

# Coupling Relays and Interfaces

## 3TX71 plug-in relays

### Selection and ordering data

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	Uses Socket 3TX7144-	Uses Clip 3TX7144-	Socket Access Set	Panel Mount Adaptor 3TX7144-	DIN Rail Mount Adaptor 3TX7144-
SPDT	15	12VDC	3TX7110-5BB03C	3TX7110-5JB03	4E7	1L7	B	3L5	3L4
		24 VDC	3TX7110-5BC03C	3TX7110-5JC03	4E7	1L7	B	3L5	3L4
		24 VAC	3TX7110-5BC13C	3TX7110-5JC13	4E7	1L7	B	3L5	3L4
		120 VAC	3TX7110-5BF13C	3TX7110-5JF13	4E7	1L7	B	3L5	3L4
		240 VAC	—	3TX7110-5JG13	4E7	1L7	B	3L5	3L4



### Square Base (Standard)

Contacts	Contact Rating (A)	Coil Voltage	Basic Relay	Premium Relay	Uses Socket 3TX7144-	Uses Clip 3TX7144-	Socket Access Set	Panel Mount Adaptor 3TX7144-	DIN Rail Mount Adaptor 3TX7144-
DPDT	12	24 VDC	3TX7111-3DC03C	3TX7111-3LC03	4E5	1L6	B	3L7	3L6
		24 VAC	3TX7111-3DC13C	3TX7111-3LC13	4E5	1L6	B	3L7	3L6
		120 VAC	3TX7111-3DF13C	3TX7111-3LF13	4E5	1L6	B	3L7	3L6
DPDT	15	12 VDC	3TX7114-5DB03C	3TX7114-5LB03	4E6	1L6	B	3L7	3L6
		24VDC	3TX7114-5DC03C	3TX7114-5LC03	4E6	1L6	B	3L7	3L6
		24VAC	3TX7114-5DC13C	3TX7114-5LC13	4E6	1L6	B	3L7	3L6
		120 VAC	3TX7114-5DF13C	3TX7114-5LF13	4E6	1L6	B	3L7	3L6
DPDT	10	240 VAC	—	3TX7114-5LH13	4E6	1L6	B	3L7	3L6
		12 VDC	3TX7115-5DB03C	—	4E4	1L12	A	—	—
		24VDC	3TX7115-5DC03C	3TX7115-5LC03	4E4	1L12	A	—	—
		24VAC	3TX7115-5DC13C	3TX7115-5LC13	4E4	1L12	A	—	—
DPDT	10	120 VAC	3TX7115-5DF13C	3TX7115-5LF13	4E4	1L12	A	—	—

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

Note: See page 11/109 for socket accessories.

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## 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-
3PDT	15	24VDC	3TX7116-5FC03C	3TX7116-5NC03	—	4E8	1L9	A	1M3	1M4
		24VAC	3TX7116-5FC13C	3TX7116-5NC13	—	4E8	1L9	A	1M3	1M4
		120 VAC	3TX7116-5FF13C	3TX7116-5NF13	—	4E8	1L9	A	1M3	1M4
3PDT	10	24VDC	—	3TX7115-5NC03	—	4E4	1L12	A	—	—
		120 VAC	3TX7115-5FF13C	3TX7115-5NF13	—	4E4	1L12	A	—	—
4PDT	6A for Basic and Premium and 3A for Bifurcated	24VDC	3TX7111-3HC03C	3TX7111-3PC03	3TX7111-5PC03B	4E5	1L6	B	3L7	3L6
		24VAC	3TX7111-3HC13C	3TX7111-3PC13	—	4E5	1L6	B	3L7	3L6
		120 VAC	3TX7111-3HF13C	3TX7111-3PF13	3TX7111-5PF13B	4E5	1L6	B	3L7	3L6
		240 VAC	—	3TX7111-3PG13	—	4E5	1L6	B	3L7	3L6
4PDT	15	24VDC	3TX7117-5HC03C	3TX7117-5PC03	—	4E9	1L10	A	1M5	1M6
		24VAC	3TX7117-5HC13C	3TX7117-5PC13	—	4E9	1L10	A	1M5	1M6
		120 VAC	3TX7117-5HF13C	3TX7117-5PF13	—	4E9	1L10	A	1M5	1M6

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

Note: See page 11/109 for socket accessories.

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Standard Octal Base

Contacts	Contact Rating (A)	Coil Voltage	Basic Relay	Premium Relay	Uses Socket 3TX7144-	Uses Clip 3TX7144-	Socket Access Set
DPDT	10	12 VDC	3TX7112-1DB03C	3TX7112-1LB03	4E2	1L14	A
		24VDC	3TX7112-1DC03C	3TX7112-1LC03	4E2	1L14	A
		24VAC	3TX7112-1DC13C	3TX7112-1LC13	4E2	1L14	A
		120 VAC	3TX7112-1DF13C	3TX7112-1LF13	4E2	1L14	A
		240 VAC	3TX7112-1DG13C	3TX7112-1LG13	4E2	1L14	A
3PDT	10	24VDC	3TX7112-1FC03C	3TX7112-1NC03	4E3	1L14	A
		24VAC	3TX7112-1FC13C	3TX7112-1NC13	4E3	1L14	A
		120 VAC	3TX7112-1FF13C	3TX7112-1NF13	4E3	1L14	A
		240 VAC	—	3TX7112-1NG13	4E3	1L14	A



Hermetically Sealed

Contacts	Contact Rating (A)	Coil Voltage	Basic Relay	Uses Socket 3TX7144-	Uses Clip 3TX7144-	Socket Access Set
DPDT	12	24 VDC	3TX7127-5HC00	4E2	1L12	A
4PDT	3	24VDC	3TX7127-3HC00	4E5	1L11	B
		24VAC	3TX7127-3HC10	4E5	1L11	B
		120 VAC	3TX7127-3HF10	4E5	1L11	B
4PDT	5	12 VDC	3TX7127-3HB03	4E5	1L11	B
		24VDC	3TX7127-3HC03	4E5	1L11	B
		120 VAC	3TX7127-3HF13	4E5	1L11	B

Socket Accessories

Access. Series	MOV	MOV	R/C	R/C	Diode
	24VAC/DC	120VAC/DC	6-24VAC/DC	110-240VAC/DC	6-250VDC
A	3TX7144-H1	3TX7144-H20	3TX7144-H4	3TX7144-H5	3TX7144-H6
B	3TX7144-H9	3TX7144-H17	—	—	3TX7144-H12

Note: See socket accessories above.

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## Open Power Relays

Contacts	Contact Rating (A)	Coil Voltage	Basic Relay	Metal Cover 7144-
SPST NO-DM	40	24VAC	3TX7130-0AC13	1M0
SPST NO-DM		120 VAC	3TX7130-0AF13	1M0
SPST NO-DM		240 VAC	3TX7130-0AH13	1M0
SPST NC-DM	40	120 VAC	3TX7130-0QF13	1M0
SPDT		24 VAC	3TX7130-0BC13	1M0
SPDT		120 VAC	3TX7130-0BF13	1M0
SPDT		240 VAC	3TX7130-0BH13	1M0
DPDT	40	277 VAC	3TX7130-0BS13	1M0
		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
DPDT (Mag Blowout)	40	12 VDC	3TX7130-0CB03	1M0
		24 VDC	3TX7130-0CC03	1M0
		48 VDC	3TX7130-0CD03	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
DPST-NO	30	24VAC	3TX7131-4CC13
		120 VAC	3TX7131-4CF13
		230 VAC	3TX7131-4CH13
DPDT	30 NO/ 3 NC	12 VDC	3TX7131-4DB03
		24 VDC	3TX7131-4DC03
		24VAC	3TX7131-4DC13
		120 VAC	3TX7131-4DF13
		230 VAC	3TX7131-4DH13



Note: See page 11/109 for socket accessories.

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## 3TX71 plug-in relays

### General specifications

Contact Characteristics		Units	3TX7109	3TX7110	3TX7111				
Number and Type of Contacts			SPDT	SPDT	SPDT	DPDT	DPDT	4PDT	4PDT
Contact Material			Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy
Thermal (Carrying) Current	A		20	15	3 (Bifurcated)	12	3 (Bifurcated)	6	3 (Bifurcated)
Maximum Switching Voltage	V		300	300	300	300	300	300	300
Switching Current at Voltage	Resistive		16A @240V	15A @240V	3A @240V	—	3A @240V	6A @240V	3A @240V
	Resistive		16A @120V	15A @120V	—	12A @120V	3A @120V	6A @120V	3A @120V
	Resistive		16A @ 28	15A @ 28	—	12A @ 28	3A @ 30	6A @ 28	3A @ 30
	HP		1/2 @ 120VAC	1/2 @ 120VAC	—	1/3 @ 120VAC	1/16 @ 120VAC	1/3 @ 120VAC	1/16 @ 120VAC
	HP		1 @ 240VAC	1 @ 240VAC	—	—	—	1 @ 240VAC	—
	Pilot Duty		B300	B300	—	B300	—	B300	—
Minimum Switching Requirement	mA		100 @ 5VDC (.5W)	100 @ 5VDC (.5W)	3 @ 17VDC (.4W)	100 @ 5VDC (.5W)	3 @ 17VDC (.4W)	100 @ 5VDC (.5W)	3 @ 17VDC (.4W)
<b>Coil Characteristics</b>									
Voltage Range	AC	V	6...240	6...240	6...240	6...240	6...240	6...240	6...240
	DC	V	6...125	6...125	6...125	6...125	6...125	6...125	6...125
Operating Range	AC	%	85 to 110	85 to 110	85 to 110	85 to 110	85 to 110	85 to 110	85 to 110
	DC	%	80 to 110	80 to 110	80 to 110	80 to 110	80 to 110	80 to 110	80 to 110
Average Consumption	AC	VA	1.2	0.9	0.9	1.2	1.2	1.2	1.2
	DC	W	0.9	0.7	0.7	0.9	0.9	0.9	0.9
Drop-out Voltage Threshold	AC	%	15	15	15	15	15	15	15
	DC	%	10	10	10	10	10	10	10
<b>Performance Characteristics</b>									
Electrical Life (UL508)	Operations @ Rated Current	(Resistive)	100,000	100,000	100,000	200,000	200,000	200,000	200,000
Mechanical Life	Unpowered		10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Operating Time (response time)		ms	20	20	20	20	20	20	20
Dielectric Strength	Between Coil and Contact	V(rms)	2500	2500	2500	2500	2500	2500	2500
	Between Poles	V(rms)	1500	1500	1500	1500	1500	1500	1500
	Between Contacts	V(rms)	1500	1500	1500	1500	1500	1500	1500
<b>Environment</b>									
Product Certifications	Standard Version		UL,RoHS	UL,RoHS	UL,RoHS	UL,RoHS	UL,RoHS	UL,RoHS	UL,RoHS
Ambient Air Temperature around the Device	Storage	°C	-40...+85	-40...+85	-40...+85	-40...+85	-40...+85	-40...+85	-40...+85
	Operational	°C	-40...+55	-40...+55	-40...+55	-40...+55	-40...+55	-40...+55	-40...+55
Vibration Resistance	Operational	g-n	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz
Shock Resistance		g-n	10	10	10	10	10	10	10
Degree of Protection			IP40	IP40	IP40	IP40	IP40	IP40	IP40
Weight		grams	36	29	29	36	36	36	36

Contact Characteristics		Units	3TX7112	3TX7114	3TX7115	3TX7116	3TX7117		
Number and Type of Contacts			DPDT	3PDT	DPDT	DPDT	3PDT	3PDT	4PDT
Contact Material			Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy
Thermal (Carrying) Current	A		10	15	10	10	15	15	15
Maximum Switching Voltage	V		300	300	300	300	300	300	300
Switching Current at Voltage	Resistive		10A @240V	10A @240V	12A @277V	10A @277V	10A @277V	12A @277V	12A @277V
	Resistive		10A @120V	10A @120V	15A @120V	10A @120V	10A @120V	15A @120V	15A @120V
	Resistive		10A @ 28	10A @ 28	12A @ 28	10A @ 28	10A @ 28	12A @ 28	12A @ 28
	HP		1/3 @ 120VAC	1/3 @ 120VAC	1/2 @ 120VAC	1/3 @ 120VAC	1/3 @ 120VAC	1/2 @ 120VAC	1/2 @ 120VAC
	HP		1/2 @ 240VAC	1/2 @ 240VAC	1 @ 240VAC	1/2 @ 240VAC	1/2 @ 240VAC	3/4 @ 240VAC	3/4 @ 240VAC
	Pilot Duty		B300	B300	B300	B300	B300	B300	B300
Minimum Switching Requirement	mA		100 @ 5VDC (.5W)	100 @ 5VDC (.5W)	100 @ 5VDC (.5W)	100 @ 5VDC (.5W)	100 @ 5VDC (.5W)	100 @ 5VDC (.5W)	100 @ 5VDC (.5W)
<b>Coil Characteristics</b>									
Voltage Range	AC	V	6...240	6...240	6...240	6...240	6...240	6...240	6...240
	DC	V	6...125	6...125	6...125	6...125	6...125	6...125	6...125
Operating Range	AC	%	85 to 110	85 to 110	85 to 110	85 to 110	85 to 110	85 to 110	85 to 110
	DC	%	80 to 110	80 to 110	80 to 110	80 to 110	80 to 110	80 to 110	80 to 110
Average Consumption	AC	VA	1.2	1.2	1.2	1.2	1.5	1.5	1.5
	DC	W	0.9	0.9	0.9	0.9	1.4	1.5	1.5
Drop-out Voltage Threshold	AC	%	15	15	15	15	15	15	15
	DC	%	10	10	10	10	10	10	10
<b>Performance Characteristics</b>									
Electrical Life (UL508)	Operations @ Rated Current	(Resistive)	200,000	200,000	100,000	100,000	100,000	200,000	200,000
Mechanical Life	Unpowered		10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Operating Time (response time)		ms	20	20	20	20	20	20	20
Dielectric Strength	Between Coil and Contact	V(rms)	2500	2500	2500	2500	2500	2500	2500
	Between Poles	V(rms)	1500	1500	1500	1500	1500	2500	2500
	Between Contacts	V(rms)	1500	1500	1500	1500	1500	1500	2500
<b>Environment</b>									
Product Certifications	Standard Version		UL,RoHS	UL,RoHS	UL,RoHS	UL,RoHS	UL,RoHS	UL,RoHS	UL,RoHS
Ambient Air Temperature around the Device	Storage	°C	-40...+85	-40...+85	-40...+85	-40...+85	-40...+85	-40...+85	-40...+85
	Operational	°C	-40...+55	-40...+55	-40...+55	-40...+55	-40...+55	-40...+55	-40...+55
Vibration Resistance	Operational	g-n	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz
Shock Resistance		g-n	10	10	10	10	10	10	10
Degree of Protection			IP40	IP40	IP40	IP40	IP40	IP40	IP40
Weight		grams	89	89	36	88	88	60	60

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## 3TX71 plug-in relays

### General specifications

Contact Characteristics		Units	3TX7119	3TX7127			3TX7130	
Number and Type of Contacts			DPDT	DPDT	4PDT	4PDT	All	
Contact Material			Silver Alloy	Silver Alloy	Fine Silver	Silver Alloy	Silver Alloy	
Thermal (Carrying) Current	A		20	12	3	5	40	
Maximum Switching Voltage	V		600	300	300	300	600	
Switching Current at Voltage		Resistive	20A @300V	12A @240V	12A @240V	3A @240V	12A @240V	40A @277V
		Resistive	—	12A @120V	3A @120V	—	—	—
		Resistive	20A @ 28	12A @ 28	3A @ 30	—	—	40A @ 28
		HP	1/3 @ 120VAC	1/3 @ 120VAC	1/16 @ 120VAC	—	—	—
		HP	1/2 @ 600VAC	1/2 @ 240VAC	1/10 @ 240VAC	—	—	—
		Pilot Duty	B600	B300	—	—	—	—
Minimum Switching Requirement	mA		100 @ 5VDC (.5W)	100 @ 5VDC (.5W)	10 @ 5VDC (.5W)	100 @ 5VDC (.5W)	1000 @ 12VAC/DC	
<b>Coil Characteristics</b>								
Voltage Range	AC	V	6...240	6...240	6...240	6...240	6...600	
	DC	V	6...125	6...125	6...125	6...125	6...600	
Operating Range	AC	%	85 to 110	85 to 110	85 to 110	85 to 110	85 to 110	
	DC	%	80 to 110	80 to 110	80 to 110	80 to 110	80 to 110	
Average Consumption	AC	VA	2.75	1.2	1.2	1.2	10	
	DC	W	2	0.9	0.9	0.9	4	
Drop-out Voltage Threshold	AC	%	15	15	15	15	10	
	DC	%	10	10	10	10	10	
<b>Performance Characteristics</b>								
Electrical Life (UL508)	Operations @ Rated Current	(Resistive)	100,000	100,000	100,000	100,000	100,000	
Mechanical Life	Unpowered		10,000,000	10,000,000	10,000,000	10,000,000	1,000,000	
Operating Time (response time)		ms	20	20	20	20	30	
Dielectric Strength	Between Coil and Contact	V(rms)	2000	1,500	1240	1240	2200	
	Between Poles	V(rms)	2000	1,500	1240	1240	2200	
	Between Contacts	V(rms)	1500	1500	500	500	1500	
<b>Environment</b>								
Product Certifications	Standard Version		UL	UL,RoHS	UL,RoHS	UL,RoHS	UL	
Ambient Air Temperature around the Device	Storage	°C	-40...+85	-40...+85	-40...+85	-40...+85	-40...+85	
	Operational	°C	-40...+55	-40...+55	-40...+70	-40...+70	-40...+70	
Vibration Resistance	Operational	g-n	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	
Shock Resistance		g-n	10	10	10	10	—	
Degree of Protection			IP40	IP67	IP67	IP67	Open	
Weight		grams	88	130	45	45	227 to 312	

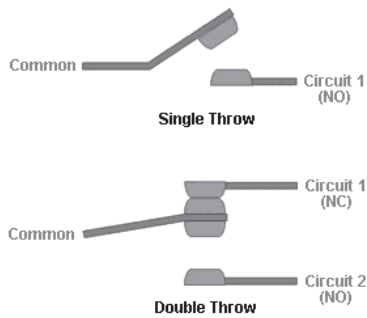
Contact Characteristics		Units	3TX7131	3TX7132		3TX7136	3TX7137	
Number and Type of Contacts			DPST-NO	DPDT	DPDT	SPDT	DPDT	
Contact Material			Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy	Silver Alloy	
Thermal (Carrying) Current	A		30	30 DPDT-NO	3 DPDT-NC	30 SPDT-NO	3 DPDT-NC	
Maximum Switching Voltage	V		600	300	300	300	300	
Switching Current at Voltage		Resistive	20A @300V	30A @277V	3A @277V	30A @277V	3A @277V	12A @240V
		Resistive	—	—	—	—	—	16A @120V
		Resistive	20A @ 28	20A @ 28	3A @ 28	10A @ 28	3A @ 28	12A @ 28
		HP	1/3 @ 120VAC	1 @ 120VAC	—	1 @ 120VAC	—	1/2 @ 120VAC
		HP	1/2 @ 600VAC	3 @ 240VAC	—	2 @ 240VAC	—	1/3 @ 240VAC
		Pilot Duty	—	—	—	—	—	B300
Minimum Switching Requirement	mA		500 @ 12VAC/DC	500 @ 12VAC/DC	500 @ 12VAC/DC	1000 @ 12VAC/5VDC	500 @ 12VAC/DC	100 @ 5VDC (.5W)
<b>Coil Characteristics</b>								
Voltage Range	AC	V	12...240	12...240	12...240	12...277	12...277	
	DC	V	6...110	6...110	6...110	5...110	5...110	
Operating Range	AC	%	85 to 120	85 to 120	85 to 120	85 to 120	85 to 120	
	DC	%	75 to 120	75 to 120	75 to 120	75 to 120	80 to 110	
Average Consumption	AC	VA	4	4	4	2.8	2.8	
	DC	W	1.7	1.7	1.7	1	1	
Drop-out Voltage Threshold	AC	%	10	10	10	10	15	
	DC	%	10	10	10	10	10	
<b>Performance Characteristics</b>								
Electrical Life (UL508)	Operations @ Rated Current	(Resistive)	100,000	100,000	100,000	100,000	100,000	
Mechanical Life	Unpowered		5,000,000	5,000,000	5,000,000	10,000,000	10,000,000	
Operating Time (response time)		ms	15	15	15	15	35	
Dielectric Strength	Between Coil and Contact	V(rms)	4000	4000	4000	2500	2500	
	Between Poles	V(rms)	2000	2000	2000	1500	1500	
	Between Contacts	V(rms)	1500	1500	1500	1500	1500	
<b>Environment</b>								
Product Certifications	Standard Version		UL	UL	UL	UL	UL	
Ambient Air Temperature around the Device	Storage	°C	-40...+85	-40...+85	-40...+85	-40...+85	-40...+85	
	Operational	°C	-40...+55	-40...+55	-40...+55	-40...+55	-40...+70	
Vibration Resistance	Operational	g-n	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	3, 10 - 55 Hz	
Shock Resistance		g-n	10	10	10	10	10	
Degree of Protection			—	—	—	—	IP40	
Weight		grams	86	86	86	33	33	

# Coupling Relays and Interfaces

## 3TX71 plug-in relays

### Overview

#### Contact arrangement - throws

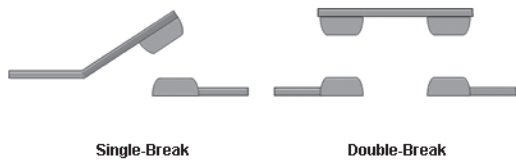


Throw is the number of different closed contact positions per pole. In other words a throw describes the total number of different circuits each pole controls.

The following abbreviations are used to indicate contact configurations:

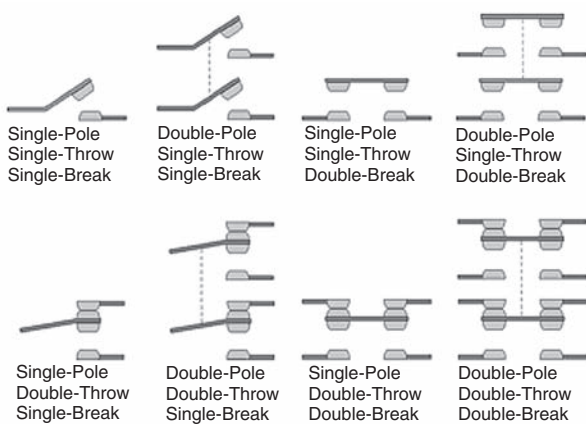
- SPST** Single-pole, single-throw
- SPDT** Single-pole, double-throw
- DPST** Double-pole, single-throw
- DPDT** Double-pole, double-throw

#### Contact arrangement - break



Break is the number of separate contacts the switch uses to open or close an individual circuits. If the relay breaks the circuit in one place, then it is a single break relay. If the relay breaks the circuit in two places, then it is a double break relay.

#### Contact arrangements overview



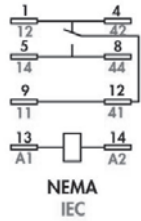
This illustration shows various contact arrangement types.

# Coupling Relays and Interfaces

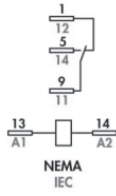
## 3TX71 plug-in relays

Circuit diagrams

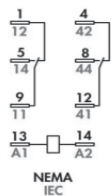
3TX7109 (SPDT)



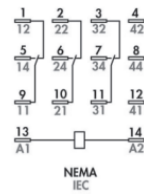
3TX7110  
SPDT



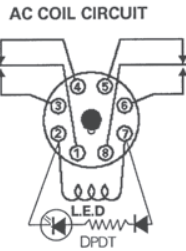
3TX7111  
DPDT



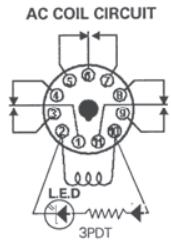
3TX7111  
4PDT



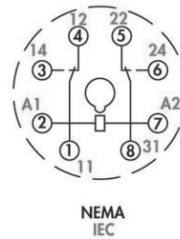
3TX7112  
DPDT



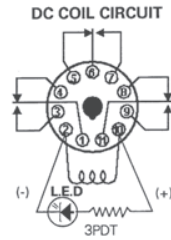
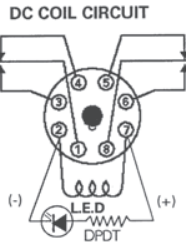
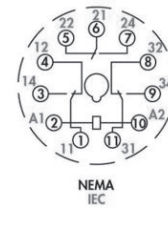
3TX7112  
3PDT



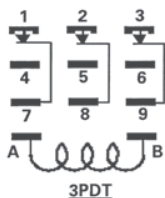
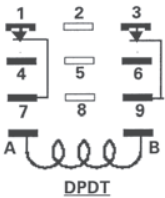
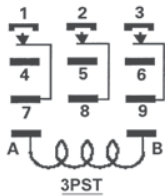
3TX7112-1L, -1D  
DPDT



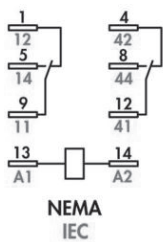
3TX7112-1N, -1F  
3PDT



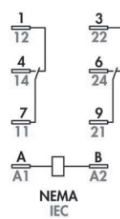
3TX7113  
DPDT, 3PST, 3PDT



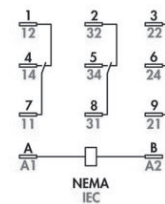
3TX7114  
DPDT



3TX7115  
DPDT



3TX7115  
3PDT





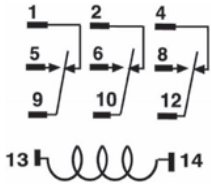
# Coupling Relays and Interfaces

## 3TX71 plug-in

Circuit diagrams

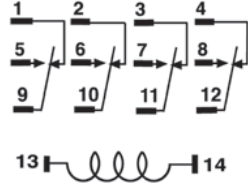
3TX7116

3PDT

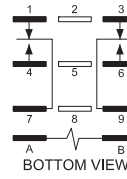


3TX7117

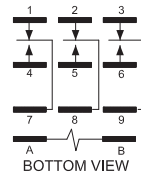
4PDT



3TX7119 (DPDT)

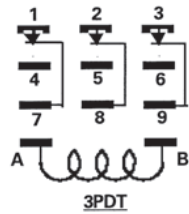
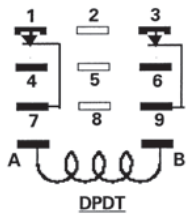


3TX7119 (3PDT)



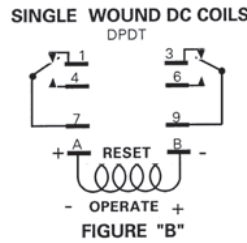
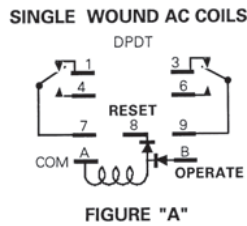
3TX7121

DPDT, 3PDT



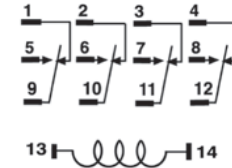
3TX7125

DPDT

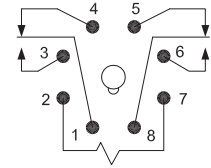


3TX7126/ 3TX7127

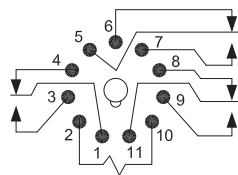
4PDT



3TX7127 (DPDT)



3TX7127 (3PDT)



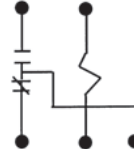
3TX7130

SPST-NO



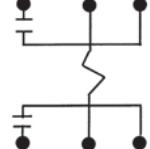
3TX7130

SPDT



3TX7130

DPST-NO



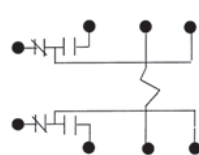
3TX7130

SPST-NC

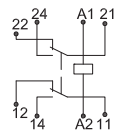


3TX7130

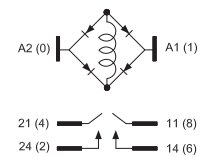
DPDT



3TX7130 (DPDT)



3TX7131 (DPST-NO) (AC)

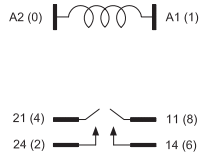


# Coupling Relays and Interfaces

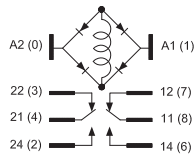
## 3TX71 plug-in relays

Circuit diagrams

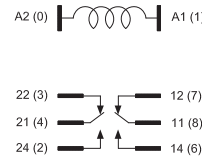
**3TX7131 (DPST-NO) (DC)**



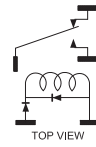
**3TX7131 (DPDT) (AC)**



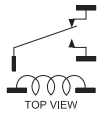
**3TX7131 (DPDT) (DC)**



**3TX7132 (SPDT) (AC)**



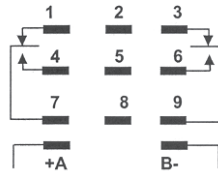
**3TX7132 (SPDT) (DC)**



**3TX7136**

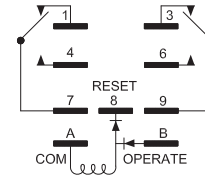
DPDT

WIRING DIAGRAM  
VIEWED FROM PIN END

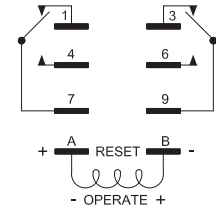


INPUT SIGNAL

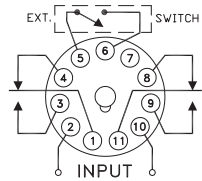
**3TX7137 (DPDT) (AC)**



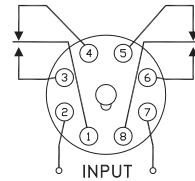
**3TX7137 (DPDT) (DC)**



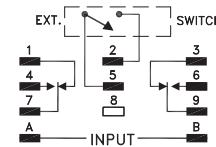
**OFD-DFOB (DPDT)**



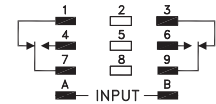
**OND-DFOB (DPDT)**



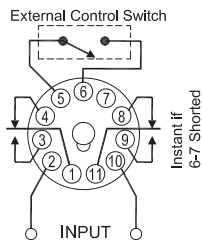
**OFD-DFSB (DPDT)**



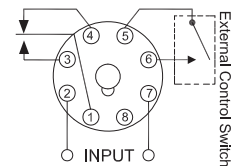
**OND-DFSB (DPDT)**



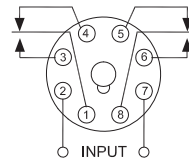
**OFD-DFPR-00 (DPDT)**



**OND-DFPR-01 (SPDT)**



**OND-DFPR-02 (DPDT)**

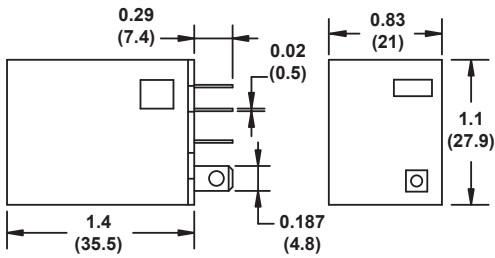


# Coupling Relays and Interfaces

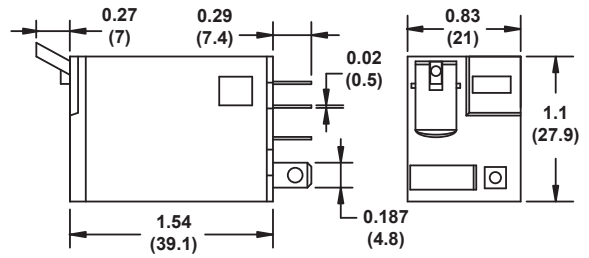
## 3TX71 plug-in relays

### Dimension drawings

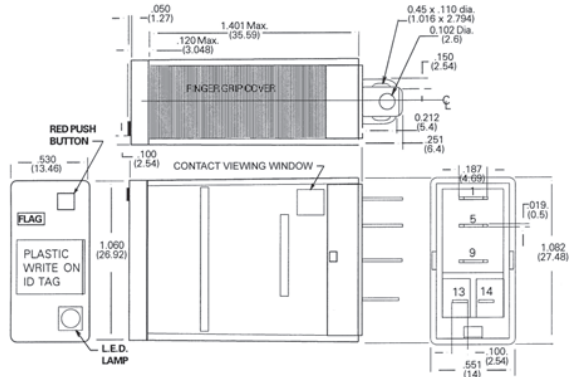
3TX7109 (SPDT) (clear cover)



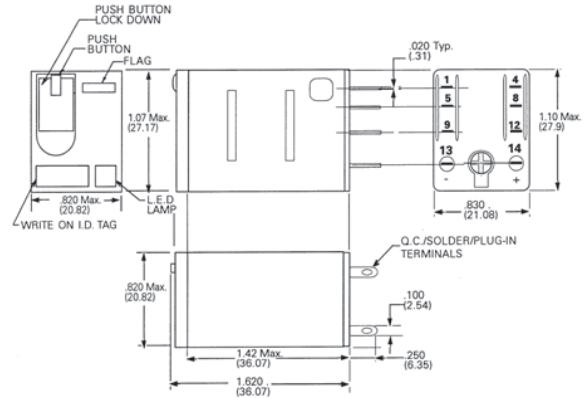
3TX7109 (SPDT) (full feature)



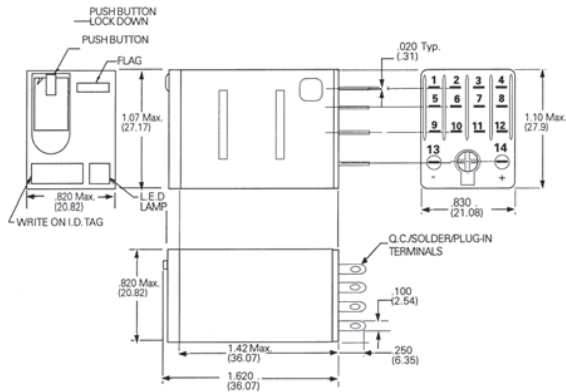
3TX7110 SPDT



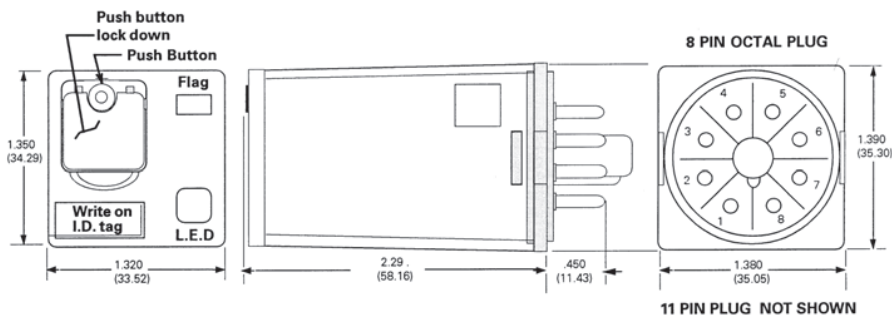
3TX7111 DPDT



3TX7111 4PDT



3TX7112 DPDT

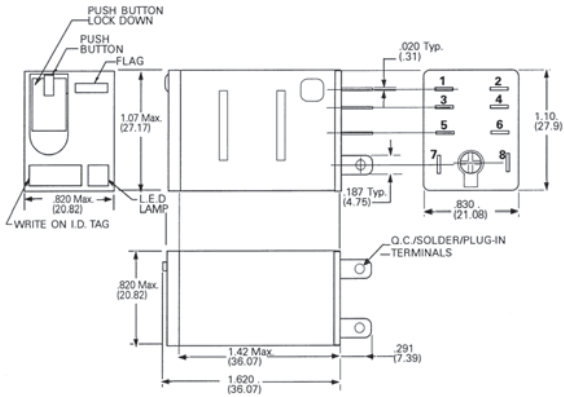


# Coupling Relays and Interfaces

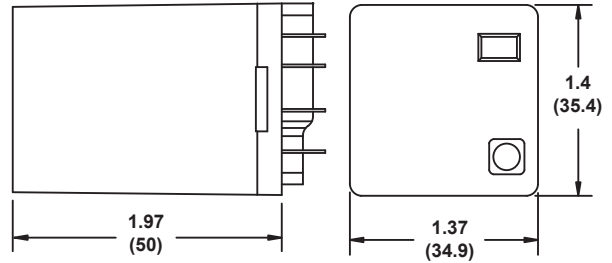
## 3TX71 plug-in relays

### Dimension drawings

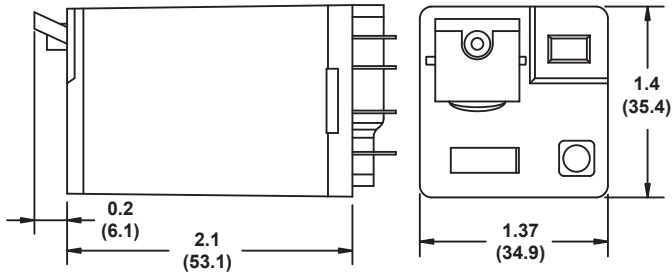
3TX7114 DPDT



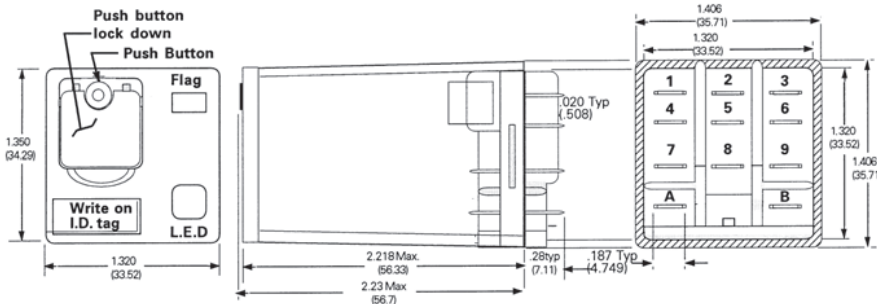
3TX7115 (DPDT) (clear cover)



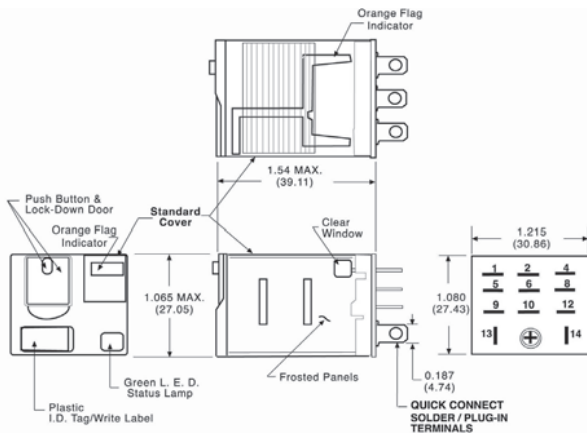
3TX7115 (DPDT) (full feature)



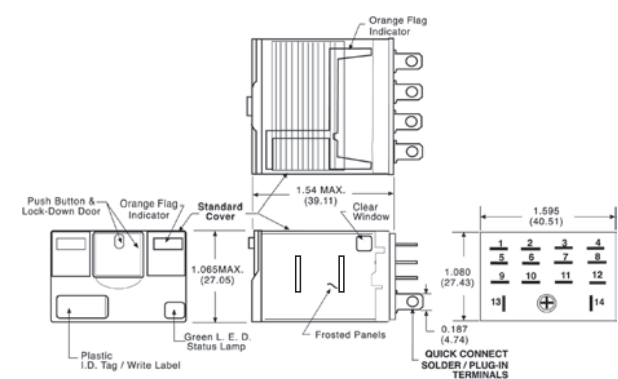
3TX7115 3PDT



3TX7116 3PDT



3TX7117 4PDT

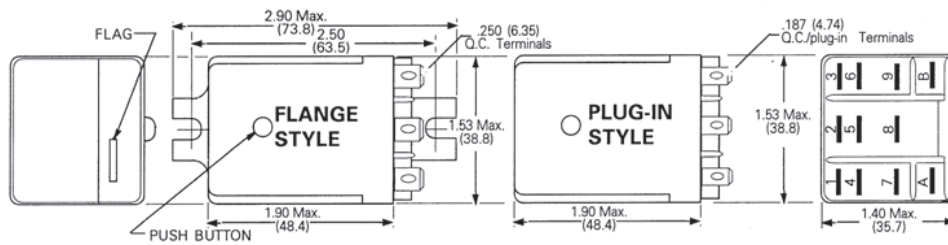


# Coupling Relays and Interfaces

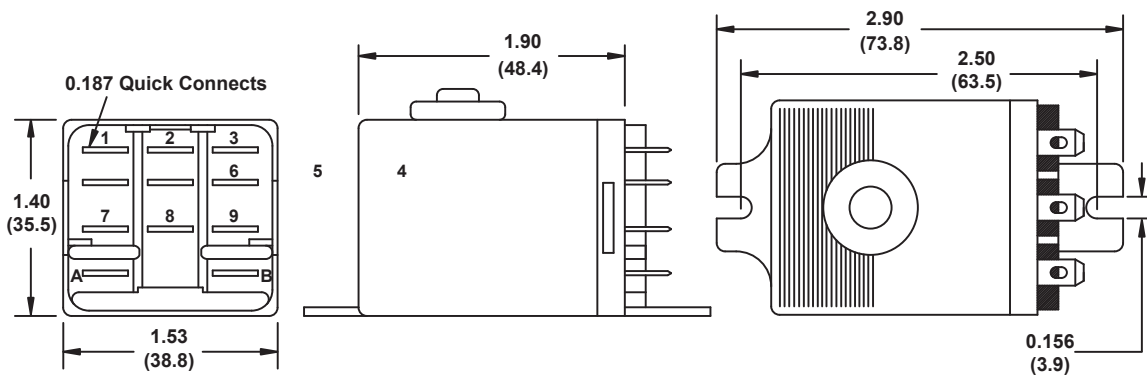
## 3TX71 plug-in relays

### Dimension drawings

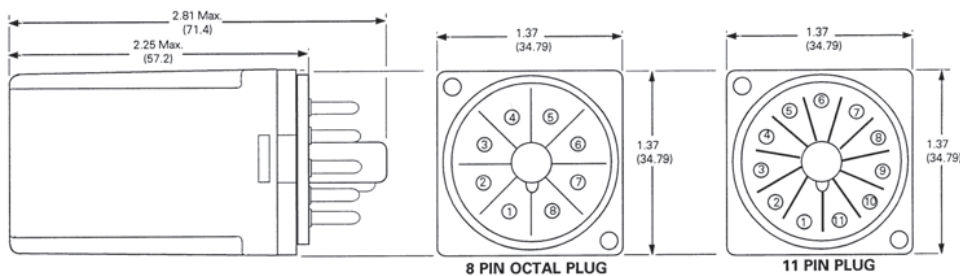
#### 3TX7119 DPDT



#### 3TX7119 (3PDT)

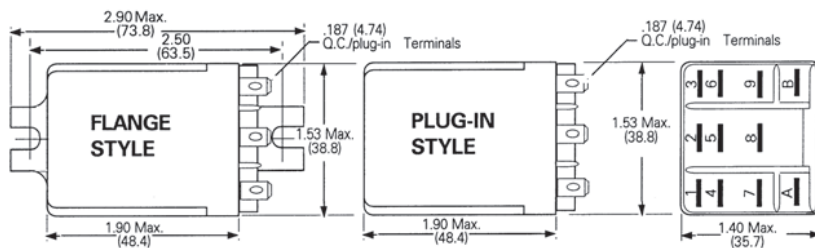


#### 3TX7120



#### 3TX7121/3TX7122

#### 3TX7123

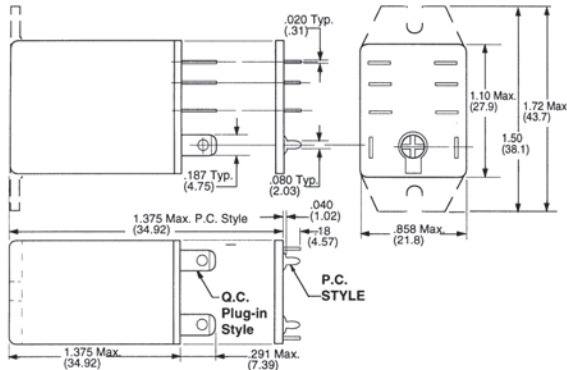


# Coupling Relays and Interfaces

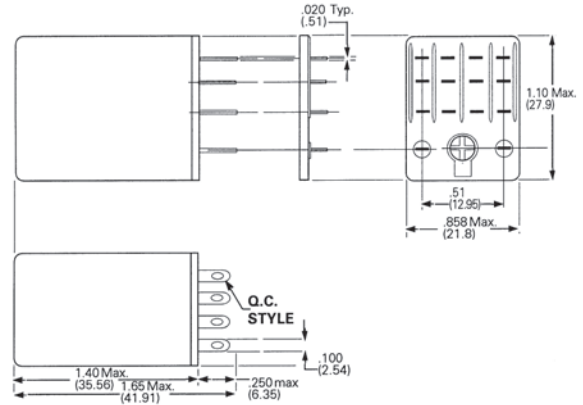
## 3TX71 plug-in relays

Dimension drawings

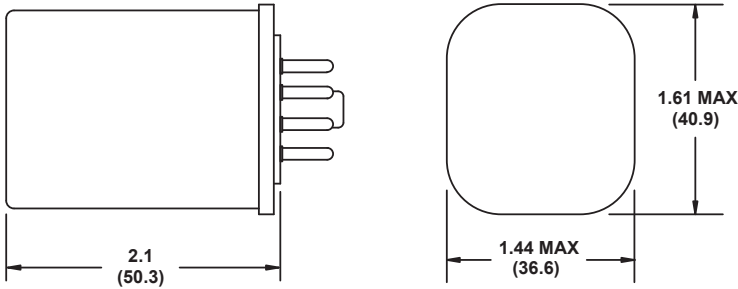
3TX7123



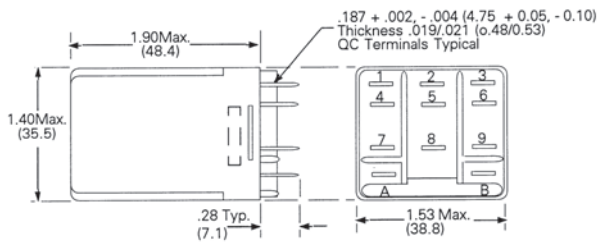
3TX7126



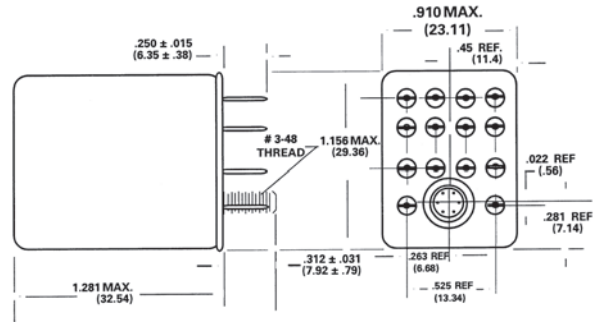
3TX7127 (DPDT)



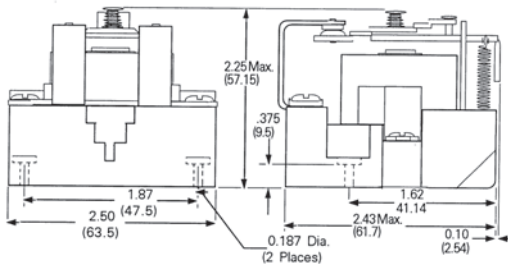
3TX7127 3PDT



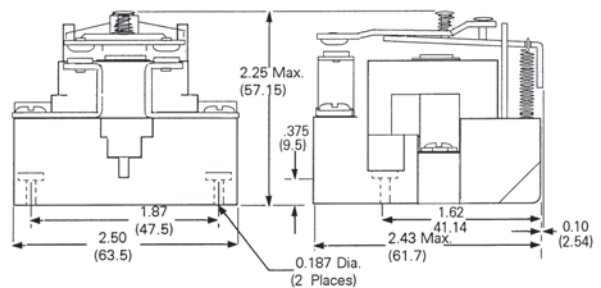
3TX7127 4PDT



3TX7130 SPST NC



3TX7130 SPST NO

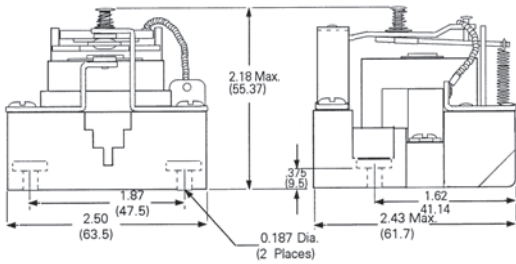


# Coupling Relays and Interfaces

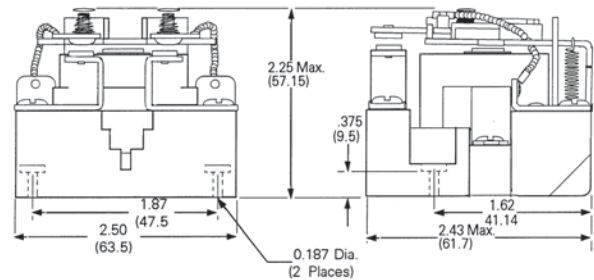
## 3TX71 plug-in relays

### Dimension drawings

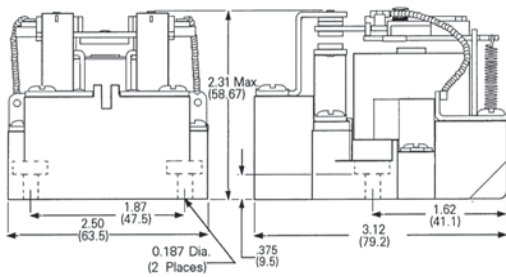
3TX7130 SPDT



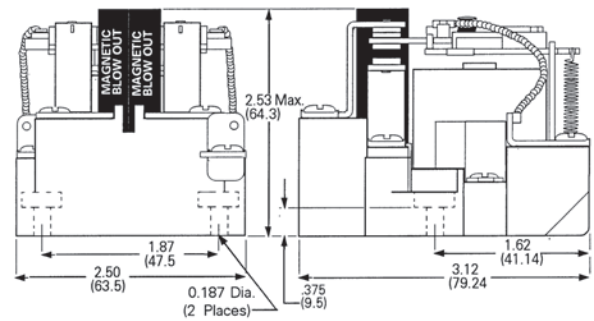
3TX7130 DPST NO



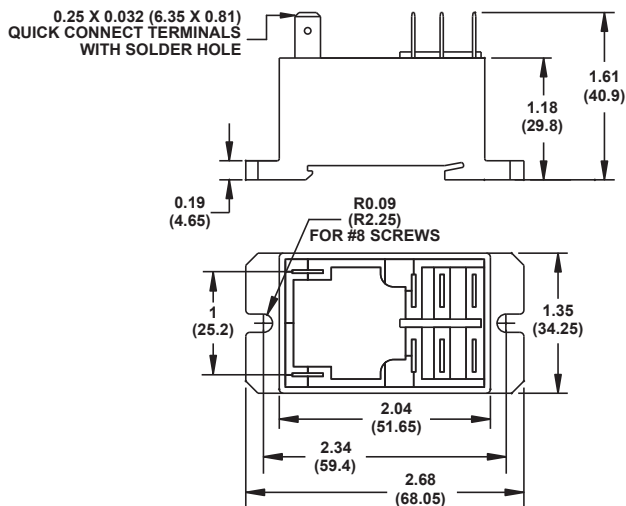
3TX7130 DPDT



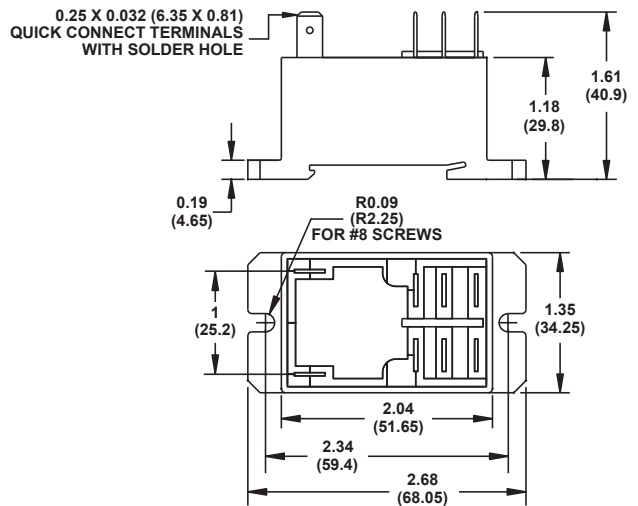
3TX7130 DPDT with magnetic  
blowout



3TX7131 (DPST-NO)



3TX7131 (DPDT)





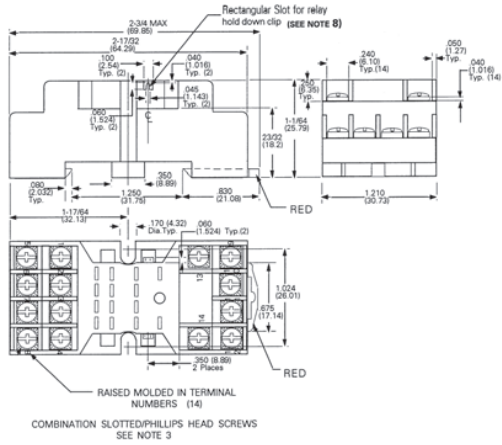


# Coupling Relays and Interfaces

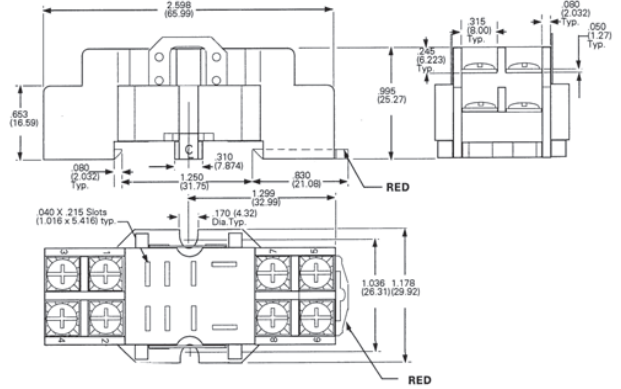
## 3TX71 plug-in relays

### Dimension drawings

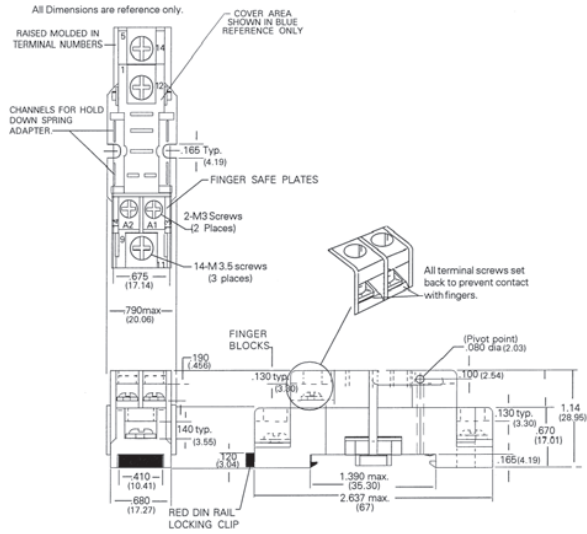
3TX7144-1E5



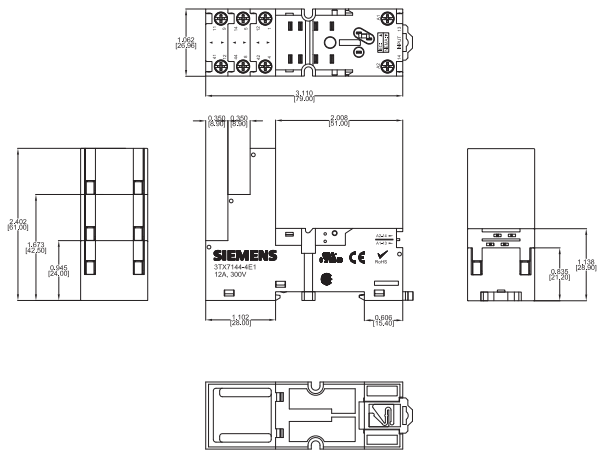
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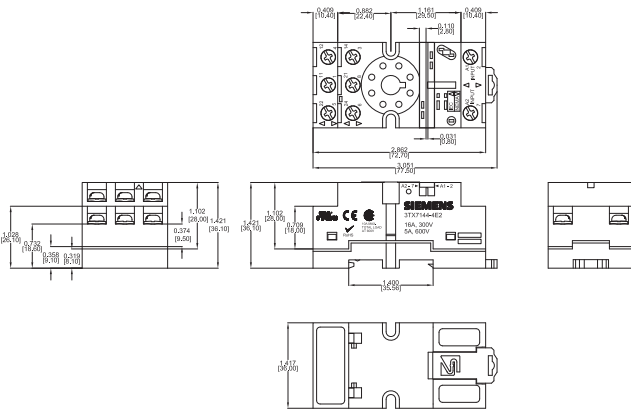
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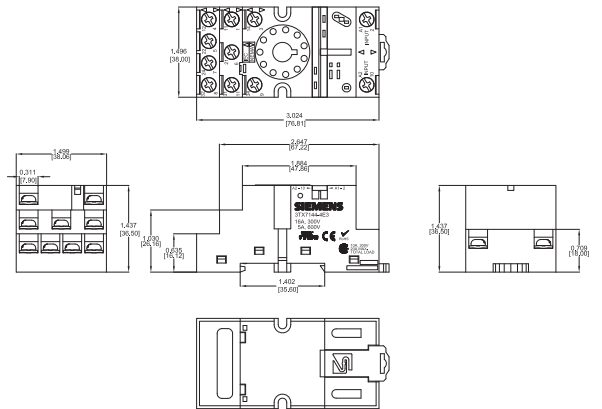
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3TX7144-4E2



3TX7144-4E3

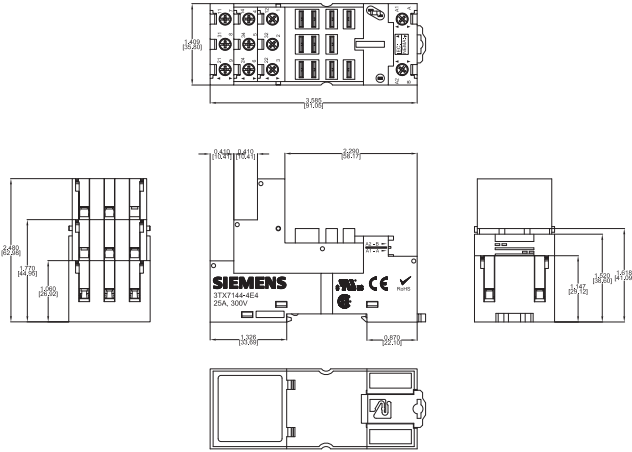


# Coupling Relays and Interfaces

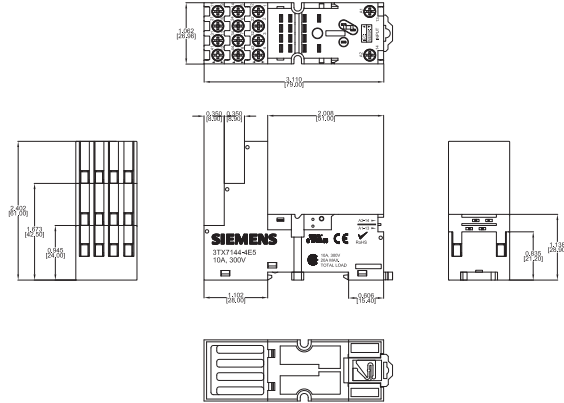
## 3TX71 plug-in relays

### Dimension drawings

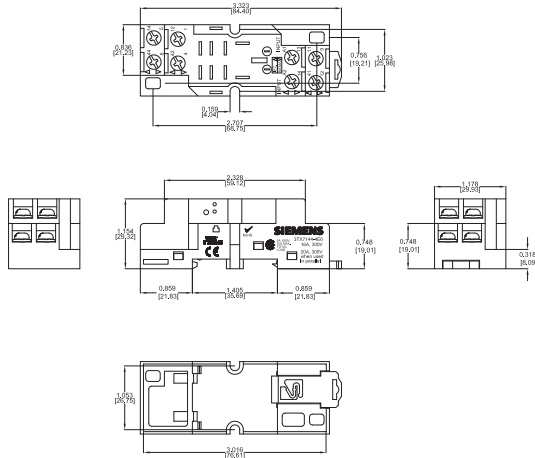
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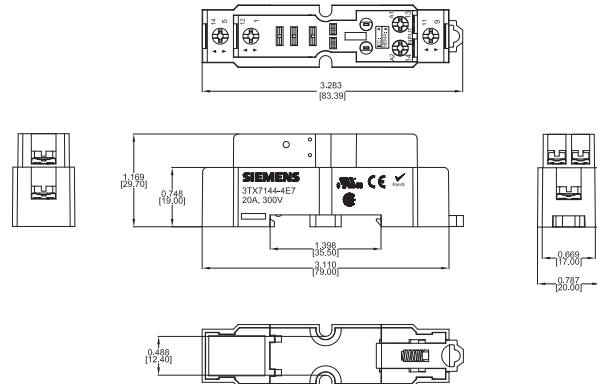
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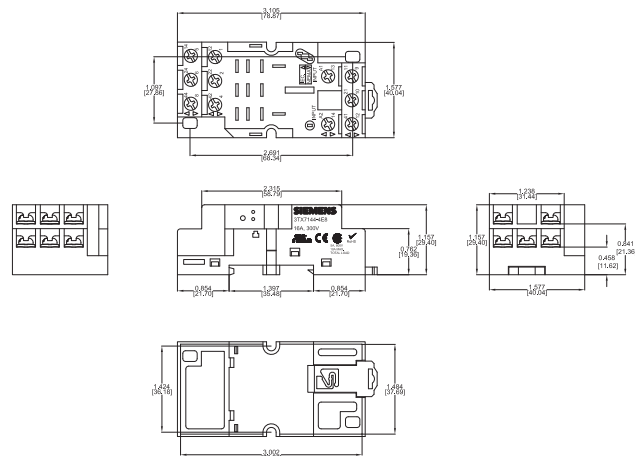
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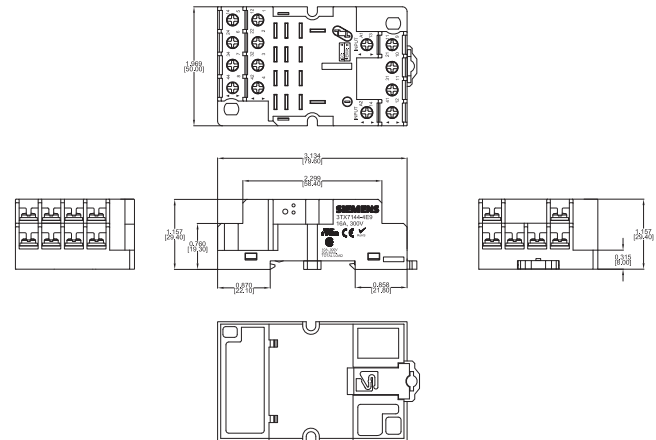
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3TX7144-4E8



3TX7144-4E9

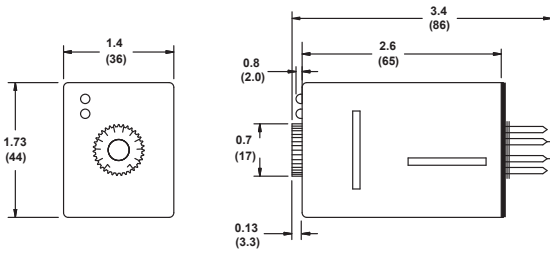


# Coupling Relays and Interfaces

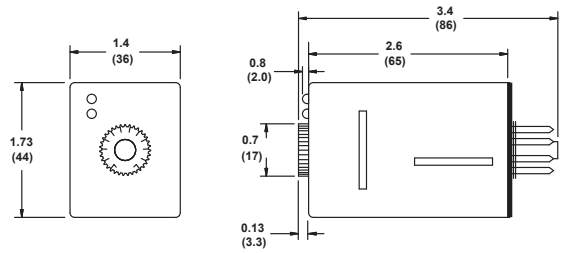
## 3TX71 plug-in relays

### Dimension drawings

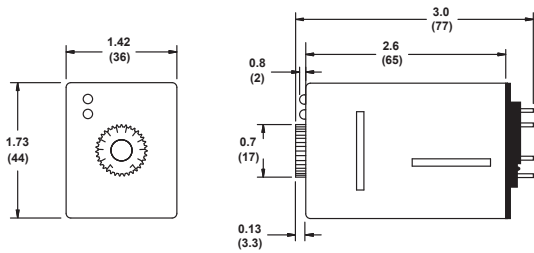
OFD-DFOB (DPDT)



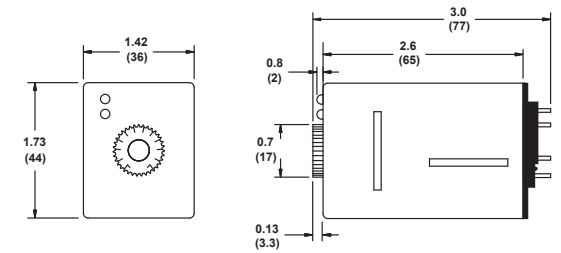
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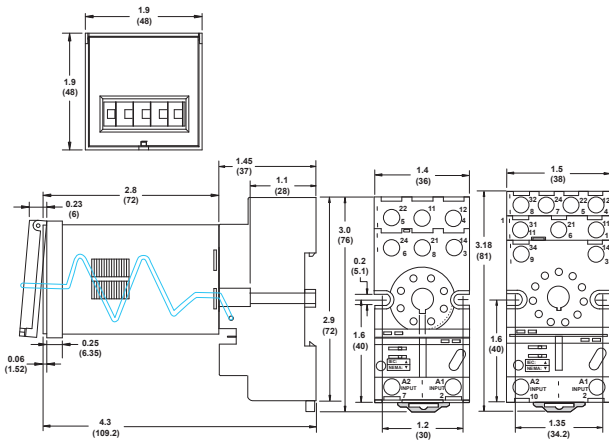
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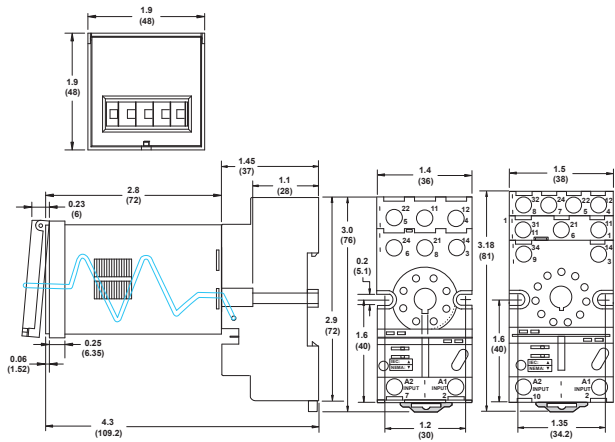
OND-DFSB (DPDT)



OFD-DFPR-00 (DPDT)



OND-DFPR-01 (SPDT)



OND-DFPR-02 (DPDT)

