



Plastic Case Solenoid Switches

Standard Unit Selection Guide **Type SAZ, SBC, and SBJ Plastic Case Solenoids**

AMETEK Switch Type SAZ, SBC, and SBJ Solenoid Switches are designed to switch inductive loads in DC circuits up to 48 volts. The one-piece molded case is highly resistant to dust and moisture, making these solenoids suitable for controlling a wide variety of loads, such as:

Applications

- Engine Starting Motors and Shift Solenoids
- Hydraulic Pump Motors
- Diesel Engine Glow Plugs
- Marine Tilt/Trim Motors
- Winch Motors
- Traction Motors
- Auxiliary Power Circuits

Construction/Performance

- Plastic, Water-Resistant Case (IP67)
- 6 to 48 VDC Inductive Loads
- Leaf Spring Contact Design (SAZ and SBC only)
- SPST-NO Contacts
- Continuous and Intermittent Duty Coils
- Short Case - Type SAZ
- Medium Case - Type SBC
- Tall Case - Type SBJ
- Up to 200 Amps Continuous



AMETEK will custom design solenoids to meet specific customer requirements, but also offers a wide range of standard designs. For application assistance and detailed technical specifications, please contact AMETEK Switch.

Standard Features

- SPST-NO Contacts
- Plastic Case Construction
- 60,000 Cycle Electrical Life
- Terminal Hardware Available
- IP67 Certified

Standard Designs -Type SAZ, SBC and SBJ													
Carry Amps	Coil Volts	Wiring Diag	Coil Duty	Mounting Bracket	Mounting Provisions	Mounting Centers	Coil Ohms	Pickup Volts	Optional Features	Load Terminals	Coil Terminals	Contact Material	Part Number
50	12	2	C	F90	0.28 Slots	2.38 in	15.5	9	W	5/16-18	(2)10-32	CU	SAZ-4202A
100	12	1	C	C222	0.28 Slots	56 Deg	15.5	8.5		5/16-18	(1)10-32	CU	SBC-4201AC
100	12	1	C	SBJ-10	0.28 Slots	56 Deg	15.5	8.5		5/16-18	(1)10-32	CU	SBC-4201AG
100	12	1	C	C222	0.28 Slots	56 Deg	10	8.5		5/16-18	(1)10-32	CU	SBC-4201AS
100	12	1	C	F180	0.275 Holes	2.62 in	15.5	8.5		5/16-18	(1)10-32	CU	SBC-4201
100	12	1	C	SAZ-1021A	0.275 Holes	2.62 in	15.5	8.5		5/16-18	(1)10-32	CU	SBC-4201E
100	12	1	C	F90	0.28 Slots	2.38 in	15.5	8.5	F	5/16-18	(1)10-32	CU	SBC-4201AB
100	12	1	C	F90	0.28 Slots	2.38 in	15.5	8.5	F	5/16-18	(1)10-32	CU	SBC-4201AE
100	12	1	C	F90	0.28 Slots	2.38 in	9.8	8.8	F	5/16-18	(1)10-32	CU	SBC-4201AK
100	12	1	C	F90	0.28 Slots	2.19 in	15.5	8.5		5/16-18	(1)10-32	CU	SBC-4201D
100	12	1	C	L	0.28 Slots	2.32 in	15.5	8.5		5/16-18	(1)10-32	CU	SBC-4201G
100	12	2	C	C222	0.28 Slots	56 Deg	15.5	8.5		5/16-18	(1)10-32	CU	SBC-4201AF
100	12	2	C	SBJ-10	0.28 Slots	56 Deg	15.5	8.5		5/16-18	(2)10-32	CU	SBC-4201AH
100	12	2	C	SBJ-10	0.28 Slots	56 Deg	10	8.5		5/16-18	(2)10-32	CU	SBC-4201AP
100	12	2	C	F180	0.275 Holes	2.62 in	10	8.5		5/16-18	(2)10-32	CU	SBC-4201AL
100	12	2	C	F180	0.275 Holes	2.62 in	15.5	8.5		5/16-18	(2)10-32	CU	SBC-4201AU
100	12	2	C	F180	0.275 Holes	2.62 in	15.5	8.5		5/16-18	(2)10-32	CU	SBC-4201C
100	12	2	C	F180	0.275 Holes	2.62 in	15.5	8.5	F	5/16-18	(2)10-32	CU	SBC-4201W
100	12	2	C	F90	0.28 Slots	2.38 in	15.5	8.5	C,W	5/16-18	(2)10-32	CU	SBC-4201AJ
100	12	2	C	F90	0.28 Slots	2.38 in	15.5	8.5		5/16-18	(2)10-32	CU	SBC-4201AR
100	12	2	C	F90	0.28 Slots	2.19 in	15.5	8.5		5/16-18	(2)10-32	CU	SBC-4201F
100	12	2	C	F90	0.28 Slots	2.38 in	15.5	8.5		5/16-18	(2)10-32	CU	SBC-4201H
100	12	2	C	F90	0.28 Slots	2.19 in	15.5	8.5	C,W	5/16-18	(2)10-32	CU	SBC-4201J
100	12	2	C	L	0.28 Slots	2.32 in	15.5	8.5		5/16-18	(2)10-32	CU	SBC-4201AD
100	12	2	C	L	0.28 Slots	2.32 in	15.5	8.5		5/16-18	(2)10-32	CU	SBC-4201R
100	12	2	C	L	0.28 Slots	2.32 in	102	25.5		5/16-18	(2)10-32	CU	SBC-4301E
100	12	3	C	F180	0.275 Holes	2.62 in	15.5	8.5		5/16-18	(2)10-32	CU	SBC-4201B
100	12	1	HDI	C222	0.28 Slots	56 Deg	4.1	9	W	5/16-18	(1)10-32	CU	SAZ-4201BJ
100	12	1	HDI	C222	0.22 Slots	56 Deg	4.1	9	W	5/16-18	(1)10-32	CU	SAZ-4201FY
100	12	1	HDI	C222	0.28 Slots	56 Deg	4.1	9	W	5/16-18	(2)10-32	CU	SAZ-4201GJ
100	12	1	HDI	F90	0.28 Slots	2.19 in	4.1	8.5	S,P,M,T	5/16-18	(1)10-32	CU	SAZ-4201ANY
100	12	1	HDI	F90	0.28 Slots	2.19 in	4.1	9	W	5/16-18	(1)10-32	CU	SAZ-4201BA
100	12	1	HDI	F90	0.28 Slots	2.38 in	4.1	8.5	M,P,S,T	5/16-18	(1)10-32	CU	SAZ-4201DDY
100	12	1	HDI	F90	0.28 Slots	2.19 in	4.1	9	T,F,W	5/16-18	(1)10-32	CU	SAZ-4201FD
100	12	1	HDI	F90	0.28 Slots	2.38 in	4.1	9	F,T,W	5/16-18	(1)10-32	CU	SAZ-4201GB
100	12	1	HDI	F90	0.28 Slots	2.38 in	4.1	9	A,C,F,W,S,T	5/16-18	(1)10-32	CU	SAZ-4201GS
100	12	1	HDI	F90	0.28 Slots	2.19 in	4.1	9	W	5/16-18	(1)10-32	CU	SAZ-4201X
100	12	2	HDI	C222	0.28 Slots	56 Deg	4.1	8.5	W	5/16-18	(2)10-32	CU	SAZ-4201ER
100	12	2	HDI	SBJ-10	0.28 Slots	56 Deg	4.1	9		5/16-18	(2)10-32	CU	SAZ-4201GK
100	12	2	HDI	F180	0.275 Holes	2.62 in	4.1	8.5	P,M,T	5/16-18	(2)10-32	CU	SAZ-4201AHY

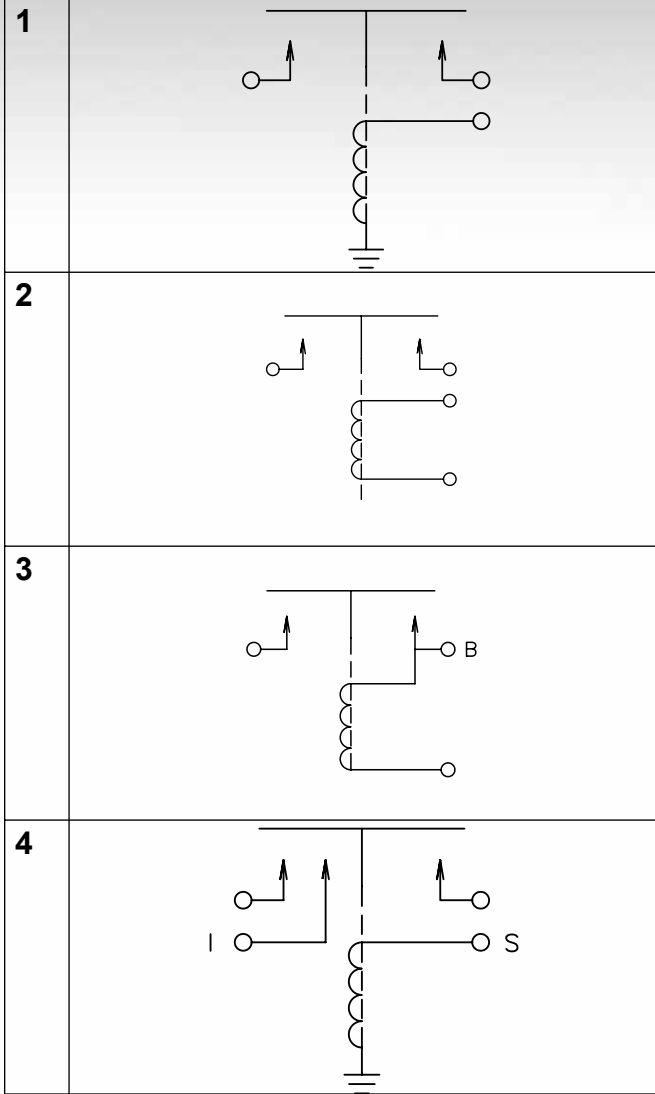
Standard Designs -Type SAZ, SBC and SBJ

Carry Amps	Coil Volts	Wiring Diag	Coil Duty	Mounting Bracket	Mounting Provisions	Mounting Centers	Coil Ohms	Pickup Volts	Optional Features	Load Terminals	Coil Terminals	Contact Material	Part Number
100	12	2	HDI	F180	0.275 Holes	2.62 in	4.1	8.5	P,T,W	5/16-18	(2)10-32	CU	SAZ-4201AP
100	12	2	HDI	F180	0.26 Holes	2.62 in	4.1	8.5	S,C,M,G,T	5/16-18	(2)10-32	CU	SAZ-4201DUY
100	12	2	HDI	F180	0.275 Holes	2.62 in	4.1	9.5		5/16-18	(2)10-32	CU	SAZ-4201EY
100	12	2	HDI	F180	0.275 Holes	2.32 in	4.1	9	C,W	5/16-18	(2)10-32	CU	SAZ-4201GU
100	12	2	HDI	F90	0.28 Slots	2.19 in	4.1	8.5	P,T,W	5/16-18	(2)10-32	CU	SAZ-4201AL
100	12	2	HDI	F90	0.28 Slots	2.19 in	4.1	9	W	5/16-18	(2)10-32	CU	SAZ-4201BR
100	12	2	HDI	F90	0.28 Slots	2.19 in	4.1	8.5	S,P,T,W	5/16-18	(2)10-32	CU	SAZ-4201FN
100	12	2	HDI	F90	0.28 Slots	2.38 in	4.1	9	W	5/16-18	(2)10-32	CU	SAZ-4201FR
100	12	2	HDI	F90	0.28 Slots	2.19 in	4.1	9	C,W	5/16-18	(2)10-32	CU	SAZ-4201GE
100	12	2	HDI	F90	0.28 Slots	2.19 in	4.1	9	A,C,W	5/16-18	(2)10-32	CU	SAZ-4201GT
100	12	2	HDI	FLAT	0.135 Holes	2.14 in	4.1	9.5	W	5/16-18	(2)10-32	CU	SAZ-4201GD
100	12	2	HDI	L	0.28 Slots	2.32 in	4.1	8.5		5/16-18	(2)10-32	CU	SAZ-4201GM
100	12	4	HDI	C222	0.28 Slots	56 Deg	4.1	9		5/16-18	(2)10-32	CU	SAZ-4201AG
100	12	4	HDI	C222	0.28 Slots	56 Deg	4.1	9	M	5/16-18	(2)10-32	CU	SAZ-4201AGY
100	12	4	HDI	F90	0.28 Slots	2.19 in	4.1	8.5	S,P,M,T	5/16-18	(2)10-32	CU	SAZ-4201BBY
100	12	4	HDI	F90	0.28 Slots	2.19 in	4.1	9	W	5/16-18	(2)10-32	CU	SAZ-4201EW
100	12	1	I	C222	0.28 Slots	56 Deg	3	6	W	5/16-18	(1)10-32	CU	SAZ-4201FP
100	12	1	I	SBJ-10	0.28 Slots	56 Deg	3	6	W	5/16-18	(1)10-32	CU	SAZ-4201GF
100	12	1	I	F180	0.275 Holes	2.62 in	3	6		5/16-18	(1)10-32	CU	SAZ-4201BX
100	12	1	I	F180	0.275 Holes	2.62 in	3.1	8.5	W	5/16-18	(1)10-32	CU	SAZ-4201FK
100	12	1	I	F180	0.275 Holes	2.62 in	3.1	8.8	F,T,W	5/16-18	(1)10-32	CU	SAZ-4201HD
100	12	1	I	F90	0.28 Slots	2.38 in	3.1	8.5	P	5/16-18	(1)10-32	CU	SAZ-4201AC
100	12	1	I	F90	0.28 Slots	2.19 in	3.1	8.5	W	5/16-18	(1)10-32	CU	SAZ-4201AJ
100	12	1	I	F90	0.28 Slots	2.19 in	3.1	8.5	T,W	5/16-18	(1)10-32	CU	SAZ-4201DX
100	12	1	I	F90	0.28 Slots	2.19 in	3.1	8.5	W	5/16-18	(1)10-32	CU	SAZ-4201E
100	12	1	I	F90	0.28 Slots	2.19 in	3.1	8.5	T,F	5/16-18	(1)10-32	CU	SAZ-4201EA
100	12	1	I	F90	0.28 Slots	2.19 in	3.1	8.5	C,M,S,T	5/16-18	(1)10-32	CU	SAZ-4201ENY
100	12	1	I	F90	0.28 Slots	2.38 in	3.1	8.5	W	5/16-18	(1)10-32	CU	SAZ-4201FU
100	12	1	I	F90	0.28 Slots	2.38 in	3.1	8.5	F,W	5/16-18	(1)10-32	CU	SAZ-4201GG
100	12	1	I	F90	0.28 Slots	2.38 in	3.1	8.5	F,T,W	5/16-18	(1)10-32	CU	SAZ-4201GY
100	12	1	I	F90	0.28 Slots	2.38 in	3.1	8.8	F,T,W	5/16-18	(1)10-32	CU	SAZ-4201HA
100	12	2	I	C222	0.28 Slots	2.16 in	3.1	8.5		5/16-18	(1)10-32	CU	SAZ-4201D
100	12	2	I	C222	0.28 Slots	56 Deg	3	6	W	5/16-18	(2)10-32	CU	SAZ-4201GC
100	12	2	I	F180	0.26 Holes	2.62 in	3.1	8.5	S,P,G,M,T	5/16-18	(2)10-32	CU	SAZ-4201ABY
100	12	2	I	F180	0.275 Holes	2.62 in	3.1	8	P,W	5/16-18	(2)10-32	CU	SAZ-4201BC
100	12	2	I	F90	0.28 Slots	2.38 in	3	6	W	5/16-18	(2)10-32	CU	SAZ-4201HB
100	12	2	I	F90	0.28 Slots	2.19 in	3.1	8.5		5/16-18	(2)10-32	CU	SAZ-4201J
100	12	2	I	L	0.275 Holes	2.62 in	16.2	8.5		5/16-18	(2)10-32	CU	SBC-4201AN
100	12	2	I	L	0.26 Holes	2.62 in	16.2	8.5		5/16-18	(2)10-32	CU	SBC-4201AT
100	12	4	I	F90	0.28 Slots	2.19 in	3.1	8.5	F	5/16-18	(2)10-32	CU	SAZ-4201CG
100	12	4	I	F90	0.28 Slots	2.19 in	3.1	8.5	M	5/16-18	(2)10-32	CU	SAZ-4201CPY
100	12	4	I	F90	0.28 Slots	2.38 in	3.1	8.8	T,W	5/16-18	(1)10-32	CU	SAZ-4201HC
100	12	4	I	F90	0.28 Slots	2.38 in	3.1	8.8	M,W	5/16-18	(1)10-32	CU	SAZ-4201HEY
100	12	4	I	F90	0.28x0.46 Slots	2.19 in	3.1	8.5		5/16-18	(2)10-32	CU	SAZ-4201N
100	24	1	C	F90	0.28 Slots	2.19 in	58.3	18		5/16-18	(1)10-32	CU	SBC-4401A
100	24	2	C	F180	0.28 Slots	2.57 in	58.3	18	A,C,W	5/16-18	(2)10-32	CU	SBC-4401E
100	24	2	C	F90	0.28 Slots	2.19 in	58.3	18		5/16-18	(2)10-32	CU	SBC-4401B

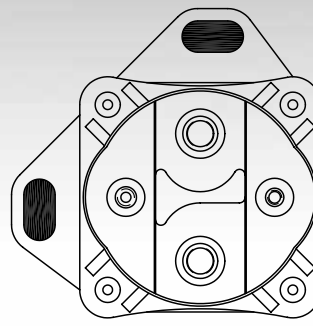
Standard Designs -Type SAZ, SBC and SBJ

Carry Amps	Coil Volts	Wiring Diag	Coil Duty	Mounting Bracket	Mounting Provisions	Mounting Centers	Coil Ohms	Pickup Volts	Optional Features	Load Terminals	Coil Terminals	Contact Material	Part Number
100	24	2	C	F90	0.28 Slots	2.19 in	58.3	18	C,W	5/16-18	(2)10-32	CU	SBC-4401C
100	24	2	C	L	0.28 Slots	2.32 in	58.3	18	A,C,W	5/16-18	(2)10-32	CU	SBC-4401F
100	24	2	C	L	0.28 Slots	2.32 in	58.3	18		5/16-18	(2)10-32	CU	SBC-4401G
100	24	2	C	None	None	N/A	58.3	18	A	5/16-18	(2)10-32	CU	SBC-4401D
100	24	1	HDI	C222	0.22 Slots	2.15 in	14.3	18	W	5/16-18	(1)10-32	CU	SAZ-4401AK
100	24	1	HDI	C222	0.28 Slots	56 Deg	14.3	18		5/16-18	(1)10-32	CU	SAZ-4401G
100	24	2	HDI	C222	0.22 Slots	2.15 in	14.3	18		5/16-18	(2)10-32	CU	SAZ-4401AM
100	24	2	HDI	F180	0.275 Holes	2.62 in	14.3	18		5/16-18	(2)10-32	CU	SAZ-4401AD
100	24	2	HDI	F90	0.28 Slots	2.19 in	14.3	18	C,S,W	5/16-18	(2)10-32	CU	SAZ-4401AH
100	24	2	HDI	F90	0.28 Slots	2.19 in	14.3	18	C,S,W	5/16-18	(2)10-32	CU	SAZ-4401AP
100	24	2	HDI	F90	0.28 Slots	2.19 in	14.3	18	W	5/16-18	(2)10-32	CU	SAZ-4401W
100	24	2	I	C222	0.28 Slots	56 Deg	10.7	16		5/16-18	(2)10-32	CU	SAZ-4401AC
100	24	2	I	SBJ-10	0.28 Slots	56 Deg	10.7	16		5/16-18	(2)10-32	CU	SAZ-4401AG
100	24	2	I	F90	0.28 Slots	2.19 in	10.7	16	W	5/16-18	(2)10-32	CU	SAZ-4401
100	24	2	I	F90	0.28 Slots	2.19 in	10.7	16	S,C,W	5/16-18	(2)10-32	CU	SAZ-4401AE
100	24	2	I	F90	0.28 Slots	2.19 in	10.7	16	W	5/16-18	(2)10-32	CU	SAZ-4401R
100	24	4	I	F90	0.28 Slots	2.19 in	10.7	16		5/16-18	(2)10-32	CU	SAZ-4401AN
100	36	2	C	F180	0.275 Holes	2.62 in	102	25.5		5/16-18	(2)10-32	CU	SBC-4301B
100	36	2	HDI	F180	0.28 Slots	2.62 in	58.3	18		5/16-18	(2)10-32	CU	SBC-4301C
200	12	2	C	F180	0.275 Holes	2.62 in.	12	8		5/16-18	(2)10-32	AG	SBJ-4203
200	12	2	C	F180	0.275 Holes	2.62 in.	12	8	F	5/16-18	(2)10-32	AG	SBJ-4203A
200	12	2	C	F180	0.275 Holes	2.62 in.	12	8		5/16-18	(2)10-32	CU	SBJ-4253
200	12	2	C	F90	0.28 Slots	2.19 in.	12	8		5/16-18	(2)10-32	AG	SBJ-4207
200	12	2	C	L	0.28 Slots	2.32 in.	12	8		5/16-18	(2)10-32	AG	SBJ-4201
200	12	2	C	L	0.28 Slots	2.32 in.	12	8	F	5/16-18	(2)10-32	AG	SBJ-4201A
200	12	2	C	L	0.28 Slots	2.32 in.	12	8	C	5/16-18	(2)10-32	AG	SBJ-4201B
200	12	2	C	SBJ-10	0.28 Slots	56 Deg.	12	8		5/16-18	(2)10-32	CU	SBJ-4255
200	12	2	C	SBJ-10	0.28 Slots	56 Deg.	12	8		5/16-18	(2)10-32	CU	SBJ-4255A
200	12	2	C	SBJ-10	0.28 Slots	56 Deg.	12	8	U	5/16-18	(2)10-32	AG	SBJ-5255
200	24	2	C	SAZ-1021A	0.28 Slots	2.57 in. Open	42	15.5		5/16-18	(2)10-32	AG	SBJ-4409
200	24	2	C	L	0.28 Slots	2.32 in.	42	15.5		5/16-18	(2)10-32	AG	SBJ-4401
200	24	2	C	SBJ-10	0.28 Slots	56 Deg.	41	15.5		5/16-18	(2)10-32	CU	SBJ-4455
200	24	2	C	SBJ-10	0.28 Slots	56 Deg.	41	15.5	U	5/16-18	(2)10-32	CU	SBJ-5455
200	24	2	HDI	L	0.28 Slots	2.32 in.	27	16.8	U, F	5/16-18	(2)10-32	AG	SBJ-5411A
200	36	2	C	F180	0.275 Holes	2.62 in.	91.8	23.5		5/16-18	(2)10-32	AG	SBJ-4303
200	36	2	C	SAZ-1021A	0.28 Slots	2.57 in. Open	91.8	23.5		5/16-18	(2)10-32	AG	SBJ-4309
200	36	2	C	F180	0.275 Holes	2.62 in.	91.8	23.5		5/16-18	(2)10-32	CU	SBJ-4353
200	36	2	C	L	0.28 Slots	2.32 in.	91.8	23.5		5/16-18	(2)10-32	AG	SBJ-4301
200	36	2	C	L	0.28 Slots	2.32 in.	91.8	23.5		5/16-18	(2)10-33	AG	SBJ-4301A
200	36	2	C	L	0.28 Slots	2.32 in.	91.8	23.5		5/16-18	(2)10-32	CU	SBJ-4351
200	36	2	C	L	0.28 Slots	2.32 in.	91.8	23.5		5/16-18	(2)10-32	CU	SBJ-4359
200	36	2	HDI	L	0.28 Slots	2.32 in.	64.8	25.2	U, F	5/16-18	(2)10-32	AG	SBJ-5311A
200	48	2	C	L	0.28 Slots	2.32 in.	176	32		5/16-18	(2)10-32	AG	SBJ-4801
200	48	2	HDI	L	0.28 Slots	2.32 in.	109.7	33.6	U, F	5/16-18	(2)10-32	AG	SBJ-5811

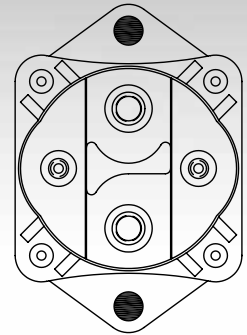
WIRING DIAGRAMS



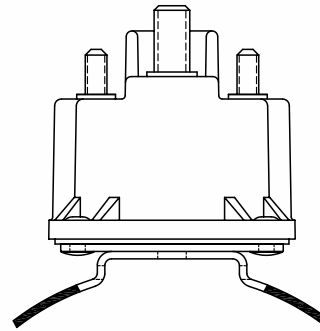
Mounting Brackets



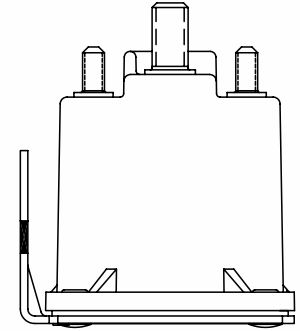
F90
FLAT



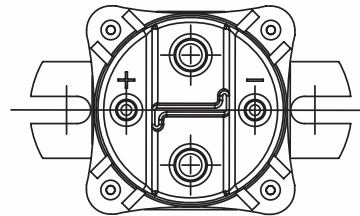
F180
FLAT



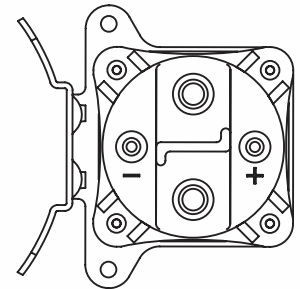
C222
CURVED 2.22" RADIUS



L
90 DEG. RIGHT ANGLE



F180 FLAT - SLOTTED



L CURVED - 2.22" RADIUS

Codes and Abbreviations

Current Ratings

Volts	Inrush	Break	Type
12	600	200	SAZ, SBC, SBJ
24	600	200	SAZ, SBC, SBJ
36	600	200	SAZ, SBC, SBJ
48	200	200	SBJ
48	0	75	SAZ, SBC

Terminal Hardware

To receive terminal hardware, add one of following suffixes to **part number**:

-1	Hardware on terminals
-2	Hardware bulk-packed
-3	Special hardware

Coil Duty

Code	Type	Duty Cycle	Max "On" Time
I	Intermittent	25%	2 Minutes
HDI	HD Intermittent	25%	10 Minutes
C	Continuous	100%	N/A

Optional Features

A	Special Assembly
C	Circle Potted Coil
F	Diode on Coil
G	Shock-Mount Baseplate
M	Marinized to SAE-J1171
P	Potted Coil Leads
S	Stainless Steel Plunger Pin
T	Stainless Steel Baseplate
U	UL Certified
W	Sealed Case



AMETEK®
SWITCH

US Location

255 North Union Street, Rochester, NY 14605 U.S.A.
Tel: 585-263-7700 • Fax: 585-454-7805
Toll-Free: 1-800-843-5169

International Location

Ipswich Road, Cardiff CF23 9XP, Wales, UK
Tel: 44 (0) 29 2049 6763 • Fax: 44 (0) 29 2046 2337

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