VAC	3TX7127-3HF13	—	—	3TX7144-4E5	1L11	B	—	—

Option	Basic	Premium	Premium Bifurcated
Mechanical Flag	✓	✓	✓
Push To Test	—	✓	✓
Lock Down Door	—	✓	✓
LED	—	✓	✓


Note: See page 18-7 for socket accessories.

Plug-In Relays

3TX71 Plug-in Relays



Selection

Open Power Relays



Contacts	Contact Rating (A)	Coil Voltage	Basic Relay	Metal Cover 7144-	Premium Bifurcated	Uses Socket 3TX7144-	Uses Clip 3TX7144-	Socket Access Set	Panel Mount Adaptor 3TX7144-	DIN Rail Mount Adaptor 3TX7144-
SPST NO-DM	40	24 VAC	3TX7130-0AC13	1M0	—	—	—	—	—	—
SPST NO-DM		120 VAC	3TX7130-0AF13	1M0	—	—	—	—	—	—
SPST NO-DM		240 VAC	3TX7130-0AH13	1M0	—	—	—	—	—	—
SPST NC-DM		240 VDC	3TX7130-0AC03	1M0	—	—	—	—	—	—
SPST NC-DB	40	120 VAC	3TX7130-0QF13	1M0	—	—	—	—	—	—
SPDT		24 VAC	3TX7130-0BC13	1M0	—	—	—	—	—	—
SPDT		120 VAC	3TX7130-0BF13	1M0	—	—	—	—	—	—
SPDT		240 VAC	3TX7130-0BH13	1M0	—	—	—	—	—	—
SPDT	277 VAC	3TX7130-0BS13	1M0	—	—	—	—	—	—	—
DPDT	40	24 VAC	3TX7130-0DC13	1M0	—	—	—	—	—	—
		120 VAC	3TX7130-0DF13	1M0	—	—	—	—	—	—
		240 VAC	3TX7130-0DH13	1M0	—	—	—	—	—	—
		277 VAC	3TX7130-0DS13	1M0	—	—	—	—	—	—
		12 VDC	3TX7130-0DB03	1M0	—	—	—	—	—	—
		24 VDC	3TX7130-0DC03	1M0	—	—	—	—	—	—
DPST NO	40	48 VDC	3TX7130-0DD03	1M0	—	—	—	—	—	—
		110 VDC	3TX7130-0DF03	1M0	—	—	—	—	—	—
		24 VAC	3TX7130-0CC13	1M0	—	—	—	—	—	—
		120 VAC	3TX7130-0CF13	1M0	—	—	—	—	—	—
		240 VAC	3TX7130-0CH13	1M0	—	—	—	—	—	—
		277 VAC	3TX7130-0CS13	1M0	—	—	—	—	—	—
DPDT (Mag Blowout)	40	12 VDC	3TX7130-0CB03	1M0	—	—	—	—	—	—
		24 VDC	3TX7130-0CC03	1M0	—	—	—	—	—	—
		48 VDC	3TX7130-0CD03	1M0	—	—	—	—	—	—
		110 VDC	3TX7130-0CF03	1M0	—	—	—	—	—	—
		120 VAC	3TX7130-0RF13	1M0	—	—	—	—	—	—
		12 VDC	3TX7130-0RB03	1M0	—	—	—	—	—	—
24 VDC	3TX7130-0RC03	1M0	—	—	—	—	—	—		
48 VDC	3TX7130-0RD03	1M0	—	—	—	—	—	—	—	
110 VDC	3TX7130-0RF03	1M0	—	—	—	—	—	—	—	

Enclosed Power Relays

Contacts	Contact Rating (A)	Coil Voltage	Basic Relay	Premium Relay	Premium Bifurcated	Uses Socket 3TX7144-	Uses Clip 3TX7144-	Socket Access Set	Panel Mount Adaptor 3TX7144-	DIN Rail Mount Adaptor 3TX7144-
DPST-NO	30	24 VAC	3TX7131-4CC13	—	—	—	—	—	—	—
		120 VAC	3TX7131-4CF13	—	—	—	—	—	—	—
		230 VAC	3TX7131-4CH13	—	—	—	—	—	—	—
DPDT	30 NO/ 3 NC	12 VDC	3TX7131-4DB03	—	—	—	—	—	—	—
		24 VDC	3TX7131-4DC03	—	—	—	—	—	—	—
		24 VAC	3TX7131-4DC13	—	—	—	—	—	—	—
		120 VAC	3TX7131-4DF13	—	—	—	—	—	—	—
SPDT	30 NO/ 15 NC	230 VAC	3TX7131-4DH13	—	—	—	—	—	—	—
		5 VDC	3TX7132-6BA03	—	—	—	—	—	—	—
		12 VDC	3TX7132-6BB03	—	—	—	—	—	—	—
		24 VDC	3TX7132-6BC03	—	—	—	—	—	—	—
		120 VAC	3TX7132-6BF13	—	—	—	—	—	—	—


Note: See page 18-7 for socket accessories.

Plug-In Relays


3TX71 Plug-in Relays

Selection

Octal Based Timers

	Contacts	Contact Rating (A)	Coil Voltage	Basic Relay	Time Range	Function	Uses Socket 3TX7144-	Uses Clip 3TX7144-	Socket Access Set	Panel Mount Adaptor 3TX7144-	DIN Rail Mount Adaptor 3TX7144-
	DPDT	12	24 V AC/DC 120 V AC/DC 240 VAC	OND-DFOB-24 OND-DFOB-120 OND-DFOB-240	0.1S - 10h 0.1S - 10h 0.1S - 10h	A, C A, C A, C	3TX7144-4E2 3TX7144-4E2 3TX7144-4E2	1L8 1L8 1L8	A A A	— — —	— — —
DPDT	12	24 V AC/DC 120 V AC/DC 240 VAC	OFD-DFOB-24 OFD-DFOB-120 OFD-DFOB-240	0.1S - 10h 0.1S - 10h 0.1S - 10h	D, E D, E D, E	3TX7144-4E3 3TX7144-4E3 3TX7144-4E3	1L8 1L8 1L8	A A A	— — —	— — —	

Square Based Timers

	Contacts	Contact Rating (A)	Coil Voltage	Basic Relay	Time Range	Function	Uses Socket 3TX7144-	Uses Clip 3TX7144-	Socket Access Set	Panel Mount Adaptor 3TX7144-	DIN Rail Mount Adaptor 3TX7144-
	DPDT	12	24 V AC/DC 120 V AC/DC 240 VAC	OND-DFSB-24 OND-DFSB-120 OND-DFSB-240	0.1S - 10h 0.1S - 10h 0.1S - 10h	A, C A, C A, C	3TX7144-1E4 3TX7144-1E4 3TX7144-1E4	1L8 1L8 1L8	— — —	— — —	— — —
DPDT	12	24 V AC/DC 120 V AC/DC 240 VAC	OFD-DFSB-24 OFD-DFSB-120 OFD-DFSB-240	0.1S - 10h 0.1S - 10h 0.1S - 10h	D, E D, E D, E	3TX7144-1E4 3TX7144-1E4 3TX7144-1E4	1L8 1L8 1L8	— — —	— — —	— — —	


Selecting Function

Function for OND	SW I
On Delay	OFF
Interval	ON
Function for OFD	SW I
Off Delay	OFF
One Shot	ON

Selecting Time Range

Time Range	SW II	SW III	SW IV
0.1s - 1s	OFF	OFF	OFF
1s - 10s	OFF	OFF	ON
10s - 100s	OFF	ON	OFF
0.1m - 1m	OFF	ON	ON
1m - 10m	ON	OFF	OFF
10m - 100m	ON	OFF	ON
0.1h - 1h	ON	ON	OFF
1h - 10h	ON	ON	ON

Front Panel Timers

	Contacts	Contact Rating (A)	Coil Voltage	Basic Relay	Time Range	Function	Uses Socket 3TX7144-	Uses Clip 3TX7144-	Socket Access Set	Panel Mount Adaptor 3TX7144-	DIN Rail Mount Adaptor 3TX7144-
	DPDT	12	12-240 V AC/DC	OFD-DFPR-00	0.1S - 9990h	A,B,C,D,E,F,G,H,I,J	3TX7144-4E3	1L25	—	—	—
SPDT	12-240 V AC/DC		OND-DFPR-01	0.1S - 9990h	A,B,C,D,E,F,G,H,I,J	3TX7144-4E2	1L25	—	—	—	
DPDT	12-240 V AC/DC		OND-DFPR-02	0.1S - 9990h	A,B,C	3TX7144-4E2	1L25	—	—	—	

Note: See page 18-7 for socket accessories.

Plug-In Relays

3TX71 Plug-in Relays

Accessories

Multifunction Timer Modes

Function	Name	Description
A	On Delay (Power On)	When input voltage U is applied, timing delay t begins. Relay contacts R change state after the time delay is complete. Contacts R return to their shelf state when input voltage U is removed. Trigger switch is not used in this function.
B	Repeat Cycle (Starting Off)	When input voltage U is applied, time delay t begins. When time delay t is complete, relay contacts R change state for time delay t. This cycle will repeat until input voltage U is removed. Trigger switch is not used in this function.
C	Interval (Power On)	When input voltage U is applied, relay contacts R change state immediately and timing cycle begins. When time delay is complete, contacts return to shelf state. When input voltage U is removed, contacts will also return to their shelf state. Trigger switch is not used in this function.
D	Off Delay (S Break)	Input voltage U must be applied continuously. When trigger switch S is closed, relay contacts R change state. When trigger switch S is opened, delay t begins. When delay t is complete, contacts R return to their shelf state. If trigger switch S is closed before time delay t is complete, then time is reset. When trigger switch S is opened, the delay begins again, and relay contacts R remain in their energized state. If input voltage U is removed, relay contacts R return to their shelf state.
E	Retriggerable One Shot	Upon application of input voltage U, the relay is ready to accept trigger signal S. Upon application of the trigger signal S, the relay contacts R transfer and the preset time t begins. At the end of the preset time t, the relay contacts R return to their normal condition unless the trigger switch S is opened and closed prior to time out t (before preset time elapses). Continuous cycling of the trigger switch S at a rate faster than the preset time will cause the relay contacts R to remain closed. If input voltage U is removed, relay contacts R return to their shelf state.
F	Repeat Cycle (Starting On)	When input voltage U is applied, relay contacts R change state immediately and time delay t begins. When time delay t is complete, contacts return to their shelf state for time delay t. This cycle will repeat until input voltage U is removed. Trigger switch is not used in this function.
G	Pulse Generator	Upon application of input voltage U, a single output pulse of 0.5 seconds is delivered to relay after time delay t. Power must be removed and reapplied to repeat pulse. Trigger switch is not used in this function.
H	One Shot	Upon application of input voltage U, the relay is ready to accept trigger signal S. Upon application of the trigger signal S, the relay contacts R transfer and the preset time t begins. During time-out, the trigger signal S is ignored. The relay resets by applying the trigger switch S when the relay is not energized.
I	On/Off Delay (S Make/Break)	Input voltage U must be applied continuously. When trigger switch S is closed, time delay t begins. When time delay t is complete, relay contacts R change state and remain transferred until trigger switch S is opened. If input voltage U is removed, relay contacts R return to their shelf state.
J	Memory Latch (S Make)	Input voltage U must be applied continuously. Output changes state with every trigger switch S closure. If input voltage U is removed, relay contacts R return to their shelf state.

Socket Accessories

Accessory Series	MOV 24VAC/DC	MOV 120VAC/DC	R/C 6-24VAC/DC	R/C 110-240VAC/DC	Diode 6-250VDC
A	3TX7144-H1	3TX7144-H2	3TX7144-H4	3TX7144-H5	3TX7144-H6
B	3TX7144-H9	3TX7144-H17	—	—	3TX7144-H12

Notes
