

FEATURES

FLAG INDICATOR:

BI - POLAR L.E.D. STATUS LAMP:

COLOR CODED PUSH BUTTON:

LOCK-DOWN DOOR:

FINGER - GRIP COVER:

WHITE PLASTIC I.D. TAG/WRITE LABEL:

COVER ADAPTERS:

BENEFITS

SHOWS RELAY STATUS IN MANUAL OR POWERED CONDITION.

ALLOWS FOR REVERSE POLARITY APPLICATIONS, SHOWS COIL "ON" OR "OFF" STATUS. IDEAL IN LOW LIGHT CONDITIONS.

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.

WHEN ACTIVATED, HOLDS PUSH BUTTON AND CONTACTS IN THE OPERATE POSITION. EXCELLENT FOR ANALYZING CIRCUIT PROBLEMS.

ALLOWS OPERATOR TO REMOVE RELAYS FROM SOCKETS MORE EASILY THAN CONVENTIONAL RELAYS.

USED FOR IDENTIFICATION OF RELAYS IN MULTI-RELAY CIRCUITS.

DIN RAIL ADAPTER OR TOP/BOTTOM FLANGE ADAPTER, ALLOWS THE 700 RELAYS TO BE DIRECT MOUNTED TO A DIN RAIL OR PANEL.

UL
UL Recognized
File No. E43641

SP
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

UL

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

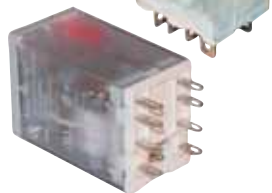
CURRENT LIMITED TO RATING OF RELAY OR SOCKET WHICHEVER IS LESS

MANUFACTURED UNDER ISO 9002 & QS 9000

781
SPDT
15 AMPS



782
SPDT
20 AMPS
DPDT
15 AMPS



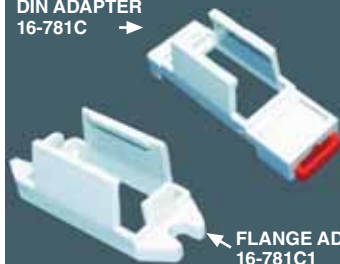
783
3PDT
15 AMPS



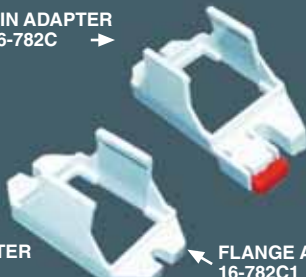
784
4PDT
15 AMPS



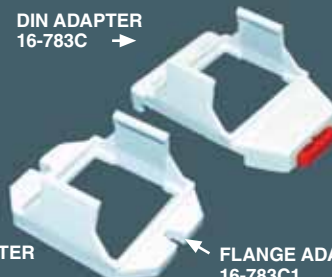
DIN ADAPTER
16-781C



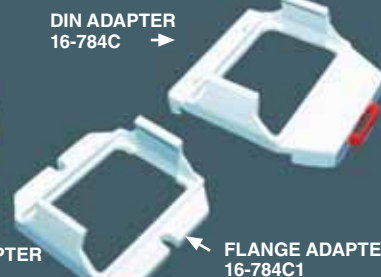
DIN ADAPTER
16-782C



DIN ADAPTER
16-783C



DIN ADAPTER
16-784C



FLANGE ADAPTER
16-781C1

FLANGE ADAPTER
16-782C1

FLANGE ADAPTER
16-783C1

FLANGE ADAPTER
16-784C1

OPTIONAL ADAPTERS ORDERED SEPARATELY





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's 1mm 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

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

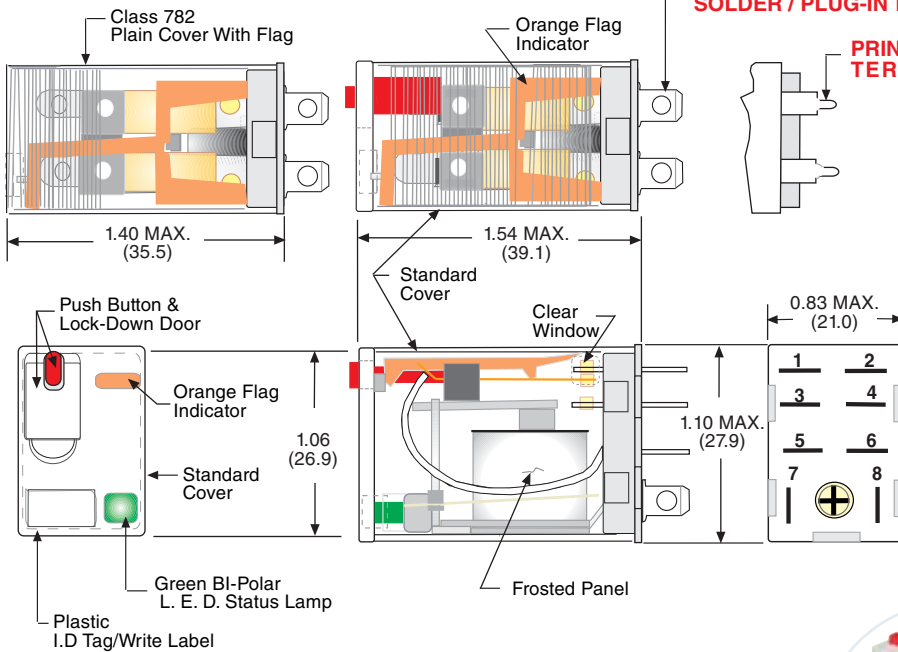


DPDT, 15 AMPS

WIRING DIAGRAM (VIEWED FROM PIN END)

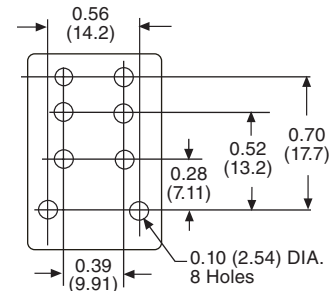


OUTLINE DIMENSIONS DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).



PRINTED CIRCUIT TERMINALS

PRINTED CIRCUIT MOUNTING HOLE LAYOUT (TOP VIEW)



ALTERNATE NEMA
OR IEC () NUMBERS
VIEWED FROM
PIN SIDE

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					
	782XBXC-24A	W78ARPCX-3	24 VAC, 50/60Hz	180 Ω	
	782XBXC-120A	W78ARPCX-6	110/120 VAC, 50/60Hz	4,430 Ω	
	782XBXC-6D	W78RPCX-1	6 VDC	40 Ω	
	782XBXC-12D	W78RPCX-2	12 VDC	160 Ω	
	782XBXC-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.