SECTION 1

SOCKET COMPATIBLE AND FLANGE MOUNTED RELAYS

1 TO 30 AMPERES

781
782
782H
783
784
750
788
283
388J/V
389/389F
300
9A/92
21
67
219
750H

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Magnecraft & Struthers-Dunn
Your Contact for Industrial Relays

SOCKET COMPATIBLE & FLANGE MOUNT RELAYS

PRODUCT	781	782XAX
	MANUFACTURED UNDER ISO 9002 QS 9000	MANUFACTURED UNDER ISO 9002 QS 9000
L X W X H (INCHES)	1.60 x 0.55 x 1.10	1.54 x 0.83 x 1.10
FEATURES	0.187 QUICK CONNECT/SOLDER PLUG-IN OR PRINTED CIRCUIT TERMINALS FLAG INDICATOR L.E.D. STATUS LAMP PUSH BUTTON FINGER GRIP COVER I.D. TAG/WRITE LABEL OPTIONAL FLANGE AND DIN ADAPTERS UL LISTED WHEN USED WITH 70-781D-1 SOCKET	0.187 QUICK CONNECT/SOLDER PLUG-IN OR PRINTED CIRCUIT TERMINALS FLAG INDICATOR L.E.D. STATUS LAMP PUSH BUTTON WITH LOCK DOWN DOOR FINGER GRIP COVER I.D. TAG/WRITE LABEL OPTIONAL FLANGE AND DIN ADAPTERS UL LISTED WHEN USED WITH 70-459-1 OR 70-782D-1 SOCKETS
COIL	**UNITS**	
Standard Voltage AC:	50/60 Hz	6, 12, 24,110 / 120, 220 / 230, 240	6, 12, 24,110 / 120, 220 / 230, 240
DC:		6, 12, 24, 48, 110 /125	6, 12, 24, 48,110 /125
Coil Power AC (60 Hz):	VA	0.9	1.2
Coil Power DC:	W	0.7	0.9
Insulation System Per UL Standard 1446:		Class B (130ºC)	Class B (130ºC)
CONTACTS			
Contact Configuration:		**SPDT**	**SPDT**
Contact Material:		Silver alloy, gold flashed	Silver alloy, gold flashed
Contact Resistance (Initial):	m Ohms	50	50
Contact Rating AC Amperes (AC1):	A	15	20
Contact Rating AC Voltage:	V	277	277
Contact Rating DC Amperes (DC1):	A	15 / 0.5	20 / 0.5
Contact Rating DC Voltage:	V	28 / 220	28 /220
Horse Power (AC):	Hp	1/2 @ 120 V	1/2 @ 120 V
Horse Power (AC):	Hp	1 @ 250 V	1 @ 250 V
TIMING			
Operate Time:	ms	20	25
Release Time:	ms	20	20
DIELECTRIC STRENGTH			
Coil to Contacts:	V rms	2500	2500
Insulation Resistance:	megohms minimum@VDC	100 @ 500	1000 @ 500
TEMPERATURE			
Operating, AC Lower:	ºC	-40	-40
Operating, AC Upper:	ºC	+70	+70
Operating, DC Lower:	ºC	-40	-40
Operating, DC Upper:	ºC	+70	+70
Storage, Lower:	ºC	-40	-40
Storage, Upper:	ºC	+105	+105
LIFE EXPECTANCY			
Electrical @ Rated Load (AC1):	operations	15 A: 100,000, 20 A: 50,000	100,000
Mechanical @ no Load :	operations	10,000,000	10,000,000
MISCELLANEOUS			
Cover Protection Category:	IP	40	40
Weight:	grams	29	36
MATING SOCKETS SEE SECTION 7		70-781D-1, 70-781F-1, 70-781T-1	70-459-1, 70-782D-1, 70-401-1, 70-402-1
AGENCY APPROVALS		c UL us UL Recognized File No. E43641, 40787, CE, UL LISTED, TÜV	c UL us UL Recognized File No. E43641, 40787, CE, UL LISTED, TÜV
PAGE NUMBER		PAGE 11 - 14	PAGE 11, 12, 13, 15

SOCKET COMPATIBLE & FLANGE MOUNT RELAYS

782XBX

MANUFACTURED UNDER ISO 9002 QS 9000

1.54 x 0.83 x 1.10

- 0.187 QUICK CONNECT/SOLDER PLUG-IN OR PRINTED CIRCUIT TERMINALS
- FLAG INDICATOR
- L.E.D. STATUS LAMP
- PUSH BUTTON WITH LOCK DOWN DOOR
- FINGER GRIP COVER
- I.D. TAG/WRITE LABEL
- OPTIONAL FLANGE AND DIN ADAPTERS
- UL LISTED WHEN USED WITH 70-459-1 OR 70-782D-1 SOCKETS

6, 12, 24, 110 / 120, 220 / 230, 240 6, 12, 24, 48, 110 /125	
1.2 0.9	
Class B (130ºC)	
DPDT	
Silver alloy, gold flashed	
50	
15 / 12 120 / 277	
12 / 0.5 28 /220	
1/2 @ 120 V 1 @ 250 V	
25 20	
2500	
1000 @ 500	
-40 +70	
-40 +70	
-40 +105	
200,000	
10,000,000	
40	
36	

70-459-1, 70-782D-1, 70-401-1, 70-402-1

cULus UL Recognized File No. E43641 | 40787 | CE | LISTED | TÜV

PAGE 11, 12, 13, 16

783XCX

MANUFACTURED UNDER ISO 9002 QS 9000

1.54 x 1.21 x 1.10

- 0.187 QUICK CONNECT/SOLDER PLUG-IN OR PRINTED CIRCUIT TERMINALS
- FLAG INDICATOR
- L.E.D. STATUS LAMP
- PUSH BUTTON WITH LOCK DOWN DOOR
- FINGER GRIP COVER
- I.D. TAG/WRITE LABEL
- OPTIONAL FLANGE AND DIN ADAPTERS
- UL LISTED WHEN USED WITH 70-783D-1 SOCKET

6, 12, 24,110 / 120, 220 / 230, 240 6, 12, 24, 48, 110 /125	
1.7 1.5	
CLASS B (130ºC)	
3PDT	
Silver alloy, gold flashed	
50	
15 / 12 120 / 277	
15 / 0.5 28 / 220	
1/2 @ 120 V 3/4 @ 250 V	
25 20	
2500	
1000 @ 500	
-40 +70	
-40 +70	
-40 +105	
150,000	
10,000,000	
40	
60	

70-783D-1

cULus UL Recognized File No. E43641 | 40787 | CE | LISTED | TÜV

PAGE 11, 12, 13, 17

784XDX

MANUFACTURED UNDER ISO 9002 QS 9000

1.54 x 1.60 x 1.10

- 0.187 QUICK CONNECT/ SOLDER PLUG-IN OR PRINTED CIRCUIT TERMINALS
- FLAG INDICATOR
- PUSH BUTTON WITH LOCK DOWN DOOR
- FINGER GRIP COVER
- I.D. TAG/WRITE LABEL
- OPTIONAL FLANGE AND DIN ADAPTERS
- UL LISTED WHEN USED WITH 70-784D-1 SOCKET

6, 12, 24,110 / 120, 220 / 230, 240 6, 12, 24, 48, 110 /125	
2 1.5	
Class B (130ºC)	
4PDT	
Silver alloy, gold flashed	
50	
15 / 12 120 / 277	
15 / 0.5 28 / 220	
1/2 @ 120 V 3/4 @ 250 V	
20 20	
2500	
100 @ 500	
-40 +70	
-40 +70	
-40 +105	
150,000	
10,000,000	
40	
80	

70-784D-1

cULus UL Recognized File No. E43641 | 40787 | CE | LISTED | TÜV

PAGE 11, 12, 13, 18

Magnecraft & Struthers-Dunn
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SOCKET COMPATIBLE & FLANGE MOUNT RELAYS

PRODUCT	782XBX1 & 782XDX1	782XBX2 & 782XDX2
	MANUFACTURED UNDER ISO 9002 QS 9000	MANUFACTURED UNDER ISO 9002 QS 9000
L X W X H (INCHES)	1.54 x 0.83 x 1.10	1.54 x 0.83 x 1.10
FEATURES	• 0.100 QUICK CONNECT/ SOLDER PLUG-IN OR PRINTED CIRCUIT TERMINALS • FLAG INDICATOR • L.E.D. STATUS LAMP • PUSH BUTTON • FINGER GRIP COVER • I.D. TAG/WRITE LABEL • OPTIONAL FLANGE AND DIN ADAPTERS AVAILABLE • UL LISTED WHEN USED WITH 70-461-1 SOCKET	• 0.100 QUICK CONNECT/ SOLDER PLUG-IN OR PRINTED CIRCUIT TERMINALS • FLAG INDICATOR • L.E.D. STATUS LAMP • PUSH BUTTON WITH LOCK DOWN DOOR • FINGER GRIP COVER • I.D. TAG/WRITE LABEL • OPTIONAL FLANGE AND DIN ADAPTERS AVAILABLE • UL LISTED WHEN USED WITH 70-461-1 SOCKET
COIL	**UNITS**	
Standard Voltage AC:	50/60 Hz	6, 12, 24, 110 / 120, 220 / 230, 240
DC:		6, 12, 24, 48, 110 /125
Coil Power AC (60 Hz):	VA	1.2
Coil Power DC:	W	0.9
Insulation System Per UL Standard 1446:		Class B (130ºC)
CONTACTS		
Contact Configuration:		**DPDT, 4PDT**
Contact Material:		Silver alloy, gold flashed
Contact Resistance (Initial):	m Ohms	50
Contact Rating AC Amperes (AC1):	A	3
Contact Rating AC Voltage:	V	240
Contact Rating DC Amperes (DC1):	A	3 / 0.25
Contact Rating DC Voltage:	V	28 / 220
Horse Power (AC):	Hp	
Horse Power (AC):	Hp	1/10 @ 240 V
TIMING		
Operate Time:	ms	20
Release Time:	ms	20
DIELECTRIC STRENGTH		
Coil to Contacts:	V rms	1500
Insulation Resistance:	megohms minimum@VDC	100 @ 500
TEMPERATURE		
Operating, AC Lower:	ºC	-40
Operating, AC Upper:	ºC	+70
Operating, DC Lower:	ºC	-40
Operating, DC Upper:	ºC	+70
Storage, Lower:	ºC	-40
Storage, Upper:	ºC	+105
LIFE EXPECTANCY		
Electrical @ Rated Load (AC1):	operations	200,000
Mechanical @ no Load :	operations	10,000,000
MISCELLANEOUS		
Cover Protection Category:	IP	40
Weight:	grams	36
MATING SOCKETS SEE SECTION 7		70-461-1, 70-378-1, 70-379-1
AGENCY APPROVALS		c US UL Recognized File No. E43641 · SA 40787 · CE · UL LISTED · TÜV
PAGE NUMBER		PAGE 11, 19, 20, 21, 22, 23

	782XBX1 & 782XDX1	782XBX2 & 782XDX2
COIL	**UNITS**	
Standard Voltage AC:	50/60 Hz	6, 12, 24, 110 / 120, 220 / 230, 240
DC:		6, 12, 24, 48, 110 /125
Coil Power AC (60 Hz):	VA	1.2
Coil Power DC:	W	0.9
Insulation System Per UL Standard 1446:		Class B (130ºC)
CONTACTS		
Contact Configuration:		**DPDT, 4PDT**
Contact Material:		Silver alloy, gold flashed
Contact Resistance (Initial):	m Ohms	50
Contact Rating AC Amperes (AC1):	A	10 / 8.0
Contact Rating AC Voltage:	V	120 / 277
Contact Rating DC Amperes (DC1):	A	8 / 0.25
Contact Rating DC Voltage:	V	28 / 220
Horse Power (AC):	Hp	1/3 @ 120 V
Horse Power (AC):	Hp	1 @ 277 V
TIMING		
Operate Time:	ms	20
Release Time:	ms	20
DIELECTRIC STRENGTH		
Coil to Contacts:	V rms	1500
Insulation Resistance:	megohms minimum@VDC	100 @ 500
TEMPERATURE		
Operating, AC Lower:	ºC	-40
Operating, AC Upper:	ºC	+70
Operating, DC Lower:	ºC	-40
Operating, DC Upper:	ºC	+70
Storage, Lower:	ºC	-40
Storage, Upper:	ºC	+105
LIFE EXPECTANCY		
Electrical @ Rated Load (AC1):	operations	200,000
Mechanical @ no Load :	operations	10,000,000
MISCELLANEOUS		
Cover Protection Category:	IP	40
Weight:	grams	36
MATING SOCKETS SEE SECTION 7		70-461-1, 70-378-1, 70-379-1
AGENCY APPROVALS		c US UL Recognized File No. E43641 · SA 40787 · CE · UL LISTED · TÜV
PAGE NUMBER		PAGE 11, 19, 20, 21, 22, 23

SOCKET COMPATIBLE & FLANGE MOUNT RELAYS

782XBX3 & 782XDX3

MANUFACTURED UNDER ISO 9002 QS 9000

782H

CERTIFIED CLASS 1 DIVISION 2 FOR HAZARDOUS LOCATIONS

MANUFACTURED UNDER ISO 9001

750

MANUFACTURED UNDER ISO 9002 QS 9000

1.54 x 0.83 x 1.10	1.28 x 0.91 x 1.15	2.280 x 1.37 x 1.39
• 0.100 QUICK CONNECT/ SOLDER PLUG-IN OR PRINTED CIRCUIT TERMINALS • FLAG INDICATOR • L.E.D. STATUS LAMP • PUSH BUTTON WITH LOCK DOWN DOOR • FINGER GRIP COVER • I.D. TAG/WRITE LABEL • OPTIONAL FLANGE AND DIN ADAPTERS AVAILABLE • UL LISTED WHEN USED WITH 70-461-1 SOCKET	• 0.100 SOLDER PLUG-IN TERMINALS • HERMETICALLY SEALED VACUUM BAKED AND DRY NITROGEN FILLED • GRAY LACQUER FINISH OVER STEEL ENCLOSURE • MEETS UL STANDARD FOR CLASS 1 DIVISION 2 HAZARDOUS LOCATIONS • OPTIONAL TOP OR SIDE STUD MOUNT • UL LISTED WHEN USED WITH 70-461-1 SOCKET	• 8 & 11 PIN OCTAL • FLAG INDICATOR • L.E.D. STATUS LAMP • PUSH BUTTON WITH LOCK DOWN DOOR • FINGER GRIP COVER • I. D. TAG/WRITE LABEL • UL LISTED WHEN USED WITH 70-464-1, 70-465-1, 70-750D8-1 OR 70-750D11-1 SOCKETS
6, 12, 24,110 / 120, 220 / 230, 240 6, 12, 24, 48, 110 /125	6,12, 24, 110 /120, 240 6,12, 24, 48, 110 /125	6,12, 24, 110 /120, 220/ 240 6,12, 24, 48, 110 /125
1.2 0.9	1.2 0.9	2.0 - 3.0 1.4
Class B (130ºC)	Class B (130ºC)	Class B (130ºC)
DPDT, 4PDT	**4PDT**	**DPDT, 3PDT**
Silver alloy, gold flashed	See Table	Silver alloy, gold flashed
50	50	50
3 240	1.0 / 3.0 / 5.0 240	16 277
3 / 0.25 28 / 220	1.0 / 3.0 / 5.0 28	16 / 0.5 28 / 220
1/16 @ 120 V		1/3 @ 120 V 1/2 @ 240 V
20 20	13 6	20 20
1500 100 @ 500	1240 1000 @ 500	2500 1000 @ 500
-40 +70 -40 +70 -40 +105	-40 +70 -40 +70 -40 +105	-40 +50 -40 +65 -40 +105
200,000 10,000,000	100,000 10,000,000	100,000 5,000,000
40 36	67 45	40 89
70-461-1, 70-378-1, 70-379-1	**70-461-1, 70-378-1, 70-379-1**	**70-464-1, 70-465-1, 70-750D8-1, 70-750D11-1 70-750EL, 70-750E, 70-750SL**
c US UL Recognized File No. E43641 · 40787 · LISTED · TÜV	c US UL Recognized File No. E209950 · 168986 · LISTED	c US UL Recognized File No. E43641 · 40787 · LISTED · TÜV
PAGE 11, 19, 20, 21, 22, 23	PAGE 19 - 23	PAGE 11, 24, 25

Magnecraft & Struthers-Dunn
Your Contact for Industrial Relays

SOCKET COMPATIBLE & FLANGE MOUNT RELAYS

PRODUCT	788	A283
	MANUFACTURED UNDER ISO 9002 QS 9000	MANUFACTURED UNDER ISO 9002 QS 9000
L X W X H (INCHES)	2.15 x 1.37 x 1.39	1.90 x 1.53 x 1.40
FEATURES	• SOCKET OR FLANGE MOUNT • FLAG INDICATOR • L.E.D. STATUS LAMP • PUSH BUTTON WITH LOCK DOWN DOOR • FINGER GRIP COVER • I. D. TAG/WRITE LABEL • UL LISTED WHEN USED WITH 70-463-1 SOCKET	• SOCKET OR FLANGE MOUNT • 0.187 QUICK CONNECT/ SOLDER PLUG-IN OR PRINTED CIRCUIT TERMINALS • UL LISTED WHEN USED WITH 70-463-1 SOCKET

	UNITS		
COIL			
Standard Voltage AC:	50/60 Hz	6,12, 24, 110 / 120, 220 / 240	6, 12, 24, 110 / 120, 220 / 240
DC:		6, 12, 24, 48, 110 / 125	6,12, 24, 48, 110 / 125
Coil Power AC (60 Hz):	VA	2.0 - 3.0	2.75
Coil Power DC:	W	1.4	2
Insulation System Per UL Standard 1446:		Class B (130ºC)	Class B (130ºC)
CONTACTS			
Contact Configuration:		**DPDT, 3PDT**	**SPST, DPDT, 3PDT**
Contact Material:		Silver alloy, gold flashed	Silver alloy, gold flashed
Contact Resistance (Initial):	m Ohms	50	50
Contact Rating AC Amperes (AC1):	A	16	15
Contact Rating AC Voltage:	V	277	240
Contact Rating DC Amperes (DC1):	A	16 / 0.5	10
Contact Rating DC Voltage:	V	28 / 220	28
Horse Power (AC):	Hp	1/3 @ 120 V	1/3 @ 120 V
Horse Power (AC):	Hp	1/2 @ 240 V	1/2 @ 240 V
TIMING			
Operate Time:	ms	20	20
Release Time:	ms	20	20
DIELECTRIC STRENGTH			
Coil to Contacts:	V rms	2500	2500
Insulation Resistance:	megohms minimum@VDC	1000 @ 500	100 @ 500
TEMPERATURE			
Operating, AC Lower:	ºC	-40	-30
Operating, AC Upper:	ºC	+50	+60
Operating, DC Lower:	ºC	-40	-30
Operating, DC Upper:	ºC	+65	+50
Storage, Lower:	ºC	-40	-30
Storage, Upper:	ºC	+105	+100
LIFE EXPECTANCY			
Electrical @ Rated Load (AC1):	operations	100,000	100,000
Mechanical @ no Load :	operations	5,000,000	10,000,000
MISCELLANEOUS			
Cover Protection Category:	IP	40	40
Weight:	grams	88	88
MATING SOCKETS SEE SECTION 7		70-463-1, 70-124-1, 70-124-2, 70-178-1, 70-178-2, 70-788EL, 70-788SL	70-463-1, 70-124-1, 70-124-2, 70-178-1, 70-178-2, 70-788EL, 70-788SL
AGENCY APPROVALS		c UL us UL Recognized File No. E43641; 40787; CE; UL LISTED; TÜV	c UL us UL Recognized File No. E13224; 168986; CE; UL LISTED
PAGE NUMBER		PAGE 11, 26, 27	PAGE 28 - 30

SOCKET COMPATIBLE & FLANGE MOUNT RELAYS

A283 DC SWITCHING

MANUFACTURED UNDER ISO 9002 QS 9000

388J

MANUFACTURED UNDER ISO 9002 QS 9000

388V

MANUFACTURED UNDER ISO 9002 QS 9000

1.90 x 1.53 x 1.40	1.90 x 1.53 x 1.40	1.90 x 1.53 x 1.40
• SOCKET OR FLANGE MOUNT • 0.187 QUICK CONNECT/ SOLDER PLUG-IN OR PRINTED CIRCUIT TERMINALS • BLOW OUT MAGNET FOR SWITCHING DC VOLTAGES • UL LISTED WHEN USED WITH 70-463-1 SOCKET	• SOCKET MOUNT OR FLANGE MOUNT • ENLARGED 0.240 SILVER ALLOY CONTACTS FOR HIGH CURRENT • 0.187 QUICK CONNECT / SOLDER PLUG-IN OR PRINTED CIRCUIT TERMINALS • FLAG INDICATOR • PUSH BUTTON • UL LISTED WHEN USED WITH 70-463-1 SOCKET	• SOCKET MOUNT OR FLANGE MOUNT • 3mm CONTACT GAP FOR HIGH VOLTAGE SWITCHING • 0.187 QUICK CONNECT / SOLDER PLUG-IN OR PRINTED CIRCUIT TERMINALS • 8mm SPACING • PUSH BUTTON • UL LISTED WHEN USED WITH 70-463-1 SOCKET
6, 12, 24, 110 / 120, 220 / 240 6,12, 24, 48, 110 / 125	6, 12, 24, 110 / 120, 220 / 240 6,12, 24, 48, 110 / 125	6, 12, 24, 110 / 120, 220 / 240 6,12, 24, 48, 110 / 125
2.75 2	2.75 2	2.75 2
Class B (130ºC)	Class B (130ºC)	Class B (130ºC)
SPDT, DPDT	**DPDT, 3PDT**	**DPDT-NO, 3PDT-NO**
Silver alloy, gold flashed	Silver alloy, gold flashed	Silver alloy, gold flashed
50	50	50
15 240	2POLE: 20 / 3 POLE: 16 300 / 277	15 240
1POLE: 10, 2POLE: 3 150, 150	20 28	15 28
1/3 @ 120 V 1/2 @ 240 V	See Table See Table	1/3 @ 120 V 1/2 @ 240 V
20 20	20 20	20 20
2000 100 @ 500	2000 100 @ 500	4000 100 @ 500
-30 +65	-30 +65	-30 +65
-30 +50	-30 +50	-30 +50
-30 +100	-30 +100	-30 +100
100,000 5,000,000	100,000 5,000,000	100,000 5,000,000
40 88	40 88	40 88
70-463-1, 70-124-1,70-124-2, 70-178-1, 70-178-2 70-788EL, 70-788SL	**70-463-1, 70-124-1, 70-124-2, 70-178-1, 70-178-2 70-788EL, 70-788SL**	**70-463-1, 70-124-1, 70-124-2 , 70-178-1, 70-178-2 70-788EL, 70-788SL**
c UL us UL Recognized File No. E13224	c UL us UL Recognized File No. E43641	c UL us UL Recognized File No. E43641
168986	168986	168986
LISTED	LISTED	LISTED
PAGE 28, 29, 31	PAGE 32, 33	PAGE 32, 34

Magnecraft & Struthers-Dunn
Your Contact for Industrial Relays

SOCKET COMPATIBLE & FLANGE MOUNT RELAYS

PRODUCT	389	389F	300
	MANUFACTURED UNDER ISO 9002 QS 9000	MANUFACTURED UNDER ISO 9002 QS 9000	MANUFACTURED UNDER ISO 9002 QS 9000
L X W X H (INCHES)	1.90 x 1.53 x 1.40	1.90 x 1.53 x 1.40	1.90 x 1.53 x 1.40
FEATURES	• FLANGE MOUNT • 0.250 QUICK CONNECT/ SOLDER TERMINALS • SWITCHING UP TO 30 AMPS • SOCKET MOUNT AVAILABLE	• FLANGE MOUNT • FLAG INDICATOR • PUSH BUTTON • SWITCHING UP TO 30 AMPS • SOCKET MOUNT AVAILABLE	• FLANGE MOUNT • 0.250 QUICK CONNECT SOLDER OR PRINTED CIRCUIT TERMINALS • VARIETY OF MOUNTING OPTIONS AVAILABLE INCLUDING DIN, FLANGE AND STUD • 2 MILLIMETER CONTACT GAP ARC BARRIER BETWEEN POLES • OPTIONAL BLOWOUT MAGNET FOR HIGH VOLTAGE DC SWITCHING
COIL	**UNITS**			
Standard Voltage AC:	50/60 Hz	6, 12, 24, 110 / 120, 220 / 240	6, 12, 24, 110 / 120, 220 / 240	6, 12, 24, 110 / 120, 220 / 240
DC:		6,12, 24, 48, 110 / 125	6,12, 24, 48, 110 / 125	6,12, 24, 48, 110 / 125
Coil Power AC (60 Hz):	VA	3.5	3.5	3.0
Coil Power DC:	W	1.44	1.44	2.0
Insulation System Per UL Standard 1446:		Class B (130ºC)	Class B (130ºC)	Class B (130ºC) or CLass F (155ºC)
CONTACTS				
Contact Configuration:		**DPDT-NO, 3PDT-NO**	**DPDT-NO, 3PDT-NO**	**DPDT**
Contact Material:		Silver alloy, gold flashed	Silver alloy, gold flashed	Silver alloy, gold flashed
Contact Resistance (Initial):	m Ohms	50	50	50
Contact Rating AC Amperes (AC1):	A	20, 25, 30	20, 25, 30	30 / 20 / 15
Contact Rating AC Voltage:	V	See Table	See Table	277 / 480 / 600
Contact Rating DC Amperes (DC1):	A	See Table	See Table	30
Contact Rating DC Voltage:	V	See Table	See Table	28
Horse Power (AC):	Hp	See Table	See Table	1 @ 120
Horse Power (AC):	Hp	See Table	See Table	2 @ 208 -600
TIMING				
Operate Time:	ms	20	20	20
Release Time:	ms	20	20	15
DIELECTRIC STRENGTH				
Coil to Contacts:	V rms	1600	1600	4000
Insulation Resistance:	megohms minimum@VDC	1000 @ 500	1000 @ 500	1000 @ 500
TEMPERATURE				
Operating, AC Lower:	ºC	-30	-30	-30
Operating, AC Upper:	ºC	+65	+65	+60
Operating, DC Lower:	ºC	-30	-30	-30
Operating, DC Upper:	ºC	+50	+50	+50
Storage, Lower:	ºC	-30	-30	-30
Storage, Upper:	ºC	+100	+100	+100
LIFE EXPECTANCY				
Electrical @ Rated Load (AC1):	operations	100,000	100,000	100,000
Mechanical @ no Load :	operations	5,000,000	5,000,000	10,000,000
MISCELLANEOUS				
Cover Protection Category:	IP	40	40	40
Weight:	grams	88	88	85
MATING SOCKETS SEE SECTION 7		70-788EL, 70-788SL	70-788EL, 70-788SL	
AGENCY APPROVALS		c UL us UL Recognized File No. E43641 CSA 168986 CE	c UL us UL Recognized File No. E43641 CSA 168986 CE	UL us UL Recognized File No. E13224 CSA 50758
PAGE NUMBER		PAGE 35 - 37	PAGE 35 - 37	PAGE 38, 39

SOCKET COMPATIBLE & FLANGE MOUNT RELAYS

	9A	92	21 / 136
		NEW MANUFACTURED UNDER ISO 9002 QS 9000	MANUFACTURED UNDER ISO 9001
	1.980 x 1.08 x 1.10	2.70 x 1.36 x 1.495	2.84 x 1.85 x 2.47
	• FLANGE MOUNT • 0.250 SPADE TERMINALS ON CONTACTS AND 0.187 SPADE TERMINALS ON COIL ACCEPT INSULATED QUICK CONNECT CONNECTORS • EPOXY SEALED IMMERSION CLEANABLE	• DIN/ FLANGE MOUNT • 0.250 SPADE TERMINALS ON CONTACTS AND 0.187 SPADE TERMINALS ON COIL ACCEPT INSULATED QUICK CONNECT CONNECTORS • EPOXY SEALED IMMERSION CLEANABLE	• TRAFFIC SIGNAL FLASH TRANSFER • MEETS NEMA STD. TS 2-1992 D. O. T. APPROVED • SWITCHES TUNGSTEN LOADS UP TO 20 AMPS • MIDTEX 136 ALSO AVAILABLE
Coil Voltage	24, 120, 240 5, 12, 24, 48, 110 / 125	24, 120, 240 5, 12, 24, 48, 110 / 125	6, 12, 24, 110 / 120, 220 / 240 6,12, 24, 48, 110 / 125
Coil Power (Watts)	2.8 1	4 1.7	3.0 2.0
Insulation	Class F (155ºC)	Class F (155ºC)	CLASS B (130ºC)
Contact Arrangement	**SPST-NO. & SPDT**	**DPST-NC. & DPDT**	**DPDT**
Contact Material	Silver alloy	Silver alloy	Silver alloy
Contact Rating (Amps)	75 30 240	75 30 277	100 30 240
Motor Rating (HP)	30 28	20 7 28	20 28
Pilot Duty (VA)	1 @ 120 V 2 @ 240 V	1 @ 120 V 2 @ 240 V	1 1/2 @ 120 V 2 @ 240 V
Resistive Rating (Amps)	20 20	20 20	20 20
Operations/Hour	2500 100 @ 500	2500 100 @ 500	1500 1000 @ 500
Ambient Temperature Range	-55 +85	-55 +85	-40 +80
Humidity	-55 +85	-55 +85	Not Applicable Not Applicable
Storage Temperature Range	-55 +105	-55 +105	-40 +105
Mechanical Life (Operations)	100,000 10,000,000	100,000 5,000,000	200,000 5,000,000
Weight (Ounces)	40 33	40 86	40 205
	OPTIONAL DIN ADAPTER 16-9A DIN-1		70-TRF-8-1 70-TRB-8-1
	c UL us UL Recognized File No. E43641	c UL us UL Recognized File No. E43641	c UL us UL Recognized File No. E43641 168986
	PAGE 40, 41	PAGE 40, 42	PAGE 43

SOCKET COMPATIBLE & FLANGE MOUNT RELAYS

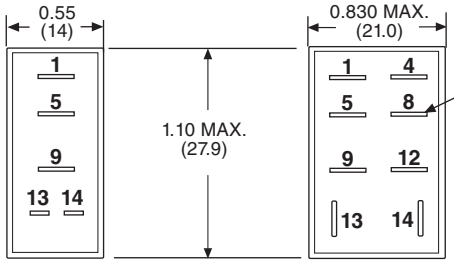
Magnecraft & Struthers-Dunn
Your Contact for Industrial Relays

PRODUCT	67	219	750H
		MANUFACTURED UNDER ISO 9002 QS 9000	
L X W X H (INCHES)	1.20 x 0.735 x 0.978 to 1.592	2.59 x1.468 x 2.625 / 3.062	1.281 x 0.910 x 1.156
FEATURES	• 0.100 SOLDER PLUG-IN OR PRINTED CIRCUIT TERMINALS • UP TO 6 POLES SWITCHING PLUG-IN STYLES HAVE 3-48 UNC • GROUND STUDS . OPTIONAL L 3 AMP BIFURCATED CONTACTS FOR LOW LEVEL	• 12 OR 14 PIN WITH LOCKING CLIP • WIDE RANGE OF CONTACT CONFIGURATIONS TO 6PST • WIDE CHOICE OF OPTIONS • OPTIONAL 5 AMP BIFURCATED CONTACTS FOR LOW LEVEL • UL LISTED WHEN USED WITH 27390D OR 33377D SOCKET • NUCLEAR QUALIFIED VERSIONS AVAILABLE	• 8 & 11 PIN OCTAL BASE • HERMETICALLY SEALED DRY NITROGEN FILLED • GRAY LACQUER FINISH OVER STEEL ENCLOSURE • MEETS UL STANDARD FOR CLASS 1 DIVISION 2 HAZARDOUS LOCATIONS • UL LISTED WHEN USED WITH 70-464-1 OR 70-465-1 SOCKETS
COIL	**UNITS**			
Standard Voltage AC:	50/60 Hz	110 /120	6, 12, 24, 110 / 120, 220 / 240	12, 24. 110 / 120
DC:		5, 12, 24, 48, 110 / 125	6, 12, 24, 48, 110 / 125	12, 24, 110 / 125
Coil Power AC (60 Hz):	VA	2.75	1.2	2.0
Coil Power DC:	W	0.45	0.9	1.2
Insulation System Per UL Standard 1446:		Class B (130ºC)	Class B (130ºC)	Class B (130ºC)
CONTACTS				
Contact Configuration:		**DPST to 6PDT**	**to 6PDT**	**DPDT, 3PDT**
Contact Material:		Silver alloy, gold plated	Silver alloy, gold diffused	Silver alloy, gold flashed
Contact Resistance (Initial):	m Ohms	50	75	100
Contact Rating AC Amperes (AC1):	A	5 / 3	10 / 5	2 Pole-12, 3 Pole-10
Contact Rating AC Voltage:	V	120 / 120	120 / 120	120 / 240
Contact Rating DC Amperes (DC1):	A	5/3	10/5	10
Contact Rating DC Voltage:	V	28 / 28	28 / 28	30
Horse Power (AC):	Hp	-	See Table	1/3 @ 120 V
Horse Power (AC):	Hp	-	See Table	1/2 @ 240 V
TIMING				
Operate Time:	ms	25	25	10
Release Time:	ms	20	20	30
DIELECTRIC STRENGTH				
Coil to Contacts:	V rms	1500	1500	1250
Insulation Resistance:	megohms minimum@VDC	1000 @ 500	1000 @ 500	1000 @ 500
TEMPERATURE				
Operating, AC Lower:	ºC	-40	-40	-45
Operating, AC Upper:	ºC	+60	+80	+55
Operating, DC Lower:	ºC	-40	-40	-45
Operating, DC Upper:	ºC	+60	+80	+70
Storage, Lower:	ºC	-40	-40	-45
Storage, Upper:	ºC	+130	+130	+105
LIFE EXPECTANCY				
Electrical @ Rated Load (AC1):	operations	100,000	100,000	100,000
Mechanical @ no Load :	operations	10,000,000	10,000,000	5,000,000
MISCELLANEOUS				
Cover Protection Category:	IP	40	40	67
Weight:	grams	22 to 40	241	130
MATING SOCKETS SEE SECTION 7		70-303-1, 70-305-1, 70-307-1 70-304-1, 70-306-1, 70-308-1	27390D, 33377D	70-464-1, 70-465-1 70-750D8-1, 70-750D11-1
AGENCY APPROVALS		c US UL Recognized File No. E52197	c US UL Recognized File No. E13224 168986 LISTED	c US UL Recognized File No. E43641 LISTED
PAGE NUMBER		PAGE 44, 45	PAGE 46, 47	PAGE 48, 49

HOW TO CHOOSE A PLUG -IN RELAY

Magnecraft
Struthers-Dunn
Your Contact for Industrial Relays

SPDT (XAX)

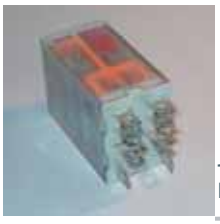


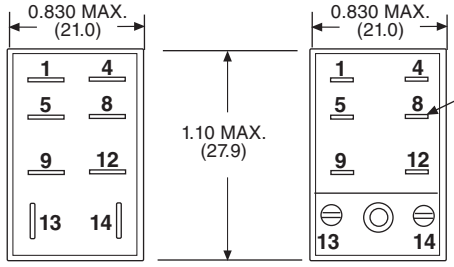
TYPICAL TERMINAL SIZE IN INCHES:
0.187 X 0.020 (LONG)

781
20 AMPS
PAGE 14

782
20 AMPS
PAGE 15

DPDT (XBX)



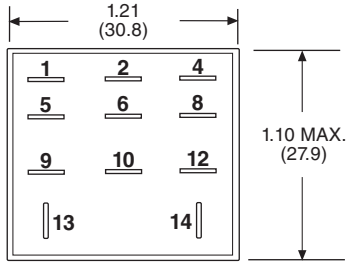


TYPICAL TERMINAL SIZE IN INCHES:
0.110 X 0.020 (SHORT)

782
15 AMPS
PAGE 16

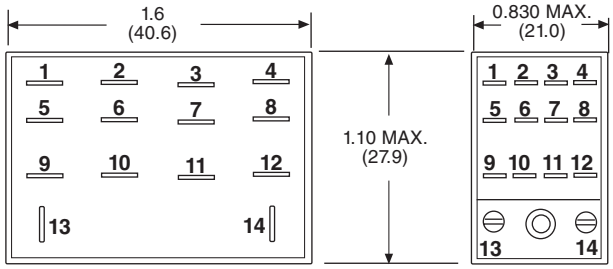
782
UP TO 10 AMPS
PAGE 21

3PDT (XCX)



783
15 AMPS
PAGE 17

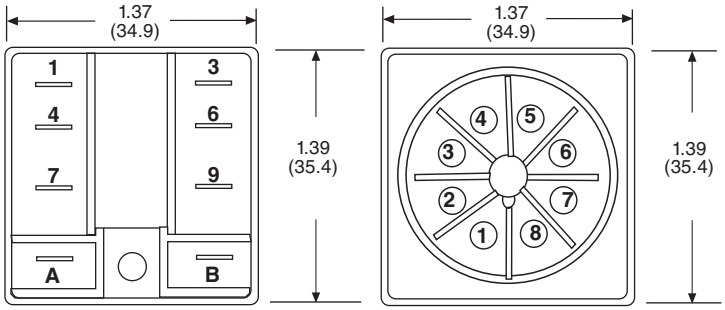
4PDT (XDX)



784
15 AMPS
PAGE 18

782
UP TO 10 AMPS
PAGE 21

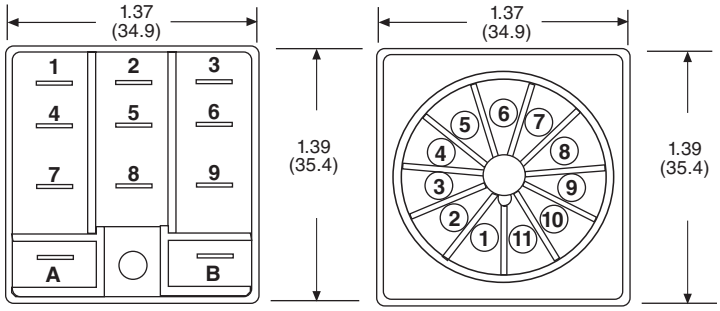
DPDT (XBX)



788
16 AMPS
PAGE 27

750
16 AMPS
PAGE 25

3PDT (XCX)



788
16 AMPS
PAGE 27

750
16 AMPS
PAGE 25

PHONE: (843) 393-5778 FAX: (843) 393-4123 EMAIL: info@magnecraft.com

700 SERIES "ICE CUBE" POWER RELAYS

c UL us
UL Recognized
File No. E43641

40787

TÜV

CE

COMPLIES WITH REQUIREMENTS OF

* IEC STANDARDS 947-4-1 AND 947-5-1 LOW VOLTAGE DIRECTIVE
* IEC = INTERNATIONAL ELECTROTECHNICAL COMMISSION
* CE TESTING AND EVALUATION PERFORMED BY THE UNDERWRITERS LABORATORIES AS A THIRD PARTY PARTICIPANT

c UL us
LISTED 367G
IND. CONT. EQ.

WHEN USED WITH SOCKETS:
781:**70-781D-1**
782:**70-782D-1**
70-459-1
70-461-1
783:**70-783D-1**
784:**70-784D-1**

CURRENT LIMITED TO RATING OF RELAY OR SOCKET WHICHEVER IS LESS

FEATURES	BENEFITS
FLAG INDICATOR:	SHOWS RELAY STATUS IN MANUAL OR POWERED CONDITION.
BI - POLAR L.E.D. STATUS LAMP:	ALLOWS FOR REVERSE POLARITY APPLICATIONS, SHOWS COIL "ON" OR "OFF" STATUS. IDEAL IN LOW LIGHT CONDITIONS.
COLOR CODED PUSH BUTTON:	IDENTIFIES AC COILS WITH RED OR DC COILS WITH BLUE PUSH BUTTONS. ALLOWS FOR MANUAL OPERATION OF RELAY WITHOUT THE NEED FOR COIL POWER. IDEAL FOR FIELD SERVICE PERSONNEL TO TEST CONTROL CIRCUITS.
LOCK-DOWN DOOR:	WHEN ACTIVATED, HOLDS PUSH BUTTON AND CONTACTS IN THE OPERATE POSITION. EXCELLENT FOR ANALYZING CIRCUIT PROBLEMS.
FINGER - GRIP COVER:	ALLOWS OPERATOR TO REMOVE RELAYS FROM SOCKETS MORE EASILY THAN CONVENTIONAL RELAYS.
WHITE PLASTIC I.D. TAG/WRITE LABEL:	USED FOR IDENTIFICATION OF RELAYS IN MULTI-RELAY CIRCUITS.
COVER ADAPTERS:	DIN RAIL ADAPTER OR TOP/BOTTOM FLANGE ADAPTER, ALLOWS THE 700 RELAYS TO BE DIRECT MOUNTED TO A DIN RAIL OR PANEL.

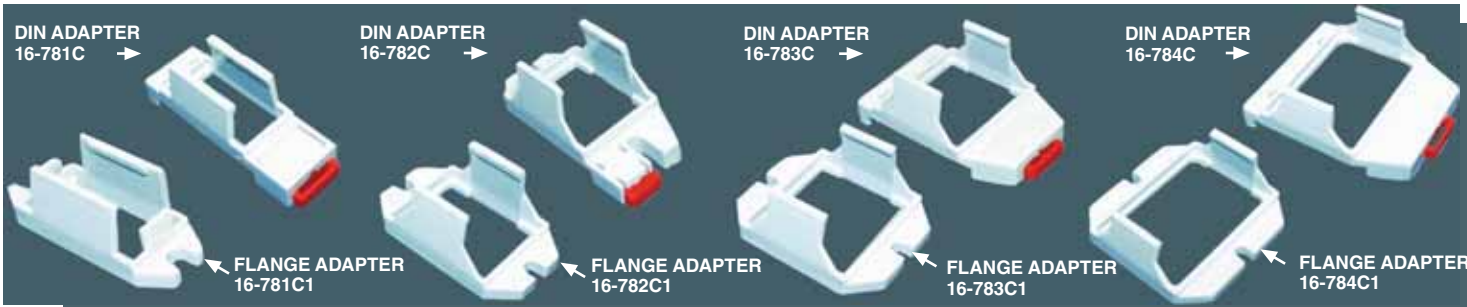
MANUFACTURED UNDER ISO 9002 & QS 9000

781
SPDT
15 AMPS

782
SPDT
20 AMPS
DPDT
15 AMPS

783
3PDT
15 AMPS

784
4PDT
15 AMPS



OPTIONAL ADAPTERS ORDERED SEPARATELY

PHONE: (843) 393-5778 FAX: (843) 393-4123 EMAIL: info@magnecraft.com

GENERAL SPECIFICATIONS (@ 25°C)

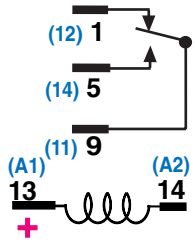
	UNITS	781XAX	782XAX	782XBX	783	784
COIL						
Pull-in Voltage AC (50/60 Hz):≤	% of nominal	85	85	85	85	85
Pull-in Voltage DC:≤	% of nominal	80	80	80	80	80
Dropout Voltage AC (50/60 Hz):≥	% of nominal	10	10	10	10	10
Dropout Voltage DC:≥	% of nominal	10	10	10	10	10
Maximum Voltage:	% of nominal	110	110	110	110	110
Resistance:	% ±	15	15	15	15	15
Coil Power AC (60 Hz):	VA	0.9	1.2	1.2	1.5	1.5
Coil Power DC:	W	0.7	0.9	0.9	1.7	2
Insulation System Per UL Standard 1446:		Class B (130 °C)	Class B (130 °C)	Class B (130 °C)	Class B (130 °C)	Class B (130 °C)
Maximum Coil Dissipation, AC (60 Hz):	VA	2.55	2.55	2.55	3	3
Maximum Coil Dissipation, DC:	W	2.3	2.3	2.3	3.4	2.3
Duty:		Continuous	Continuous	Continuous	Continuous	Continuous
CONTACTS						
Contact Material:		Silver alloy, gold flashed	Silver alloy, gold flashed	Silver alloy, gold flashed	Silver alloy, gold flashed	Silver alloy, gold flashed
Contact Rating AC Amperes (AC1):	A	15	20	15 / 12	15 / 12	15 / 12
Contact Rating AC Voltage:	V	277	277	120 / 277	120 / 277	120 / 277
Contact Rating DC Amperes (DC1):	A	15 / 0.5	20 / 0.5	12 / 0.5	15/ 0.5	15 / 0.5
Contact Rating DC Voltage:	V	28 / 220	28 / 220	28 / 220	28 / 220	28 / 220
General Purpose Rating (75%-80% pf):	A @ V	10 @ 240				
Horse Power (AC):	HP	1/2 @ 120 V	1/2 @ 120 V	1/2 @ 120 V	1/2 @ 120 V	1/2 @ 120 V
Horse Power (AC):	HP	1 @ 250 V	1 @ 250 V	1 @ 250 V	3/4 @ 250 V	3/4 @ 250 V
Pilot Duty (60 Hz):		B300	B300	B300	B300	B300
Utilization Category:	IEC	AC15	AC15	AC15	AC15	AC15
VA Rating Make:	VA	3600	3600	3600	3600	3600
VA Rating Break:	VA	360	360	360	360	360
Minimum Recommended Load:	ma	100 @ 5 VDC or 0.5 W	100 @ 5 VDC or 0.5 W	100 @ 5 VDC or 0.5 W	100 @ 5 VDC or 0.5 W	100 @ 5 VDC or 0.5 W
TIMING						
Operate Time:	ms	20	20	25	25	20
Release Time:	ms	20	20	20	20	20
DIELECTRIC STRENGTH						
Coil to Contacts:	V rms	2500	2500	2500	2500	2500
Across Open Contacts:	V rms	1500	1500	1000	1000	1000
Pole to Pole:	V rms			2500	2500	2500
Insulation Resistance:	megohms minimum @ VDC	100 @ 500	100 @ 500	100 @ 500	100 @ 500	100 @ 500
VIBRATION RESISTANCE						
Functional:	g's	10-55 Hz, 6 g's,1mm double amplitude	10-55 Hz, 6g's 1mm double amplitude	10-55 Hz, 6g's 1mm double amplitude	10-55 Hz, 6g's 1mm double amplitude	10-55 Hz, 6g's1mm double amplitude
SHOCK RESISTANCE						
Functional:	g's	10	10	10	10	10
TEMPERATURE						
Operating, AC Lower:	°C	-40	-40	-40	-40	-40
Operating, AC Upper:	°C	+70	+70	+70	+70	+70
Operating, DC Lower:	°C	-40	-40	-40	-40	-40
Operating, DC Upper:	°C	+70	+70	+70	+70	+70
Storage, Lower:	°C	-40	-40	-40	-40	-40
Storage, Upper:	°C	+105	+105	+105	+105	+105
LIFE EXPECTANCY						
Electrical @ Rated Load (AC1):	operations	15 A: 100,000 20 A: 50,000	100,000	200,000	150,000	150,000
Mechanical @ no Load :	operations	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
MISCELLANEOUS						
Operating Position:		Any	Any	Any	Any	Any
Insulation Material:	94V-0	Molded plastic	Molded plastic	Molded plastic	Molded plastic	Molded plastic
Enclosure Material:	94V-0	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate
Cover Protection Category:	IP	40	40	40	40	40
Terminals:	Inch (mm)	0.187, 0.1, 0.08 x 0.020 (4.47, 2.54, 2.03 x 0.508)	0.187, 0.08 x 0.020 (4.47, 2.03 x 0.508)	0.187, 0.08 x 0.020 (4.47, 2.03 x 0.508)	0.187, 0.08 x 0.020 (4.47, 2.03 x 0.508)	0.187, 0.08 x 0.020 (4.47, 2.03 x 0.508)
Weight:	grams	29	36	36	60	80

9/04

781 - 1 POLE "ICE CUBE" POWER RELAY

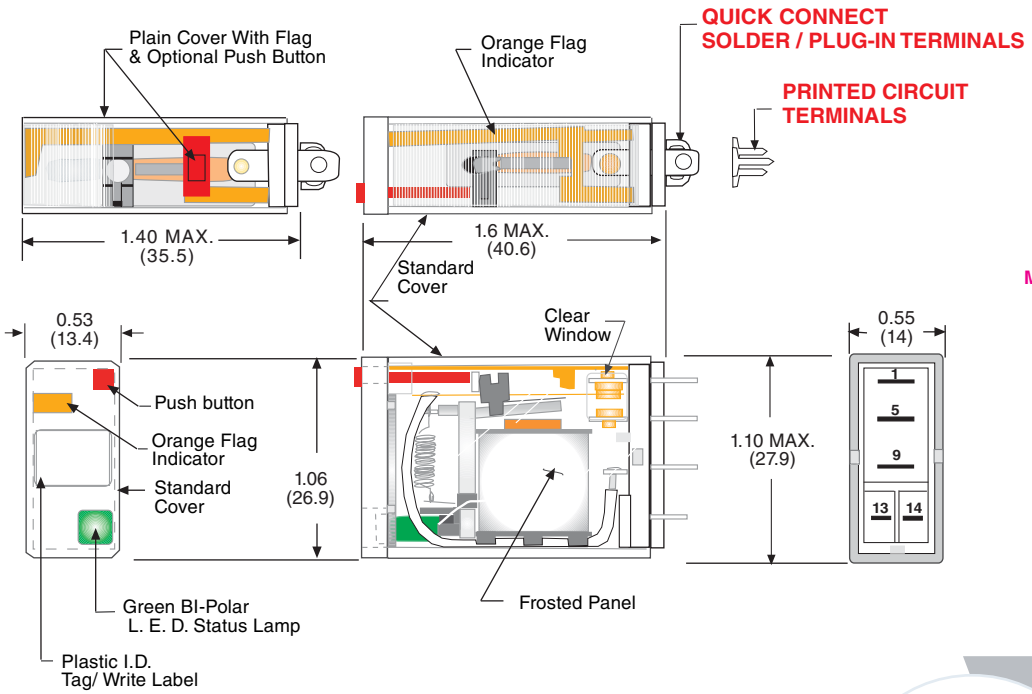
SPDT, 15 AMPS

WIRING DIAGRAM
(VIEWED FROM PIN END)

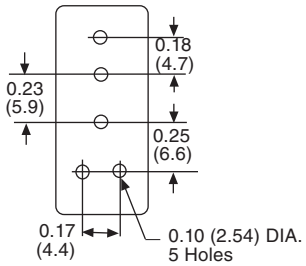


ALTERNATE NEMA OR IEC ( ) NUMBERS VIEWED FROM PIN SIDE

OUTLINE DIMENSIONS
DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).



PRINTED CIRCUIT MOUNTING HOLE LAYOUT
(TOP VIEW)



ALSO UL RATED 20 AMPS @ 277/28 DC - 50,000 OPERATIONS

Mating Sockets
70-781D-1: SCREW/DIN,
70-781F-1: SOLDER,
70-781T-1: PRINTED CIRCUIT
See section 7

ORDERING CODE

781 XAX [ ] [ ] ML [ ] -120A

CLASS:

CONTACT CONFIGURATION:
SPDT: **XAX**

OPTIONAL PLAIN COVER:
CODE C

TERMINAL STYLE:
QUICK CONNECT SOLDER / PLUG-IN TERMINALS: **NO CODE**
PRINTED CIRCUIT TERMINALS: **CODE T**

FULL FEATURED VERSION:
PUSH BUTTON : **CODE M**
BI - POLAR L.E.D. STATUS LAMP: **CODE L**

OPTIONAL PLAIN COVER FEATURES:
PUSH BUTTON : **CODE M**
POLARIZED L.E.D. STATUS LAMP: **CODE L**
(OBSERVE POLARITY +)

COIL VOLTAGE:
6, 12, 24, 120, 220/230, 240 **ADD "A" FOR AC COILS**
6, 12, 24, 48, 110 **ADD "D" FOR DC COILS**

FULL FEATURED	PLAIN COVER WITH FLAG	COIL MEASURED @ 25 °C NOMINAL INPUT VOLTAGE	NOMINAL RESISTANCE (OHMS)
AC OPERATED - SOLDER/PLUG-IN, 15 AMP			
781XAXML-24A	**781XAXC-24A**	24 VAC, 50/60Hz	160 Ω
781XAXML-120A	**781XAXC-120A**	110/120 VAC, 50/60Hz	4,430 Ω
781XAXML-220/230A		220/230 VAC, 50/60HZ	15,720 Ω
781XAXML-240A		240 VAC, 50/60HZ	15,720 Ω
DC OPERATED - SOLDER/PLUG-IN, 15 AMP			
781XAXML-12D		12 VDC	180 Ω
781XAXML-24D	**781XAXC-24D**	24 VDC	750 Ω
781XAXML-110D		110/125 VDC	13,800 Ω
AC OPERATED - PRINTED CIRCUIT, 15 AMP			
781XAXTML-120A		110/120 VAC, 50/60Hz	4,430 Ω
DC OPERATED - PRINTED CIRCUIT, 15 AMP			
781XAXTML-12D		12 VDC	188 Ω
781XAXTML-24D		24 VDC	750 Ω

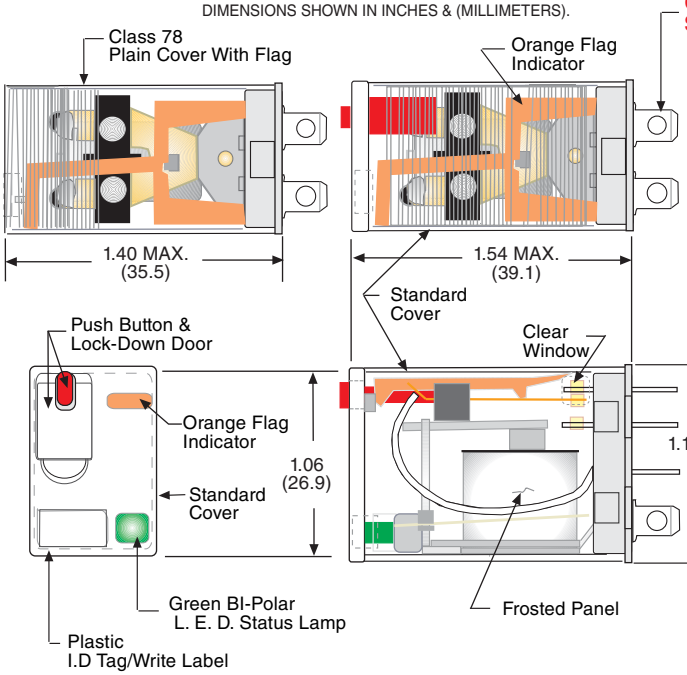
RETROFITS IDEC RH1B- & RH1V2-. SEE END OF SECTION 1 FOR CROSS REFERENCE CADMIUM-FREE CONTACTS AVAILABLE, CONTACT FACTORY FOR DETAILS

PHONE: (843) 393-5778 FAX: (843) 393-4123 EMAIL: info@magnecraft.com

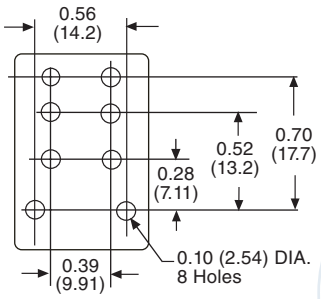
782/78 - 1 POLE "ICE CUBE" POWER RELAY

SPDT, 20 AMPS

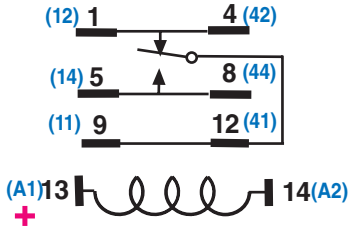
OUTLINE DIMENSIONS
DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).



PRINTED CIRCUIT MOUNTING HOLE LAYOUT
(TOP VIEW)



WIRING DIAGRAM
(VIEWED FROM PIN END)



ALTERNATE NEMA OR IEC ( ) NUMBERS VIEWED FROM PIN SIDE

Mating Sockets
70-782D-1, 70-459-1: SCREW/DIN SOLDER
70-402-1: PRINTED CIRCUIT
70-401-1: SOLDER TERMINAL
See section 7

ORDERING CODE

782	XAX			M4L	-120A

CLASS:

CONTACT CONFIGURATION:
SPDT: **XAX**

OPTIONAL PLAIN COVER:
CODE C

TERMINAL STYLE:
QUICK CONNECTSOLDER/
PLUG-IN TERMINALS: **NO CODE**
PRINTED CIRCUIT TERMINALS: **CODE T**

FULL FEATURED VERSION:
PUSH BUTTON &
LOCK-DOWN DOOR: **CODE M4**
BI - POLAR L.E.D. STATUS LAMP: **CODE L**

OPTIONAL FULL FEATURED DELETION:
PUSH BUTTON WITHOUT
LOCK-DOWN DOOR: **CODE M**

OPTIONAL PLAIN COVER FEATURES:
PUSH BUTTON WITHOUT
LOCK-DOWN DOOR: **CODE M**
POLARIZED L.E.D. STATUS LAMP: **CODE L**
(OBSERVE POLARITY+)

COIL VOLTAGE:
6, 12, 24, 120, 220/230, 240 **ADD "A" FOR AC COILS**
6, 12, 24 ,48, 110 **ADD "D" FOR DC COILS**

STANDARD PART NUMBERS			COIL MEASURED @ 25 °C	
FULL FEATURED	PLAIN COVER WITH FLAG		NOMINAL INPUT VOLTAGE	NOMINAL RESISTANCE (OHMS)
	DUAL MARKED			
	NEW PART NUMBER	SUPERCEDES		
AC OPERATED SOLDER/PLUG -IN, 20 AMP				
782XAXM4L-12A	782XAXC-12A	W78ARCSX-108	12 VAC, 50/60Hz	46 Ω
782XAXM4L-24A	782XAXC-24A	W78ARCSX-109	24 VAC, 50/60Hz	180 Ω
782XAXM4L-120A	782XAXC-120A	W78ARCSX-111	110/120 VAC,50/60Hz	4,430 Ω
782XAXM4L-220/230A	782XAXC-220/230A		220/230VAC,50/60Hz	15,000 Ω
782XAXM4L-240A	782XAXC-240A	W78ARCSX-112	240 VAC, 50/60HZ	15,700 Ω
DC OPERATED SOLDER/PLUG -IN, 20 AMP				
782XAXM4L-12D	782XAXC-12D	W78RCSX-97	12 VDC	160 Ω
782XAXM4L-24D	782XAXC-24D	W78RCSX-98	24 VDC	650 Ω
782XAXM4L-110D	782XAXC-110D	W78RCSX-100	110/125 VDC	13,800 Ω
AC OPERATED SOLDER/PLUG -IN, 20 AMP WITH STATUS LED LAMP				
	782XAXCL-24A	W78ARNCSX-8	24 VAC, 50/60Hz	180 Ω
	782XAXCL-120A	W78ARNCSX-9	110/120 VAC,50/60Hz	4,430 Ω
	782XAXCL-240A	W78ARNCSX-10	240 VAC, 50/60HZ	15,700 Ω
DC OPERATED SOLDER/PLUG -IN, 20 AMP WITH STATUS LED LAMP				
	782XAXCL-24D	W78RNCSX-10	24 VDC	650 Ω
AC OPERATED PRINTED CIRCUIT TERMINALS, 20 AMP				
782XAXTM4L-12A	782XAXCT-12A	W78ARPCX-81	12 VAC, 50/60Hz	46 Ω
782XAXTM4L-24A	782XAXCT-24A	W78ARPCX-82	24 VAC, 50/60Hz	180 Ω
782XAXTM4L-120A	782XAXCT-120A	W78ARPCX-84	110/120 VAC,50/60Hz	4,430 Ω
DC OPERATED PRINTED CIRCUIT TERMINALS, 20 AMP				
782XAXTM4L-12D	782XAXCT-12D	W78RPCX-79	12 VDC	160 Ω
782XAXTM4L-24D	782XAXCT-24D	W78RPCX-83	24 VDC	650 Ω
782XAXTM4L-110D	782XAXCT-110D	W78RPCX-85	110 /125 VDC	13,800 Ω

NOTE: CLASS 782C IS AN ENHANCED VERSION OF THE 78, IT HAS SUPERIOR RATINGS, A FLAG INDICATOR, & DISPLAYS BOTH PART NUMBERS.

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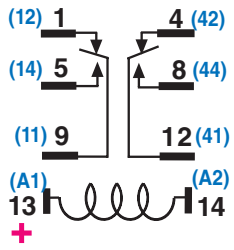
782/78 - 2 POLE "ICE CUBE" POWER RELAYS

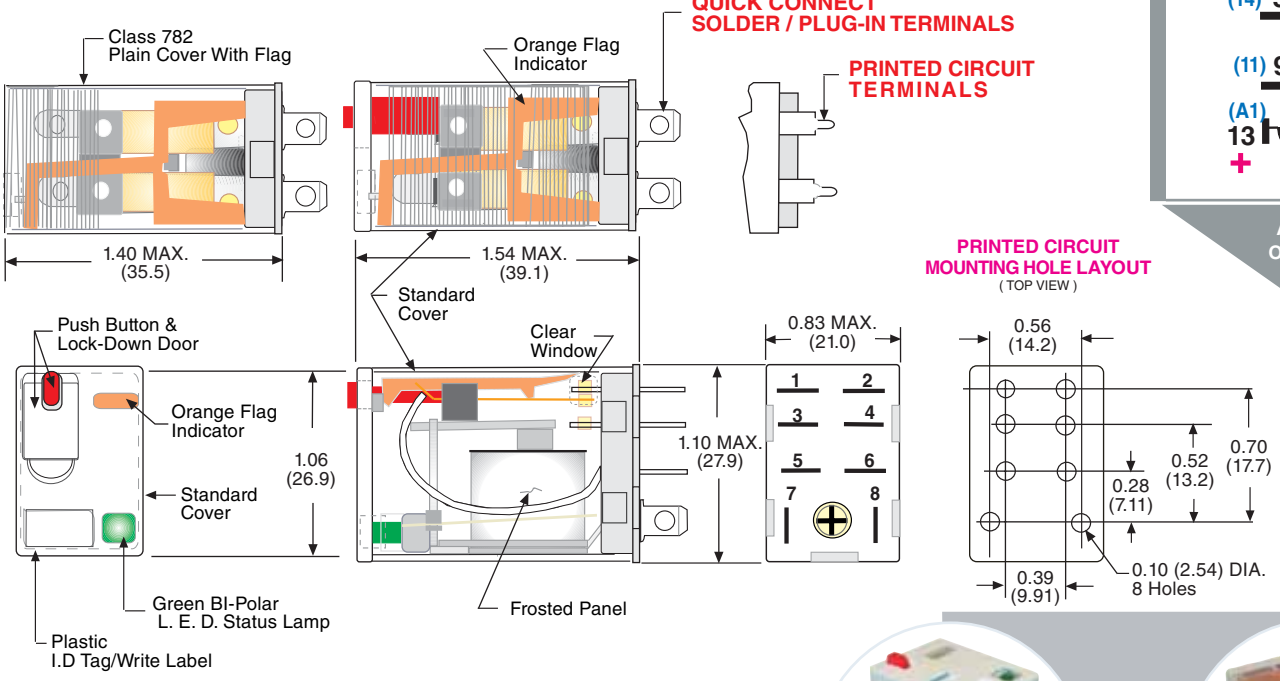
DPDT, 15 AMPS

WIRING DIAGRAM
(VIEWED FROM PIN END)



ALTERNATE NEMA OR IEC ( ) NUMBERS VIEWED FROM PIN SIDE

OUTLINE DIMENSIONS
DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).



PRINTED CIRCUIT MOUNTING HOLE LAYOUT
(TOP VIEW)

ORDERING CODE

782	XBX			M4L	-120A

CLASS:

CONTACT CONFIGURATION:
DPDT: **XBX**

OPTIONAL PLAIN COVER:
CODE C

TERMINAL STYLE:
QUICK CONNECTSOLDER/
PLUG-IN TERMINALS: **NO CODE**
PRINTED CIRCUIT TERMINALS:
CODE T

FULL FEATURED VERSION:
PUSH BUTTON &
LOCK-DOWN DOOR: **CODE M4**
BI - POLAR L.E.D. STATUS LAMP: **CODE L**

OPTIONAL FULL FEATURED DELETION:
PUSH BUTTON WITHOUT
LOCK-DOWN DOOR: **CODE M**

OPTIONAL PLAIN COVER FEATURES:
PUSH BUTTON WITHOUT
LOCK-DOWN DOOR: **CODE M**
POLARIZED L.E.D. STATUS LAMP: **CODE L**
(OBSERVE POLARITY+)

COIL VOLTAGE:
6, 12, 24, 120, 220/230, 240 **ADD "A" FOR AC COILS**
6, 12, 24 ,48, 110 **ADD "D" FOR DC COILS**

Mating Sockets
70-782D-1, 70-459-1: SCREW/DIN
70-402-1: PRINTED CIRCUIT
70-401-1: SOLDER TERMINAL
See section 7

STANDARD PART NUMBERS			COIL MEASURED @ 25°C	
FULL FEATURED	PLAIN COVER WITH FLAG		NOMINAL INPUT VOLTAGE	NOMINAL RESISTANCE (OHMS)
SOLDER/PLUG -IN, 15 AMP				
	DUAL MARKED			
	NEW PART NUMBER	SUPERCEDES		
	782XBXC-6A	W78ARCSX-7	6 VAC, 50/60Hz	9.6 Ω
782XBXM4L-24A	782XBXC-24A	W78ARCSX-9	24 VAC, 50/60Hz	180 Ω
782XBXM4L-120A	782XBXC-120A	W78ARCSX-11	110/120 VAC, 50/60Hz	4,430 Ω
782XBXM4L-220/230A			220/230 VAC, 50/60Hz	15,000 Ω
782XBXM4L-240A	782XBXC-240A	W78ARCSX-12	240 VAC, 50/60Hz	15,700 Ω
	782XBXC-6D	W78RCSX-6	6 VDC	40 Ω
782XBXM4L-12D	782XBXC-12D	W78RCSX-7	12 VDC	160 Ω
782XBXM4L-24D	782XBXC-24D	W78RCSX-8	24 VDC	650 Ω
	782XBXC-48D	W78RCSX-9	48 VDC	2600 Ω
782XBXM4L-110D	782XBXC-110D	W78RCSX-10	110/125 VDC	11,000 Ω
PRINTED CIRCUIT, 15 AMP				
	782XBXCT-24A	W78ARPCX-3	24 VAC, 50/60Hz	180 Ω
	782XBXCT-120A	W78ARPCX-6	110/120 VAC, 50/60Hz	4,430 Ω
	782XBXCT-6D	W78RPCX-1	6 VDC	40 Ω
	782XBXCT-12D	W78RPCX-2	12 VDC	160 Ω
	782XBXCT-24D	W78RPCX-3	24 VDC	650 Ω

NOTE: CLASS 782C IS AN ENHANCED VERSION OF THE 78, IT HAS SUPERIOR RATINGS, A FLAG INDICATOR, & DISPLAYS BOTH PART NUMBERS.

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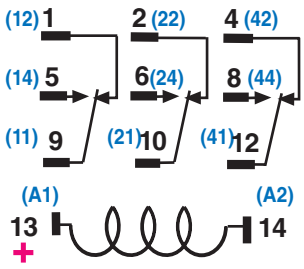
783 - 3 POLE "ICE CUBE" POWER RELAY

Magnecraft Struthers-Dunn

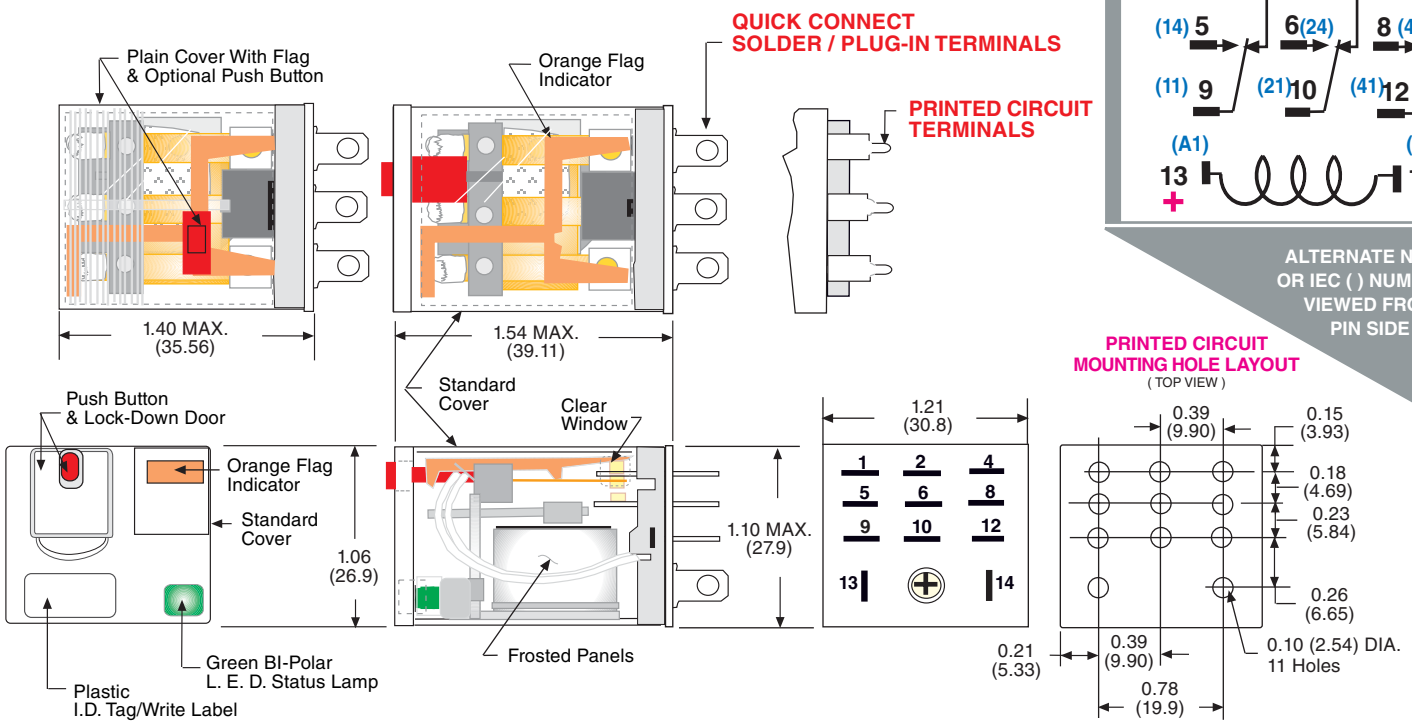
3PDT, 15 AMPS

WIRING DIAGRAM
(VIEWED FROM PIN END)

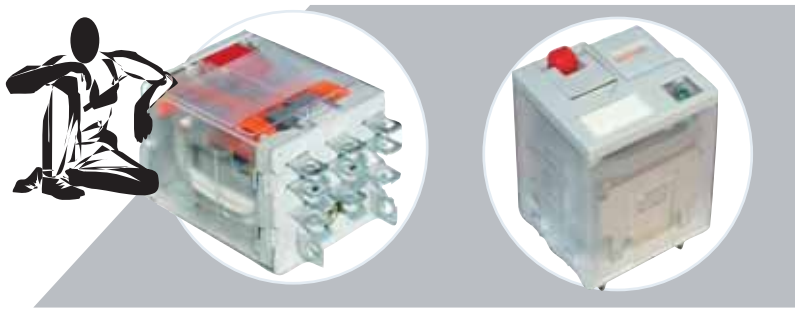


ALTERNATE NEMA OR IEC ( ) NUMBERS VIEWED FROM PIN SIDE

OUTLINE DIMENSIONS
DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).



PRINTED CIRCUIT MOUNTING HOLE LAYOUT
(TOP VIEW)



ORDERING CODE

783	XCX			M4L	-120A

CLASS:

CONTACT CONFIGURATION:
3PDT: **XCX**

OPTIONAL PLAIN COVER:
CODE C

TERMINAL STYLE:
QUICK CONNECT SOLDER / PLUG-IN TERMINALS: **NO CODE**
PRINTED CIRCUIT TERMINALS: **CODE T**

FULL FEATURED VERSION:
PUSH BUTTON & LOCK-DOWN DOOR: **CODE M4**
BI - POLAR L.E.D. STATUS LAMP: **CODE L**

OPTIONAL FULL FEATURED DELETION:
PUSH BUTTON WITHOUT LOCK-DOWN DOOR: **CODE M**

OPTIONAL PLAIN COVER FEATURES:
PUSH BUTTON WITHOUT LOCK-DOWN DOOR: **CODE M**
POLARIZED L.E.D. STATUS LAMP: **CODE L**
(OBSERVE POLARITY+)

COIL VOLTAGE:
6, 12, 24, 120, 220/230, 240 **ADD "A" FOR AC COILS**
6, 12, 24, 48, 110 **ADD "D" FOR DC COILS**

Mating Socket
70-783D-1: SCREW/DIN
See section 7

FULL FEATURED	PLAIN COVER WITH FLAG	COIL MEASURED @ 25°C NOMINAL INPUT VOLTAGE	COIL MEASURED @ 25°C NOMINAL RESISTANCE (OHMS)
AC OPERATED - SOLDER/PLUG-IN, 15 AMP			
783XCXM4L-24A	783XCXC-24A	24 VAC, 50/60 Hz	103 Ω
783XCXM4L-120A	783XCXC-120A	110/120 VAC, 50/60 Hz	2770 Ω
783XCXM4L-220/230A		220/230 VAC, 50/60 Hz	12,000 Ω
783XCXM4L-240A		240 VAC, 50/60 Hz	12,000 Ω
DC OPERATED - SOLDER/PLUG-IN, 15 AMP			
783XCXM4L-12D		12 VDC	100 Ω
783XCXM4L-24D	783XCXC-24D	24 VDC	400 Ω
783XCXM4L-110D		110/125 VDC	8600 Ω
AC OPERATED - PRINTED CIRCUIT, 15 AMP			
783XCXTM4L-120A		110/120 VAC, 50/60 Hz	2770 Ω
DC OPERATED - PRINTED CIRCUIT, 15 AMP			
783XCXTM4L-12D		12 VDC	100 Ω
783XCXTM4L-24D		24 VDC	400 Ω

RETROFITS IDEC RH3B- & RH3V2-.
SEE END OF SECTION 1 FOR CROSS REFERENCE

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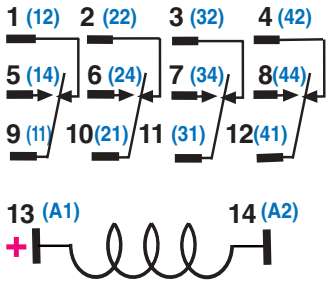
784 - 4 POLE "ICE CUBE" POWER RELAY

Magnecraft Struthers-Dunn

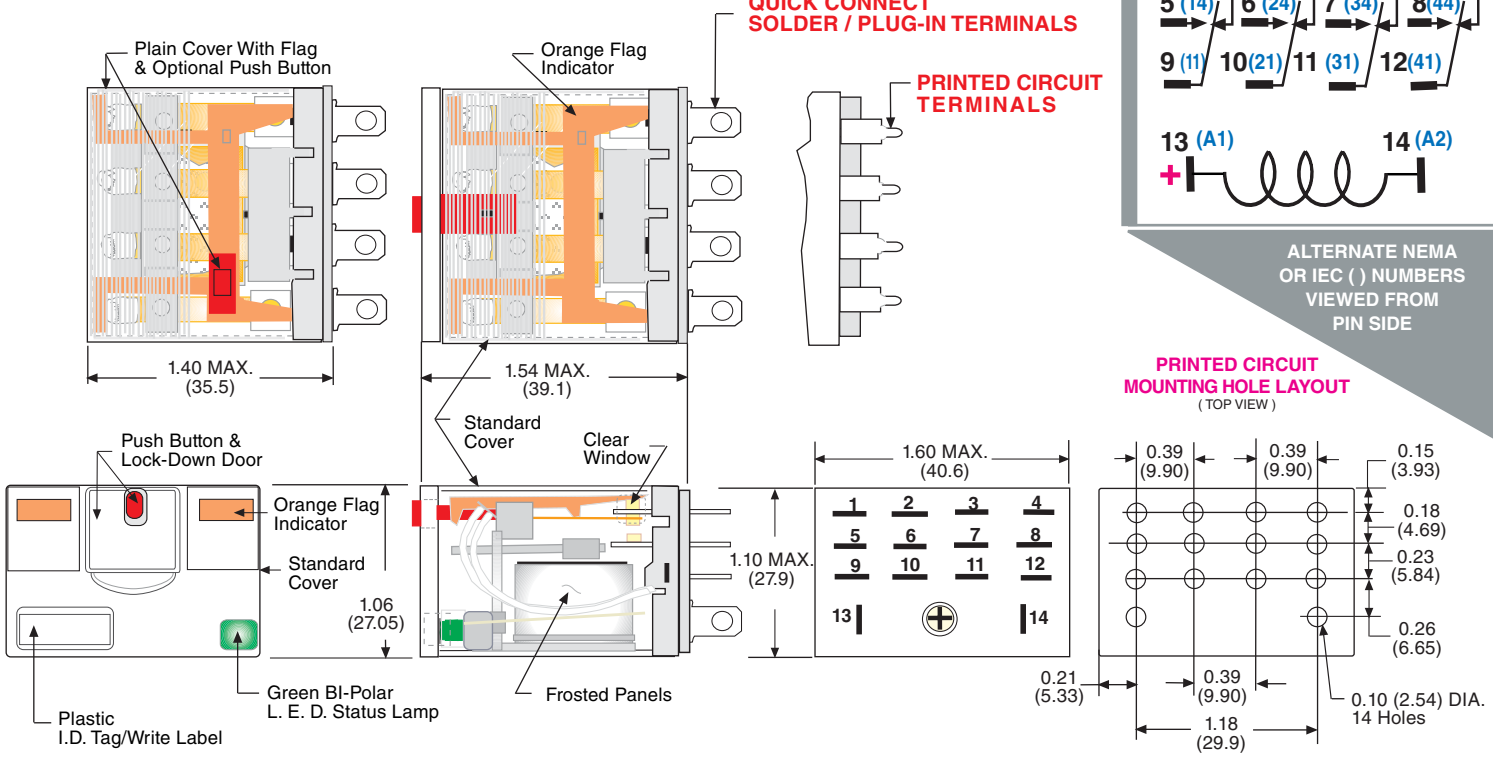
4PDT, 15 AMPS

WIRING DIAGRAM
(VIEWED FROM PIN END)



ALTERNATE NEMA OR IEC ( ) NUMBERS VIEWED FROM PIN SIDE

OUTLINE DIMENSIONS
DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).



PRINTED CIRCUIT MOUNTING HOLE LAYOUT
(TOP VIEW)

ORDERING CODE

784 | XDX | | | M4L | -120A

CLASS:

CONTACT CONFIGURATION:
4PDT: **XDX**

OPTIONAL PLAIN COVER:
CODE C

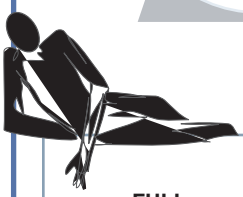
TERMINAL STYLE:
QUICK CONNECT SOLDER / PLUG-IN TERMINALS: **NO CODE**
PRINTED CIRCUIT TERMINALS: **CODE T**

FULL FEATURED VERSION:
PUSH BUTTON & LOCK-DOWN DOOR: **CODE M4**
BI - POLAR L.E.D. STATUS LAMP: **CODE L**

OPTIONAL FULL FEATURED DELETION:
PUSH BUTTON WITHOUT LOCK-DOWN DOOR: **CODE M**

OPTIONAL PLAIN COVER FEATURES:
PUSH BUTTON WITHOUT LOCK-DOWN DOOR: **CODE M**
POLARIZED L.E.D. STATUS LAMP: **CODE L**
(OBSERVE POLARITY+)

COIL VOLTAGE:
6, 12, 24, 120, 220/230, 240 **ADD "A" FOR AC COILS**
6, 12, 24, 48, 110 **ADD "D" FOR DC COILS**



Mating Socket
70-784D-1: SCREW/DIN
See section 7

FULL FEATURED	PLAIN COVER WITH FLAG	COIL MEASURED @ 25 °C NOMINAL INPUT VOLTAGE	NOMINAL RESISTANCE (OHMS)
AC OPERATED - SOLDER/PLUG-IN, 15 AMP			
784XDXM4L-24A	**784XDXC-24A**	24 VAC, 50/60 Hz	84.5 Ω
784XDXM4L-120A	**784XDXC-120A**	110/120 VAC, 50/60 Hz	2220 Ω
784XDXM4L-220/230A		220/230 VAC, 50/60 Hz	9120 Ω
784XDXM4L-240A		240 VAC, 50/60 Hz	9120 Ω
DC OPERATED - SOLDER/PLUG-IN, 15 AMP			
784XDXM4L-12D		12 VDC	96 Ω
784XDXM4L-24D	**784XDXC-24D**	24 VDC	388 Ω
784XDXM4L-110D		110/125 VDC	7340 Ω
AC OPERATED - PRINTED CIRCUIT, 15 AMP			
784XDXTM4L-120A		110/120 VAC, 50/60 Hz	2220 Ω
DC OPERATED - PRINTED CIRCUIT, 15 AMP			
784XDXTM4L-12D		12 VDC	96 Ω
784XDXTM4L-24D		24 VDC	388 Ω

RETROFITS IDEC RH4B- & RH4V2-.
SEE END OF SECTION 1 FOR CROSS REFERENCE

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782 "ICE CUBE" CONTROL RELAYS

FEATURES — BENEFITS

c UL us
UL Recognized
File No. E43641(782)
E209950 (782H)

168986

TÜV

CE

COMPLIES WITH REQUIREMENTS OF

* IEC STANDARDS 947-4-1 AND 947-5-1 LOW VOLTAGE DIRECTIVE
* IEC = INTERNATIONAL ELECTROTECHNICAL COMMISSION
* CE TESTING AND EVALUATION PERFORMED BY THE UNDERWRITERS LABORATORIES AS A THIRD PARTY PARTICIPANT

c UL us
LISTED 367G
IND. CONT. EQ.

WHEN USED WITH SOCKETS:
782: **70-461-1**

CURRENT LIMITED TO RATING OF RELAY OR SOCKET WHICHEVER IS LESS

FEATURES	BENEFITS
FLAG INDICATOR:	SHOWS RELAY STATUS IN MANUAL OR POWERED CONDITION.
BI - POLAR L.E.D. STATUS LAMP:	ALLOWS FOR REVERSE POLARITY APPLICATIONS, SHOWS COIL "ON" OR "OFF" STATUS. IDEAL IN LOW LIGHT CONDITIONS.
COLOR CODED PUSH BUTTON:	IDENTIFIES AC COILS WITH RED OR DC COILS WITH BLUE PUSH BUTTONS. ALLOWS FOR MANUAL OPERATION OF RELAY WITHOUT THE NEED FOR COIL POWER. IDEAL FOR FIELD SERVICE PERSONNEL TO TEST CONTROL CIRCUITS.
LOCK-DOWN DOOR:	WHEN ACTIVATED, HOLDS PUSH BUTTON AND CONTACTS IN THE OPERATE POSITION. EXCELLENT FOR ANALYZING CIRCUIT PROBLEMS.
FINGER - GRIP COVER:	ALLOWS OPERATOR TO REMOVE RELAYS FROM SOCKETS MORE EASILY THAN CONVENTIONAL RELAYS.
WHITE PLASTIC I.D. TAG/WRITE LABEL:	USED FOR IDENTIFICATION OF RELAYS IN MULTI-RELAY CIRCUITS.
COVER ADAPTERS:	DIN RAIL ADAPTER OR TOP/BOTTOM FLANGE ADAPTER, ALLOWS THE 700 RELAYS TO BE DIRECT MOUNTED TO A DIN RAIL OR PANEL.
VACUUM BAKED & DRY NITROGEN FILLED (782H):	REMOVES CONTAMINANTS AND PROVIDES A CLEAN & DRY ATMOSPHERE FOR CONTACTS.
HERMETICALLY SEALED METAL ENCLOSURE (782H):	IDEAL FOR USE IN HAZARDOUS LOCATIONS. UL CERTIFIED FOR CLASS 1 DIVISION 2 GROUP A, B, C & D HAZARDS. WHEN RELAY IS USED WITH 70-461-1 SOCKET, THE HOLD-DOWN CLIP 16-1328 IS REQUIRED.
PLUG-IN STYLE OR SIDE MOUNTING STUD WITH ANTI- ROTATION TAB:	WHEN USED WITH 70-461-1 SOCKET THE 782H CAN BE DIN RAIL MOUNTED OR PANEL MOUNTED. THE SIDE STUD PROVIDES FOR DIRECT MOUNT & SOLDERED WIRE APPLICATIONS.

MANUFACTURED UNDER ISO 9002 & QS 9000

UL RATINGS FOR 782 HERMETICALLY SEALED

CONTACT CONFIGURATION	CURRENT OR HORSE POWER	LOAD VOLTAGE	LOAD VOLTAGE FREQUENCY	TYPE OF LOAD	MINIMUM LOAD
4PDT	1 AMP	120/240	50/60 Hz	RESISTIVE	DRY CIRCUIT
	3 AMP	120/240	50/60 Hz	RESISTIVE	100 mA 12 VAC
	5 AMP	120/240	50/60 Hz	RESISTIVE	500 mA 12 VAC
	1 AMP	30	DC	RESISTIVE	50 mA 5 VAC
	3 AMP	30	DC	RESISTIVE	100 mA 12 VDC
	5 AMP	30	DC	RESISTIVE	500 mA 12 VDC

782 "ICE CUBE" CONTROL RELAYS

GENERAL SPECIFICATIONS (@ 25°C)

	UNITS	782XBX1/782XDX1	782XBX2/782XDX2	782XBX3/782XDX3	782H
COIL					
Pull-in Voltage AC (50/60 Hz):≤	% of nominal	85	85	85	85
Pull-in Voltage DC:≤	% of nominal	80	80	80	80
Dropout Voltage AC (50/60 Hz):≥	% of nominal	10	10	10	10
Dropout Voltage DC:≥	% of nominal	10	10	10	10
Maximum Voltage:	% of nominal	110	110	110	110
Resistance:	% ±	15	15	15	15
Coil Power AC (60 Hz):	VA	1.2	1.2	1.2	1.2
Coil Power DC:	W	0.9	0.9	0.9	0.9
Insulation System Per UL Standard 1446:		Class B (130 ºC)	Class B (130 ºC)	Class B (130ºC)	Class B (130ºC)
Maximum Coil Dissipation, AC (60 Hz):	VA	2.55	2.55	2.55	2.5
Maximum Coil Dissipation, DC:	W	2.3	2.3	2.3	2
Duty:		Continuous	Continuous	Continuous	Continuous
CONTACTS					
Contact Material:		Silver alloy, gold flashed	Silver alloy, gold flashed	Silver alloy, gold flashed	Silver,gold plated,silver,gold flashed, silver alloy, gold, flashed, gold,silver,nickel
Contact Rating AC Amperes (AC1):	A	3	10 / 8.0	3	1.0 / 3.0 / 5.0
Contact Rating AC Voltage:	V	120 / 240	110/120 - 220/277	120 /240	120 / 240
Contact Rating DC Amperes (DC1):	A	3 / 0.25	8 / 0.25	3 / 0.25	1.0 / 3.0 / 5.0
Contact Rating DC Voltage:	V	28 / 220	28 / 220	28 / 220	28
Horse Power (AC):	HP	1/10 @ 120 V	1/3 @ 120 V	1/16 @ 120 V	
Horse Power (AC):	HP	1/10 @ 240 V	1 @ 277 V		
Pilot Duty (60 Hz):		B300	B300	B300	
Utilization Category:	IEC	AC15	AC15	AC15	AC15
VA Rating Make:	VA	1800	3600	1800	1800
VA Rating Break:	VA	180	360	180	180
Minimum Recommended Load:	ma	100 @ 5 VDC or 0.5 W	100 @ 5 VDC or 0.5 W	50 @ 5 VDC or 0.5 W	50/100 @ 5 VDC or 50 mw / 0.5 W
TIMING					
Operate Time:	ms	20	20	20	13
Release Time:	ms	20	20	20	6
DIELECTRIC STRENGTH					
Coil to Contacts:	V rms	1500	1500	1500	1240
Across Open Contacts:	V rms	1000	1000	1000	500
Pole to Pole:	V rms	1500	1500	1500	1240
Contacts to Frame:	V rms				1240
Insulation Resistance:	megohms minimum @VDC	100 @ 500	100 @ 500	100 @ 500	100 @ 500
VIBRATION RESISTANCE					
Functional:	g's	10-55 Hz, 6 g's,1 mm double amplitude	10-55 Hz, 6 g's,1 mm double amplitude	10-55 Hz, 6 g's,1 mm double amplitude	10-55 Hz, 6 g's,1 mm double amplitude
SHOCK RESISTANCE					
Functional:	g's	10	10	10	10
TEMPERATURE					
Operating, AC Lower:	ºC	-40	-40	-40	-40
Operating, AC Upper:	ºC	+70	+70	+70	+70
Operating, DC Lower:	ºC	-40	-40	-40	-40
Operating, DC Upper:	ºC	+70	+70	+70	+70
Storage, Lower:	ºC	-40	-40	-40	-40
Storage, Upper:	ºC	+105	+105	+105	+105
LIFE EXPECTANCY					
Electrical @ Rated Load (AC1):	operations	200,000	200,000	200,000	100,000
Mechanical @ no Load :	operations	10,000,000	10,000,000	10,000,000	10,000,000
MISCELLANEOUS					
Operating Position:		Any	Any	Any	Any
Insulation Material:	94V-0	Molded plastic	Molded plastic	Molded plastic	Molded plastic
Enclosure Material:	94V-0	Polycarbonate	Polycarbonate	Polycarbonate	Steel
Cover Protection Category:	IP	40	40	40	67
Terminals:	Inch (mm)	0.10 x 0.020 (2.54 x 0.508) 0.040 x 0.020 (1.016 x 0.508)	0.10 x 0.020 (2.54 x 0.508) 0.040 x 0.020 (1.016 x 0.508)	0.10 x 0.020 (2.54 x 0.508) 0.040 x 0.020 (1.016 x 0.508)	0.10 x 0.020 (2.54 x 0.508)
Weight:	grams	36	36	36	45

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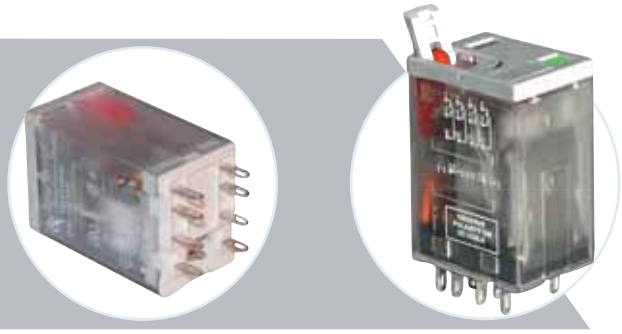
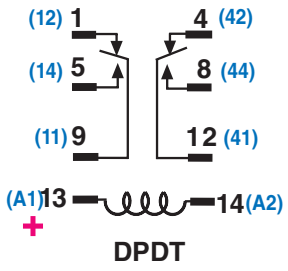
782 - 2 & 4 POLE "ICE CUBE" CONTROL RELAYS

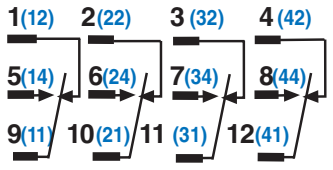
DPDT & 4PDT
1, 3, 5 & 10 AMPS



WIRING DIAGRAM
(VIEWED FROM PIN END)



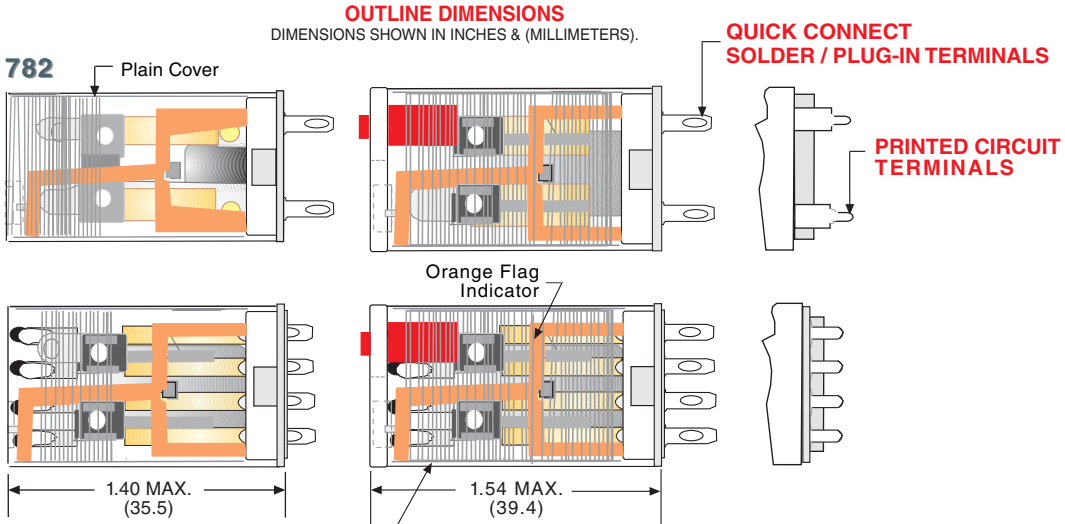
DPDT

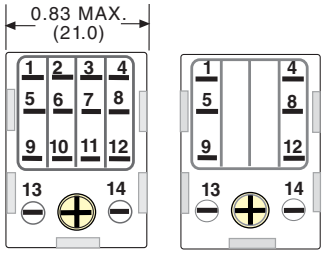


4PDT

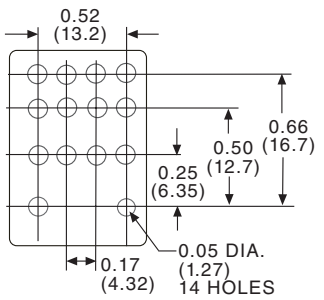
ALTERNATE NEMA OR IEC ( ) NUMBERS VIEWED FROM PIN SIDE

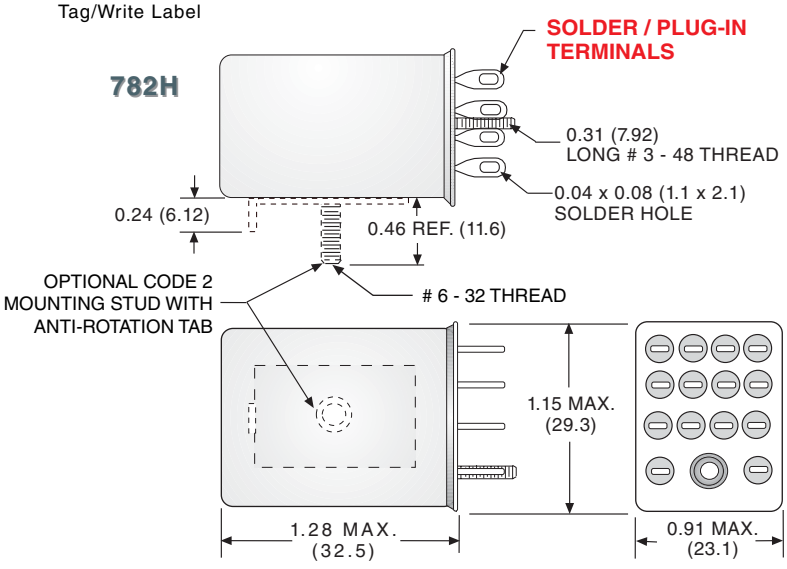
OUTLINE DIMENSIONS
DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).





PRINTED CIRCUIT MOUNTING HOLE LAYOUT
(TOP VIEW)





CERTIFIED CLASS 1 DIVISION 2 FOR HAZARDOUS LOCATIONS

PHONE: (843) 393-5778 FAX: (843) 393-4123 EMAIL: info@magnecraft.com

782 - 2 & 4 POLE "ICE CUBE" CONTROL RELAYS

DPDT & 4PDT, 1, 3, 5 & 10 AMPS

ORDERING CODE

782	XDX	☐	☐	☐	☐	2	☐	M4L	-120A

CLASS:

CONTACT CONFIGURATION:
DPDT: **XBX,** 4PDT: **XDX**

CONTACT RATING (EXCEPT 782H):
3 AMP: **CODE 1**
10 AMP: **CODE 2**
3 AMP BIFURCATED CONTACT: **CODE 3**

HERMETICALLY SEALED (782H):
CODE H

OPTIONAL PLAIN COVER (EXCEPT 782H):
CODE C

TERMINALS STYLE (EXCEPT 782H):
QUICK CONNECT SOLDER/PLUG-IN TERMINALS: **NO CODE**
PRINTED CIRCUIT TERMINALS: **CODE T**

CONTACT RATING (782H ONLY):
1 AMP BIFURCATED CONTACT: **CODE 32**
(SILVER CROSS BAR WITH GOLD OVERLAY)
3 AMP: **CODE 10** (SILVER GOLD FLASHED)
5 AMP: **CODE 21** (SILVER ALLOY)

TERMINALS & MOUNTING STYLE (782H ONLY):
SOLDER/PLUG-IN: **NO CODE**
STUD ON BROAD SIDE: **CODE 2**
STUD ON NARROW SIDE: **CODE 3**
STUD ON TOP SIDE: **CODE 4**

FULL FEATURED VERSION:
PUSH BUTTON & LOCK-DOWN DOOR: **CODE M4**
BI - POLAR L.E.D. STATUS LAMP: **CODE L**

OPTIONAL FULL FEATURED DELETION:
PUSH BUTTON WITHOUT LOCK-DOWN DOOR: **CODE M**

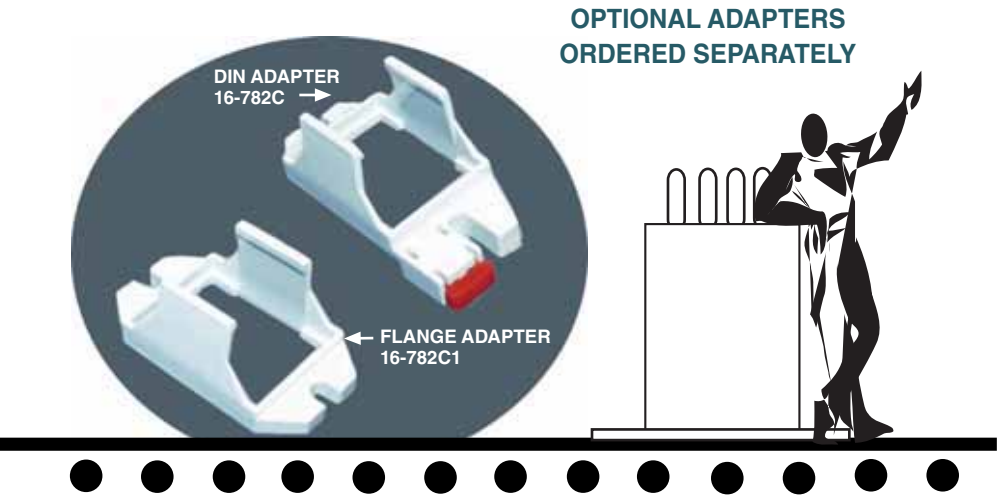
OPTIONAL PLAIN COVER FEATURES:
PUSH BUTTON WITHOUT LOCK-DOWN DOOR: **CODE M**
POLARIZED L.E.D. STATUS LAMP: **CODE L** (OBSERVE POLARITY+)

COIL VOLTAGE:
6, 12, 24, 120, 220/230, 240 **ADD "A" FOR AC COILS**
6, 12, 24 ,48, 110 **ADD "D" FOR DC COILS**

PHONE: (843) 393-5778 FAX: (843) 393-4123 EMAIL: info@magnecraft.com

782 - 2 & 4 POLE "ICE CUBE" CONTROL RELAY

DPDT & 4PDT, 1, 3, 5 & 10 AMPS



Mating Sockets
70-461-1, SCREW/DIN
70-378-1: SOLDER
70-379-1: PRINTED CIRCUIT
See section 7

STANDARD PART NUMBERS					COIL MEASURED @ 25 °C	
FULL FEATURED	PLAIN COVER WITH FLAG		HERMETICALLY SEALED	FULL FEATURED	NOMINAL INPUT VOLTAGE	NOMINAL RESISTANCE (OHMS)
4PDT				DPDT		
SOLDER/PLUG -IN, BIFURCATED CONTACTS 3 AMP						
	DUAL MARKED					
	NEW PART NUMBER	SUPERCEDES				
	782XDX3C-12A	W78ATCSX-2			12 VAC, 50/60 Hz	46 Ω
782XDX3M4L-24A	782XDX3C-24A	W78ATCSX-3		782XBX3M4L-24A	24 VAC, 50/60 Hz	180 Ω
782XDX3M4L-120A	782XDX3C-120A	W78ATCSX-5		782XBX3M4L-120A	110/120 VAC, 50/60 Hz	4,430 Ω
782XDX3M4L-220/230A	782XDX3C-220/230A			782XBX3M4L-220/230A	220/230 VAC, 50/60 Hz	15,000 Ω
782XDX3M4L-240A	782XDX3C-240A	W78ATCSX-6		782XBX3M4L-240A	240 VAC, 50/60 Hz	15,700 Ω
	782XDX3C-6D	W78TCSX-1			6 VDC	
782XDX3M4L-12D	782XDX3C-12D	W78TCSX-2		782XBX3M4L-12D	12 VDC	160 Ω
782XDX3M4L-24D	782XDX3C-24D	W78TCSX-3		782XBX3M4L-24D	24 VDC	650 Ω
782XDX3M4L-110D	782XDX3C-110D	W78TCSX-5		782XBX3M4L-110D	110/125 VDC	11,000 Ω
SOLDER/PLUG -IN, CONTACTS 3 AMP						
	782XDX1C-12A	W78ACSX-2			12 VAC, 50/60 Hz	46 Ω
782XDX1M4L-24A	782XDX1C-24A	W78ACSX-3	782XDXH10-24A		24 VAC, 50/60 Hz	180 Ω
782XDX1M4L-120A	782XDX1C-120A	W78ACSX-5	782XDXH10-120A		110/120 VAC, 50/60 Hz	4,430 Ω
782XDX1M4L-220/230A	782XDX1C-220/230A				220/230 VAC, 50/60 Hz	15,000 Ω
782XDX1M4L-240A	782XDX1C-240A	W78ACSX-6			240 VAC, 50/60 Hz	15,700 Ω
	782XDX1C-6D	W78CSX-1			6 VDC	
782XDX1M4L-12D	782XDX1C-12D	W78CSX-2	782XDXH10-12D		12 VDC	160 Ω
782XDX1M4L-24D	782XDX1C-24D	W78CSX-3	782XDXH10-24D		24 VDC	650 Ω
782XDX1M4L-110D	782XDX1C-110D	W78CSX-6	782XDXH10-110D		110/125 VDC	11,000 Ω
SOLDER/PLUG -IN, CONTACTS 10 AMP						
782XDX2M4L-24A	782XDX2C-24A	W78KACSX-15		782XBX2M4L-24A	24 VAC, 50/60 Hz	180 Ω
782XDX2M4L-120A	782XDX2C-120A	W78KACSX-17	782XDXH21-120A	782XBX2M4L-120A	110/120 VAC, 50/60 Hz	4,430 Ω
782XDX2M4L-220/230A	782XDX2C-220/230A			782XBX2M4L-220/230A	220/230 VAC, 50/60 Hz	15,000 Ω
782XDX2M4L-240A	782XDX2C-240A	W78KACSX-18		782XBX2M4L-240A	240 VAC, 50/60 Hz	15,700 Ω
782XDX2M4L-12D	782XDX2C-12D	W78KCSX-12	782XDXH21-12D	782XBX2M4L-12D	12 VDC	160 Ω
782XDX2M4L-24D	782XDX2C-24D	W78KCSX-13	782XDXH21-24D	782XBX2M4L-24D	24 VDC	650 Ω
782XDX2M4L-110D	782XDX2C-110D			782XBX2M4L-110D	110/125 VDC	11,000 Ω
PRINTED CIRCUIT BIFURCATED CONTACTS 3 AMP						
	782XDX3CT-24A	W78APCX-3			24 VAC, 50/60 Hz	180 Ω
	782XDX3CT-120A	W78APCX-5			110/120 VAC, 50/60 Hz	4430 Ω
	782XDX3CT-12D	W78PCX-2			12 VDC	15700 Ω
	782XDX3CT-24D	W78PCX-3			24 VDC	160 Ω
	782XDX3CT-110D	W78PCX-6			110/125 VDC	11,000 Ω

NOTE: CLASS 782C IS AN ENHANCED VERSION OF THE 78, IT HAS SUPERIOR RATINGS, A FLAG INDICATOR, & DISPLAYS BOTH PART NUMBERS.

750 OCTAL STYLE POWER RELAY

UL Recognized
File No. E43641

40787

COMPLIES WITH REQUIREMENTS OF

* IEC STANDARDS 947-4-1 AND 947-5-1 LOW VOLTAGE DIRECTIVE
* IEC = INTERNATIONAL ELECTROTECHNICAL COMMISSION
* CE TESTING AND EVALUATION PERFORMED BY THE UNDERWRITERS LABORATORIES AS A THIRD PARTY PARTICIPANT

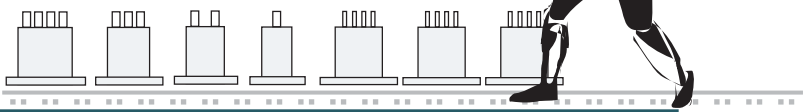
LISTED 367G
IND. CONT. EQ.

WHEN USED WITH SOCKETS:
70-464-1, 70-465-1, 70-750D8-1 & 70-750D11-1

CURRENT LIMITED TO RATING OF RELAY OR SOCKET WHICHEVER IS LESS

FEATURES	BENEFITS
FLAG INDICATOR:	SHOWS RELAY STATUS IN MANUAL OR POWERED CONDITION.
BI - POLAR L.E.D. STATUS LAMP:	ALLOWS FOR REVERSE POLARITY APPLICATIONS, SHOWS COIL "ON" OR "OFF" STATUS. IDEAL IN LOW LIGHT CONDITIONS.
COLOR CODED PUSH BUTTON:	IDENTIFIES AC COILS WITH RED OR DC COILS WITH BLUE PUSH BUTTONS. ALLOWS FOR MANUAL OPERATION OF RELAY WITHOUT THE NEED FOR COIL POWER. IDEAL FOR FIELD SERVICE PERSONNEL TO TEST CONTROL CIRCUITS.
LOCK-DOWN DOOR:	WHEN ACTIVATED, HOLDS PUSH BUTTON AND CONTACTS IN THE OPERATE POSITION. EXCELLENT FOR ANALYZING CIRCUIT PROBLEMS.
FINGER - GRIP COVER:	ALLOWS OPERATOR TO REMOVE RELAYS FROM SOCKETS MORE EASILY THAN CONVENTIONAL RELAYS.
WHITE PLASTIC I.D. TAG/WRITE LABEL:	USED FOR IDENTIFICATION OF RELAYS IN MULTI-RELAY CIRCUITS.

MANUFACTURED UNDER ISO 9002 & QS 9000



GENERAL SPECIFICATIONS (@ 25°C)

	UNITS	
COIL		
Pull-in Voltage AC (50/60 Hz):≤	% of nominal	85
Pull-in Voltage DC:≤	% of nominal	80
Dropout Voltage AC (50/60 Hz):≥	% of nominal	10
Dropout Voltage DC:≥	% of nominal	10
Maximum Voltage:	% of nominal	110
Resistance:	% ±	10
Coil Power AC (60 Hz):	VA	2.0 - 3.0
Coil Power DC:	W	1.4
Insulation System Per UL Standard 1446:		Class B (130 °C)
Maximum Coil Dissipation, AC (60 Hz):	VA	3.5
Maximum Coil Dissipation, DC:	W	3
Duty:		Continuous
CONTACTS		
Contact Material:		Silver alloy, gold flashed
Contact Rating AC Amperes (AC1):	A	16
Contact Rating AC Voltage:	V	277
Contact Rating DC Amperes (DC1):	A	16 / 0.5
Contact Rating DC Voltage:	V	28 / 220
General Purpose Rating (75%-80% pf):	A @ V	12 @ 120 / 240
Horse Power (AC):	HP	1/3 @ 120 V
Horse Power (AC):	HP	1/2 @ 240 V
Pilot Duty (60 Hz):		B300
Utilization Category:	IEC	AC15
VA Rating Make:	VA	3600
VA Rating Break:	VA	360
Minimum Recommended Load:	ma	100 @ 5 VDC or 0.5 W
TIMING		
Operate Time:	ms	20
Release Time:	ms	20

	UNITS	
DIELECTRIC STRENGTH		
Coil to Contacts:	V rms	2500
Across Open Contacts:	V rms	1500
Pole to Pole:	V rms	2500
Contacts to Frame:	V rms	2500
Insulation Resistance:	megohms minimum @VDC	100 @ 500
VIBRATION RESISTANCE		
Functional:	g's	10-55 Hz, 6 g's,1mm double amplitude
SHOCK RESISTANCE		
Functional:	g's	10
TEMPERATURE		
Operating, AC Lower:	°C	-40
Operating, AC Upper:	°C	+50
Operating, DC Lower:	°C	-40
Operating, DC Upper:	°C	+65
Storage, Lower:	°C	-40
Storage, Upper:	°C	+105
LIFE EXPECTANCY		
Electrical @ Rated Load (AC1):	operations	100,000
Mechanical @ no Load :	operations	5,000,000
MISCELLANEOUS		
Operating Position:		Any
Insulation Material:	94V-0	Molded plastic
Enclosure Material:	94V-0	Polycarbonate
Cover Protection Category:	IP	40
Weight:	grams	89

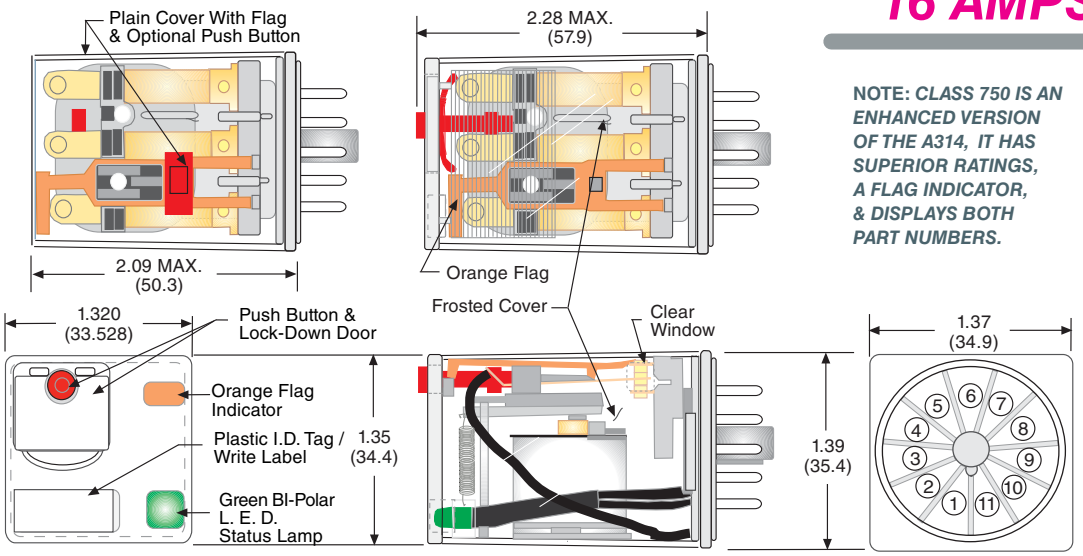
PHONE: (843) 393-5778 FAX: (843) 393-4123 EMAIL: info@magnecraft.com

750 OCTAL STYLE POWER RELAY

Magnecraft
Struthers-Dunn
Your Contact for Industrial Relays

OUTLINE DIMENSIONS

DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).

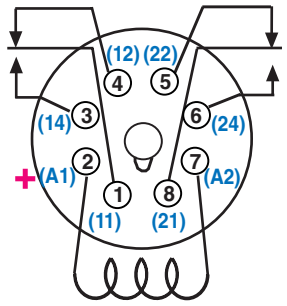


8 PIN OCTAL BASE
NOT SHOWN

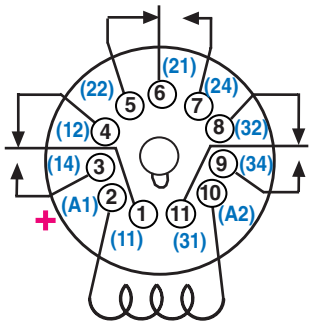
DPDT & 3PDT
16 AMPS

NOTE: *CLASS 750 IS AN ENHANCED VERSION OF THE A314, IT HAS SUPERIOR RATINGS, A FLAG INDICATOR, & DISPLAYS BOTH PART NUMBERS.*

WIRING DIAGRAM
(VIEWED FROM PIN END)



8 PIN



11 PIN

ALTERNATE NEMA OR IEC ( ) NUMBERS VIEWED FROM PIN SIDE

ORDERING CODE

750	XBX			M4L	-120A

CLASS:

CONTACT CONFIGURATION:
DPDT: **XBX,** 3PDT: **XCX**

OPTIONAL PLAIN COVER:
CODE C

OPTIONS:
MAGNETIC BLOWOUT: **CODE 69**

FULL FEATURED VERSION:
PUSH BUTTON & LOCK DOWN DOOR: **CODE M4**
BI - POLAR L.E.D. STATUS LAMP: **CODE L**

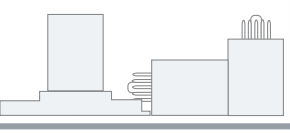
OPTIONAL FULL FEATURED DELETION:
PUSH BUTTON WITHOUT LOCK-DOWN DOOR: **CODE M.**
(**CODES 69, L,** OR **M** ALSO AVAILABLE ON CLEAR COVER VERSIONS)

OPTIONAL PLAIN COVER FEATURES:
PUSH BUTTON WITHOUT LOCK-DOWN DOOR: **CODE M**
POLARIZED L.E.D. STATUS LAMP: **CODE L** (OBSERVE POLARITY+)

COIL VOLTAGE:
6, 12, 24, 120, 220 / 240 **ADD "A" FOR AC COILS**
6, 12, 24, 48, 110 **ADD "D" FOR DC COILS**

Mating Sockets
70-750D8-1, 70-750D11-1,
70-464-1, 70-465-1, 70-750E8-1,70-750E11-1
70-750EL/SL8-1, 70-750EL/SL11-1: SCREW/DIN
70-169-1, 70-170-1: SCREW/PANEL
See section 7

STANDARD PART NUMBERS				COIL MEASURED @ 25 °C	
FULL FEATURED	PLAIN COVER WITH FLAG		CONTACT CONFIGURATION	NOMINAL INPUT VOLTAGE	NOMINAL RESISTANCE(OHMS)
	DUAL MARKED				
	NEW PART NUMBER	SUPERCEDES			
AC OPERATED - 8 PIN OCTAL, 16 AMP					
750XBXM4L-24A	**750XBXC-24A**	**A314XBX48P-24A**	DPDT	24 VAC, 50/60Hz	72 Ω
750XBXM4L-120A	**750XBXC-120A**	**A314XBX48P-120A**	DPDT	110/120 VAC, 50/60Hz	1,700 Ω
750XBXM4L-220/240A	**750XBXC-220/240A**	**A314XBX48P-220/240A**	DPDT	220/240 VAC, 50/60Hz	7,200 Ω
DC OPERATED - 8 PIN OCTAL, 16 AMP					
750XBXM4L-12D	**750XBXC-12D**	**A314XBX48P-12D**	DPDT	12 VDC	120 Ω
750XBXM4L-24D	**750XBXC-24D**	**A314XBX48P-24D**	DPDT	24 VDC	470 Ω
750XBXM4L-110D	**750XBXC-110D**	**A314XBX48P-110D**	DPDT	110/125 VDC	10,000 Ω
AC OPERATED - 11 PIN OCTAL, 16 AMP					
750XCXM4L-24A	**750XCXC-24A**	**A314XCX48P-24A**	3PDT	24 VAC, 50/60Hz	72 Ω
750XCXM4L-120A	**750XCXC-120A**	**A314XCX48P-120A**	3PDT	110/120 VAC, 50/60Hz	1,700 Ω
750XCXM4L-220/240A	**750XCXC-220/240A**	**A314XCX48P-220/240A**	3PDT	220/240 VAC, 50/60Hz	7,200 Ω
DC OPERATED - 11 PIN OCTAL, 16 AMP					
750XCXM4L-12D	**750XCXC-12D**	**A314XCX48P-12D**	3PDT	12 VDC	120 Ω
750XCXM4L-24D	**750XCXC-24D**	**A314XCX48P-24D**	3PDT	24 VDC	470 Ω
750XCXM4L-110D	**750XCXC-110D**	**A314XCX48P-110D**	3PDT	110/125 VDC	10,000 Ω



788 PLUG-IN POWER RELAY

UL Recognized
File No. E43641

40787

COMPLIES WITH REQUIREMENTS OF

* IEC STANDARDS 947-4-1 AND 947-5-1 LOW VOLTAGE DIRECTIVE
* IEC = INTERNATIONAL ELECTROTECHNICAL COMMISSION
* CE TESTING AND EVALUATION PERFORMED BY THE UNDERWRITERS LABORATORIES AS A THIRD PARTY PARTICIPANT

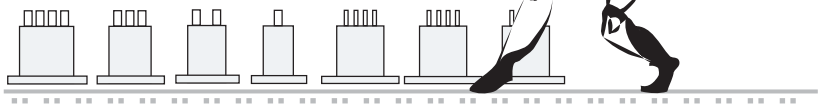
LISTED 367G
IND. CONT. EQ.

WHEN USED WITH SOCKET **70-463-1**

CURRENT LIMITED TO RATING OF RELAY OR SOCKET WHICHEVER IS LESS

FEATURES	BENEFITS
FLAG INDICATOR:	SHOWS RELAY STATUS IN MANUAL OR POWERED CONDITION.
BI - POLAR L.E.D. STATUS LAMP:	ALLOWS FOR REVERSE POLARITY APPLICATIONS, SHOWS COIL "ON" OR "OFF" STATUS. IDEAL IN LOW LIGHT CONDITIONS.
COLOR CODED PUSH BUTTON:	IDENTIFIES AC COILS WITH RED OR DC COILS WITH BLUE PUSH BUTTONS. ALLOWS FOR MANUAL OPERATION OF RELAY WITHOUT THE NEED FOR COIL POWER. IDEAL FOR FIELD SERVICE PERSONNEL TO TEST CONTROL CIRCUITS.
LOCK-DOWN DOOR:	WHEN ACTIVATED, HOLDS PUSH BUTTON AND CONTACTS IN THE OPERATE POSITION. EXCELLENT FOR ANALYZING CIRCUIT PROBLEMS.
FINGER - GRIP COVER:	ALLOWS OPERATOR TO REMOVE RELAYS FROM SOCKETS MORE EASILY THAN CONVENTIONAL RELAYS.
WHITE PLASTIC I.D. TAG/WRITE LABEL:	USED FOR IDENTIFICATION OF RELAYS IN MULTI-RELAY CIRCUITS.

MANUFACTURED UNDER ISO 9002 & QS 9000



GENERAL SPECIFICATIONS (@ 25°C)

	UNITS	
COIL		
Pull-in Voltage AC (50/60 Hz):≤	% of nominal	85
Pull-in Voltage DC:≤	% of nominal	80
Dropout Voltage AC (50/60 Hz):≥	% of nominal	10
Dropout Voltage DC:≥	% of nominal	10
Maximum Voltage:	% of nominal	110
Resistance:	% ±	10
Coil Power AC (60 Hz):	VA	2.0 - 3.0
Coil Power DC:	W	1.4
Insulation System Per UL Standard 1446:		Class B (130 °C)
Maximum Coil Dissipation, AC (60 Hz):	VA	3.5
Maximum Coil Dissipation, DC:	W	3
Duty:		Continuous
CONTACTS		
Contact Material:		Silver alloy, gold flashed
Contact Rating AC Amperes (AC1):	A	16
Contact Rating AC Voltage:	V	277
Contact Rating DC Amperes (DC1):	A	16 / 0.5
Contact Rating DC Voltage:	V	28 / 220
Horse Power (AC):	HP	1/3 @ 120 V
Horse Power (AC):	HP	1/2 @ 240 V
Pilot Duty (60 Hz):		B300
Utilization Category:	IEC	AC15
VA Rating Make:	VA	3600
VA Rating Break:	VA	360
Minimum Recommended Load:	ma	100 @ 5 VDC or 0.5 W
TIMING		
Operate Time:	ms	20
Release Time:	ms	20

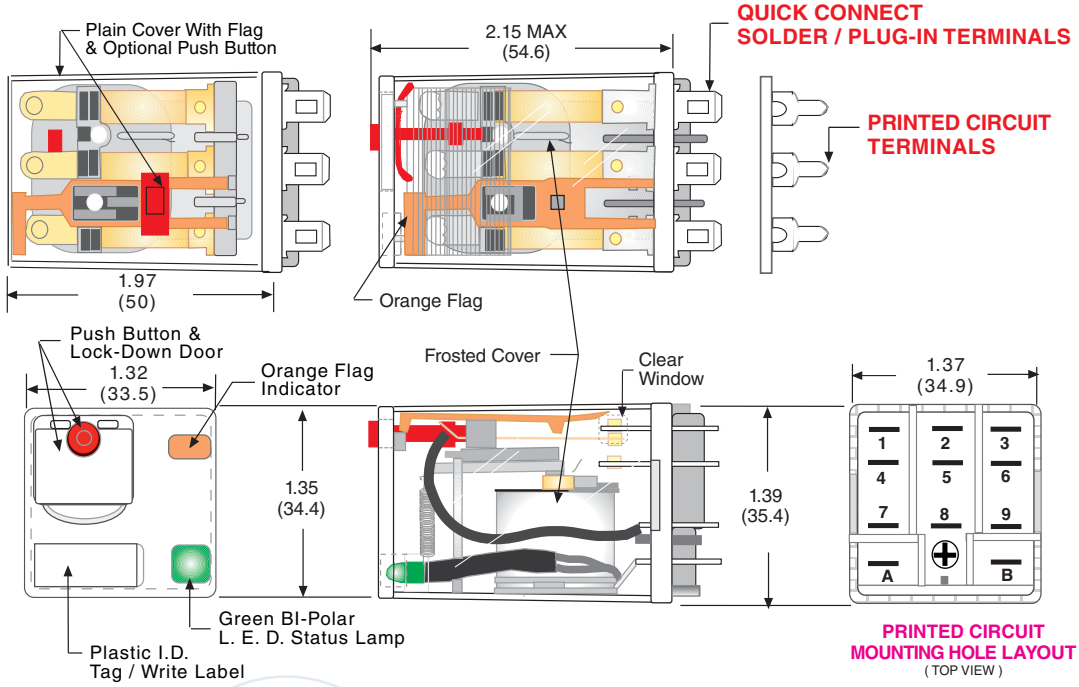
	UNITS	
DIELECTRIC STRENGTH		
Coil to Contacts:	V rms	2500
Across Open Contacts:	V rms	1500
Pole to Pole:	V rms	2500
Contacts to Frame:	V rms	
Insulation Resistance:	megohms minimum @VDC	1000 @ 500
VIBRATION RESISTANCE		
Functional:	g's	10-55 Hz, 6 g's,1mm double amplitude
SHOCK RESISTANCE		
Functional:	g's	10
TEMPERATURE		
Operating, AC Lower:	°C	-40
Operating, AC Upper:	°C	+50
Operating, DC Lower:	°C	-40
Operating, DC Upper:	°C	+65
Storage, Lower:	°C	-40
Storage, Upper:	°C	+105
LIFE EXPECTANCY		
Electrical @ Rated Load (AC1):	operations	100,000
Mechanical @ no Load :	operations	5,000,000
MISCELLANEOUS		
Operating Position:		Any
Insulation Material:	94V-0	Molded plastic
Enclosure Material:	94V-0	Polycarbonate
Cover Protection Category:	IP	40
Terminals:	Inch (mm)	0.187, 0.062 x 0.020 (4.74, 1.57 x 0.508)
Weight:	grams	88

PHONE: (843) 393-5778 FAX: (843) 393-4123 EMAIL: info@magnecraft.com

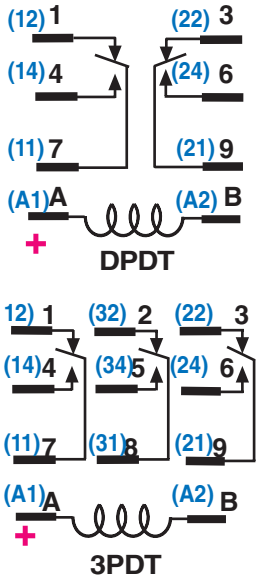
788 PLUG-IN POWER RELAY

DPDT & 3PDT, 16 AMPS

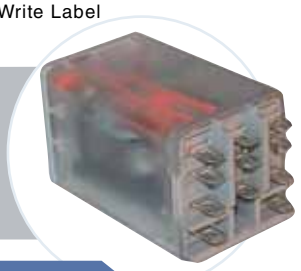
OUTLINE DIMENSIONS
DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).



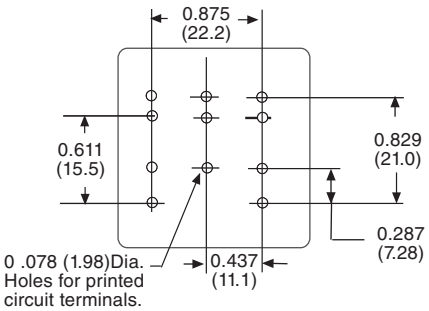
WIRING DIAGRAM
(VIEWED FROM PIN END)



ALTERNATE NEMA OR IEC ( ) NUMBERS VIEWED FROM PIN SIDE



PRINTED CIRCUIT MOUNTING HOLE LAYOUT
(TOP VIEW)



ORDERING CODE

788	XBX			M4L	-120A

CLASS:

CONTACT CONFIGURATION:
DPDT: **XBX**, 3PDT: **XCX**

OPTIONAL PLAIN COVER:
CODE C

TERMINAL STYLE:
SOLDER PLUG-IN TERMINALS: **NO CODE**
PRINTED CIRCUIT TERMINALS: **CODE T**

FULL FEATURED VERSION:
PUSH BUTTON & LOCK DOWN DOOR: **CODE M4**
BI - POLAR L.E.D. STATUS LAMP: **CODE L**

OPTIONAL FULL FEATURED DELETION:
PUSH BUTTON WITHOUT LOCK DOWN DOOR: **CODE M**

OPTIONAL PLAIN COVER FEATURES:
PUSH BUTTON WITHOUT LOCK-DOWN DOOR: **CODE M**
POLARIZED L.E.D. STATUS LAMP: **CODE L**
(OBSERVE POLARITY+)

COIL VOLTAGE:
6, 12, 24,120, 220 / 240 **ADD "A" FOR AC COILS**
6, 12, 24, 48, 110 **ADD "D" FOR DC COILS**

Mating Sockets
70-463-1: SCREW/DIN
70-124-1: SOLDER
70-178-1, 70-178-2: PRINTED CIRCUIT
70-788EL/SL11-1, 70-124-2: QUICK CONNECT
See section 7

FULL FEATURED	CONTACT CONFIGURATION	COIL MEASURED @ 25 °C NOMINAL INPUT VOLTAGE	COIL MEASURED @ 25 °C NOMINAL RESISTANCE (OHMS)
AC OPERATED - SOLDER/PLUG-IN, 16 AMP			
788XBXM4L-24A	DPDT	24 VAC, 50/60Hz	72 Ω
788XBXM4L-120A	DPDT	110/120 VAC, 50/60Hz	1,700 Ω
788XBXM4L-220/240A	DPDT	220/240 VAC, 50/60Hz	7,200 Ω
DC OPERATED - SOLDER/PLUG-IN, 16 AMP			
788XBXM4L-12D	DPDT	12 VDC	120Ω
788XBXM4L-24D	DPDT	24 VDC	470 Ω
788XBXM4L-110D	DPDT	110/125 VDC	10,000 Ω
AC OPERATED - SOLDER/PLUG-IN, 16 AMP			
788XCXM4L-24A	3PDT	24 VAC, 50/60Hz	72 Ω
788XCXM4L-120A	3PDT	110/120 VAC, 50/60Hz	1,700 Ω
788XCXM4L-220/240A	3PDT	220/240 VAC, 50/60Hz	7,200 Ω
DC OPERATED - SOLDER/PLUG-IN, 16 AMP			
788XCXM4L-12D	3PDT	12 VDC	120 Ω
788XCXM4L-24D	3PDT	24 VDC	470 Ω
788XCXM4L-110D	3PDT	110/125 VDC	10,000 Ω

CADMIUM-FREE CONTACTS AVAILABLE, CONTACT FACTORY FOR DETAILS

PHONE: (843) 393-5778 FAX: (843) 393-4123 EMAIL: info@magnecraft.com

A283 PLUG-IN & FLANGE MOUNT RELAYS

UL CONTACT LOAD RATINGS TABLE

CONTACT CONFIGURATION	CURRENT OR HORSE POWER	LOAD VOLTAGE	LOAD VOLTAGE FREQUENCY	TYPE OF LOAD
1 POLE THRU 3 POLES	15 AMP	240 VAC	50/60 Hz	RESISTIVE
	10 AMP	28 VDC	DC	RESISTIVE
	1/3 HP	120 VAC	50/60 Hz	MOTOR
	1/2 HP	240 VAC	50/60 Hz	MOTOR
	3 AMP	600 VAC	50/60 Hz	RESISTIVE

c UL us
UL Recognized
File No. E13224

168986

COMPLIES WITH REQUIREMENTS OF

* IEC STANDARDS 947-4-1 AND 947-5-1 LOW VOLTAGE DIRECTIVE
* IEC = INTERNATIONAL ELECTROTECHNICAL COMMISSION
* CE TESTING AND EVALUATION PERFORMED BY THE UNDERWRITERS LABORATORIES AS A THIRD PARTY PARTICIPANT

c UL us
LISTED 367G
IND. CONT. EQ.
WHEN USED WITH SOCKETS **70-463-1**

CURRENT LIMITED TO RATING OF RELAY OR SOCKET WHICHEVER IS LESS

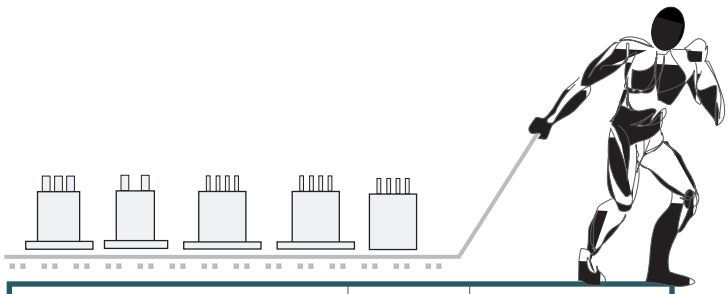
UL CONTACT LOAD RATINGS TABLE FOR DC SWITCHING
(WITH OPTIONAL MAGNETIC BLOWOUT: CODE 69)

MANUFACTURED UNDER ISO 9002 & QS 9000

CONTACT CONFIGURATION	CURRENT OR HORSE POWER	LOAD VOLTAGE	TYPE OF LOAD
DPDT	3 AMP	150 VDC	RESISTIVE
DPST - NO	5 AMP	150 VDC	RESISTIVE
SPST - NO (DM)	10 AMP	150 VDC	RESISTIVE
SPDT (DB and DM)	10 AMP	150 VDC	RESISTIVE

GENERAL SPECIFICATIONS (@ 25°C)

	UNITS	
COIL		
Pull-in Voltage AC (50/60 Hz):≤	% of nominal	85
Pull-in Voltage DC:≤	% of nominal	80
Dropout Voltage AC (50/60 Hz):≥	% of nominal	10
Dropout Voltage DC:≥	% of nominal	10
Maximum Voltage:	% of nominal	110
Resistance:	% ±	10
Coil Power AC (60 Hz):	VA	2.75
Coil Power DC:	W	2
Insulation System Per UL Standard 1446:		Class B (130 ºC)
Duty:		Continuous
CONTACTS		
Contact Material:		Silver alloy gold flashed
Contact Rating AC Amperes (AC1):	A	15
Contact Rating AC Voltage:	V	240
Contact Rating DC Amperes (DC1):	A	10
Contact Rating DC Voltage:	V	28
Horse Power (AC):	HP	1/3 @ 120 V
Horse Power (AC):	V	1/2 @ 240 V
Minimum Recommended Load:	ma	100 @ 5 VDC or 0.5 W
DIELECTRIC STRENGTH		
Coil to Contacts:	V rms	2000
Across Open Contacts:	V rms	500
Pole to Pole:	V rms	2000
Contacts to Frame:	V rms	Not applicable
Insulation Resistance:	megohms minimum @VDC	1000 @ 500



	UNITS	
TEMPERATURE		
Operating, AC Lower:	ºC	-30
Operating, AC Upper:	ºC	+60
Operating, DC Lower:	ºC	-30
Operating, DC Upper:	ºC	+50
Storage, Lower:	ºC	-30
Storage, Upper:	ºC	+100
LIFE EXPECTANCY		
Electrical @ Rated Load (AC1):	operations	100,000
Mechanical @ no Load :	operations	10,000,000
MISCELLANEOUS		
Operating Position:		Any
Insulation Material:	94V-0	Molded plastic
Enclosure Material:	94V-0	Polycarbonate
Cover Protection Category:	IP	40
Terminals:	Inch (mm)	0.187, 0.062 x 0.020 (4.74, 1.57 x 0.508)
Weight:	grams	88

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A283 PLUG-IN & FLANGE MOUNT RELAYS

Magnecraft
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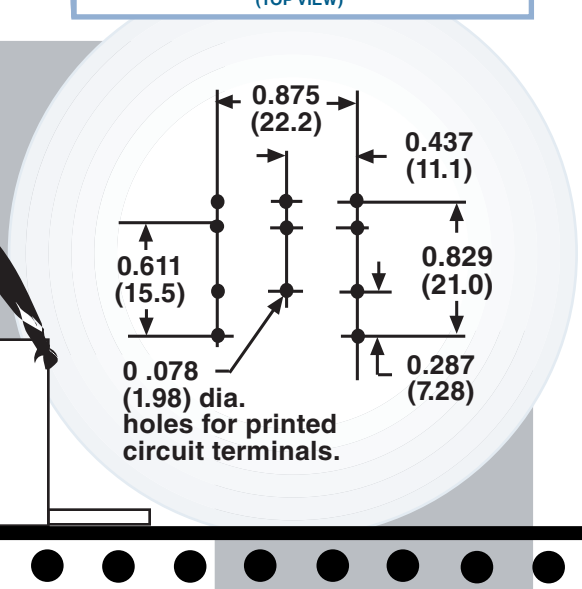
Your Contact for Industrial Relays

PLUG-IN

FLANGE MOUNT

RECOMMENDED PRINTED CIRCUIT LAYOUT
(TOP VIEW)



ORDERING CODE

A283	XCX		C1		M-	240A

CLASS:

CONTACT CONFIGURATION:
SPDT: **XAX**
DPDT: **XBX**
DPST-NO: **BXX**
3PDT: **XCX**
SPST -NO-DM: **HXX**
SPDT -DB and DM: **XHX**

OPTIONAL:
MAGNETIC BLOWOUT**: CODE 69**

CONSTRUCTION STYLE:
* ENCLOSED, PLAIN COVER**: CODE C**
ENCLOSED, FLANGE COVER: **CODE C1**
ENCLOSED TOP FLANGE MOUNT**: CODE C3**
ENCLOSED DIN MOUNT**: CODE C4**

TERMINAL STYLE:
QUICK CONNECT SOLDER TERMINALS**: NO CODE**
PRINTED CIRCUIT TERMINALS**: CODE T**

OPTIONS:
BI - POLAR L.E.D. STATUS LAMP**: CODE L**
PUSH BUTTON**: CODE M**

COIL VOLTAGE:
6, 12, 24, 120, 240 **ADD "A" FOR AC COILS**
6, 12, 24, 48, 110 **ADD "D" FOR DC COILS**

* Note: Code C recommended to be used with printed circuit terminals or Plug-in applications only.

OPTIONAL PRINTED CIRCUIT TERMINAL

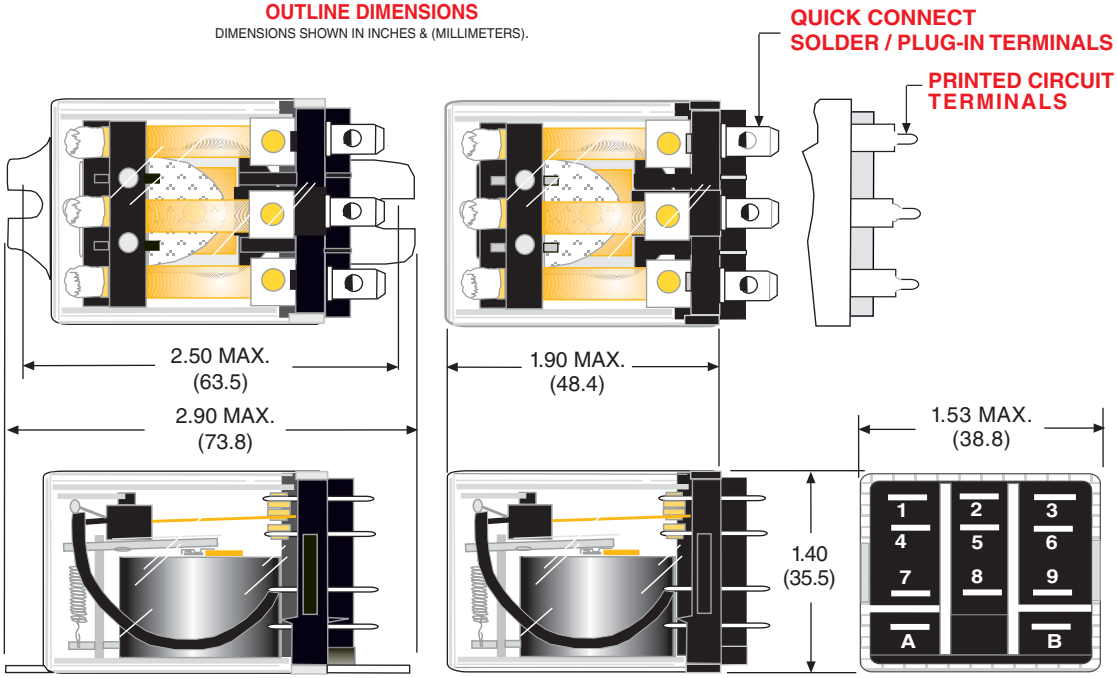
OPTIONAL TOP FLANGE COVER

OPTIONAL DIN COVER

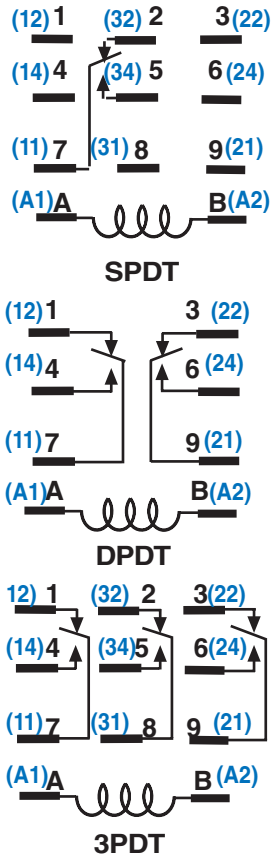
A283 PLUG-IN & FLANGE MOUNT RELAYS

SPDT, DPDT & 3PDT, 15 AMPS

OUTLINE DIMENSIONS
DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).



WIRING DIAGRAM
(VIEWED FROM PIN END)



ALTERNATE NEMA OR IEC ( ) NUMBERS VIEWED FROM PIN SIDE

SEE CLASS 788 FOR PART NUMBERS WITH L.E.D. STATUS LAMP AND PUSH BUTTON

Mating Sockets
70-463-1: SCREW/DIN
70-124-1: SOLDER
70-178-1, 70-178-2: PRINTED CIRCUIT
70-788EL/SL-1, 170-124-2: QUICK CONNECT
See section 7

FLANGE MOUNT

STANDARD PART NUMBERS	CONTACT CONFIGU-RATION	COIL MEASURED @ 25 °C NOMINAL INPUT VOLTAGE	COIL MEASURED @ 25 °C NOMINAL RESISTANCE (OHMS)
AC OPERATED, 15 AMP			
A283XAXC1-120A	SPDT	110/120 VAC, 50/60Hz	2250 Ω
A283XAXC1-240A	SPDT	220/240 VAC, 50/60Hz	9100 Ω
A283XBXC1-120A	DPDT	110/120 VAC, 50/60Hz	2250 Ω
A283XBXC1-240A	DPDT	220/240 VAC, 50/60Hz	9100 Ω
A283XCXC1-120A	3PDT	110/120 VAC, 50/60Hz	1700 Ω
A283XCXC1-240A	3PDT	220/240 VAC, 50/60Hz	7200 Ω
DC OPERATED, 15 AMP			
A283XAXC1-12D	SPDT	12 VDC	120 Ω
A283XAXC1-24D	SPDT	24 VDC	472 Ω
A283XBXC1-12D	DPDT	12 VDC	120 Ω
A283XBXC1-24D	DPDT	24 VDC	472 Ω
A283XCXC1-24D	3PDT	24 VDC	472 Ω

RETROFITS POTTER & BRUMFIELD KUP.
SEE END OF SECTION 1 FOR CROSS REFERENCE

PLUG-IN

STANDARD PART NUMBERS	CONTACT CONFIGU-RATION	COIL MEASURED @ 25 °C NOMINAL INPUT VOLTAGE	COIL MEASURED @ 25 °C NOMINAL RESISTANCE (OHMS)
AC OPERATED SOLDER/PLUG-IN, 15 AMP			
A283XAXC-120A	SPDT	110/120 VAC, 50/60Hz	2250 Ω
A283XAXC-240A	SPDT	220/240 VAC, 50/60Hz	9100 Ω
A283XBXC-24A	DPDT	24 VAC, 50/60Hz	75 Ω
A283XBXC-120A	DPDT	110/120 VAC, 50/60Hz	2250 Ω
A283XBXC-240A	DPDT	220/240 VAC, 50/60Hz	9100 Ω
A283XCXC-24A	3PDT	24 VAC, 50/60Hz	72 Ω
A283XCXC-120A	3PDT	110/120 VAC, 50/60Hz	1700 Ω
A283XCXC-240A	3PDT	220/240 VAC, 50/60Hz	7200 Ω
DC OPERATED SOLDER/PLUG-IN, 15 AMP			
A283XAXC-12D	SPDT	12 VDC	120 Ω
A283XAXC-24D	SPDT	24 VDC	472 Ω
A283XBXC-12D	DPDT	12 VDC	120 Ω
A283XBXC-24D	DPDT	24 VDC	472 Ω
A283XBXC-110D	DPDT	110/125 VDC	10,000 Ω
A283XCXC-12D	3PDT	12 VDC	120 Ω
A283XCXC-24D	3PDT	24 VDC	472 Ω

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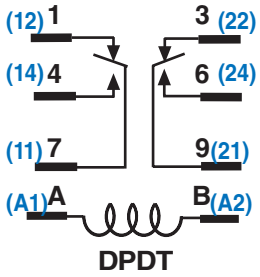
A283 PLUG-IN RELAY FOR DC SWITCHING

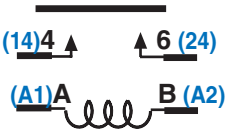
Magnecraft Struthers-Dunn Your Contact for Industrial Relays

DPDT, SPST-NO-DM
3, 5 & 10 AMPS
150 VDC SWITCHING

WIRING DIAGRAM
(VIEWED FROM PIN END)



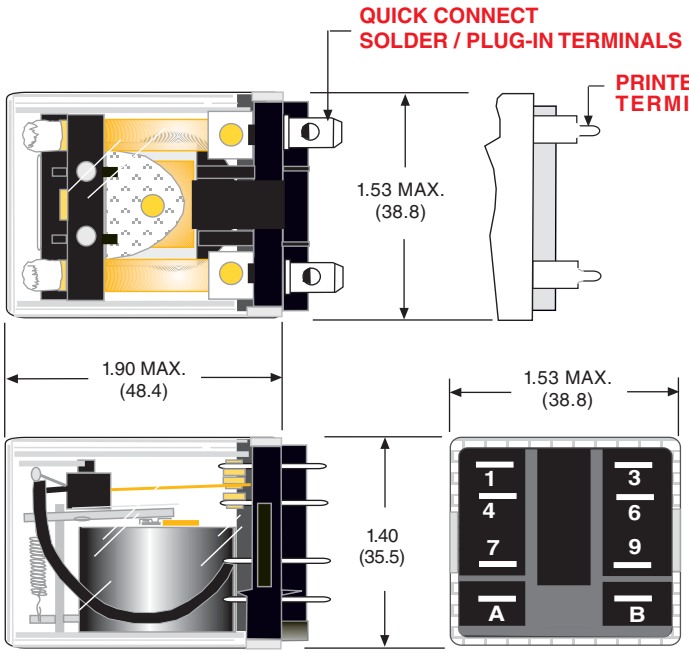
DPDT



SPST-NO-DM

ALTERNATE NEMA OR IEC ( ) NUMBERS VIEWED FROM PIN SIDE

OUTLINE DIMENSIONS
DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).



BLOWOUT MAGNET
STANDARD FEATURE

Mating Sockets
70-463-1: SCREW/DIN
70-124-1: SOLDER
70-178-1, 70-178-2: PRINTED CIRCUIT
70-788EL/SL-1, 70-124-2: QUICK CONNECT
See section 7

THE BLOWOUT MAGNET STYLES HAVE THE SAME LOAD SPECIFICATIONS AS THE A283 ENCLOSED PLUG-IN RELAYS, PLUS THE ADDITIONAL DC LOAD RATINGS. SEE A283 GENERAL SPECIFICATIONS.

STANDARD PART NUMBERS	CONTACT CONFIGU-RATION	COIL MEASURED @ 25 °C NOMINAL INPUT VOLTAGE	NOMINAL RESISTANCE (OHMS)
AC OPERATED WITH BLOWOUT MAGNET, 3 AMP			
A283XBX69C-120A	DPDT	110/120 VAC, 50/60Hz	2250 Ω
DC OPERATED WITH BLOWOUT MAGNET, 3 AMP			
A283XBX69C-12D	DPDT	12 VDC	120 Ω
A283XBX69C-24D	DPDT	24 VDC	472 Ω
A283XBX69C-110D	DPDT	110/125 VDC	10,000 Ω
AC OPERATED WITH BLOWOUT MAGNET, 10 AMP			
A283HXX69C-120A	SPST-NO (DM)	110/120 VAC, 50/60Hz	2250 Ω
DC OPERATED WITH BLOWOUT MAGNET, 10 AMP			
A283XHX69C-48D	SPDT-NO (DB-DM)	48 VDC	1800 Ω
DC OPERATED WITH BLOWOUT MAGNET, 5 AMP			
A283BXX69C-24D	DPST-NO	24 VDC	472 Ω
A283BXX69C-48D	DPST-NO	48 VDC	1800 Ω
DC OPERATED WITH BLOWOUT MAGNET, 10 AMP			
A283HXX69C-12D	SPST-NO (DM)	12 VDC	120 Ω
A283HXX69C-24D	SPST-NO (DM)	24 VDC	472 Ω
A283HXX69C-48D	SPST-NO (DM)	48 VDC	1800 Ω
A283HXX69C-110D	SPST-NO (DM)	110/125 VDC	10,000 Ω

SEE CLASS 788 FOR PART NUMBERS WITH L.E.D. STATUS LAMP AND PUSH BUTTON

RETROFITS POTTER & BRUMFIELD KUP.
SEE END OF SECTION 1 FOR CROSS REFERENCE

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388J & 388V PLUG-IN & FLANGE MOUNT RELAYS

UL CONTACT LOAD RATINGS TABLE FOR 388J

CONTACT CONFIGURATION	CURRENT OR HORSE POWER	LOAD VOLTAGE	LOAD VOLTAGE FREQUENCY	TYPE OF LOAD
DPDT	20 AMP	300 VAC	50/60 Hz	RESISTIVE
	20 AMP	28 VDC	DC	RESISTIVE
3PDT	16 AMP	277 VAC	50/60 Hz	RESISTIVE
	16 AMP	28 VDC	DC	RESISTIVE
2 & 3 POLES	3/4 HP	120 VAC	50/60 Hz	MOTOR
	1 HP	208 - 600 VAC	50/60 Hz	MOTOR

c UL us
UL Recognized
File No. E43641

168986 for 388J
41729 for 388V

COMPLIES WITH REQUIREMENTS OF

* IEC STANDARDS 947-4-1 AND 947-5-1 LOW VOLTAGE DIRECTIVE
* IEC = INTERNATIONAL ELECTROTECHNICAL COMMISSION
* CE TESTING AND EVALUATION PERFORMED BY THE UNDERWRITERS LABORATORIES AS A THIRD PARTY PARTICIPANT

MANUFACTURED UNDER ISO 9002 & QS 9000

UL CONTACT LOAD RATINGS TABLE FOR 388V

CONTACT CONFIGURATION	CURRENT OR HORSE POWER	LOAD VOLTAGE	LOAD VOLTAGE FREQUENCY	TYPE OF LOAD
1 POLE THRU 3 POLES	15 AMP	240 VAC	50/60 Hz	RESISTIVE
	15 AMP	28 VDC	DC	RESISTIVE
	1/3 HP	120 VAC	50/60 Hz	MOTOR
	1/2 HP	240 VAC	50/60 Hz	MOTOR

c UL us
LISTED 367G
IND. CONT. EQ.
WHEN USED WITH SOCKETS **70-463-1**

CURRENT LIMITED TO RATING OF RELAY OR SOCKET WHICHEVER IS LESS

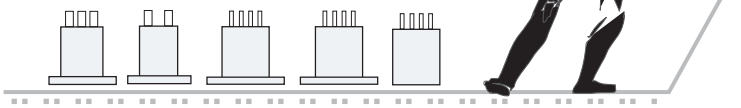
PLUG-IN

FLANGE MOUNT

OPTIONAL DIN MOUNT COVER

BENEFITS OF 3mm CONTACT GAP DESIGN:

1. HIGH DIELECTRIC STRENGTH ACROSS CONTACTS.
2. IMPROVED ARC QUENCHING WHEN BREAKING HIGH CURRENT LOADS.
3. MEETS EUROPEAN SPACING REQUIREMENTS OF 8mm ACROSS SURFACES



GENERAL SPECIFICATIONS (@ 25°C)

	UNITS	
COIL		
Pull-in Voltage AC (50/60 Hz):≤	% of nominal	85
Pull-in Voltage DC:≤	% of nominal	80
Dropout Voltage AC (50/60 Hz):≥	% of nominal	10
Dropout Voltage DC:≥	% of nominal	10
Maximum Voltage:	% of nominal	110
Resistance:	% ±	10
Coil Power AC (60 Hz):	VA	J: 2.75, V: 4
Coil Power DC:	W	2
Insulation System Per UL Standard 1446:		Class B (130 C)
Duty:		Continuous
CONTACTS		
Contact Material:		Silver alloy gold flashed
Contact Rating AC Amperes (AC1):	A	J: 2 Pole-20, 3 Pole-16 V: 15
Contact Rating AC Voltage:	V	240
Contact Rating DC Amperes (DC1):	A	J: 20, V: 15
Contact Rating DC Voltage:	V	28
Horse Power (AC):	HP	J: 3/4 @ 120 V V: 1/3 @ 120 V
Horse Power (AC):	HP	J: 1 @ 240 V V: 1/2 @ 240 V
Minimum Recommended Load:	ma	100 @ 5 VDC or 0.5 W

	UNITS	
DIELECTRIC STRENGTH		
Coil to Contacts:	V rms	J: 2000, V: 4000
Across Open Contacts:	V rms	J: 500, V: 1000
Pole to Pole:	V rms	2000
Contacts to Frame:	V rms	Not applicable
Insulation Resistance:	megohms minimum @ VDC	1000 @ 500
TEMPERATURE		
Operating, AC Lower:	°C	-30
Operating, AC Upper:	°C	+65
Operating, DC Lower:	°C	-30
Operating, DC Upper:	°C	+50
Storage, Lower:	°C	-30
Storage, Upper:	°C	+100
LIFE EXPECTANCY		
Electrical @ Rated Load (AC1):	operations	100,000
Mechanical @ no Load :	operations	5,000,000
MISCELLANEOUS		
Operating Position:		Any
Insulation Material:	94V-0	Molded plastic
Enclosure Material:	94V-0	Polycarbonate
Cover Protection Category:	IP	40
Terminals:	Inch (mm)	0.187x 0.020 (4.74 x 0.508)
Weight:	grams	88

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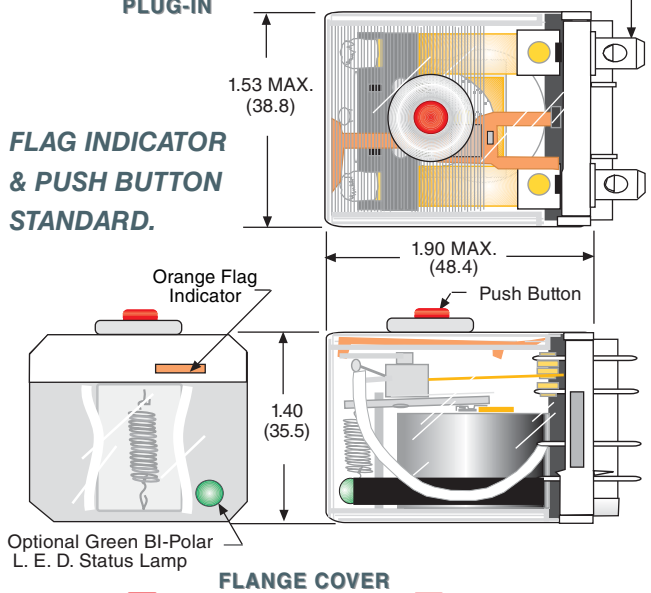
388J HIGH CURRENT PLUG-IN & FLANGE MOUNT RELAYS

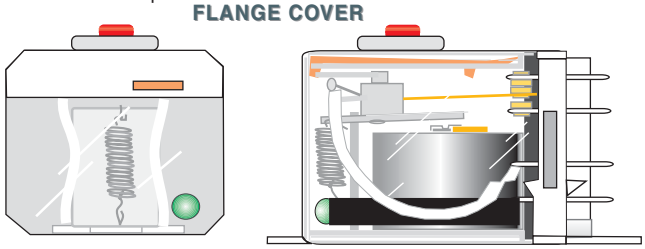
DPDT 20 AMPS & 3PDT 16 AMPS

OUTLINE DIMENSIONS
DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).

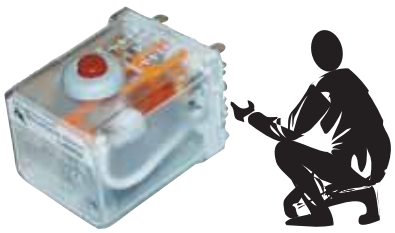
PLUG-IN

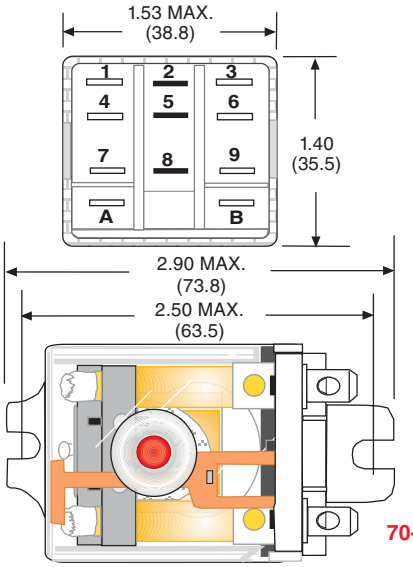


FLANGE COVER

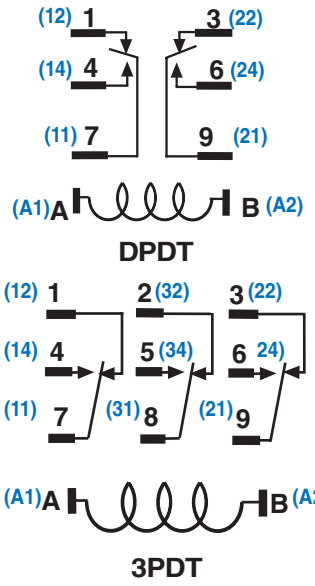


QUICK CONNECT
SOLDER / PLUG-IN TERMINALS





WIRING DIAGRAM
(VIEWED FROM PIN END)



ALTERNATE NEMA OR IEC ( ) NUMBERS VIEWED FROM PIN SIDE

Mating Sockets
70-463-1: SCREW/DIN
70-124-1: SOLDER
70-178-1, 70-178-2: PRINTED CIRCUIT
70-788EL/SL-1, 70-124-2: QUICK CONNECT
See section 7

ORDERING CODE

388J | XCX | | C1 | | M- | 240A

CLASS:
FLAG INDICATOR
STANDARD FEATURE

CONTACT CONFIGURATION:
DPDT: **XBX**, 3PDT: **XCX**

OPTIONAL:
MAGNETIC BLOWOUT: **CODE 69 (XBX ONLY)**

CONSTRUCTION STYLE:
* ENCLOSED, PLAIN COVER: **CODE C**
ENCLOSED, FLANGE COVER: **CODE C1**
ENCLOSED TOP FLANGE MOUNT: **CODE C3**
ENCLOSED DIN MOUNT: **CODE C4**

TERMINAL STYLE:
QUICK CONNECT SOLDER TERMINALS: **NO CODE**
PRINTED CIRCUIT TERMINALS: **CODE T**

OPTIONS:
BI - POLAR L.E.D. STATUS LAMP: **CODE L**
PUSH BUTTON: **CODE M**

COIL VOLTAGE:
6, 12, 24, 120, 240 **ADD "A" FOR AC COILS**
6, 12, 24, 48, 110 **ADD "D" FOR DC COILS**

* Note: Code C recommended to be used with printed circuit terminals or Plug-in applications only.

STANDARD PART NUMBERS	CONTACT CONFIGU-RATION	COIL MEASURED @ 25 °C NOMINAL INPUT VOLTAGE	COIL MEASURED @ 25 °C NOMINAL RESISTANCE (OHMS)
AC OPERATED FLANGE MOUNT WITH PUSH BUTTON, 20 AMP			
388JXBXC1M-240A	DPDT	220/240 VAC,50/60Hz	9100 Ω
388JXBXC1M-120A	DPDT	110/120 VAC,50/60Hz	2250 Ω
DC OPERATED FLANGE MOUNT WITH PUSH BUTTON, 20 AMP			
388JXBXC1M-12D	DPDT	12 VDC	120 Ω
388JXBXC1M-24D	DPDT	24 VDC	470 Ω
AC OPERATED PLUG-IN WITH PUSH BUTTON, 20 AMP			
388JXBXCM-240A	DPDT	220/240 VAC,50/60Hz	9100 Ω
388JXBXCM-120A	DPDT	110/120 VAC,50/60Hz	2250 Ω
DC OPERATED PLUG-IN WITH PUSH BUTTON, 20 AMP			
388JXBXCM-12D	DPDT	12 VDC	120 Ω
388JXBXCM-24D	DPDT	24 VDC	470 Ω
AC OPERATED FLANGE MOUNT WITH PUSH BUTTON, 16 AMP			
388JXCXC1M-240A	3PDT	220/240 VAC,50/60Hz	7200 Ω
388JXCXC1M-120A	3PDT	110/120 VAC,50/60Hz	1700 Ω
DC OPERATED FLANGE MOUNT WITH PUSH BUTTON, 16 AMP			
388JXCXC1M-12D	3PDT	12 VDC	120 Ω
388JXCXC1M-24D	3PDT	24 VDC	470 Ω
AC OPERATED PLUG-IN WITH PUSH BUTTON, 16 AMP			
388JXCXCM-240A	3PDT	220/240 VAC,50/60Hz	7200 Ω
388JXCXCM-120A	3PDT	110/120 VAC,50/60Hz	1700 Ω
DC OPERATED PLUG-IN WITH PUSH BUTTON, 16 AMP			
388JXCXCM-12D	3PDT	12 VDC	120 Ω
388JXCXCM-24D	3PDT	24 VDC	470 Ω

RETROFITS SCHRACK RM. SEE END OF SECTION 1 FOR CROSS REFERENCE
CADMIUM-FREE CONTACTS AVAILABLE, CONTACT FACTORY FOR DETAILS

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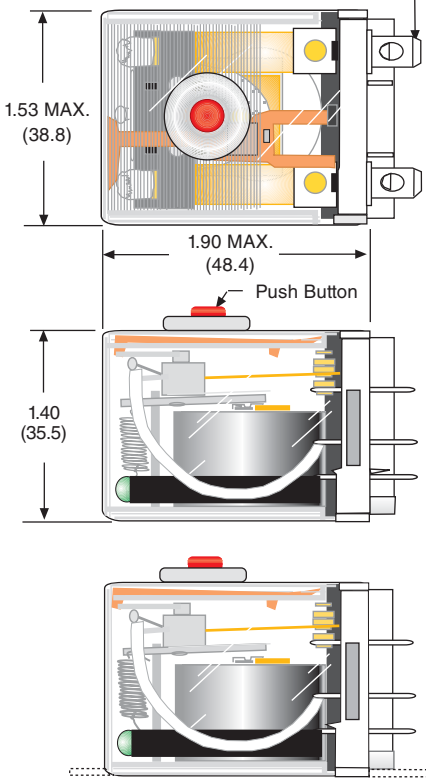
388V HIGH VOLTAGE PLUG-IN & FLANGE MOUNT RELAYS

Magnecraft Struthers-Dunn

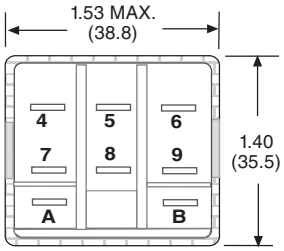
DPST-NO & 3PST-NO 15 AMPS

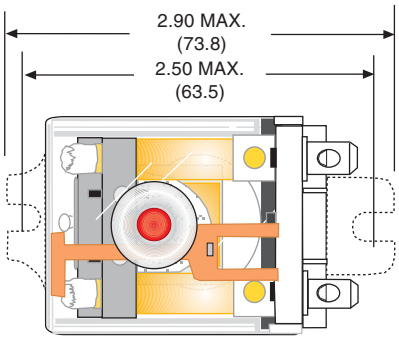
OUTLINE DIMENSIONS
DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).

PLUG-IN



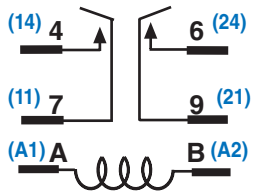
QUICK CONNECT SOLDER / PLUG-IN TERMINALS



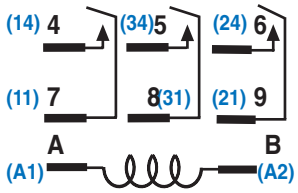


OPTIONAL FLANGE COVER

WIRING DIAGRAM
(VIEWED FROM PIN END)



DPST-NO



3PST-NO

ALTERNATE NEMA OR IEC ( ) NUMBERS VIEWED FROM PIN SIDE

3 MILLIMETER CONTACT GAP.
PUSH BUTTON STANDARD.

ORDERING CODE

388V | CXX | ☐ | C1 | ☐ | M- | 240A

CLASS:

CONTACT CONFIGURATION:
DPST-NO: **BXX**
3PST-NO: **CXX**

OPTIONAL:
MAGNETIC BLOWOUT: **CODE 69 (BXX ONLY)**

CONSTRUCTION STYLE:
* ENCLOSED, PLAIN COVER: **CODE C**
ENCLOSED, FLANGE COVER: **CODE C1**
ENCLOSED TOP FLANGE MOUNT: **CODE C3**
ENCLOSED DIN MOUNT: **CODE C4**

TERMINAL STYLE:
QUICK CONNECT SOLDER/PLUG-IN TERMINALS: **NO CODE**
PRINTED CIRCUIT TERMINALS: **CODE T**

OPTIONS:
BI - POLAR L.E.D. STATUS LAMP: **CODE L**
PUSH BUTTON: **CODE M**

COIL VOLTAGE:
6, 12, 24, 120, 220/240 **ADD "A" FOR AC COILS**
6, 12, 24, 48, 110 **ADD "D" FOR DC COILS**

* Note: Code C recommended to be used with printed circuit terminals or Plug-in applications only.

Mating Sockets
70-463-1: SCREW/DIN
70-124-1: SOLDER
70-178-1, 70-178-2: PRINTED CIRCUIT
0-788EL/SL-1, 70-124-2: QUICK CONNECT
See section 7

STANDARD PART NUMBERS	CONTACT CONFIGU-RATION	COIL MEASURED @ 25 °C NOMINAL INPUT VOLTAGE	NOMINAL RESISTANCE (OHMS)
AC OPERATED PLUG-IN WITH PUSH BUTTON 3mm GAP, 15 AMP			
388VCXXCM-220/240A	3PST-NO	220/240 VAC,50/60Hz	9100 Ω
388VCXXCM-120A	3PST-NO	110/120 VAC,50/60Hz	1100 Ω
388VCXXCM-24A	3PST-NO	24 VAC,50/60Hz	75 Ω
388VBXXCM-220/240A	DPST-NO	220/240 VAC,50/60Hz	9100 Ω
388VBXXCM-120A	DPST-NO	110/120 VAC,50/60Hz	1100 Ω
388VBXXCM-24A	DPST-NO	24 VAC,50/60 Hz	75 Ω
DC OPERATED PLUG-IN WITH PUSH BUTTON 3mm GAP, 15 AMP			
388VCXXCM-24D	3PST-NO	24 VDC	240 Ω
388VCXXCM-12D	3PST-NO	12 VDC	120 Ω
388VBXXCM-24D	DPST-NO	24 VDC	240 Ω
388VBXXCM-12D	DPST-NO	12 VDC	120 Ω

RETROFITS POTTER & BRUMFIELD KUGP.
SEE END OF SECTION 1 FOR CROSS REFERENCE

PHONE: (843) 393-5778 FAX: (843) 393-4123 EMAIL: info@magnecraft.com

389 & 389F FLANGE MOUNT POWER RELAYS

FEATURES — BENEFITS

FEATURES	BENEFITS
OVERSIZE CURRENT CARRYING PARTS	RUNS COOLER & LONGER
600 VOLT SPACING	HANDLES MOST LOAD VOLTAGES
FULL RANGE OF CONTACT RATINGS	ELIMINATES "GUESS WORK"
BROAD SELECTION OF MOUNTING STYLES & OPTIONS	CAN BE "CUSTOMIZED" FOR UNIQUE SITUATIONS

c UL us
UL Recognized
File No. E43641

CSA
168986

CE
COMPLIES WITH REQUIREMENTS OF

* IEC STANDARDS 947-4-1 AND 947-5-1 LOW VOLTAGE DIRECTIVE
* IEC = INTERNATIONAL ELECTROTECHNICAL COMMISSION
* CE TESTING AND EVALUATION PERFORMED BY THE UNDERWRITERS LABORATORIES AS A THIRD PARTY PARTICIPANT

MANUFACTURED UNDER ISO 9002 & QS 9000

DIELECTRIC STRENGTH CHART (V rms)

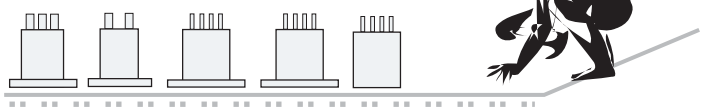
CONTACT CONFIGURATION	ACROSS OPEN CONTACTS	COIL TO CONTACTS	POLE TO POLE
SPST	1000	2200	-
DPDT	1000	2200	2200
3PDT	1000	1600	1600
SPDT (DB and DM)	1500	2200	-

STANDARD SIDE FLANGE COVER

389F WITH PUSH BUTTON AND FLAG

OPTIONAL TOP FLANGE COVER

OPTIONAL DIN COVER



GENERAL SPECIFICATIONS (@ 25°C)

	UNITS	
COIL		
Pull-in Voltage AC (50/60 Hz):≤	% of nominal	85
Pull-in Voltage DC:≤	% of nominal	80
Dropout Voltage AC (50/60 Hz):≥	% of nominal	10
Dropout Voltage DC:≥	% of nominal	10
Maximum Voltage:	% of nominal	110
Resistance:	% ±	10
Coil Power AC (60 Hz):	VA	3.5
Coil Power DC:	W	1.44
Insulation System Per UL Standard 1446:		Class B (130 °C)
Duty:		Continuous
CONTACTS		
Contact Material:		Silver alloy gold flashed
Contact Rating AC Amperes (AC1):	A	20, 25, 30
		see load tables
Pilot Duty:		A600, B600
VA Rating Make:	VA	600
VA Rating Break:	VA	60
Minimum Recommended Load:	ma	100 @ 5 VDC or 0.5 W
DIELECTRIC STRENGTH		
Coil to Contacts:	V rms	1600
Across Open Contacts:	V rms	1000
Pole to Pole:	V rms	1600
Contacts to Frame:	V rms	Not applicable
Insulation Resistance:	megohms minimum @VDC	1000 @ 500

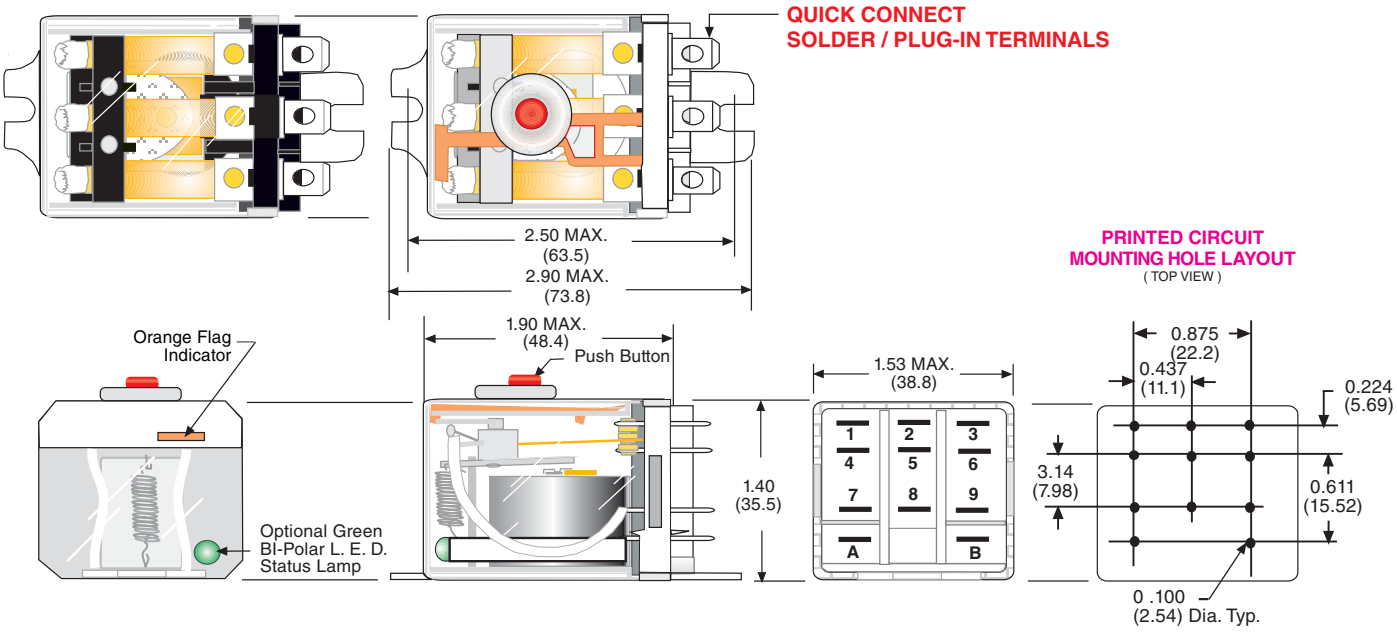
	UNITS	
TEMPERATURE		
Operating, AC Lower:	°C	-30
Operating, AC Upper:	°C	+65
Operating, DC Lower:	°C	-30
Operating, DC Upper:	°C	+50
Storage, Lower:	°C	-30
Storage, Upper:	°C	+100
LIFE EXPECTANCY		
Electrical @ Rated Load (AC1):	operations	100,000
Mechanical @ no Load :	operations	5,000,000
MISCELLANEOUS		
Operating Position:		Any
Insulation Material:	94V-0	Molded plastic
Enclosure Material:	94V-0	Polycarbonate
Cover Protection Category:	IP	40
Terminals:	Inch (mm)	0.250, 0.09 x 0.032 (6.35, 2.29 x 0.81)
Weight:	grams	88

389 & 389F FLANGE MOUNT POWER RELAYS

20, 25 & 30 AMPS

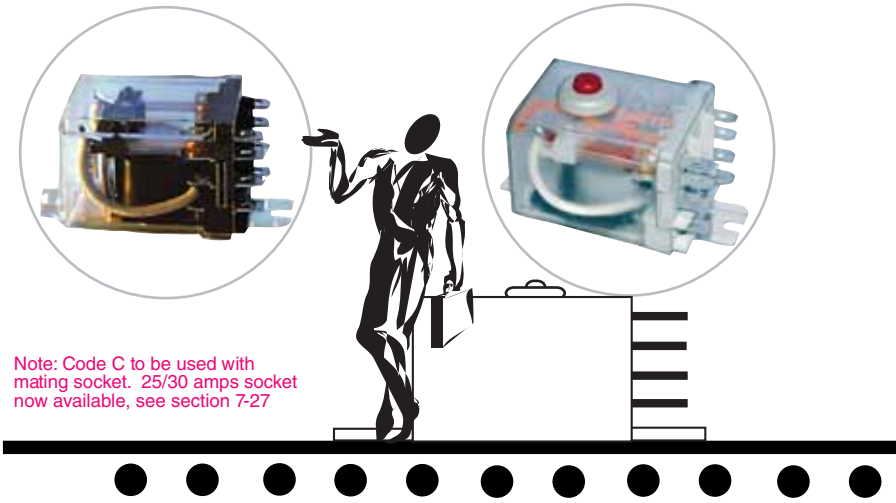
OUTLINE DIMENSIONS

DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).



CLASS 389 LOAD RATINGS

CONTACT CONFIGURATION	CURRENT ORHORSE POWER	LOAD VOLTAGE	LOAD VOLTAGE FREQUENCY	TYPE OF LOAD
SPDT	13A	28	DC	RESISTIVE
	20A	15	DC	RESISTIVE
	25A	300	50/60 Hz	RESISTIVE
	5A	600	50/60 Hz	RESISTIVE
	20A	277	50/60 Hz	BALLAST
	1HP	120	50/60 Hz	MOTOR
	1-1/2HP	208/240	50/60 Hz	MOTOR
	1HP	480/600	50/60 Hz	MOTOR
	660VA	120	50/60 Hz	PILOT DUTY
	960VA	240	50/60 Hz	PILOT DUTY
	B600		50/60Hz	PILOT DUTY
	13A	28	DC	RESISTIVE
	20A	15	DC	RESISTIVE
DPDT	25A	300	50/60 Hz	RESISTIVE
	5A	600	50/60 Hz	RESISTIVE
	20A	277	50/60 Hz	BALLAST
	1HP	120	50/60 Hz	MOTOR
	1-1/2HP	208/240	50/60 Hz	MOTOR
	1HP	480/600	50/60 Hz	MOTOR
	660VA	120	50/60 Hz	PILOT DUTY
	960VA	240	50/60Hz	PILOT DUTY
	B600		50/60Hz	PILOT DUTY
	13A	28	DC	RESISTIVE
	15A	28	DC (NO)	RESISTIVE
	20A	15	DC	RESISTIVE
	20A	150	50/60 Hz	RESISTIVE
3PDT	††15A	250	50/60 Hz	RESISTIVE
	†10A	300	50/60 Hz	RESISTIVE
	20A	150	50/60 Hz	BALLAST
	6-2/3A	277	50/60 Hz	BALLAST
	1/2HP	120	50/60Hz	MOTOR
	1/2HP	208/240	50/60 Hz	MOTOR
	1HP	240	50/60 Hz	MOTOR
	3/4HP	120	50/60Hz	MOTOR
	470VA	120/240	50/60Hz	PILOT DUTY
	B300		50/60Hz	PILOT DUTY



Note: Code C to be used with mating socket. 25/30 amps socket now available, see section 7-27

CLASS 389D LOAD RATINGS

CONTACT CONFIGURATION	CURRENT OR HORSE POWER	LOAD VOLTAGE	LOAD VOLTAGE FREQUENCY	TYPE OF LOAD
SPST (NO-DM)	30A	28	DC	RESISTIVE
	30A	300	50/60 Hz	RESISTIVE
	10A	600	50/60 Hz	RESISTIVE
	1HP	120	50/60 Hz	MOTOR
	1-1/2HP	200 thru 600	50/60 Hz	MOTOR
	765VA	120	50/60 Hz	PILOT DUTY
	960VA	240,480,600	50/60 Hz	PILOT DUTY
	A600		50/60 Hz	PILOT DUTY
SPDT (DB and DM)	25 A	277	50/60 Hz	BALLAST

†† UL APPLIANCE RATED. ALL OTHER RATINGS NOT SO MARKED ARE INDUSTRIAL RATED

† CSA RATING ONLY, NOT UL

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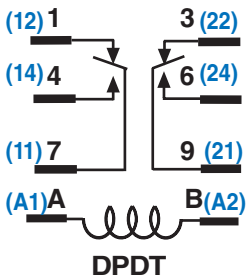
389 & 389F FLANGE MOUNT POWER RELAYS

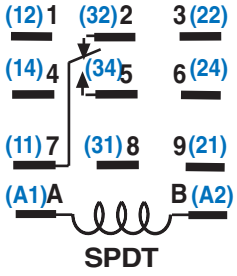
Magnecraft Struthers-Dunn

20, 25 & 30 AMPS

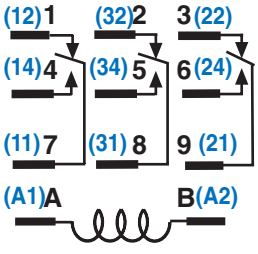
WIRING DIAGRAM
(VIEWED FROM PIN END)



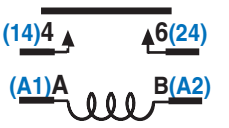
DPDT



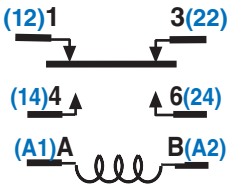
SPDT



3PDT



SPST-NO-DM



SPDT-NC-NO-DB-DM

ALTERNATE NEMA OR IEC ( ) NUMBERS VIEWED FROM PIN SIDE

ORDERING CODE

389F	XCX		C1		M	-120A

CLASS:
FLAG INDICATOR
STANDARD FEATURE

CONTACT CONFIGURATION:
DPDT: **XBX**, 3PDT: **XCX**

OPTIONAL:
MAGNETIC BLOWOUT:
CODE 69 (XBX ONLY)

CONSTRUCTION STYLE:
* ENCLOSED, PLAIN COVER: **CODE C**
ENCLOSED, FLANGE COVER: **CODE C1**
ENCLOSED TOP FLANGE MOUNT: **CODE C3**
ENCLOSED DIN MOUNT: **CODE C4**

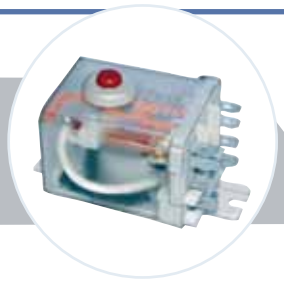
TERMINAL STYLE:
0.250 QUICK CONNECT
SOLDER TERMINALS: **NO CODE**
PRINTED CIRCUIT TERMINALS: **CODE T**

OPTIONS:
BI - POLAR L.E.D. STATUS LAMP: **CODE L**
PUSH BUTTON: **CODE M**

COIL VOLTAGE:
6, 12, 24, 120, 240 **ADD "A" FOR AC COILS**
6, 12, 24, 48, 110 **ADD "D" FOR DC COILS**

* Note: Code C to be used with mating socket. 25/30 amps socket now available, see section 7-27

389



389F

STANDARD PART NUMBERS	CONTACT CONFIGU-RATION	COIL MEASURED @ 25 °C NOMINAL INPUT VOLTAGE	NOMINAL RESISTANCE (OHMS)
AC OPERATED FLANGE MOUNT WITH PUSH BUTTON, 25 AMP			
389FXBXC1M-240A	DPDT	220/240 VAC, 50/60Hz	7200 Ω
389FXBXC1M-120A	DPDT	110/120 VAC,50/60Hz	1700 Ω
AC OPERATED FLANGE MOUNT WITH PUSH BUTTON, 20 AMP			
389FXCXC1M-240A	3PDT	220/240 VAC, 50/60Hz	4600 Ω
389FXCXC1M-120A	3PDT	110/120 VAC, 50/60Hz	1200 Ω
DC OPERATED FLANGE MOUNT WITH PUSH BUTTON, 25 AMP			
389FXBXC1M-12D	DPDT	12 VDC	100 Ω
389FXBXC1M-24D	DPDT	24 VDC	400 Ω
DC OPERATED FLANGE MOUNT WITH PUSH BUTTON, 20 AMP			
389FXCXC1M-12D	3PDT	12 VDC	100 Ω
389FXCXC1M-24D	3PDT	24 VDC	400 Ω

RETROFITS SCHRACK RM.
SEE END OF SECTION 1 FOR CROSS REFERENCE

STANDARD PART NUMBERS	CONTACT CONFIGU-RATION	COIL MEASURED @ 25 °C NOMINAL INPUT VOLTAGE	NOMINAL RESISTANCE (OHMS)
AC OPERATED FLANGE MOUNT, 30 AMP			
W389ADCX-4	SPST-NO (DM)	110/120 VAC,50/60Hz	1100 Ω
W389ADCX-5	SPST-NO (DM)	220/240 VAC,50/60Hz	4300 Ω
W389ADZCX-3	SPDT-NO-NC (DB-DM)	24 VAC,50/60Hz	44 Ω
W389ADZCX-4	SPDT-NO-NC (DB-DM)	110/120 VAC,50/60Hz	1100 Ω
DC OPERATED FLANGE MOUNT, 30 AMP			
W389DCX-2	SPST-NO (DM)	12 VDC	100 Ω
W389DCX-3	SPST-NO (DM)	24 VDC	400 Ω
W389DZCX-2	SPST-NO-NC (DB-DM)	12 VDC	100 Ω
W389DZCX-3	SPST-NO-NC (DB-DM)	24VDC	400 Ω
AC OPERATED FLANGE MOUNT, 25 AMP			
W389ACX-4	SPDT	110/120 VAC,50/60Hz	1700 Ω
W389ACX-8	DPDT	24 VAC,50/60Hz	72 Ω
W389ACX-9	DPDT	110/120 VAC,50/60Hz	1700 Ω
W389ACX-10	DPDT	220/240 VAC,50/60Hz	7200 Ω
AC OPERATED FLANGE MOUNT, 20 AMP			
W389ACX-14	3PDT	110/120 VAC,50/60Hz	1200 Ω
W389ACX-15	3PDT	220/240 VAC,50/60Hz	4600 Ω
DC OPERATED FLANGE MOUNT, 25 AMP			
W389CX-2	SPDT	12 VDC	100 Ω
W389CX-3	SPDT	24VDC	400 Ω
W389CX-7	DPDT	12 VDC	100 Ω
W389CX-8	DPDT	24VDC	400 Ω
DC OPERATED FLANGE MOUNT, 20 AMP			
W389CX-12	3PDT	12 VDC	100 Ω
W389CX-13	3PDT	24VDC	400 Ω

RETROFITS POTTER & BRUMFIELD KUMP & KUHP.
SEE END OF SECTION 1 FOR CROSS REFERENCE

300 HIGH CURRENT & HIGH VOLTAGE POWER RELAYS

UL Recognized
File No. E13224

50758

COMPLIES WITH REQUIREMENTS OF

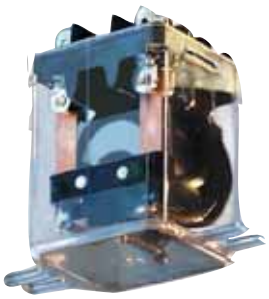
* IEC STANDARDS 947-4-1 AND 947-5-1 LOW VOLTAGE DIRECTIVE
* IEC = INTERNATIONAL ELECTROTECHNICAL COMMISSION
* CE TESTING AND EVALUATION PERFORMED BY THE UNDERWRITERS LABORATORIES AS A THIRD PARTY PARTICIPANT

FEATURES	BENEFITS
2 MILLIMETER CONTACT GAPS AND 8 MILLIMETER CREEPAGE AND CLEARANCE	MEETS INTERNATIONAL REQUIREMENTS.
WIDE SPACING BETWEEN STATIONARY CONTACT TERMINALS	CLEARANCE FOR FULLY BOOTED QUICK CONNECT TERMINALS
ARC BARRIERS BETWEEN CONTACTS	IMPROVED DIELECTRIC STRENGTH BETWEEN CONTACT SETS.
OPTIONAL BLOWOUT MAGNET	HIGH VOLTAGE DC SWITCHING
IMPROVED DIELECTRIC STRENGTH BETWEEN CONTACT	4000 Vrms DIELECTRIC BETWEEN MUTUALLY INSULATED CONDUCTIVE ELEMENTS AND FRAME.
WIDE SELECTION OF MOUNTING OPTIONS	ALLOWS INSTALLATIONS TO BE "CUSTOMIZED"

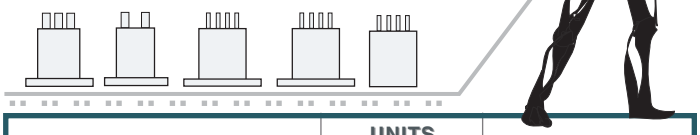
MANUFACTURED UNDER ISO 9002 & QS 9000

STANDARD SIDE FLANGE COVER

OPTIONAL TOP FLANGE MOUNT COVER



OPTIONAL DIN MOUNT COVER



GENERAL SPECIFICATIONS (@ 25°C)

	UNITS	
COIL		
Pull-in Voltage AC (50/60 Hz):≤	% of nominal	85
Pull-in Voltage DC:≤	% of nominal	80
Dropout Voltage AC (50/60 Hz):≥	% of nominal	10
Dropout Voltage DC:≥	% of nominal	10
Maximum Voltage:	% of nominal	110
Resistance:	% ±	10
Coil Power AC (60 Hz):	VA	3
Coil Power DC:	W	2
Insulation System Per UL Standard 1446:		Class B (130 ºC) or Class F (155 ºC)
Duty:		Continuous
CONTACTS		
Contact Material:		Silver alloy gold flashed
Contact Rating AC Amperes (AC1):	A	30 / 20 / 15
Contact Rating AC Voltage:	V	277 / 600
Contact Rating DC Amperes (DC1):	A	30
Contact Rating DC Voltage:	V	28
Horse Power (AC):	HP	1 @ 120
Horse Power (AC):	HP	2 @ 208 - 600
Minimum Recommended Load:	ma	100 @ 5 VDC or 0.5 W
TIMING		
Operate Time:	ms	20
Release Time:	ms	15

	UNITS	
DIELECTRIC STRENGTH		
Coil to Contacts:	V rms	4000
Across Open Contacts:	V rms	1000
Pole to Pole:	V rms	1000
Contacts to Frame:	V rms	Not applicable
Insulation Resistance:	megohms minimum @VDC	1000 @ 500
TEMPERATURE		
Operating, AC Lower:	ºC	-30
Operating, AC Upper:	ºC	+60
Operating, DC Lower:	ºC	-30
Operating, DC Upper:	ºC	+50
Storage, Lower:	ºC	-40
Storage, Upper:	ºC	+105
LIFE EXPECTANCY		
Electrical @ Rated Load (AC1):	operations	100,000
Mechanical @ no Load :	operations	10,000,000
MISCELLANEOUS		
Operating Position:		Any
Insulation Material:	94V-0	Molded plastic
Enclosure Material:	94V-0	Polycarbonate
Cover Protection Category:	IP	40
Terminals:	Inch (mm)	0.250, 0.09 x 0.032 (6.35, 2.29 x 0.81)
Weight:	grams	85

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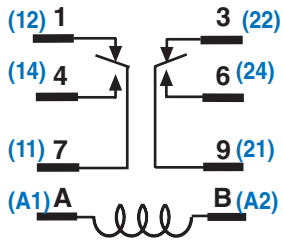
300 HIGH CURRENT & HIGH VOLTAGE POWER RELAY

Magnecraft
Struthers-Dunn
Your Contact for Industrial Relays

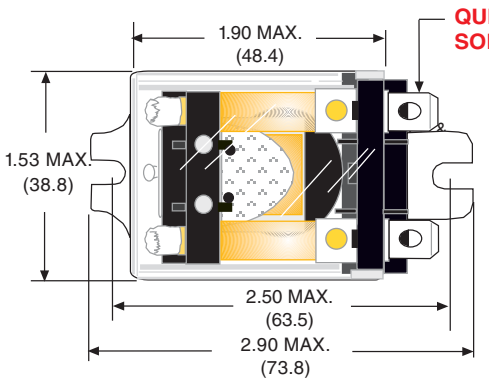
DPDT, UP TO 30 AMPS
UP TO 600 VAC OR 150 VDC

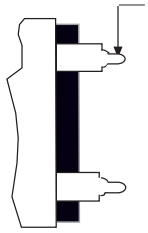
WIRING DIAGRAM
(VIEWED FROM PIN END)



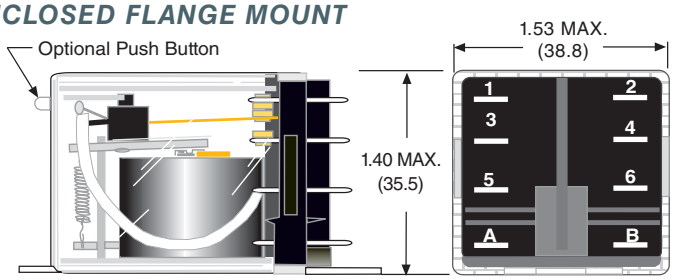
ALTERNATE NEMA OR IEC ( ) NUMBERS VIEWED FROM PIN SIDE

OUTLINE DIMENSIONS
DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).

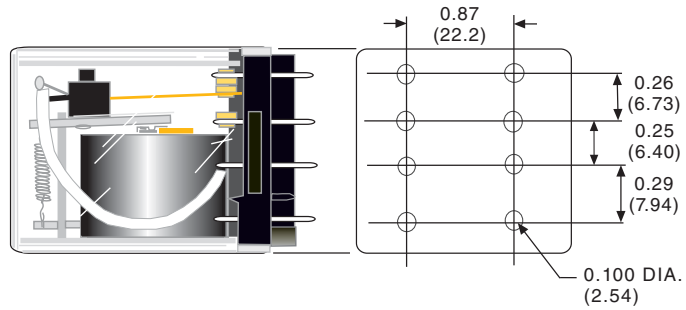




ENCLOSED FLANGE MOUNT



PRINTED CIRCUIT MOUNTING HOLE LAYOUT
(TOP VIEW)



ORDERING CODE

F	300	XBX		C1		LM	-24D

TEMPERATURE RATING:
130°C COIL (CLASS B)**: NO CODE**
155°C COIL (CLASS F)**: CODE F**

CLASS:

CONTACT CONFIGURATION:
DPDT**: XBX**
SPDT-DB-DM**: XHX**

OPTIONAL:
MAGNETIC BLOWOUT **:CODE 69**

CONSTRUCTION STYLE:
* ENCLOSED, PLAIN COVER**: CODE C**
ENCLOSED, FLANGE COVER: **CODE C1**
ENCLOSED TOP FLANGE MOUNT**: CODE C3**
ENCLOSED DIN MOUNT**: CODE C4**

TERMINAL STYLE:
QUICK CONNECT SOLDER TERMINALS**: NO CODE**
PRINTED CIRCUIT TERMINALS**: CODE T**

OPTIONS:
BI - POLAR L.E.D. STATUS LAMP**: CODE L**
PUSH BUTTON**: CODE M**

COIL VOLTAGE:
6, 12, 24, 120, 240 **ADD "A" FOR AC COILS**
6, 12, 24, 48, 110 **ADD "D" FOR DC COILS**

* Note: Code C recommended to be used with printed circuit terminals only.

STANDARD PART NUMBERS	CONTACT CONFIGURATION	COIL MEASURED @ 25 °C NOMINAL INPUT VOLTAGE	COIL MEASURED @ 25 °C NOMINAL RESISTANCE (OHMS)
AC OPERATED, 30 AMP			
300XBXC1-240A	DPDT	220/240 VAC, 50/60Hz	5400 Ω
300XBXC1-120A	DPDT	110/120 VAC, 50/60Hz	1270 Ω
300XBXC1-24A	DPDT	24 VAC, 50/60Hz	54 Ω
300XBXC1-12A	DPDT	12 VAC, 50/60Hz	13.5 Ω
DC OPERATED, 30 AMP			
300XBXC1-110D	DPDT	110/125 VDC	6300 Ω
300XBXC1-24D	DPDT	24 VDC	300 Ω
300XBXC1-12D	DPDT	12 VDC	75 Ω
DC OPERATED, 30 AMP WITH MAGNETIC BLOWOUT			
300XBX69C1-110D	DPDT	110/125 VDC	6300 Ω
300XBX69C1-24D	DPDT	24 VDC	300 Ω
300XBX69C1-12D	DPDT	12 VDC	75 Ω

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9A & 92 FLANGE MOUNT MINIATURE RELAYS

UL CONTACT LOAD RATINGS TABLE FOR 9A

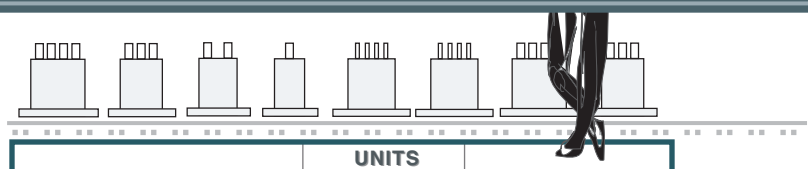
c UL us
UL Recognized
File No. E43641

LOAD	LOAD VOLTAGE	SPST	SPDT	
		N.O. LOAD	N.O.LOAD	N.C. LOAD
GENERAL PURPOSE	240 VAC	30 AMP	20 AMP	10 AMP
RESISTIVE	28 VDC	30 AMP	30 AMP	10 AMP
MOTOR	125 VAC	1 HP	1 HP	1/4 HP
	240 VAC	2 HP	2 HP	1/2 HP
FLA/LRA ‡	120 VAC	22/98 AMP	22/98 AMP	-
	240 VAC	30/80 AMP	30/80 AMP	12/30 AMP
TUNGSTEN	240 VAC	5 AMP	5 AMP	-
BALLAST	277 VAC	10 AMP	10 AMP	3 AMP
PILOT DUTY	240 VAC	470 VA	470 VA	275 VA

‡ FLA = Full load amps, LRA = Locked rotor amps.

UL CONTACT LOAD RATINGS TABLE FOR 92

RATING	LOAD VOLTAGE	DPST-N.O. & DPDT	DPDT
		N.O. LOAD	N.C. LOAD
RESISTIVE LOAD	120/277 VAC	30 AMP	3 A MP
	28 VDC	20 AMP	3 A MP
MOTOR	120 VAC	1 HP	-
	240 VAC	3 HP	-
TUNGSTEN	120 VAC	10 AMP	-
LRA/FLA‡	240 VAC	96/22	-
		110/25.3	-
PILOT DUTY	240 VAC	3 AMP	-



CLASS "F" INSULATION 155 ºC. FLANGE MOUNTED. EPOXY SEALED WITH REMOVABLE TAPE SEAL OVER VENT HOLE (REMOVED AFTER CLEANING)

GENERAL SPECIFICATIONS (@ 25°C)

	UNITS	
COIL		
Pull-in Voltage AC (50/60 Hz):≤	% of nominal	80
Pull-in Voltage DC:≤	% of nominal	75
Dropout Voltage AC (50/60 Hz):≥	% of nominal	10
Dropout Voltage DC:≥	% of nominal	10
Maximum Voltage:	% of nominal	120
Resistance:	% ±	10
Coil Power AC (60 Hz):	VA	9A: 2.8, 92: 4
Coil Power DC:	W	9A: 1, 92: 1.7
Insulation System Per UL Standard 1446:		Class F (155 ºC)
Duty:		Continuous
CONTACTS		
Contact Configuration:		9A: SPST-NO & SPDT 92: DPST-NC & DPDT
Contact Material:		Silver alloy
Contact Rating AC Amperes (AC1):	A	30
Contact Rating AC Voltage:	V	9A: 240, 92: 277
Contact Rating DC Amperes (DC1):	A	9A: 30, 92: 20
Contact Rating DC Voltage:	V	28
Horse Power (AC):	HP	9A: 1@120, 2@ 240 VAC
Horse Power (AC):	HP	92: 1@120, 3@ 240 VAC
Pilot Duty (60 Hz):	VA	9A: 470, 92: 720
Minimum Recommended Load:	ma	100 @ 5 VDC or 0.5 W
TIMING		
Operate Time:	ms	20
Release Time:	ms	20

	UNITS	
DIELECTRIC STRENGTH		
Coil to Contacts:	V rms	2500
Across Open Contacts:	V rms	1500
Pole to Pole:	V rms	9A: Not applicable 92: 2500
Contacts to Frame:	V rms	Not Applicable
Insulation Resistance:	megohms minimum @VDC	1000 @ 500
VIBRATION RESISTANCE		
Functional:	g's	10
SHOCK RESISTANCE		
Functional:	g's	20
TEMPERATURE		
Operating, AC Lower:	ºC	-55
Operating, AC Upper:	ºC	+85
Operating, DC Lower:	ºC	-55
Operating, DC Upper:	ºC	+85
Storage, Lower:	ºC	-55
Storage, Upper:	ºC	+105
LIFE EXPECTANCY		
Electrical @ Rated Load (AC1):	operations	100,000
Mechanical @ no Load :	operations	9A: 10,000,000 92: 5,000,000
MISCELLANEOUS		
Operating Position:		Any
Insulation Material:	94V-0	Molded plastic
Enclosure Material:	94V-0	Polycarbonate
Cover Protection Category:	IP	40
Terminals:	Inch (mm)	92: 0.250 x 0.032 (6.35 x 0.81)
Weight:	grams	9A: 33, 92: 86

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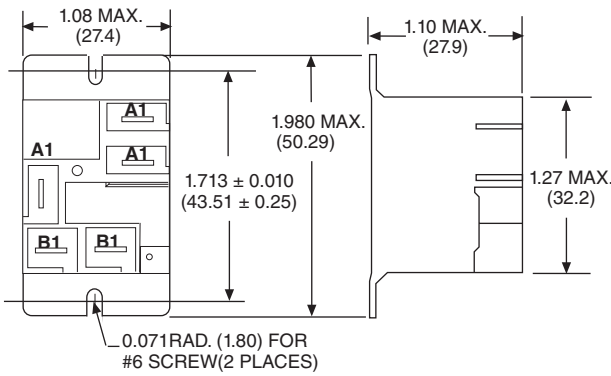
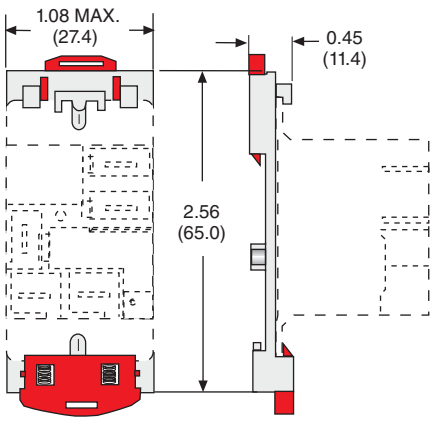
9A FLANGE MOUNT MINIATURE RELAY

SPST-N.O. & SPDT, 30 AMPS

OUTLINE DIMENSIONS
DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).



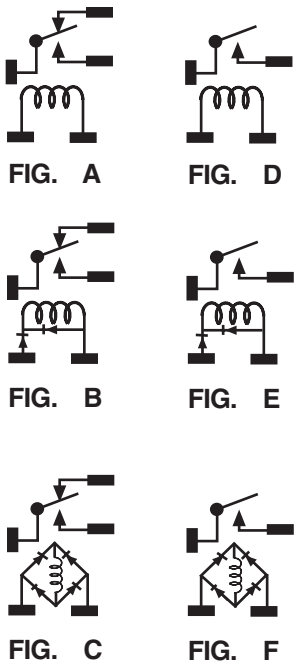
WITH OPTIONAL DIN ADAPTER



A1 = 0.250 X 0.032 (6.35 X 0.81)
Quick Connect Terminal

B1 = 0.187 x 0.020 (4.78 x 0.508)
Quick Connect Terminal

WIRING DIAGRAM
(VIEWED FROM PIN END)



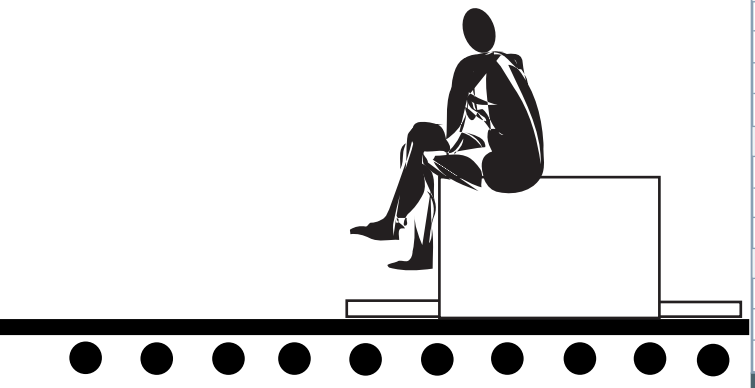
STANDARD
FLANGE COVER

OPTIONAL DIN
ADAPTER
16-9A DIN-1

ORDERED AND SHIPPED
SEPARATELY

STANDARD PART NUMBERS	CONTACT CONFIGU-RATION	FIG.	COIL MEASURED @ 25 °C	
			NOMINAL INPUT VOLTAGE	NOMINAL RESISTANCE (OHMS)
FLANGE MOUNT, 30 AMP				
W9AS1D52-5	SPST-NO	A	5 VDC	25 Ω
W9AS1D52-12	SPST-NO	A	12 VDC	144 Ω
W9AS1D52-24	SPST-NO	A	24 VDC	576 Ω
W9AS1D52-110	SPST-NO	A	110/125 VDC	12100 Ω
FLANGE MOUNT, 20 AMP				
W9AS5D52-5	SPDT	D	5 VDC	25 Ω
W9AS5D52-12	SPDT	D	12 VDC	144 Ω
W9AS5D52-24	SPDT	D	24 VDC	576 Ω
W9AS5D52-110	SPDT	D	110/125 VDC	12100 Ω
FLANGE MOUNT, 30 AMP				
W9AS1A52-24	SPST-NO	F	24 VAC, 50/60 Hz	500 Ω
W9AS1A52-120	SPST-NO	E	120 VAC, 50/60 Hz	3,000 Ω
W9AS1A52-240	SPST-NO	E	240 VAC, 50/60 Hz	12,100 Ω
FLANGE MOUNT, 20 AMP				
W9AS5A52-24	SPDT	C	24 VAC, 50/60 Hz	500 Ω
W9AS5A52-120	SPDT	B	120 VAC, 50/60 Hz	3,000 Ω
W9AS5A52-240	SPDT	B	240 VAC, 50/60 Hz	12,100 Ω

MEETS UL 873 AND UL 508
SPACING - (8MM) THRU AIR,
(9.5 MM) OVER SURFACE



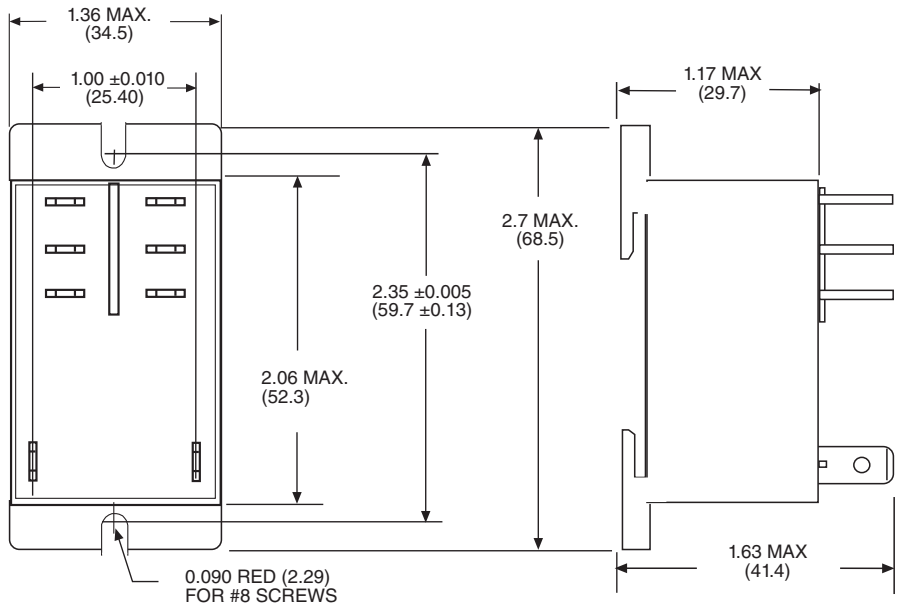
92 FLANGE / DIN MOUNT POWER RELAY

Magnecraft Struthers-Dunn Your Contact for Industrial Relays

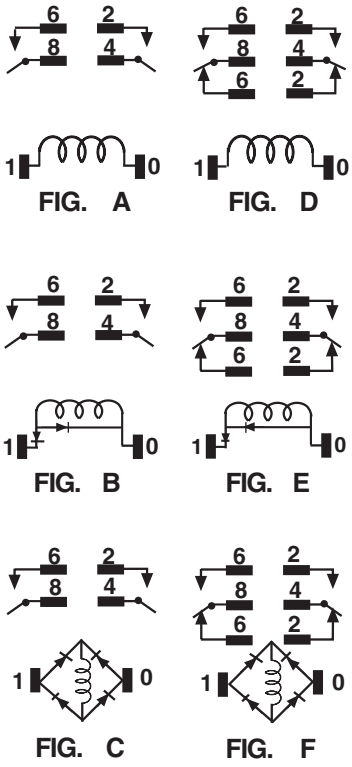
DPST-N.O. & DPDT 30 AMPS

NEW

OUTLINE DIMENSIONS
DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).



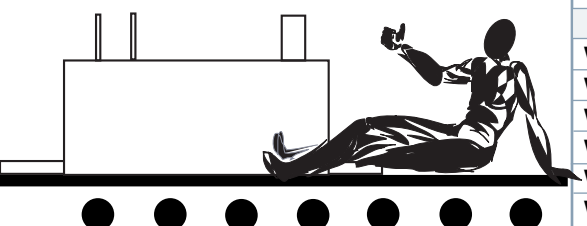
WIRING DIAGRAM
(VIEWED FROM PIN END)



IMPROVED FLANGE COVER WITH DIN

MEETS UL 873, UL 508 AND UL 1950 - (0.125 MM) THRU AIR, (0.25 MM) OVER SURFACE

DIN MOUNT PART NUMBERS	SUPERCEDES PART NUMBERS	FIG.	CONTACT CONFIGU-RATION	COIL MEASURED @ 25 °C NOMINAL INPUT VOLTAGE	COIL MEASURED @ 25 °C NOMINAL RESISTANCE (OHMS)
AC OPERATED COIL FLANGE MOUNT, 30 AMP					
DUAL MARKED					
W92S7A22D-24	W92S7A22-24	C	DPST-NO	24 VAC, 50/60 Hz	250 Ω
W92S7A22D-120	W92S7A22-120	B	DPST-NO	120 VAC, 50/60 Hz	1,600 Ω
W92S7A22D-240	W92S7A22-240	B	DPST-NO	240 VAC (50/60 Hz)	6,500 Ω
W92S11A22D-24	W92S11A22-24	F	DPDT	24 VAC, 50/60 Hz	250 Ω
W92S11A22D-120	W92S11A22-120	E	DPDT	120 VAC, 50/60 Hz	1,600 Ω
W92S11A22D-240	W92S11A22-240	E	DPDT	240 VAC, 50/60 Hz	6,500 Ω
DC OPERATED COIL FLANGE MOUNT, 30 AMP					
W92S7D22D-12	W92S7D22-12	A	DPST-NO	12 VDC	86 Ω
W92S7D22D-24	W92S7D22-24	A	DPST-NO	24 VDC	350 Ω
W92S7D22D-110	W92S7D22-110	A	DPST-NO	110/125 VDC	7,255 Ω
W92S11D22D-12	W92S11D22-12	D	DPDT	12 VDC	86 Ω
W92S11D22D-24	W92S11D22-24	D	DPDT	24 VDC	350 Ω
W92S11D22D-110	W92S11D22-110	D	DPDT	110/125 VDC	7,255 Ω



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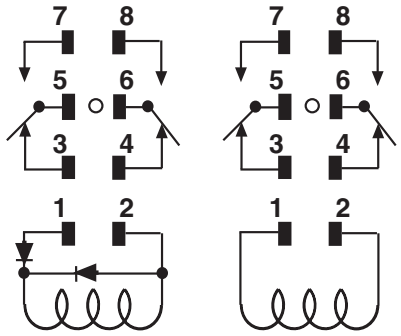
21/136 FLASH TRANSFER POWER RELAY

DPDT, 30 AMPS

UL Recognized
File No. E43641

168986

WIRING DIAGRAM
(VIEWED FROM PIN END)



RECTIFIED COIL

BENEFITS	MAGNECRAFT: W21ACPX-2 (UL RECOGNIZED)	MIDTEX: TYPE 136 (NOT UL RECOGNIZED)
CURRENT RATING:	30 AMPS @ 120 / 240 VAC, 20 AMPS @ 28 VDC	15 AMPS @ 120 VAC, 15 AMPS @ 28 VDC
HORSEPOWER RATING:	1-1/2 HP @ 120 VAC, 2 HP @ 240 VAC	1/4 HP @ 120 VAC, NOT UL RATED
TUNGSTEN LOAD RATING:	2.4 KW @ 120 / 240 VAC	1 KW @ 120 / 240 VAC
ELECTRICAL LIFE @ RATED LOAD:	200,000 OPERATIONS	100,000 OPERATIONS

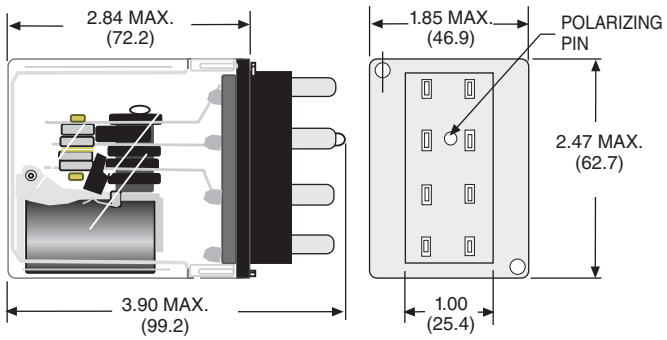
MANUFACTURED UNDER ISO 9001

GENERAL SPECIFICATIONS (@ 25°C)

	UNITS	
COIL		
Pull-in Voltage AC (50/60 Hz):≤	% of nominal	65
Pull-in Voltage DC:≤	% of nominal	Not Applicable
Dropout Voltage AC (50/60 Hz):≥	% of nominal	10
Dropout Voltage DC:≥	% of nominal	Not Applicable
Maximum Voltage:	% of nominal	10
Resistance:	% ±	Not Applicable
Insulation System Per UL Standard 1446:		Class B (130 °C)
CONTACTS		
Contact Material:		Silver alloy
Contact Rating AC Amperes (AC1):	A	30
Contact Rating AC Voltage:	V	240
Contact Rating DC Amperes (DC1):	A	20
Contact Rating DC Voltage:	V	28
Horse Power (AC):	Hp	1 1/2 @ 120 V
Horse Power (AC):	Hp	2 @ 240 V
Minimum Recommended Load:	ma	100 @ 5 VDC or 0.5 W
TIMING		
Operate Time:	ms	20
Release Time:	ms	20
DIELECTRIC STRENGTH		
Coil to Contacts:	V rms	1500
Across Open Contacts:	V rms	500
Pole to Pole:	V rms	1500
Contacts to Frame:	V rms	Not Applicable
Insulation Resistance:	megohms minimum @VDC	1000 @ 500
TEMPERATURE		
Operating, AC Lower:	°C	Not Applicable
Operating, AC Upper:	°C	Not Applicable
Operating, DC Lower:	°C	-40
Operating, DC Upper:	°C	+80
Storage, Lower:	°C	-40
Storage, Upper:	°C	+130
LIFE EXPECTANCY		
Electrical @ Rated Load (AC1):	operations	200,000
Mechanical @ no Load :	operations	5,000,000
MISCELLANEOUS		
Operating Position:		Any
Insulation Material:	94V-0	Molded plastic
Enclosure Material:	94V-0	polycarbonate
Cover Protection Category:	IP	40
Terminals:	Inch (mm)	0.250 x 0.032 (6.35 x 0.81)
Weight:	grams	205

EXCEEDS NEMA STD. TS 2-1992 APPROVED BY D.O.T FOR:
California Minnesota Georgia New York Illinois Texas Oregon Colorado Maryland MissouriNorth Carolina

OUTLINE DIMENSIONS
DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).



Mating Sockets
70-TRF8-1, 70-TRB8-1 : SOLDER
See section 7

STANDARD PART NUMBER	CONTACT CONFIGU-RATION	COIL MEASURED @ 25 °C: NOMINAL INPUT VOLTAGE	COIL MEASURED @ 25 °C: NOMINAL POWER
AC RECTIFIED - PLUG-IN, 30 AMP			
W21ACPX-2	DPDT	110/120 VAC, 50/60Hz	4.0 VA
136-627200	DPDT	110/120 VAC, 50/60Hz	10 VA

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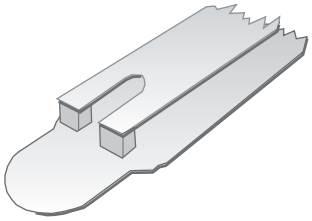
67 MINIATURE ENCLOSED INDUSTRIAL RELAY

UL CONTACT LOAD RATINGS TABLE

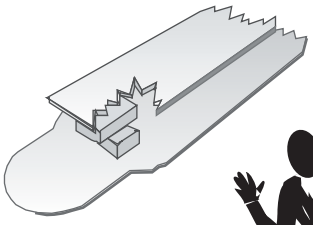
c UL us
UL Recognized
File No. E52197

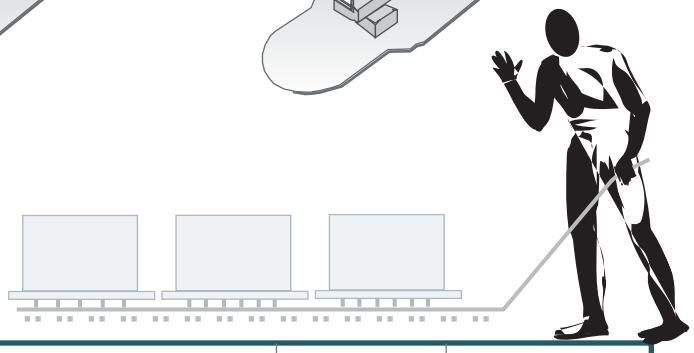
CONTACT CONFIGURATION	CURRENT OR HORSE POWER	LOAD VOLTAGE	LOAD VOLTAGE FREQUENCY	TYPE OF LOAD
1 POLE THRU 6 POLES	5 AMP	120 VAC	50/60 Hz	RESISTIVE
	5 AMP	28 VDC	DC	RESISTIVE
	3 AMP	120 VAC	50/60 Hz	RESISTIVE
	3 AMP	28 VDC	DC	RESISTIVE

BIFURCATED CONTACTS
(LOW LEVEL APPLICATIONS)



STANDARD CONTACTS
(5 AMP CROSS BAR)





STANDARD CLASS 67 MINIATURE INDUSTRIAL RELAYS ARE DESIGNED FOR APPLICATIONS REQUIRING DPDT TO 6PDT CONTACTS WHERE SPACE AND WEIGHT ARE OF PRIME IMPORTANCE. SHATTER RESISTANT, SEE-THRU PLASTIC COVERS ARE UTILIZED TO PROTECT AGAINST DUST, TAMPERING AND ELECTRICAL SHOCK. THE 67T MODELS HAVE BIFURCATED CONTACTS AND ARE DESIGNED FOR LOW LEVEL SWITCHING APPLICATIONS.

GENERAL SPECIFICATIONS (@ 25°C)

	UNITS	
COIL		
Pull-in Voltage AC (50/60 Hz):≤	% of nominal	80
Pull-in Voltage DC:≤	% of nominal	75
Dropout Voltage AC (50/60 Hz):≥	% of nominal	10
Dropout Voltage DC:≥	% of nominal	10
Maximum Voltage:	% of nominal	120
Resistance:	% ±	10
Coil Power AC (60 Hz):	VA	2.75
Coil Power DC:	W	0.45
Insulation System Per UL Standard 1446:		Class B (130 °C)
Duty:		Continuous
CONTACTS		
Contact Material:		Silver alloy
Contact Rating AC Amperes (AC1):		5/3
Contact Rating AC Voltage:	A	120 / 120
Contact Rating DC Amperes (DC1):	V	5/3
Contact Rating DC Voltage:	A	28 / 28
Minimum Recommended Load:	V	100 @ 5 VDC
	ma	or 0.5 W
TIMING		
Operate Time:	ms	25
Release Time:	ms	20

	UNITS	
DIELECTRIC STRENGTH		
Coil to Contacts:	V rms	1500
Across Open Contacts:	V rms	1000
Pole to Pole:	V rms	1000
Contacts to Frame:	V rms	1000
Insulation Resistance:	megohms minimum @VDC	1000 @ 500
VIBRATION RESISTANCE		
Functional:	g's	10
SHOCK RESISTANCE		
Functional:	g's	20
TEMPERATURE		
Operating, AC Lower:	°C	-40
Operating, AC Upper:	°C	+60
Operating, DC Lower:	°C	-40
Operating, DC Upper:	°C	+60
Storage, Lower:	°C	-40
Storage, Upper:	°C	+130
LIFE EXPECTANCY		
Electrical @ Rated Load (AC1):	operations	100,000
Mechanical @ no Load :	operations	10,000,000
MISCELLANEOUS		
Operating Position:		Any
Insulation Material:	94V-0	Molded plastic
Enclosure Material:	94V-0	Polycarbonate
Cover Protection Category:	IP	40
Terminals:	Inch (mm)	0.10, 0.04 x 0.01 (2.54, 1.01 x 0.25)
Weight:	grams	22 to 40

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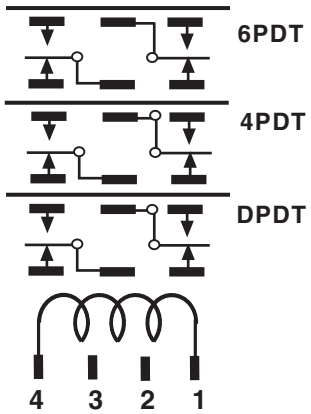
Magnecraft Struthers-Dunn

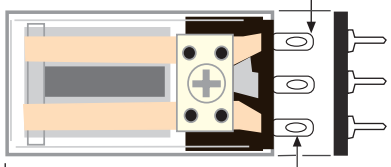
DPDT THRU 6PDT 3 & 5 AMPS

WIRING DIAGRAM

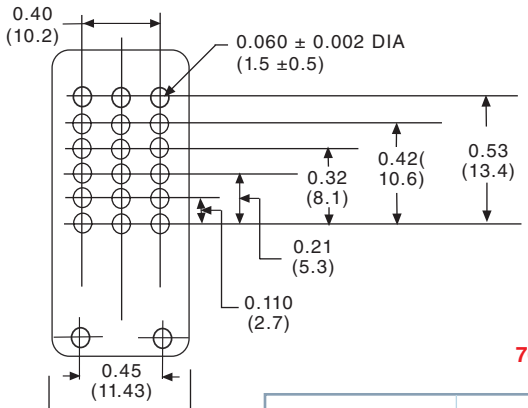


OUTLINE DIMENSIONS
DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).

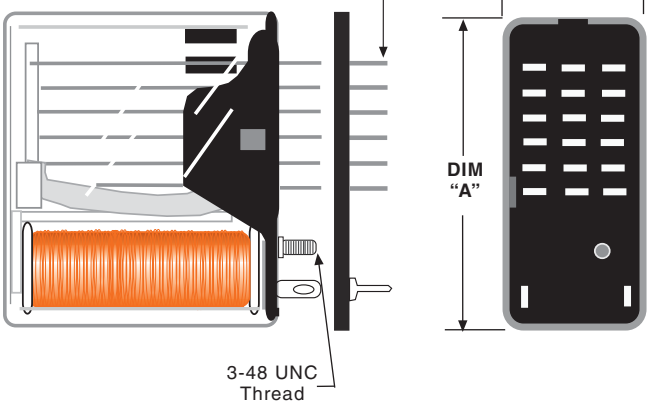
SOLDER / PLUG-IN TERMINALS



PRINTED CIRCUIT MOUNTING HOLE LAYOUT
(TOP VIEW)



PRINTED CIRCUIT TERMINALS



Mating Sockets
70-303-1, 70-305-1, 70-307-1: SOLDER
70-304-1, 70-306-1, 70-308-1: PRINTED CIRCUIT
See section 7

STANDARD PART NUMBERS	CONTACT CONFIGU-RATION	COIL MEASURED @ 25 °C NOMINAL INPUT VOLTAGE	NOMINAL RESISTANCE (OHMS)
DC OPERATED COIL - SOLDER/PLUG-IN, 5 AMP			
W67RCSX-1	DPDT	5 VDC	52 Ω
W67RCSX-2	DPDT	12 VDC	185 Ω
W67RCSX-3	DPDT	24 VDC	700 Ω
W67RCSX-4	DPDT	48 VDC	2,500 Ω
W67RCSX-5	DPDT	110/125 VDC	15,000 Ω
W67RCSX-6	4PDT	5 VDC	52 Ω
W67RCSX-7	4PDT	12 VDC	185Ω
W67RCSX-8	4PDT	24 VDC	700 Ω
W67RCSX-9	4PDT	48 VDC	2,500Ω
W67RCSX-10	4PDT	110/125 VDC	15,000 Ω
W67RCSX-12	6PDT	12 VDC	90Ω
W67RCSX-13	6PDT	24 VDC	430 Ω
DC OPERATED COIL-BIFURCATED CONTACTS, 3 AMP			
W67TRCSX-2	DPDT	12 VDC	185 Ω
W67TRCSX-3	DPDT	24 VDC	700 Ω
W67TRCSX-7	4PDT	12 VDC	185 Ω
W67TRCSX-8	4PDT	24 VDC	700 Ω
W67TRCSX-12	6PDT	12 VDC	90 Ω
W67TRCSX-13	6PDT	24 VDC	430 Ω
DC OPERATED PRINTED CIRCUIT, 5 AMP			
W67RPCX-2	DPDT	12 VDC	185 Ω
W67RPCX-3	DPDT	24 VDC	700 Ω
W67RPCX-7	4PDT	12 VDC	185 Ω
W67RPCX-8	4PDT	24 VDC	700 Ω
W67RPCX-12	6PDT	12 VDC	90 Ω
W67RPCX-13	6PDT	24 VDC	430 Ω
AC OPERATED COIL - SOLDER/PLUG-IN, 5 AMP			
W67ARCSX-5	DPDT	110/120 VAC, 50/60Hz	9000 Ω
W67ARCSX-10	4PDT	110/120 VAC, 50/60Hz	8000 Ω
W67ARCSX-15	6PDT	110/120 VAC, 50/60Hz	8000 Ω
DC OPERATED COIL ULTRA SENSITIVE -SOLDER/PLUG-IN, 3 AMP			
W67SCSX-1	DPDT	9.4 MADC	1,000 Ω
W67SCSX-2	DPDT	6.4 MADC	2,500 Ω
W67SCSX-3	DPDT	4.5 MADC	5,000 Ω
W67SCSX-6	4PDT	13.7 MADC	1,000 Ω
W67SCSX-7	4PDT	9.1 MADC	2,500 Ω
W67SCSX-8	4PDT	6.5 MADC	5,000 Ω

DIMENSIONS

CONTACT CONFIGU	"A"
6PDT	1.374 (34.9)
4PDT	1.156 (29.4)
DPDT	0.978 (24.8)

RETROFITS POTTER & BRUMFIELD R10.
SEE END OF SECTION 1 FOR CROSS REFERENCE

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219 PLUG-IN RELAY WITH INTEGRAL LOCKING CLIP

UL CONTACT LOAD RATINGS TABLE

CONTACT CONFIGURATION	CURRENT	LOAD VOLTAGE	LOAD VOLTAGE FREQUENCY	TYPE OF LOAD
ALL STYLES	10 AMP	120 VAC	50/60 Hz	RESISTIVE
	5 AMP	240 VAC	50/60 Hz	RESISTIVE
	10 AMP	28 VDC	DC	RESISTIVE
	0.5 AMP	125 VDC	DC	RESISTIVE
	3 AMP	120 VAC	50/60 Hz	INDUCTIVE
	1 AMP	240 VAC	50/60 Hz	INDUCTIVE
	3 AMP	28 VDC	DC	INDUCTIVE
	0.1 AMP	125 VDC	DC	INDUCTIVE
SUFFIX "69" WITH BLOWOUT MAGNET FOR DC SWITCHING (NOT UL OR CSA)				
SINGLE MAKE AND DOUBLE MAKE	1.5 AMP	125 VDC	DC	RESISTIVE
	4 AMP	125 VDC	DC	RESISTIVE
	0.5 AMP	250 VDC	DC	RESISTIVE
	1.5 AMP	250 VDC	DC	RESISTIVE
	0.5 AMP	125 VDC	DC	INDUCTIVE
	1.5 AMP	125 VDC	DC	INDUCTIVE
	150 mA	250 VDC	DC	INDUCTIVE
	0.5 AMP	250 VDC	DC	INDUCTIVE

CONTACTS CAN CLOSE ON 30 AMP LOADS AND CARRY 10 AMPS CONTINUOUSLY AT ALL VOLTAGES SHOWN

c US UL Recognized File No. E13224

168986

c UL US LISTED 225G IND. CONT. EQ.

WHEN USED WITH SOCKETS **27390D** OR **33377D**

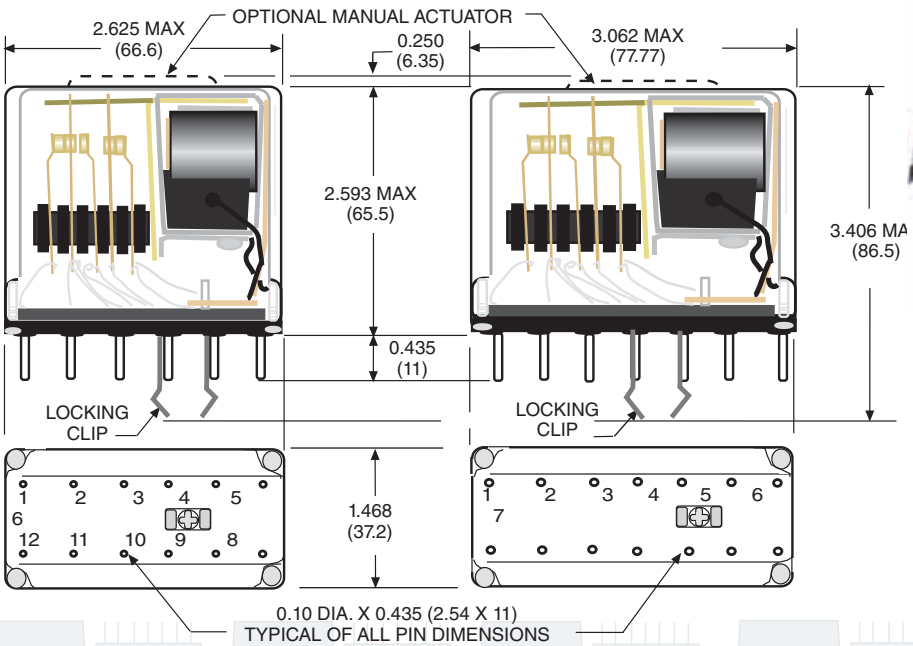
CURRENT LIMITED TO RATING OF RELAY OR SOCKET WHICHEVER IS LESS

COIL SPECIFICATIONS @ 25ºC

AC RELAYS, 50/60 HZ 5 VA (COIL DATA @ 60HZ)					DC RELAYS, 1.8 WATTS (2.5 W @ 125 VDC)			
Nominal Voltage	Resistance Ohms ±10%	Milliamperes Inrush (Open)	Milliamperes Sealed (Pull-In)	Impedance Ohms	Nominal Voltage	Resistance Ohms ±10%	Milliamperes Cold	Milliamperes Hot
6	1.1	1500	840	7.2	6	15.5	385	304
12	4.2	750	410	27	12	63.5	189	147
24	15.5	375	200	120	24 / 28*	250	96	77
120	540	75	40	2700	32	375	86	62
240	2100	32	17	13,400	115/125*	6200	20	16

OUTLINE DIMENSIONS

DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).



* 24 VDC & 110 VDC Relays Have Name Plates Stamped 24-28 & 110-125 VDC Respectively. These Relays Operate At 80% Of The Lower Voltages And Operate Within Allowable Temperature Rises At 110% Of Higher Voltages. 250 VDC: Use 125 VDC Relay And Series Resistor (6000 Ω, 5 W) Not Supplied.

THE 219 COIL IS ENCAPSULATED IN THERMO-SET EPOXY FOR PROTECTION. THE BUILT-IN LOCKING CLIP ELIMINATES THE NEED FOR ANY EXTERNAL HOLD-DOWN DEVICE. NUCLEAR QUALIFIED VERSIONS ARE AVAILABLE. PLEASE CONSULT FACTORY.

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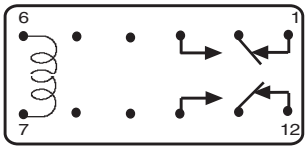
219 PLUG-IN RELAY WITH INTEGRAL LOCKING CLIP

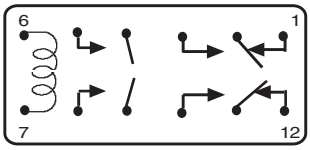
12 & 14 PIN, 10 AMPS

Mating Sockets
27390D, 33377D:
SCREW/PANEL/DIN
See section 7

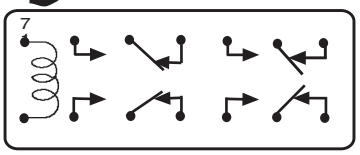
WIRING DIAGRAM
(TOP VIEW)



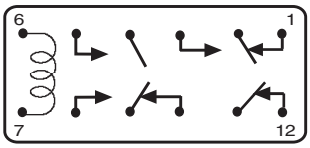
219XBXP
DPDT



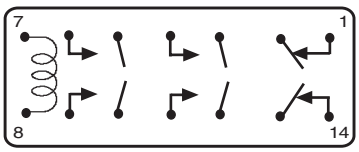
219BBXP
DPDT+2 NO



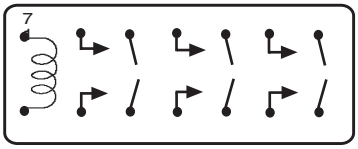
219XDXP
4PDT



219ABAP
DPDT+1NO & 1NC



219DXBP
4P-NO+2P-NC



219FXXP
6P-NO

GENERAL SPECIFICATIONS (@ 25°C)

	UNITS	
COIL		
Pull-in Voltage AC (50/60 Hz):≤	% of nominal	85
Pull-in Voltage DC:≤	% of nominal	80
Dropout Voltage AC (50/60 Hz):≥	% of nominal	10
Dropout Voltage DC:≥	% of nominal	10
Maximum Voltage:	% of nominal	110
Resistance:	% ±	10
Insulation System Per UL Standard 1446:		Class B (130ºC)
Duty:		Continuous
CONTACTS		
Contact Configuration:		to 6PDT
Contact Material:		Silver alloy, gold diffused
Contact Rating AC Amperes (AC1):	A	10/5
Contact Rating AC Voltage:	V	120 / 120
Contact Rating DC Amperes (DC1):	A	10/5
Contact Rating DC Voltage:	V	28 / 28
Minimum Recommended Load:	ma	100 @ 5 VDC or 0.5 W
TIMING		
Operate Time:	ms	25
Release Time:	ms	20
DIELECTRIC STRENGTH		
Coil to Contacts:	V rms	1500
Across Open Contacts:	V rms	1500
Pole to Pole:	V rms	1500
Contacts to Frame:	V rms	1500
Insulation Resistance:	megohms minimum @VDC	1000 @ 500
VIBRATION RESISTANCE		
Functional:	g's	10
SHOCK RESISTANCE		
Functional:	g's	20
TEMPERATURE		
Operating, AC Lower:	ºC	-40
Operating, AC Upper:	ºC	+80
Operating, DC Lower:	ºC	-40
Operating, DC Upper:	ºC	+80
Storage, Lower:	ºC	-40
Storage, Upper:	ºC	+130
LIFE EXPECTANCY		
Electrical @ Rated Load (AC1):	operations	100,000
Mechanical @ no Load :	operations	10,000,000
MISCELLANEOUS		
Operating Position:		Any
Insulation Material:	94V-0	Molded plastic
Enclosure Material:	94V-0	polycarbonate
Cover Protection Category:	IP	40
Weight:	grams	241

ORDERING CODE

219	XBX		P	L	-24D

CLASS:

CONTACT CONFIGURATION:
DPDT: **XBX**
DPDT +1 POLE: NO & 1 POLE NC: **ABA**
2 POLE: NO & DPDT: **BBX**
4 PDT: **XDX**
6 POLE: NO: **FXX**
4 POLE: NO & 2 POLE: NC: **DXB**

OPTIONAL MAGNETIC BLOWOUT:
CODE 69

OPTIONAL BIFURCATED CONTACTS:
CODE 33

STANDARD FEATURES:
POLYCARBONATE COVER: **CODE P**

OPTIONAL FEATURES:
STATUS LAMP: **CODE L**
MANUAL ACTUATOR: **CODE M**

COIL VOLTAGE:
6, 12, 24, 120, 240 **ADD "A" FOR AC COILS**
6, 12, 24, 48, 110 /125 **ADD "D" FOR DC COILS**

COIL VOLTAGES & FREQUENCIES MUST BE SPECIFIED.

Make before break and other contact configurations available,

750H OCTAL STYLE HERMETICALLY SEALED RELAY

c UL us
UL Recognized
File No. E43641

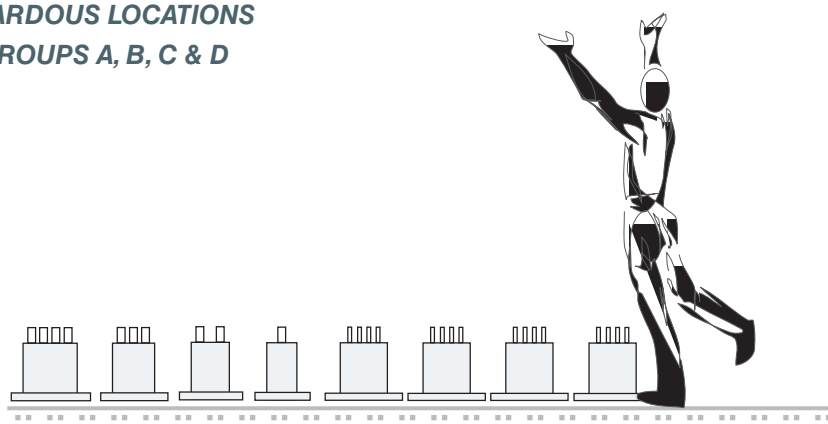
c UL us
LISTED 367G
IND. CONT. EQ.

WHEN USED WITH SOCKETS:
70-464-1, 70-465-1, 70-750D8-1 & 70-750D11-1

CURRENT LIMITED TO RATING OF RELAY OR SOCKET WHICHEVER IS LESS

FEATURES	BENEFITS
VACUUM BAKED & DRY NITROGEN FILLED	REMOVES CONTAMINANTS AND PROVIDES A CLEAN & DRY ATMOSPHERE FOR CONTACTS.
HERMETICALLY SEALED METAL ENCLOSURE	IDEAL FOR USE IN HAZARDOUS LOCATIONS. UL CERTIFIED FOR CLASS 1 DIVISION 2 GROUP A, B, C & D HAZARDS.
PLUG-IN STYLE MOUNTING	WHEN USED WITH 70-464-1, 70-465-1, 70-750D8-1 OR 70-750D11-1 SOCKETS, THE 750H CAN BE DIN RAIL MOUNTED OR PANEL MOUNTED.

CERTIFIED CLASS 1
DIVISION 2 FOR
HAZARDOUS LOCATIONS
UL GROUPS A, B, C & D



GENERAL SPECIFICATIONS (@ 25°C)

	UNITS	
COIL		
Pull-in Voltage AC (50/60 Hz):≤	% of nominal	85
Pull-in Voltage DC:≤	% of nominal	80
Dropout Voltage AC (50/60 Hz):≥	% of nominal	10
Dropout Voltage DC:≥	% of nominal	10
Maximum Voltage:	% of nominal	110
Resistance:	% ±	10
Coil Power AC (60 Hz):	VA	2.0
Coil Power DC:	W	1.2
Insulation System Per UL Standard 1446:		Class B (130 °C)
Duty:		Continuous
CONTACTS		
Contact Material:		Silver alloy gold flashed
Contact Rating AC Amperes (AC1):	A	2 Pole-12, 3 Pole-10
Contact Rating AC Voltage:	V	120 / 240
Contact Rating DC Amperes (DC1):	A	10
Contact Rating DC Voltage:	V	30
Horse Power (AC):	HP	1/2 @ 120
Horse Power (AC):	HP	1/3 @ 240
Minimum Recommended Load:	ma	100 @ 5 VDC or 0.5 W
TIMING		
Operate Time:	ms	15
Release Time:	ms	10

	UNITS	
DIELECTRIC STRENGTH		
Coil to Contacts:	V rms	1250
Across Open Contacts:	V rms	500
Pole to Pole:	V rms	1250
Contacts to Frame:	V rms	Not applicable
Insulation Resistance:	megohms minimum @VDC	1000 @ 500
TEMPERATURE		
Operating, AC Lower:	°C	-45
Operating, AC Upper:	°C	+55
Operating, DC Lower:	°C	-45
Operating, DC Upper:	°C	+70
Storage, Lower:	°C	-45
Storage, Upper:	°C	+105
LIFE EXPECTANCY		
Electrical @ Rated Load (AC1):	operations	100,000
Mechanical @ no Load :	operations	5,000,000
MISCELLANEOUS		
Operating Position:		Any
Insulation Material:	94V-0	Molded plastic
Enclosure Material:		Steel
Cover Protection Category:	IP	67
Weight:	grams	130

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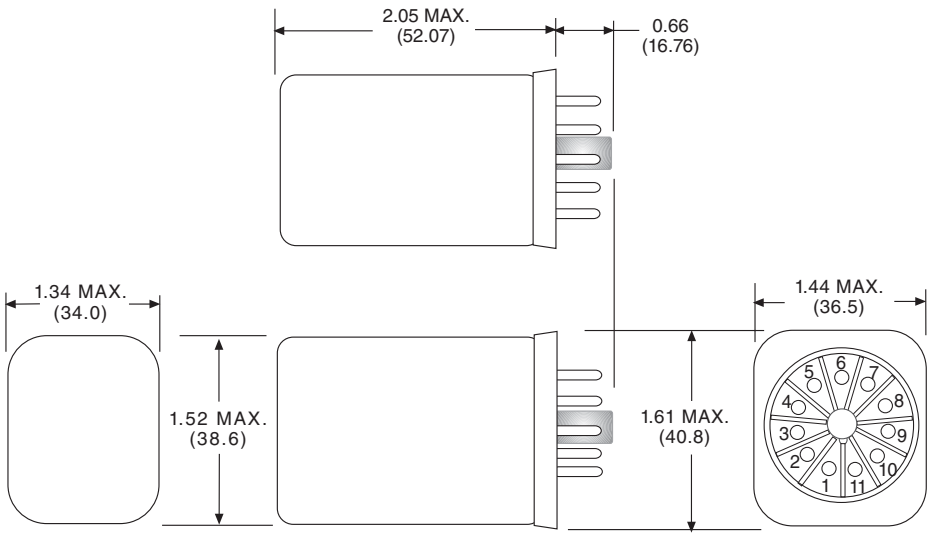
750H OCTAL STYLE HERMETICALLY SEALED RELAY

Magnecraft Struthers-Dunn
Your Contact for Industrial Relays

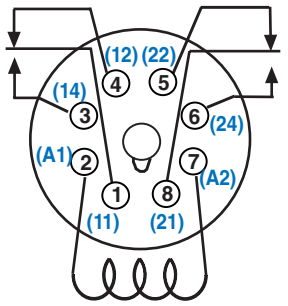
DPDT, 12 AMPS
3PDT, 10 AMPS

OUTLINE DIMENSIONS
DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).

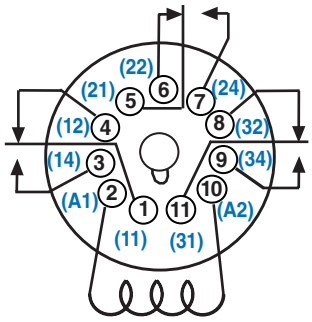


8 PIN OCTAL BASE
NOT SHOWN

WIRING DIAGRAM
(VIEWED FROM PIN END)



8 PIN



11 PIN

ALTERNATE NEMA
OR IEC ( ) NUMBERS
VIEWED FROM
PIN SIDE

Mating Sockets
70-750D8-1, 70-750D11-1,
70-464-1, 70-465-1: SCREW/DIN
70-169-1, 70-170-1: SCREW/PANEL
See Section 7

STANDARD PART NUMBERS		CONTACT CONFIGU-RATION	COIL MEASURED @ 25 °C	
NEW PART NUMBER	SUPERCEDES		NOMINAL INPUT VOLTAGE	NOMINAL RESISTANCE (OHMS)
AC OPERATED - 8 PIN OCTAL, 12 AMP				
750XBXH-12A		DPDT	12 VAC, 50/60Hz	72 Ω
750XBXH-24A		DPDT	24 VAC, 50/60Hz	1,700 Ω
750XBXH-120A	**W88AHPX-24**	DPDT	110/120 VAC, 50/60Hz	9,100 Ω
DC OPERATED - 8 PIN OCTAL, 12 AMP				
750XBXH-12D	**W88HPX-33**	DPDT	12 VDC	120 Ω
750XBXH-24D	**W88HPX-34**	DPDT	24 VDC	470 Ω
750XBXH-110/125D		DPDT	110/125 VDC	10,000 Ω
AC OPERATED - 11 PIN OCTAL, 10 AMP				
750XCXH-12A		3PDT	12 VAC, 50/60Hz	72 Ω
750XCXH-24A		3PDT	24 VAC, 50/60Hz	1,700 Ω
750XCXH-120A	***W88AHPX-36**	3PDT	110/120 VAC, 50/60Hz	9,100 Ω
DC OPERATED - 11 PIN OCTAL, 10 AMP				
750XCXH-12D		3PDT	12 VDC	120 Ω
750XCXH-24D	***W88HPX-51**	3PDT	24 VDC	470 Ω
750XCXH-110/125D		3PDT	110/125 VDC	10,000 Ω

* *SOCKET CONNECTIONS TO TERMINALS 5 & 6 (21 & 22) MUST BE REVERSED*

CROSS REFERENCE GUIDE

MAGNECRAFT & STRUTHERS-DUNN	IDEC	
781XAXM4L-24A	RH1B-L-AC24	
781XAXM4L120A	RH1B-L-AC120	
781XAXM4L-220/230A	RH1B-L-AC240	
781XAXM4L-240A	RH1B-L-AC240	
781XAXM4L-12D	RH1B-L-DC12	
781XAXM4L-24D	RH1B-L-DC24	
781XAXM4L-110D	RH1B-L-DC110	
781XAXTM4L-120A	RH1V2-L-AC120	
781XAXTM4L-12D	RH1V2-L-DC12	
781XAXTM4L-24D	RH1V2-L-DC24	
781XAXC-24A	RH1B-U-AC24	
781XAXC-120A	RH1B-U-AC120	
781XAXC-24D	RH1B-U-DC24	

MAGNECRAFT & STRUTHERS-DUNN	OMRON	RELECO	
782XAXM4L-12A		C7-A10X/AC12	
782XAXM4L-24A		C7-A10X/AC24	
782XAXM4L120A		C7-A10X/AC115	
782XAXM4L-220/230A		C7-A10X/AC230	
782XAXM4L-240A			
782XAXM4L-12D		C7-A10X/DC12	
782XAXM4L-24D		C7-A10X/DC24	
782XAXM4L-110D		C7-A10X/DC110	
782XAXTM4L-12A		C7-A10PX/AC12	
782XAXTM4L-24A		C7-A10PX/AC24	
782XAXTM4L120A		C7-A10PX/AC115	
782XAXTM4L-12D		C7-A10PX/DC12	
782XAXTM4L-24D		C7-A10PX/DC24	
782XAXTM4L-110D		C7-A10PX/DC110	
782XAXC-12A	LY1-AC12		
782XAXC-24A	LY1-AC24		
782XAXC120A	LY1-AC110/120		
782XAXC-220/230A	LY1-AC220/240		
782XAXC-240A	LY1-AC220/240		
782XAXCL-24A	LY1N-AC24		
782XAXCL120A	LY1N-AC110/120		
782XAXCL-240A	LY1N-AC220/240		
782XAXC-12D	LY1-DC12		
782XAXC-24D	LY1-DC24		
782XAXC-110D	LY1-DC110		
782XAXTCL-24D	LY1N-DC24		
782XAXTC-12A	LY1-0-AC12		
782XAXTC-24A	LY1-0-AC24		
782XAXTC-120A	LY1-0-AC110/120		
782XAXTC-12D	LY1-0-DC12		
782XAXTC-24D	LY1-0-DC24		
782XAXTC-110D	LY1-0-DC110		

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MAGNECRAFT & STRUTHERS-DUNN	OMRON	FINDER	RELECO	IDEC	RELPOL
782XBXM4L-24A	LY212N-AC24	56.32.8024.20.94	C7-A20X/AC24		RY2-1012-26-5024-WTL
782XBXM4L120A	LY212N-AC120	56.32.8120.20.94	C7-A20X/AC120		RY2-1012-26-5120-WTL
782XBXM4L-220/230A		56.32.8230.20.94	C7-A20X/AC230		RY2-1012-26-5230-WTL
782XBXM4L-240A		56.32.8240.20.94			RY2-1012-26-5240-WTL
782XBXM4L-12D	LY212N-DC12	56.32.9012.20.94	C7-A20X/DC12		RY2-1012-26-1012-WTL
782XBXM4L-24D	LY212N-DC24	56.32.9024.20.94	C7-A20X/DC24		RY2-1012-26-1024-WTL
782XBXM4L-110D		56.32.9110.20.94	C7-A20X/DC110		RY2-1012-26-1110-WTL
782XBXC-6A	LY2-AC06			RH2B-U-AC6	RY2-1006-26-5006
782XBXC-24A	LY2-AC24			RH2B-U-AC24	RY2-1012-26-5024
782XBXC120A	LY2-AC110/120			RH2B-U-AC120	RY2-1012-26-5120
782XBXC220/230A	LY2-AC220/240			RH2B-U-AC240	RY2-1012-26-5230
782XBXC240A	LY2-AC220/240			RH2B-U-AC240	RY2-1012-26-5240
782XBXC-6D	LY2-DC06			RH2B-U-DC6	RY2-1012-26-5006
782XBXC-12D	LY2-DC12			RH2B-U-DC12	RY2-1012-26-1012
782XBXC-24D	LY2-DC24			RH2B-U-DC24	RY2-1012-26-1024
782XBXC48D	LY2-DC48			RH2B-U-DC48	RY2-1012-26-1048
782XBXC-110D	LY2-DC110			RH2B-U-DC110	RY2-1012-26-1110
782XBXTC-24A	LY2-0-AC24		C7-A20X/AC24	RH2V2-AC24	
782XBXTC120A	LY2-0-AC120		C7-A20X/AC115	RH2V2-AC120	
782XBXTC-6D	LY2-0-DC06			RH2V2-DC6	
782XBXTC-12D	LY2-0-DC12		C7-A20X/DC12	RH2V2-DC12	
782XBXTC-24D	LY2-0-DC24		C7-A20X/DC24	RH2V2-DC24	

MAGNECRAFT & STRUTHERS-DUNN	OMRON	FINDER	RELECO	IDEC	
783XCXM4L-24A				RH3B-ULC-AC24	
783XCXM4L-120A				RH3B-ULC-AC120	
783XCXM4L-220/230A					
783XCXM4L-240A				RH3B-ULC-AC240	
783XCXM4L-12D				RH3B-ULC-DC12	
783XCXM4L-24D				RH3B-ULC-DC24	
783XCXM4L-110D				RH3B-ULC-DC110	
783XCXTM4L-120A				RH3V2-ULC-AC120	
783XCXTM4L-12D				RH3V2-ULC-DC12	
783XCXTM4L-24D				RH3V2-ULC-DC24	
783XCXC-24A	LY3-AC24			RH3B-U-AC24	
783XCXC-120A	LY3-AC120			RH3B-U-AC120	
783XCXC-240A	LY3-AC240			RH3B-U-DC24	

MAGNECRAFT & STRUTHERS-DUNN	OMRON	FINDER	RELECO	IDEC	
784XDXM4L-24A	LY412N-AC24	56.34.8024.20.94		RH4B-ULC-AC24	
784XDXM4L-120A	LY412N-AC120	56.34.8120.20.94		RH4B-ULC-AC120	
784XDXM4L-220/230A		56.34.8230.20.94			
784XDXM4L-240A		56.34.8240.20.94		RH4B-ULC-AC240	
784XDXM4L-12D	LY412N-DC12	56.34.9012.20.94		RH4B-ULC-DC12	
784XDXM4L-24D	LY412N-DC24	56.34.9024.20.94		RH4B-ULC-DC24	
784XDXM4L-110D		56.34.9110.20.94		RH4B-ULC-DC110	
784XDXTM4L-120A		56.44.8120.20.94		RH4V2-ULC-AC120	

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CROSS REFERENCE GUIDE

MAGNECRAFT & STRUTHERS-DUNN	OMRON	FINDER	RELECO	IDEC	
784XDXTM4L-12D		56.44.9012.20.94		RH4V2-ULC-DC12	
784XDXTM4L-24D		56.44.9024.20.94		RH4V2-ULC-DC24	
784XDXC-24A	LY4-AC24	56.34.8024.20.94		RH4B-U-AC24	
784XDXC-120A	LY4-AC120	56.34.8120.20.94		RH4B-U-AC120	
784XDXC-24D	LY4-DC24	56.34.8240.20.94		RH4B-U-DC24	

MAGNECRAFT & STRUTHERS-DUNN	OMRON	FINDER	RELECO	TYCO / SCHRACK	RELPOL
782XDX3M4L-24A			C9-T48X/AC24		
782XDX3M4L120A			C9-T48X/AC115		
782XDX3M4L-220/230A			C9-T48X/AC230		
782XDX3M4L-240A					
782XDX3M4L-12D			C9-T48X/DC12		
782XDX3M4L-24D			C9-T48X/DC24		
782XDX3M4L-110D			C9-T48X/DC110		
782XDX1M4L-24A			C9-A48X/AC24		
782XDX1M4L120A			C9-A48X/AC115		
782XDX1M4L-220/230A			C9-A48X/AC230		
782XDX1M4L-240A					
782XDX1M4L-12D			C9-A48X/DC12		
782XDX1M4L-24D			C9-A48X/DC24		
782XDX1M4L-110D			C9-A48X/DC110		
782XDX2M4L-24A		55.34.8024.20.94	C9-T48X/AC24	PT570524	R4-2014-23-5024-WTL
782XDX2M4L120A		55.34.8120.20.94	C9-T48X/AC115	PT570615	R4-2014-23-5012-WTL
782XDX2M4L-220/230A		55.34.8230.20.94	C9-T48X/AC230	PT570730	R4-2014-23-5030-WTL
782XDX2M4L-240A		55.34.8240.20.94		PT570730	R4-2014-23-5040-WTL
782XDX2M4L-12D		55.34.9012.20.94	C9-T48X/DC12	PT570012	R4-2014-23-1012-WTL
782XDX2M4L-24D		55.34.9024.20.94	C9-T48X/DC24	PT570024	R4-2014-23-1024-WTL
782XDX2M4L-110D		55.34.9110.20.94	C9-T48X/DC110	PT570110	R4-2014-23-1110-WTL
782XDX3C-12A	MY4Z-AC-12				
782XDX3C-24	MY4Z-AC-24				
782XDX3C-120A	MY4Z-AC-120				
782XDX3C-220/230A	MY4Z-AC-220/230				
782XDX3C-240A	MY4Z-AC-240				
782XDX3C-6D	MY4Z-DC-6				
782XDX3C-12D	MY4Z-DC-12				
782XDX3C-24D	MY4Z-DC-24				
782XDX3C-110D	MY4Z-DC-110				
782XDX1C-12A	MY4-AC-12				
782XDX1C-24	MY4-AC-24				
782XDX1C-120A	MY4-AC-120				
782XDX1C-220/230A	MY4-AC-220/230				
782XDX1C-240A	MY4-AC-240				
782XDX1C-6D	MY4-DC-6				
782XDX1C-12D	MY4-DC-12				
782XDX1C-24D	MY4-DC-24				
782XDX1C-110D	MY4-DC-110				
782XDX2C-12A	MY4-AC-12				R4-2014-23-5012
782XDX2C-120A	MY4-AC-120				R4-2014-23-5120

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MAGNECRAFT & STRUTHERS-DUNN	OMRON	FINDER	RELECO	TYCO / SCHRACK	RELPOL	ALLEN-BRADLEY
782XDX2C-220/230A	MY4-AC220/240				R4-2014-23-5012	
782XDX2C-240A	MY4-AC240				R4-2014-23-5120	
782XDX2C-12D	MY4-DC12				R4-2014-23-5230	
782XDX2C-24D	MY4-DC24				R4-2014-23-5240	
782XDX2C-110D	MY4-DC110				R4-2014-23-1012	
782XDXT1C-24A	MY4-02-AC24				R4-2014-23-1024	
782XDXT1C-120A	MY4-02-AC120				R4-2014-23-1110	
782XDXT1C-12D	MY4-02-DC12					
782XDXT1C-24D	MY4-02-DC24					
782XDXT1C-110D	MY4-02-DC110					
782XBX3M4L-24A			C9-T28X/AC24			
782XBX3M4L-120A			C9-T28X/AC115			
782XBX3M4L-220/230A			C9-T28X/AC230			
782XBX3M4L-240A						
782XBX3M4L-12D			C9-T28X/DC12			
782XBX3M4L-24D			C9-T28X/DC24			
782XBX3M4L-110D			C9-T28X/DC110			
782XBX2M4L-24A		55.32.8024.20.94	C9-A20X/AC24	PT270524	R2-2012-23-5024-WTL	700-HC24A24-1-4
782XBX2M4L-120A		55.32.8120.20.94	C9-A20X/AC115	PT270615	R2-2012-23-5120-WTL	700-HC24A1-1-4
782XBX2M4L-220/230A		55.32.8230.20.94	C9-A20X/AC230	PT270730	R2-2012-23-5230-WTL	700-HC24A2-1-4
782XBX2M4L-240A		55.32.8240.20.94		PT270730	R2-2014-23-5240-WTL	700-HC24A2-1-4
782XBX2M4L-12D		55.32.9012.20.94	C9-A20X/DC12	PT270012	R2-2012-23-1012-WTL	700-HC24Z12-1-4
782XBX2M4L-24D		55.32.9024.20.94	C9-A20X/DC24	PT270024	R2-2012-23-1024-WTL	700-HC24Z24-1-4
782XBX2M4L-110D		55.32.9110.20.94	C9-A20X/DC110	PT270110	R2-2012-23-1110-WTL	700-HC24Z1-1-4

MAGNECRAFT & STRUTHERS-DUNN	TYCO / SCHRACK HERMECLCALLY SEALED
782XDXH10-24A	KHS17A11-24
782XDXH10-120A	KHS17A11-120
782XDXH10-12D	KHS17D11-12
782XDXH10-24D	KHS17D11-24
782XDXH10-110D	KHS17D11-110
782XDXH21-120A	KHS17A12-120
782XDXH21-12D	KHS17D12-12
782XDXH21-24A	KHS17A12-24

MAGNECRAFT & STRUTHERS-DUNN	OMRON	FINDER	RELECO	TYCO / P & B / SCHRACK	RELPOL	ALLEN-BRADLEY
750XBXM4L-24A	MK2PN-S-AC24	60.12.8024.20.70	C2-A20X/AC24	KRPA-11ANFP-24 or MT228024	R15-2012-23-5024-WTL	700-HA32A24-1-4
750XBXM4L-120A	MK2PN-S-AC120	60.12.8120.20.70	C2-A20X/AC120	KRPA-11ANFP-120 or MT228115	R15-2012-23-5210-WTL	700-HA32AA1-1-4
750XBXM4L-220/240A	MK2PN-S-AC240	60.12.8204.20.70	C2-A20X/AC240	KRPA-11ANFP-240 or MT228240	R15-2012-23-5230-WTL	700-HA32A2-1-4
750XBXM4L-12D	MK2PN-S-DC12	60.12.9012.20.70	C2-A20X/DC12	KRPA-11DNFP-12 or MT223012	R15-2012-23-1012-WTL	700-HA32Z12-1-4
750XBXM4L-24D	MK2PN-S-DC24	60.12.9024.20.70	C2-A20X/DC24	KRPA-11DNFP-24 or MT223024	R15-2012-23-1024-WTL	700-HA32Z24-1-4
750XBXM4L-110D	MK2PN-S-DC110	60.12.9110.20.70	C2-A20X/DC110	KRPA-11DNFP-24 or MT223110	R15-2012-23-1110-WTL	700-HA32Z1-1-4
750XCXM4L-24A	MK3PN-S-AC24	60.13.8024.20.70	C3-A30X/AC24	KRPA-14DNFP-24 or MT328024	R15-2012-23-5024-WTL	700-HA33A24-1-4
750XCXM4L-120A	MK3PN-S-AC120	60.13.8120.20.70	C3-A30X/AC120	KRPA-14ANFP-120 or MT322115	R15-2012-23-5210-WTL	700-HA33AA1-1-4
750XCXM4L-220/240A	MK3PN-S-AC240	60.13.8204.20.70	C3-A30X/AC240	KRPA-14ANFP-240 or MT328240	R15-2012-23-5230-WTL	700-HA33A2-1-4
750XCXM4L-12D	MK3PN-S-DC12	60.13.9012.20.70	C3-A30X/DC12	KRPA-14DNFP-12 or MT323012	R15-2012-23-1012-WTL	700-HA33Z12-1-4
750XCXM4L-24D	MK3PN-S-DC24	60.13.9024.20.70	C3-A30X/DC24	KRPA-14DNFP-24 or MT323024	R15-2012-23-1024-WTL	700-HA32Z24-1-4
750XCXM4L-110D	MK3PN-S-DC110	60.13.9110.20.70	C3-A30X/DC110	KRPA-14DNFP-24 or MT323110	R15-2012-23-1110-WTL	

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CROSS REFERENCE GUIDE

Magnecraft & Struthers-Dunn
Your Contact for Industrial Relays

MAGNECRAFT & STRUTHERS-DUNN	OMRON	TYCO / P & B / SCHRACK	IDEC
750XBXC-24A	MK2P-S-AC24	KRPA-11AG-24	RH2P-U-AC24
750XBXC-120A	MK2P-S-AC120	KRPA-11AG-120	RH2P-U-AC120
750XBXC-220/240A	MK2P-S-AC240	KRPA-11AG-240	
750XBXC-12D	MK2P-S-DC12	KRPA-11DG-12	RH2P-U-DC12
750XBXC-24D	MK2P-S-DC24	KRPA-11DG-24	RH2P-U-DC24
750XBXC-110D	MK2P-S-DC110	KRPA-11DG-110	RH2P-U-DC110
750XCXC-24A	MK3P5-S-AC24	KRPA-14AG-24	RH3P-U-AC24
750XCXC-120A	MK3P5-S-AC120	KRPA-14AG-120	RH3P-U-AC120
750XCXC-220/240A	MK3P5-S-AC240	KRPA-14AG-240	RH3P-U-AC240
750XCXC-12D	MK3P5-S-DC12	KRPA-14DG-12	RH3P-U-DC12
750XCXC-24D	MK3P5-S-DC24	KRPA-14DG-24	RH3P-U-DC24
750XCXC-110D	MK3P5-S-DC110	KRPA-14DG-110	RH3P-U-DC110

MAGNECRAFT & STRUTHERS-DUNN	FINDER	RELECO	TYCO / P & B / SCHRACK	IDEC	RELPOL	ALLEN-BRADLEY
788XBXM4L-24A	62.32.8024.00.70	C5-A20X/AC24		RR2BA-U-AC24		700-HB32A24-1-4
788XBXM4L-120A	62.32.8120.00.70	C5-A20X/AC120		RR2BA-U-AC120		700-HB32AA1-1-4
788XBXM4L-220/240A	62.32.8204.00.70	C5-A20X/AC240		RR2BA-U-AC240		700-HB32A2-1-4
788XBXM4L-12D	62.32.9012.00.70	C5-A20X/DC12		RR2BA-U-DC12		700-HB32Z12-1-4
788XBXM4L-24D	62.32.9024.00.70	C5-A20X/DC24		RR2BA-U-DC24		700-HB32Z24-1-4
788XBXM4L-110D	62.32.9110.00.70	C5-A20X/DC110		RR2BA-U-DC110		700-HB32Z1-1-4
788XCXM4L-24A	62.33.8024.00.70	C5-A30X/AC24		RR3BA-U-AC24		700-HB33A24-1-4
788XCXM4L-120A	62.33.8120.00.70	C5-A30X/AC120		RR3BA-U-AC120		700-HB33AA1-1-4
788XCXM4L-220/240A	62.33.8204.00.70	C5-A30X/AC240		RR3BA-U-AC240		700-HB33A2-1-4
788XCXM4L-12D	62.33.9012.00.70	C5-A30X/DC12		RR3BA-U-DC12		700-HB33Z12-1-4
788XCXM4L-24D	62.33.9024.00.70	C5-A30X/DC24		RR3BA-U-DC24		700-HB32Z24-1-4
788XCXM4L-110D	62.33.9110.00.70	C5-A30X/DC110		RR3BA-U-DC110		
788XBXC-24A			KUP-11A45 (or F) -24 or RM202524		RUC-1012-26-5024	
788XBXC-120A			KUP-11A45- (or F) 120 or RM202615		RUC-1012-26-5210	
788XBXC-220/240A			KUP-11A45- (or F) 240 or RM202730		RUC-2012-26-5230	
788XBXC-12D			KUP-11D45- (or F) 12 or RM202012		RUC2012-26-1012	
788XBXC-24D			KUP-11D45- (or F) 24 or RM202024		RUC-2012-26-1024	
788XBXC-110D			KUP-11D45- (or F) 110 or RM202110		RUC-2012-26-1110	
788XCXC-24A			KUP-14A45- (or F) 24 or RM302524		RUC-2013-26-5024	
788XCXC-120A			KUP-14A45- (or F) 120 or RM302615		RUC-013-26-5210	
788XCXC-220/240A			KUP-14A45- (or F) 240 or RM302730		RUC-2013-26-5230	
788XCX-12D			KUP-14D45- (or F) 12 or RM302012		RUC-2013-26-1012	
788XCX-24D			KUP-14D45- (or F) 24 or RM302024		RUC-2013-26-1024	
788XCXC-110D			KUP-14D45- (or F) 110 or RM302110		RUC-2013-23-1110	

MAGNECRAFT & STRUTHERS-DUNN	OMRON	TYCO / P & B / SCHRACK	IDEC	DELTROL
A283XAXC-24A	MJN1C-AC24	KUP5A15 (or F) - 24	RR1BA-U-AC24V	20306-82
A283XAXC-120A	MJN1C-AC120	KUP5A15 (or F) - 120	RR1BA-U-AC120V	20306-84
A283XAXC-240A	MJN1C-AC240	KUP5A15 (or F) - 240	RR1BA-U-AC240V	20306-85
A283XBXC-24A	MJN2C-AC24	KUP11A15 (or F) - 24	RR2BA-U-AC24V	20307-82
A283XBXC-120A	MJN2C-AC120	KUP11A15 (or F) - 120	RR2BA-U-AC120V	20307-84
A283XBXC-240A	MJN2C-AC240	KUP11A15 (or F) - 240	RR2BA-U-AC240V	20307-85
A283XCXC-24A	MJN3C-AC24	KUP14A15 (or F) - 24	RR3B-U-AC24V	20308-82
A283XCXC-120A	MJN3C-AC120	KUP14A15 (or F) - 120	RR3B-U-AC120V	20308-84

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MAGNECRAFT & STRUTHERS-DUNN	OMRON	TYCO / POTTER & BRUMFIELD	IDEC	DELTROL
A283XCXC-240A	MJN3C-AC240	KUP14A15 (or F) - 240	RR3B-U-AC240V	20308-85
A283XAXC-12D	MJN1C-DC12	KUP5D15 (or F) - 12	RR1BA-U-DC12V	20309-81
A283XAXC-24D	MJN1C-DC24	KUP5D15 (or F) - 24	RR1BA-U-DC24V	20309-82
A283XBXC-12D	MJN2C-DC12	KUP11D15 (or F) - 12	RR2BA-U-DC12V	20310-81
A283XBXC-24D	MJN2C-DC24	KUP11D15 (or F) - 24	RR2BA-U-DC24V	20310-82
A283XBXC-110D	MJN2C-DC110	KUP11D15 (or F) - 110	RR2B-U-DC110V	20310-84
A283XCXC-12D	MJN3C-DC12	KUP14D15 (or F) - 12	RR3B-U-DC12V	20311-81
A283XCXC-24D	MJN3C-DC24	KUP14D15 (or F) - 24	RR3B-U-DC24V	20311-82
A283XAXC1-120A	MJN1CF-AC120	KUP5A55 (or F) - 120	RR1BA-US-AC120V	20545-84
A283XAXC1-240A	MJN1CF-AC240	KUP5A55 (or F) - 240	RR1BA-US-AC240V	20545-85
A283XBXC1-120A	MJN2CF-AC120	KUP11A55 (or F) - 120	RR2BA-US-AC120V	20546-84
A283XBXC1-240A	MJN2CF-AC240	KUP11A55 (or F) - 240	RR2BA-US-AC240V	20546-85
A283XCXC1-120A	MJN3CF-AC120	KUP14A55 (or F) - 120	RR3B-US-AC120V	20547-84
A283XCXC1-240A	MJN3CF-AC240	KUP14A55 (or F) - 240	RR1BA-US-DC240V	20547-85
A283XAXC1-12D	MJN1CF-DC12	KUP5D55 (or F) - 12	RR1BA-US-DC12V	20551-81
A283XAXC1-24D	MJN1CF-DC24	KUP11D55 (or F) - 24	RR2BA-US-DC24V	20551-82
A283XBXC1-12D	MJN2CF-DC12	KUP11D55 (or F) - 12	RR2BA-US-DC12V	20552-81
A283XBXC1-24D	MJN2CF-DC24	KUP11D55 (or F) - 24	RR2B-US-DC24V	20552-82
A283XCXC1-24D	MJN3CF-DC24	KUP14D55 (or F) - 24	RR3B-US-DC24V	20553-82
A283XBX69C-120A		KUEP-11A15-120		
A283XBX69C-12D		KUEP-11D15-12		
A283XBX69C-24D		KUEP-11D15-24		
A283BXX69C-24D		KUEP-7D15-24		
A283BXX69C-48D		KUEP-7D15-48		
A283XBX69C-110D		KUEP-11D15-110		
A283HXX69C-120A		KUEP-3A15-120		
A283HXX69C-12D		KUEP-3D15-12		
A283HXX69C-24D		KUEP-3D15-24		
A283HXX69C-48D		KUEP-3D15-48		
A283HXX69C-110D		KUEP-3D15-110		

MAGNECRAFT & STRUTHERS-DUNN	TYCO / POTTER & BRUMFIELD	TYCO / SCHRACK	FINDER
388JXCXC1M-240A	KUMP-14A68-240	RM333740	
388JXCXC1M-120A	KUMP-14A68-120	RM333615	
388JXCXC1M-12D	KUMP-14D68-12	RM333012	
388JXCXC1M-24D	KUMP-14D68-24	RM333024	
388JXCXCM-240A	KUMP-14A28-240	RM332740	6233 8240 0040
388JXCXCM-120A	KUMP-14A28-120	RM332615	6233 8120 0040
388JXCXCM-12D	KUMP-14D28-12	RM332012	6233 9012 0040
388JXCXCM-24D	KUMP-14D28-24	RM332024	6233 9024 0040
388JXBXC1M-240A	KUMP-11A68-240	RM233740	
388JXBXC1M-120A	KUMP-11A68-120	RM233615	
388JXBXC1M-12D	KUMP-11D68-12	RM233012	
388JXBXC1M-24D	KUMP-11D68-24	RM233024	
388JXBXCM-240A	KUMP-11A28-240	RM232740	6232 8240 0040
388JXBXCM-120A	KUMP-11A28-120	RM232615	6232 8120 0040
388JXBXCM-12D	KUMP-11D28-12	RM232012	6232 9012 0040
388JXBXCM-24D	KUMP-11D28-24	RM232024	6232 9024 0040

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CROSS REFERENCE GUIDE

MAGNECRAFT & STRUTHERS-DUNN	TYCO / POTTER & BRUMFIELD	TYCO / SCHRACK	FINDER
388VCXXCM-220/240A	KUGP-12A15-240	RM632740	62.33 8240.0310
388VCXXCM-120A	KUGP-12A15-120	RM632615	62.33 8120.0310
388VCXXCM-24A	KUGP-12A15-24	RM632524	62.32 8024.0310
388VBXXCM-220/240A	KUGP-7A15-240	RM532740	62.22 8240.0310
388VBXXCM-120A	KUGP-7A15-120	RM532615	62.23 8120.0310
388VBXXCM-24A	KUGP-7A15-24	RM532524	62.23 8024.0310
388VCXXCM-24D	KUGP-12D15-24	RM632024	62.32 9024.0310
388VCXXCM-12D	KUGP-12D15-12	RM632012	62.32 9012.0310
388VBXXCM-24D	KUGP-7D15-24	RM532024	62.32 9024.0310
388VBXXCM-12D	KUGP-7D15-12	RM532012	62.33 9012.0310
MAGNECRAFT & STRUTHERS-DUNN		**TYCO / SCHRACK**	**FINDER**
389FXCXC1M-240A		RM735740	6283 8240 0040
389FXCXC1M-120A		RM735615	6283 8120 0040
389FXBXC1M-240A		RM835740	6282 8240 0040
389FXBXC1M-120A		RM83561	6282 8240 0040
389FXCXC1M-12D		RM735024	6283 9024 0040
389FXCXC1M-24D		RM735012	6283 9012 0040
389FXBXC1M-12D		RM835024	6282 9024 0040
389FXBXC1M-24D		RM835012	6282 9012 0040
MAGNECRAFT & STRUTHERS-DUNN	**TYCO / POTTER & BRUMFIELD**	**TYCO / SCHRACK**	**DELTROL**
W389ADCX-4	KUMP-3A5G-120	RMD 05 615	0840-84
W389ADCX-5	KUMP-3A5G-240	RMD 05 740	20840-85
W389ADZCX-3	KUMP-6A5G-24	RMC 05 524	
W389ADZCX-4	KUMP-6A5G-120	RMC 05 615	
W389DCX-2	KUMP-3D5G-12	RMD 05 012	20848-81
W389DCX-3	KUMP-3D5G-24	RMD 05 024	20848-82
W389DZCX-2	KUMP-6D5G-12	RMC 05 012	
W389DZCX-3	KUMP-6D5G-24	RMC 05 024	
W389ACX-4	KUHP-5A51-120		
W389ACX-8	KUHP11A51-24		
W389ACX-9	KUHP11A51-120		
W389ACX-10	KUHP11A51-240		
W389ACX-14	-		
W389ACX-15	-		
W389CX-2	KUHP5D51-12		
W389CX-3	KUHP5D51-24		
W389CX-7			
W389CX-8			
W389CX-12			
W389CX-13			
MAGNECRAFT & STRUTHERS-DUNN	**DELTROL**		
300XBXC1-240A	20844-85		
300XBXC1-120A	20844-84		
300XBXC1-24A	20844-82		
300XBXC1-12A	20844-81		

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MAGNECRAFT & STRUTHERS-DUNN	DELTROL
300XBXC1-110D	20852-84
300XBXC1-24D	20852-82
300XBXC1-12D	20852-81

MAGNECRAFT & STRUTHERS-DUNN	TYCO / POTTER & BRUMFIELD	AMERICAN ZETTLER
W9AS1D52-5	T9AS1D52-5	AZ2280-1A-5DEF
W9AS1D52-12	T9AS1D52-12	AZ2280-1A-12DEF
W9AS1D52-24	T9AS1D52-24	AZ2280-1A-24DEF
W9AS1D52-48	T9AS1D52-48	AZ2280-1A-48DEF
W9AS1D52-110	T9AS1D52-110	AZ2280-1A-110DEF
W9AS5D52-5	T9AS5D52-5	AZ2280-1C-5DEF
W9AS5D52-12	T9AS5D52-12	AZ2280-1C-12DEF
W9AS5D52-24	T9AS5D52-24	AZ2280-1C-24DEF
W9AS5D52-48	T9AS5D52-48	AZ2280-1C-48DEF
W9AS5D52-110	T9AS5D52-110	AZ2280-1C-110DEF
W9AS1A52-24		AZ2280-1A-24AEF
W9AS1A52-120		AZ2280-1A-120AEF
W9AS1A52-240		AZ2280-1A-240AEF
W9AS5A52-24		AZ2280-1C-24AEF
W9AS5A52-120		AZ2280-1C-120AEF
W9AS5A52-240		AZ2280-1C-240AEF

MAGNECRAFT & STRUTHERS-DUNN	TYCO / POTTER & BRUMFIELD	AMERICAN ZETTLER	OMRON	AROMAT
W92S7D22-12	T92P7D22-12	AZ2800-2A-12D	G7L-2A-TUB-CB-DC12	HE2aN-Q-DC12V
W92S7D22-24	T92P7D22-24	AZ2800-2A-24D	G7L-2A-TUB-CB-DC24	HE2aN-Q-DC24V
W92S7D22-110	T92P7D22-110	AZ2800-2A-110D	G7L-2A-TUB-CB-DC110	HE2aN-Q-DC110V
W92S11D22-12	T92P11D22-12	AZ2800-2C-12D		
W92S11D22-24	T92P11D22-24	AZ2800-2C-24D		
W92S11D22-110	T92P11D22-110	AZ2800-2C-110D		
W92S7A22-24	T92P7A22-24	AZ2800-2A-24AE	G7L-2A-TUB-CB-AC24	HE2aN-Q-AC24V
W92S7A22-120	T92P7A22-120	AZ2800-2A-120AE	G7L-2A-TUB-CB-AC120	HE2aN-Q-AC120V
W92S7A22-240	T92P7A22-240	AZ2800-2A-240AE	G7L-2A-TUB-CB-AC240	HE2aN-Q-AC240V
W92S11A22-24	T92P11A22-24	AZ2800-2C-24AE		
W92S11A22-120	T92P11A22-120	AZ2800-2C-120AE		
W92S11A22-240	T92P11A22-240	AZ2800-2C-240AE		

MAGNECRAFT & STRUTHERS-DUNN	TYCO / POTTER & BRUMFIELD
W67RCSX-1	R10E1(X or Y)2-V28
W67RCSX-2	R10E1(X or Y)2-V185
W67RCSX-3	R10E1(X or Y)2-V700
W67RCSX-4	R10E1(X or Y)2-V2.5K
W67RCSX-5	R10E1(X or Y2-V15.0K
W67RCSX-6	R10E1(X or Y)4-V28
W67RCSX-7	R10E1(X or Y)4-V185
W67RCSX-8	R10E1(X or Y)4-V700
W67RCSX-9	R10E1(X or Y)4-V2.5K
W67RCSX-10	R10E1(X or Y)4-V15.0K

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CROSS REFERENCE GUIDE

MAGNECRAFT & STRUTHERS-DUNN	TYCO / POTTER & BRUMFIELD
W67RCSX-12	R10E1(X or Y)6-V90
W67RCSX-13	R10E1(X or Y)6-V430
W67TRCSX-2	R10E1(P or Z)2-V185
W67TRCSX-3	R10E1(P or Z)2-V700
W67TRCSX-7	R10E1(P or Z)4-V185
W67TRCSX-8	R10E1(P or Z)4-V700
W67TRCSX-12	R10E1(P or Z)6-V90
W67TRCSX-13	R10E1(P or Z)6-V430
W67RPCX-2	R10E2(X or Y)2-V185
W67RPCX-3	R10E2(X or Y)2-V700
W67RPCX-7	R10E2(X or Y)4-V185
W67RPCX-8	R10E2(X or Y)4-V700
W67RPCX-12	R10E2(X or Y)6-V90
W67RPCX-13	R10E2(X or Y)6-V430
W67ARCSX-5	R10E1(X or Y)2-120V
W67ARCSX-10	R10E1(X or Y)4-120V
W67ARCSX-15	R10E1(X or Y)6-120V
W67SCSX-1	R10SE1(X or Y)2-J1.0K
W67SCSX-2	R10SE1(X or Y)2-J2.5K
W67SCSX-3	R10SE1(X or Y)2-J5.0K
W67SCSX-6	R10SE1(X or Y)4-J1.0K
W67SCSX-7	R10SE1(X or Y)4-J2.5K
W67SCSX-8	R10SE1(X or Y)4-J5.0K

MAGNECRAFT & STRUTHERS-DUNN	TYCO / POTTER & BRUMFIELD
750XBXH-12A	KR11AGE (or GF) 12
750XBXH-24A	KR11AGE (or GF) 24
750XBXH-120A	KR11AGE (or GF) 120
750XBXH-12D	KR11DGE (or GF) 12
750XBXH-24D	KR11DGE (or GF) 24
750XBXH-110D	KR11DGE (or GF) 110
750XCXH-12A	KR14AGE (or GF) 12
750XCXH-24A	KR14AGE (or GF) 24
750XCXH-120A	KR14AGE (or GF) 120
750XCXH-12D	KR14DGE (or GF) 12
750XCXH-24D	KR14DGE (or GF) 24
750XCXH-110D	KR14DGE (or GF) 110

MAGNECRAFT & STRUTHERS-DUNN	TYCO / POTTER & BRUMFIELD
W21ACPX-2	136-62T3A1

U. S. A.

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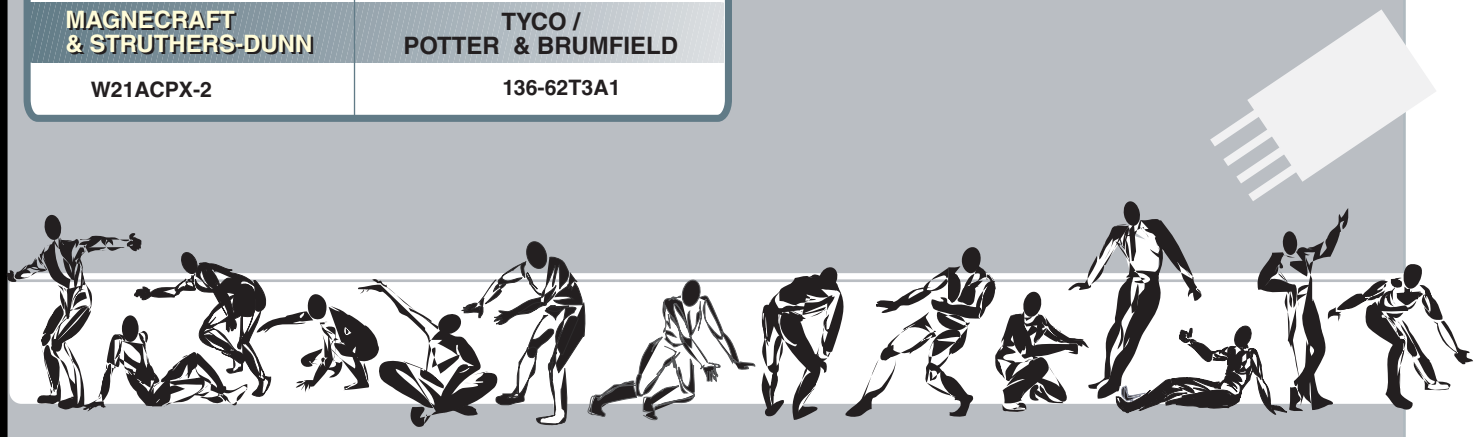

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