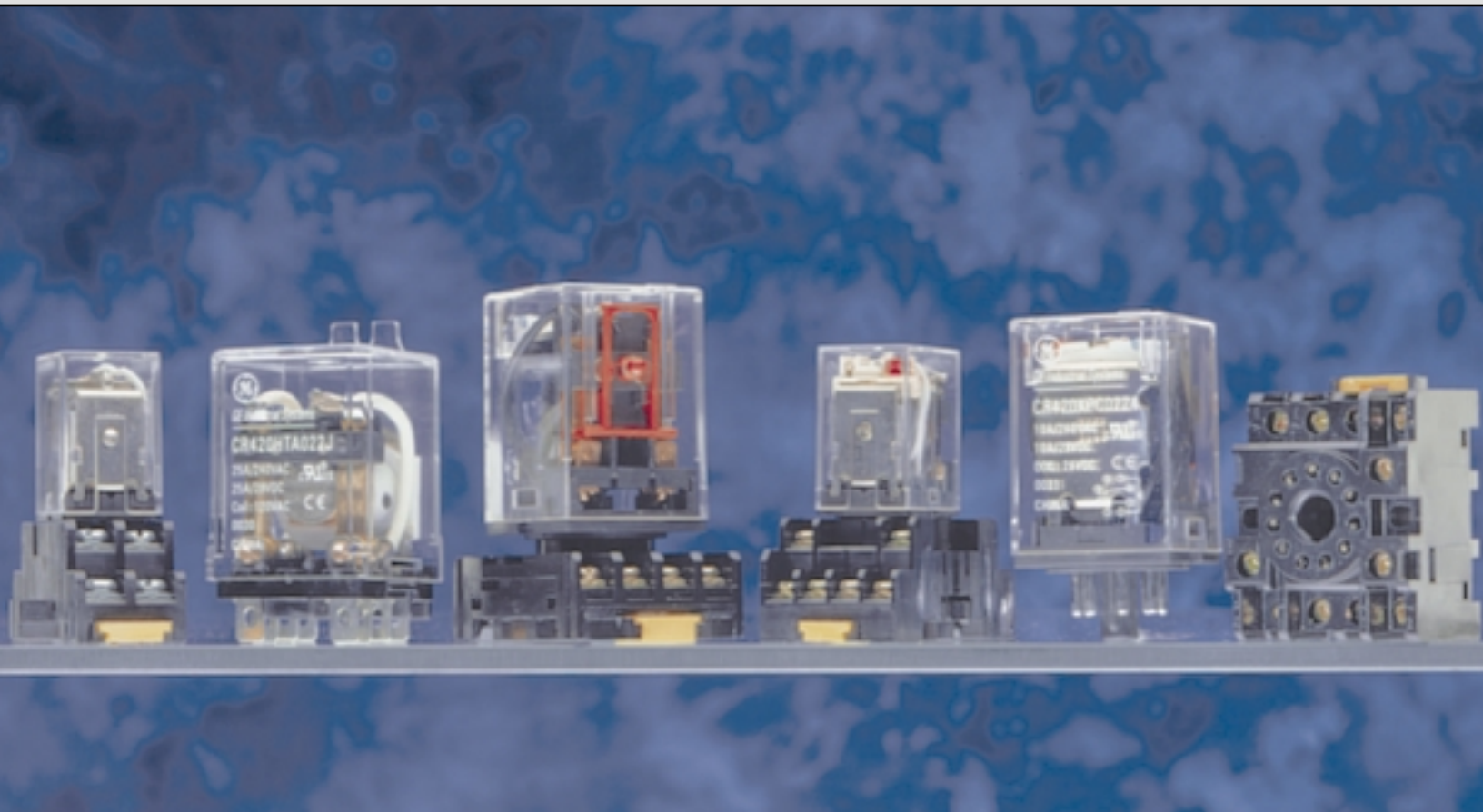
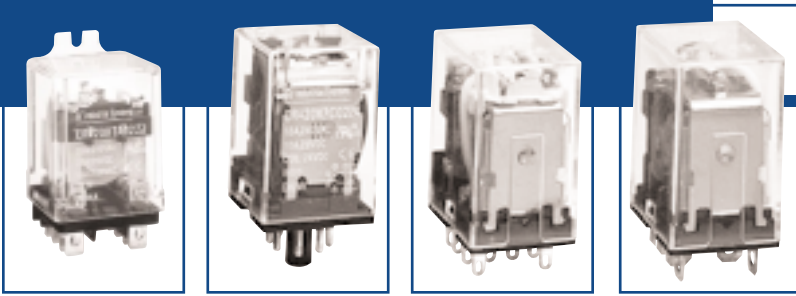




***General Purpose  
Plug-in Relays***



**Catalog**



## GE General Purpose Plug-in Relays

GE Industrial Systems' new CR420 series comprises a comprehensive general purpose plug-in relay family. Often called "ice cube relays," these UL/CSA recognized and CE marked products add another dimension to GE's control package. They will be particularly useful in OEM control applications.

These general-purpose plug-in relays deliver low-cost switching in many industrial control circuits in such applications as industrial equipment, machine tool, HVAC, lighting, vending, commercial appliances, elevators and spa controls. Coupled with their sockets and options, they supply powerful ratings at a low cost. Consider the advantages:

- Cost-effectiveness** • Competitive everyday prices for functional relays create an excellent solution for low voltage industrial switching.
- Power** • From 5 amp (4 pole) to 30 amp (single pole), these relays handle large loads in a compact package.
- Reliability** • Every relay is thoroughly tested, so you get the performance you need the first time, every time. And a long electrical life ensures that performance will last.
- Easy installation** • Simple plug-in terminations in robust DIN rail sockets save time and money.
- Quick identification** • All AC and DC coils are color-coded for quick voltage identification on the shop floor.
- Acceptance** • CR420s are UL and CSA recognized and CE marked for acceptance and use-around the world.
- Popular options** • Available options allow you to reduce your inventory by standardizing on those you need most. Choose from:
  - Flag indicators that show relay status in manual or powered condition.
  - Push-to-test buttons that allow manual operation without coil power — ideal for testing of control circuits by field service personnel.
  - LED indicating lamps clearly show coil status, even in low light conditions.
  - IP20 finger-safe sockets protect users from accidental contact during termination.





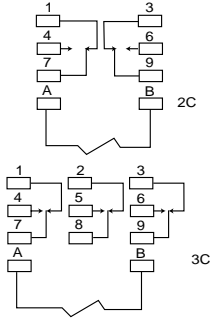
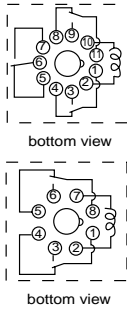
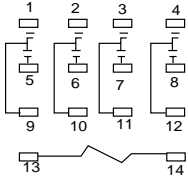
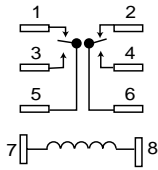
All versions are available with AC or DC coils, plug-in or direct flange mounting and multiple contact configurations. Robust specifications enable direct replacement from many major manufacturers.

The CR420 line takes its place alongside the full range of components that GE offers to OEMs and panelbuilders. This includes contactors, starters, breakers, transformers, PLCs, packaged drives, push buttons, switches and status indicating lights.

*For more information or for samples, contact your GE Industrial Systems Control & Drives Sales Engineer.*

## General Purpose Plug-in Relays At A Glance

UL Files E18830 (relays) and E196505 (sockets)

	<b>CR420H</b> Pages 4-5	<b>CR420K</b> Pages 6-7	<b>CR420M</b> Pages 8-9	<b>CR420N</b> Pages 10-11
				
Footprint/Connections				
Approval & Standards	UL, CSA, CE	UL, CSA, CE	UL, CSA, CE	UL, CSA, CE
Contact Arrangements	SPDT (DB-DM), DPDT, 3PDT	DPDT, 3PDT	4PDT	SPDT, DPDT, 4PDT
Contact Material	AgCdO	Ag	Ag	AgCdO
Maximum Contact Ratings	SPDT - 30A@240VAC DPDT - 25A@240VAC 3PDT - 20A@240VAC	10A@240VAC, 28VDC 1/3 HP @ 120VAC 1/2 HP @ 240VAC	5A@240VAC, 28VDC 1/10 HP @ 120/24VAC —	SPDT - 15A@240VAC DPDT - 10A@240VAC 4PDT - 10A@240VAC
Mechanical Life	10,000,000 operations	10,000,000 operations	10,000,000 operations	10,000,000 operations
Electrical Life at Rated Load	100,000 operations	100,000 operations	100,000 operations	100,000 operations
Nominal Coil Voltage	6-240VAC, 12-110VDC	6-240VAC, 12-110VDC	6-240VAC, 12-110VDC	6-240VAC, 12-110VDC
Mounting	Socket, Flange, PCB	Socket	Socket, Flange, PCB	Socket, Flange, PCB
Options	Manual Operator and/or LED Indicator	Manual Operator and/or LED Indicator	Manual Operator and/or LED Indicator	Manual Operator and/or LED Indicator

# CR420H



- AC or DC coils
- Push-to-test and LED indicator available
- 1-, 2- and 3-pole configurations
- Screw/DIN rail socket or flange mount
- Up to 30A rating, true 25A socket

## Relays

Replace asterisk in catalog number with appropriate coil code from Coils table.

Contacts	Mounting	Options	Cat. No.	List Price, GO-10PR
Single Pole, Double Throw (Double Make, Double Break)	Side Flange	None	CR420HFAZ11*	\$18.00
Double Pole, Double Throw	Socket	None	CR420HPA022*	13.00
		Manual Operator with LED Indicator	CR420HPC022*	17.00
	Side Flange	None	CR420HFA022*	14.00
Three Pole, Double Throw	Socket	None	CR420HPA033*	15.00
		Manual Operator with LED Indicator	CR420HPC033*	19.00
	Side Flange	None	CR420HFA033*	16.00

## Coils

Replace asterisk in relay catalog number with appropriate coil code digit. (Stock items shown in shaded rows.)

Form	Voltage	Nominal Voltage	Coil Resistance (Ohms)	Nominal Current mA, 50/60 Hz	Coil Code
1-pole/ 2-pole	AC	6	4.2	460	A
		12	18	230	B
		24	72	115	C
		120	1700	24	J
		240	7200	12	N
	DC	12	120	100	2
		24	472	51	4
		48	1800	26.5	7
		110	10000	11	9
3-pole	AC	6	3.2	480	A
		12	14	240	B
		24	55	120	C
		120	1300	26	J
		240	5510	13	N
	DC	12	120	100	2
		24	472	51	4
		48	1800	26.5	7
		110	10000	11	9

## Accessories

Accessory	Cat. No.	List Price, GO-10PR
Socket for Panel/ DIN Rail Mount	CR420HA	\$7.00
Hold-down Clips (2)	CR420HAS	2.25

Contact factory regarding versions not shown here.

### Contact Data

Ratings	SPDT-DM/DB	30A @ 240VAC, 28VDC 1 HP @ 120VAC, 1 1/2 HP @ 240VAC
	DPDT	25A @ 240VAC 28VDC 3/4 HP @ 120VAC, 1 HP @ 240VAC
	3PDT	20A @ 240VAC 28VDC 3/4 HP @ 120VAC, 1 HP @ 240VAC
Material		AgCdO
Maximum Contact Voltage		220VAC, 110VDC
Carry Current		10A
Life	Electrical	100,000 Operations
	Mechanical	10,000,000 Operations
Minimum Permissible Load		0.5A @ 1VDC

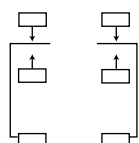
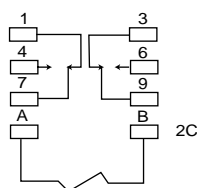
### Coil Data @ 20°C

Power	AC	2.3VA @ 50/60 Hz
Consumption	DC	1.5W
Pick-Up Voltage		80% Nominal Maximum
Drop-Out Voltage	AC	30% Nominal Minimum
	DC	10% Nominal Minimum
Maximum Voltage		110% Nominal Maximum

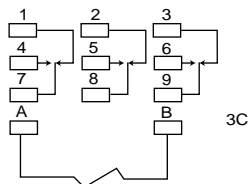
### General

Contact Resistance	50mΩ Maximum	
Operate Time	25mS Maximum	
Release Time	25mS Maximum	
Insulation Resistance	100mΩ Minimum @ 500VDC	
Switching Rate	Electrical	30 Operations/Minute
	Mechanical	240 Operations/Minute
Dielectric Strength	Between Coil & Contacts	1500VAC for One Minute
	Between Contacts	750VAC for One Minute
Vibration	Mechanical	100G Minimum
	Malfunction	10G Minimum
Temperature Range	-10° to 60°C	
Humidity	35 - 85% RH	
Weight	Approx. 85 Grams	

### Connections

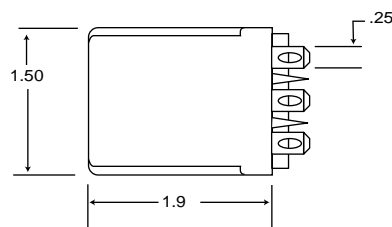
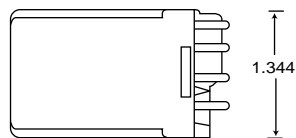


SPDT DM/DB

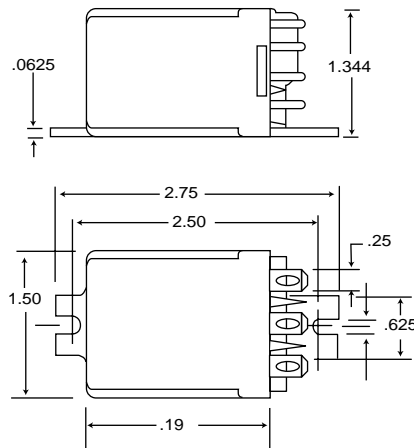


### Dimensions

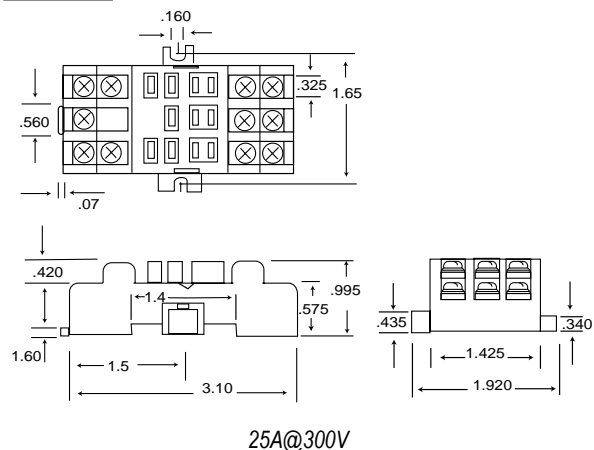
#### CR420HP

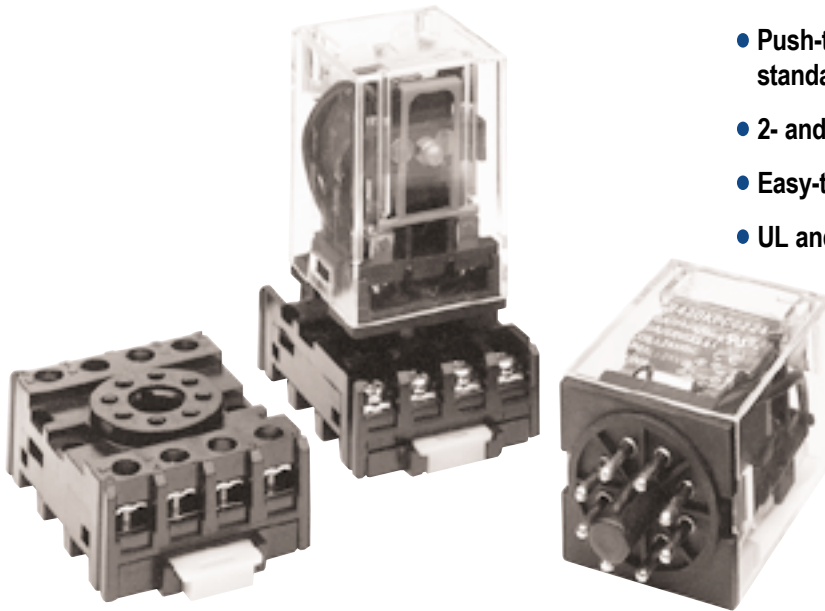


#### CR420HT



#### CR420HA





- AC or DC coils
- Push-to-test and mechanical indicator standard
- 2- and 3-pole configurations
- Easy-to-install pin socket
- UL and CSA recognized, CE marked

## Relays

Replace asterisk in catalog number with appropriate coil code from Coils table.

Contacts	Options	Cat. No.	List Price, GO-10PR
Double Pole, Double Throw	Manual Operator	CR420KPM022*	\$10.00
	Manual Operator with LED Indicator	CR420KPC022*	14.00
Three Pole, Double Throw	Manual Operator	CR420KPM033*	12.00
	Manual Operator with LED Indicator	CR420KPC033*	16.00

## Coils

Replace asterisk in relay catalog number with appropriate coil code digit. (Stock items shown in shaded rows.)

Voltage	Nominal Voltage	Coil Resistance (Ohms)	Nominal Current, mA		Coil Code
			50 Hz	60 Hz	
AC	6	5.3	404	360	A
	12	21.5	202	180	B
	24	91	98	88	C
	120	1620	2407	21	J
	240	7100	1209	11	N
DC	12	95	126	126	2
	24	430	56	56	4
	48	1630	29.5	29.5	7
	110	6800	16.2	16.2	9

## Accessories

Accessory	Cat. No.	List Price, GO-10PR
DPDT Socket for Panel/DIN Rail Mount	CR420KA2	\$5.00
3PDT Socket for Panel/DIN Rail Mount	CR420KA3	7.00
DPDT Euro (IP20) Socket for DIN Rail Mount	CR420KA21	8.00
3PDT Euro (IP20) Socket for DIN Rail Mount	CR420KA31	10.00
Hold-down Clip	CR420KAS	2.25

Contact factory regarding versions not shown here.

### Contact Data

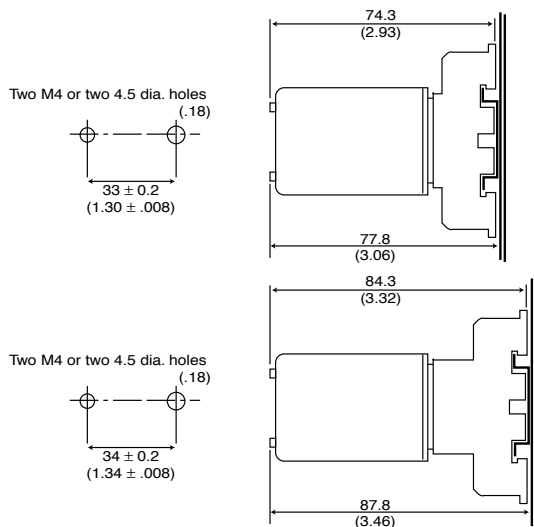
Ratings	DPDT 3PDT	10A res. @ 250VAC, 24VDC
		7A Ind. (p.f.=0.4), 250VAC
		1/2 HP @ 240VAC, 1/3 HP @ 120VAC
Material		Ag
Maximum Contact Voltage		220VAC, 110VDC
Carry Current		10A
Life	Electrical	100,000 Operations
	Mechanical	10,000,000 Operations
Minimum Permissible Load		10mA @ 1VDC

### Coil Data @ 20°C

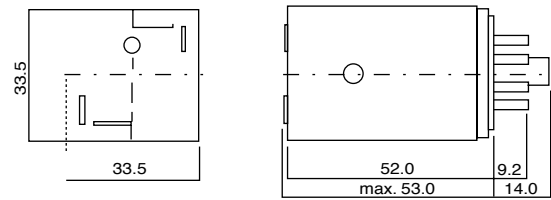
Power Consumption	AC	2.3VA @ 50/60 Hz
	DC	1.5W
Pick-Up Voltage		80% Nominal Maximum
Drop-Out Voltage	AC	30% Nominal Minimum
	DC	10% Nominal Minimum
Maximum Voltage		110% Nominal Maximum

### General

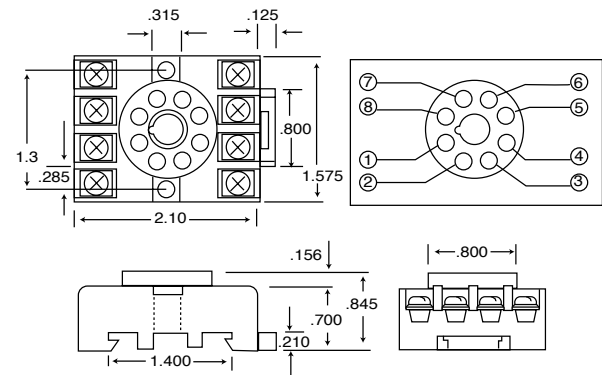
Contact Resistance		100mΩ Maximum
Operate Time		25mS Maximum
Release Time		25mS Maximum
Insulation Resistance		100mΩ Minimum @ 500VDC
Switching Rate	Electrical	30 Operations/Minute
	Mechanical	240 Operations/Minute
Dielectric Strength	Between Coil & Contacts	1500VAC @ 50/60 Hz
	Between Contacts	1000VAC @ 50/60 Hz
Vibration	Mechanical	100G Minimum
	Malfunction	10G Minimum
Temperature Range		-10° to 40°C
Humidity		35 - 85% RH
Weight		Approx. 85 Grams



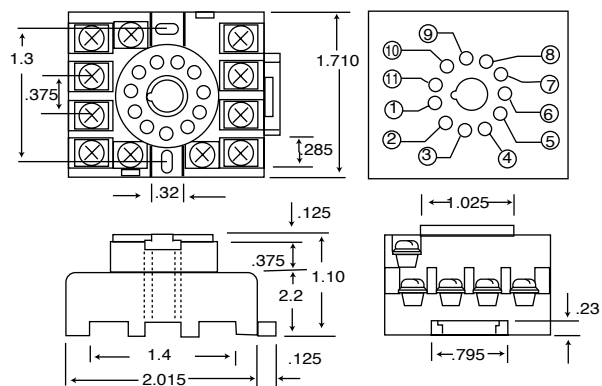
### Dimensions



### CR420KA2



### CR420KA3

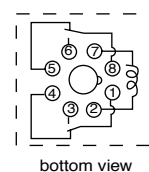


10A@300V

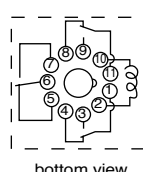
\* Note: IP20 versions same footprint dimensions

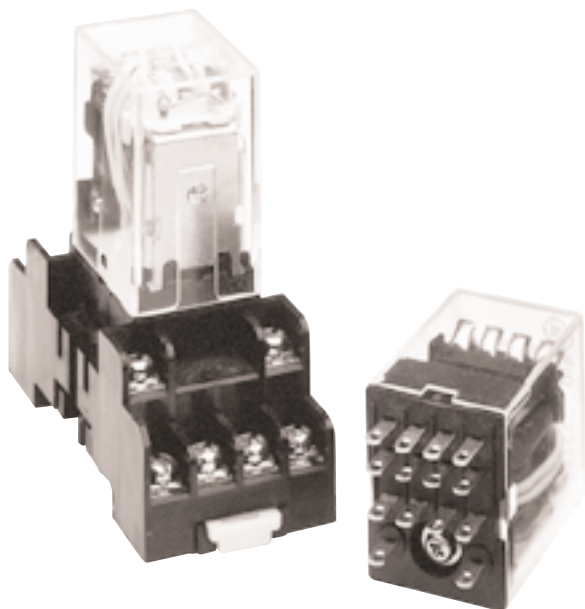
### Connections

#### DPDT



#### 3PDT





- 4-pole configurations
- Color coded coils
- UL, CSA recognized, CE marked
- Manual operator with LED indicator options available

## Relays

Replace asterisk in catalog number with appropriate coil code from Coils table.

Contacts	Mounting	Options	Cat. No.	List Price, GO-10PR
4 Pole, Double Throw	Socket	None	CR420MPA044*	\$10.00
		LED Indicator	CR420MPL044*	12.00
	PCB	None	CR420MBA044*	10.00

## Coils

Replace asterisk in relay catalog number with appropriate coil code digit. (Stock items shown in shaded rows.)

Voltage	Nominal Voltage	Coil Resistance (Ohms)	Nominal Current, mA		Coil Code
			50 Hz	60 Hz	
AC	6	10	220	170	A
	12	40	110	85	B
	24	160	60	45	C
	120	3400	13.5	11.5	J
	240	13600	6	5	N
DC	12	160	5	5	2
	24	650	36.9	36.9	4
	48	2600	18.5	18.5	7
	110	11000	10	10	9

## Accessories

Accessory	Cat. No.	List Price, GO-10PR
Socket for Panel/ DIN Rail Mount	CR420MA	\$8.00
Hold-down Clips (2)	CR420MAS	2.25

Contact factory regarding versions not shown here.



### Contact Data

Ratings	4PDT	5A @ 120VAC, 24VDC 1/10 HP @ 120/240VAC
Material		Ag
Maximum Contact Voltage		240VAC, 110VDC
Carry Current		5A
Life	Electrical	100,000 Operations
	Mechanical	10,000,000 Operations
Minimum Permissible Load		10mA @ 10VDC

### Coil Data @ 20°C

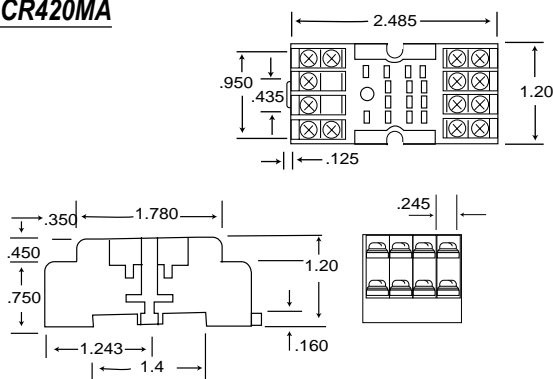
Power Consumption	AC	1.1VA @ 50/60 Hz
	DC	0.9W
Pick-Up Voltage	AC	85% Nominal Maximum
	DC	75% Nominal Maximum
Drop-Out Voltage	AC	30% Nominal Minimum
	DC	10% Nominal Minimum
Maximum Voltage		110% Nominal Maximum

### General

Contact Resistance		100mΩ Maximum
Operate Time		25mS Maximum
Release Time		25mS Maximum
Insulation Resistance		100mΩ Minimum @ 500VDC
Switching Rate	Electrical	30 Operations/Minute
	Mechanical	240 Operations/Minute
Dielectric Strength	Between Coil & Contacts	1500VAC @ 50/60 Hz
	Between Contacts	1000VAC @ 50/60 Hz
Vibration	Mechanical	100G Minimum
	Malfunction	10G Minimum
Temperature Range		-25° to 70°C
Humidity		35 - 85% RH
Weight		Approx. 35 Grams

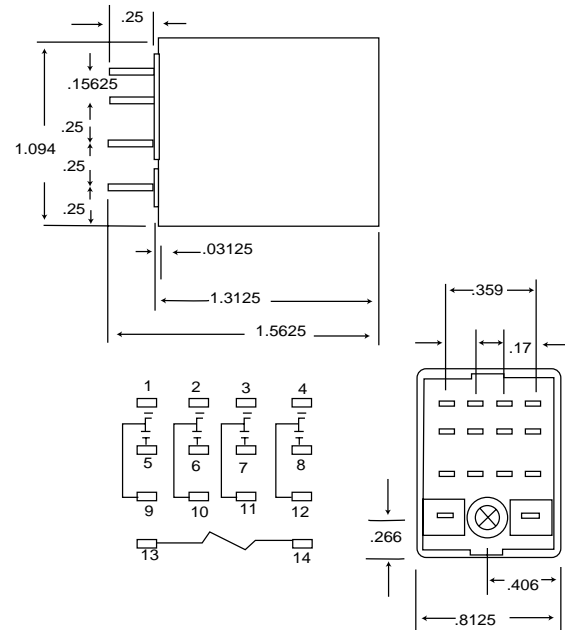
### Dimensions & Connections

#### CR420MA

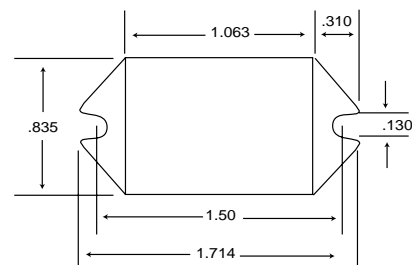


5A@300V

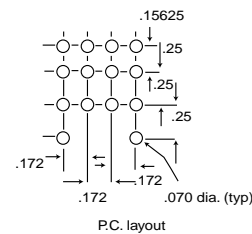
#### 4PDT



#### CR420MT



#### CR420MB Layout





- Push-to-test and LED indicator available
- 1-, 2- and 4-pole configurations
- Socket, PC board and flange mounting options
- Color-coded coils for easy identification
- Up to 15A contact rating

## Relays

Replace asterisk in catalog number with appropriate coil code from Coils table.

Contacts	Mounting	Options	Cat. No.	List Price, GO-10PR
Single Pole, Double Throw	Socket	None	CR420NPA011*	\$8.00
	Flange	None	CR420NTA011*	10.00
Double Pole, Double Throw	Socket	None	CR420NPA022*	10.00
		LED Indicator	CR420NPL022*	12.00
	Flange	None	CR420NTA022*	12.00
4 Pole, Double Throw	Socket	None	CR420NPA044*	12.00
		LED Indicator	CR420NPL044*	14.00
	Flange	None	CR420NTA044*	14.00

## Accessories

Accessory	Cat. No.	List Price, GO-10PR
DPDT Socket for Panel/DIN Rail Mount	CR420NA2	\$7.00
4PDT Socket for Panel/DIN Rail Mount	CR420NA4	10.00
DPDT Euro (IP20) Socket for DIN Rail Mount	CR420NA21	8.00
Hold-down Clips (2)	CR420MAS	2.25

Contact factory regarding versions not shown here.

## Coils

Replace asterisk in relay catalog number with appropriate coil code digit. (Stock items shown in shaded rows.)

Form	Voltage	Nominal Voltage	Coil Resistance (Ohms)	Nominal Current, mA		Coil Code
				50Hz	60 Hz	
1-pole/2-pole	AC	6	10	220	170	A
		12	43	110	85	B
		24	160	60	45	C
		120	3400	13.5	11.5	J
		240	13500	6	5	N
	DC	12	150	75	75	2
		24	650	36.9	36.9	4
		48	2500	18.5	18.5	7
		110	11000	10	10	9
4-pole	AC	6	2	234	200	A
		12	22	117	100	B
		24	190	58.5	50	C
		120	210	14.1	13.6	J
		240	8020	11.4	10	N
	DC	12	85	75	75	2
		24	394	36.9	36.9	4
		48	1536	18.5	18.5	7
		110	8066	10	10	9

## Coil Data @ 20°C

Power Consumption	AC	1.1VA @ 50/60 Hz
	DC	0.9W
Pick-Up Voltage	AC	85% Nominal Maximum
	DC	75% Nominal Maximum
Drop-Out Voltage	AC	30% Nominal Minimum
	DC	10% Nominal Minimum
Maximum Voltage		110% Nominal Maximum

## Contact Data

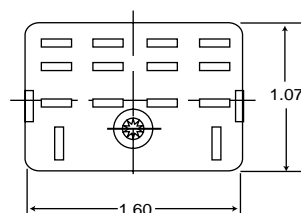
Ratings	SPDT	Resistive (p.f.=1.0)	15A@240VAC, 24VDC
		Inductive (p.f.=0.4)	7A@240VAC, 24VDC
			1/3 HP @ 120VAC, 1/2 HP @ 240VAC
	DPDT	Resistive (p.f.=1.0)	10A@240VAC, 24VDC
		Inductive (p.f.=0.4)	5A@240VAC, 24VDC
			1/3 HP @ 120VAC, 1/2 HP @ 240VAC
4PDT	Resistive (p.f.=1.0)	10A@240VAC, 24VDC	
	Inductive (p.f.=0.4)	5A@240VAC, 24VDC	
		1/3 HP @ 120VAC, 1/2 HP @ 240VAC	
Material		AgCdO	
Maximum Contact Voltage		240VAC, 110VDC	
Carry Current		10A	
Life	Electrical	100,000 Operations	
	Mechanical	10,000,000 Operations	
Minimum Permissible Load		10mA @ 5VDC	

## General

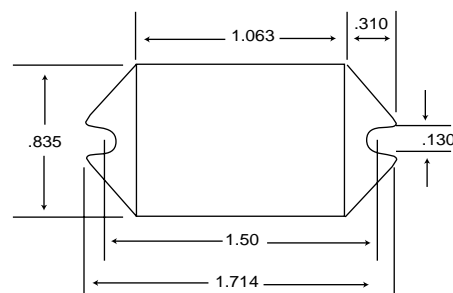
Contact Resistance		100mΩ Maximum
Operate Time		25mS Maximum
Release Time		25mS Maximum
Insulation Resistance		100mΩ Minimum @ 500VDC
Switching Rate	Electrical	30 Operations/Minute
	Mechanical	240 Operations/Minute
Dielectric Strength	Between Coil & Contacts	1500VAC for One Minute
	Between Contacts	1000VAC for One Minute
Vibration	Mechanical	100G Minimum
	Malfunction	10G Minimum
Temperature Range		-25° to 60°C
Humidity		35 - 85% RH
Weight	SPDT, DPDT	Approx. 35 Grams
	4PDT	Approx. 85 Grams

## Dimensions

### 4PDT



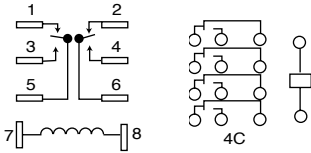
### CR420NT



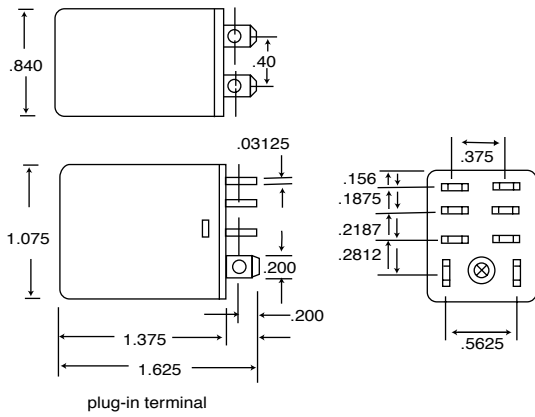
(Continued on next page)

## Connections

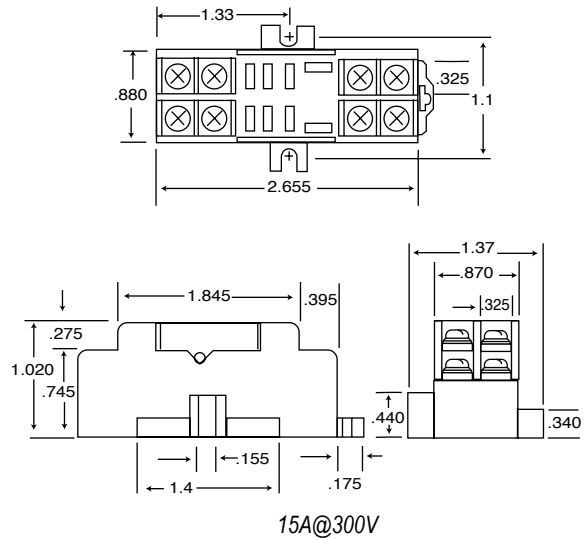
### DPDT



### SPDT/DPDT



### SPDT/DPDT Sockets



### 4PDT

