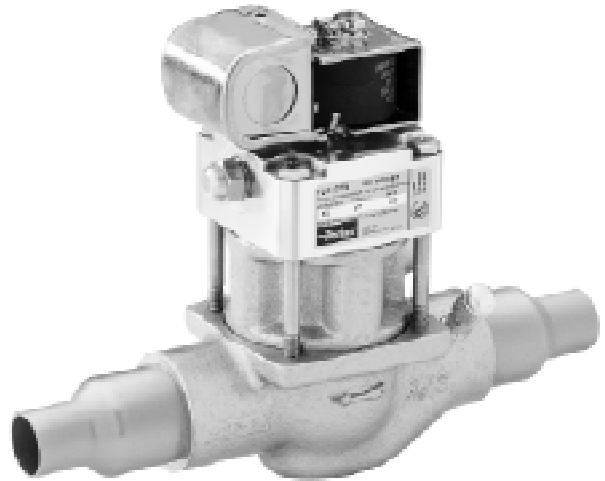


SC Suction Solenoid Valves

Features

- Highest capacity non-flanged valve in the industry.
- Available with 208V / 240V /50-60Hz wide range voltage coil.
- Low pressure drop, internally pilot operated
- All stainless steel bolts, stem, piston and plug.
- Manual Opening Stem
- Sweat in place without disassembly
- Moulded class "F" coil construction
- DIN coil assemblies available
- Interchangeable capacity cartridges. Same as those used on (S) PORT EPRs.



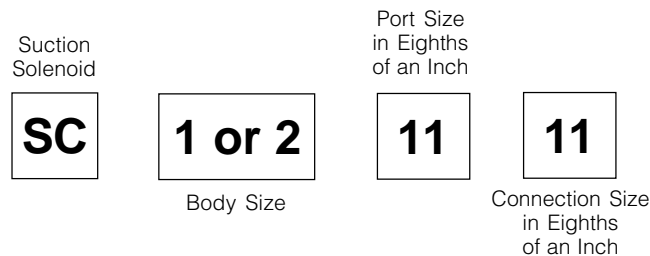
Specifications

- Design pressure (M.R.P.) 31.0 bar
- Maximum opening pressure differential (MOPD): 20.7 bar
- Minimum fluid temperature -40°C
- Operating range : 250mm Hg to 8.3 bar
- UL listed (except 50 Hz versions), file SA5473

Standard Voltages

- 120V/60Hz, 110V/50Hz
- 208V/240V/60Hz, 220V/50Hz
- 240V/50Hz
- 240V/60Hz, 220V/50Hz (DIN)
- 240V/50Hz (DIN)

Valve Nomenclature



SC Port/Connection Size Combinations*

Type	Port Size	Connection Sizes Available
SC1	03 (3/8", 9mm)	07, 09, 11,13, 17 (7/8"/22mm, 1-1/8"/28mm, 1-3/8"/35mm, 1-5-8"/42mm, 2-1/8"/54mm)
	05 (5/8" 15mm)	07, 09, 11,13, 17 (7/8"/22mm, 1-1/8"/28mm, 1-3/8"/35mm, 1-5-8"/42mm, 2-1/8"/54mm)
	07 (7/8", 22mm)	07, 09, 11,13, 17 (7/8"/22mm, 1-1/8"/28mm, 1-3/8"/35mm, 1-5-8"/42mm, 2-1/8"/54mm)
	09 (1-1/8", 28mm)	07, 09, 11,13, 17 (7/8"/22mm, 1-1/8"/28mm, 1-3/8"/35mm, 1-5-8"/42mm, 2-1/8"/54mm)
SC-II	11 (1-3/8", 35mm)	09, 11,13, 17 (1-1/8"/28mm, 1-3/8"/35mm, 1-5-8"/42mm, 2-1/8"/54mm)
SC2	13 (1-5/8", 42mm)	13, 17, 21 (1-5/8" /42mm, 2-1/8" /54mm, 2-5/8" /66mm)
	17 (2-1/8", 54mm)	17, 21 (2-1/8" /54mm, 2-5/8" /66mm)
	21 (2-5/8", 66mm)	21 (2-5/8", 66mm)

*(NOTE: Completely corrosion resistant SC-11 solenoids with aluminium bronze bodies and cartridge assemblies have same port/connection combinations as standard SC solenoids, but are not available in the 12, 17 or 21 port size versions).

SC Suction Solenoid Valves

Description : The SC series of commercial solenoids were developed as a flexible, low pressure drop, suction line solenoid valve, in a wide range of port and connection sizes. With cartridge (port) sizes available up to 2-5/8" (66mm) in size, SC solenoids offer the greatest capacity of any non-flanged commercial solenoid in the industry. The unique design of the SC solenoid is a mirror image of the (S)PORT regulator line, utilizing the same cartridges, solenoid coil assemblies, bodies, and internal parts as those used in the construction of the (S)PORT regulators. With this flexible line of suction line solenoids complimenting the complete line of (S)PORT regulators, a wide range of high capacity, suction line refrigeration controls are now available from a single source.

Along with (S)PORT regulators, SC solenoids are ductile iron bodied valves with brazed copper couplings, and are suitable for most common commercial refrigerants along with certain oils. The SC solenoid may be opened by means of a manual opening stem for servicing or in case of an electrical power failure.

The SC-II series of valves are manufactured with completely corrosion resistant materials including aluminum bronze bodies and cartridge assemblies, and stainless steel adapter bolts. Cartridges, and solenoids are interchangeable with the (S)PORT-II regulator line.

Variations: SC1/ SC-II Solenoids: Five port sizes, from 3/8" (9mm) through 1-3/8" (35mm) SC2 Solenoid: Three port sizes, from 1-5/8" (42mm) through 2-5/8" (66mm)

NOTE : For SC valve suction capacity tables, please reference pages 4.6 - 4.9 of this catalog

Installation : SC solenoid valves can be mounted either in a vertical or horizontal line with the refrigerant flow in the direction of the arrow on the body. These valves may be soldered into the line without disassembly. When brazing in line, typically a wet cloth wrapped around the valve body is recommended to dissipate heat. If a valve is disassembled prior to installation, always have the correct gasket/ O-ring kit available for re-assembly. The internal cartridge-to- body O-ring will need to be replaced prior to re-assembly.

Electrical: SC commercial solenoid valves utilize a molded water resistant Class "F" solenoid coil with an open frame coil housing which meets NEMA 3R and 4 requirements. A class "H" DIN coil is also available with certain voltages. Power consumption during normal operation will be 10.2 watts or less.

All coils except for the 208/240V/60Hz version operate with a 300 psi maximum opening pressure differential (MOPD). The 208/240V/60Hz coil operates with a 280 MOPD.

All coils are designed to operate with a line voltage from 85% to 110% of rated coil voltage. Operating with a line voltage above or below these limits may result in coil burn out.

Ordering Guide: Specify valve type (SC1, SC-II or SC2), port and connection size, coil voltage, and frequency.

SC1 / SC2 Liquid Capacities in Evaporator Kilowatts

Based on 37.7° C Condensing, 4.4° C Evaporator and no flashing through the valve for the pressure drop listed.

Port Size	Cv	R22	R22	R134a	R134a	R404A	R404A
		0.14 bar pr drop	0.27 bar pr drop	0.14 bar pr drop	0.27 bar pr drop	0.14 bar pr drop	0.27 bar pr drop
03 (9mm)	1,5	23	32	21	30	14	20
05 (15mm)	3,3	50	71	47	67	31	44
07 (22mm)	5,1	78	110	73	103	48	68
09 (28mm)	8,1	123	174	116	164	76	107
11 (35mm)	11,3	172	243	162	229	106	150
13 (42mm)	18	274	387	258	365	169	239
17 (54mm)	27	411	581	387	547	253	358
21 (66mm)	36	548	775	516	729	338	477

S81 / S82 Solenoid Valves

Description : The S8 series of commercial solenoids were developed as a versatile, general purpose, commercial refrigeration valve, capable of being applied in most liquid, hot gas, or suction applications. With cartridge (port) sizes available up to 2-5/8" (66mm) in size, S8 solenoids offer the greatest capacity of any non-flanged commercial solenoid in the industry. The unique design of the S8 solenoid is a mirror image of the A8 regulator line, utilizing the same cartridges, solenoid coil assemblies, bodies, and internal parts as those used in the construction of the A8's. With this flexible line of commercial solenoids complimenting the complete line of commercial A8 regulators, a wide offering of high capacity commercial refrigeration controls are now available from a single source.

Similar to the A8 regulators, S8 solenoids are ductile iron bodied valves with brazed copper couplings, and are suitable for most common commercial refrigerants along with certain oils. The S8 solenoid may be opened by means of a manual opening stem for servicing or in case of an electrical power failure.

Variations: S81 Solenoid: Five port sizes, from 3/8" (9mm) through 1-3/8" S82 Solenoid: Three port sizes, from 1-5/8" through 2-5/8"

Installation : S8 solenoid valves can be mounted either in a vertical or horizontal line with the refrigerant flow in the direction of the arrow on the body. These valves may be soldered into the line without disassembly. A wet cloth should be wrapped around the valve and the soldering flame should be directed away from the valve body.

If a valve is disassembled prior to installation, always have the correct gasket / O-ring kit available for reassembly. The internal cartridge-to-body O-ring will need to be replaced prior to reassembly.

Electrical: S8 commercial solenoid valves utilize a molded water resistant Class "H" solenoid coil with a general purpose coil housing which meets NEMA 3R and 4 requirements. A class "H" DIN coil is also available with certain voltages. Power consumption during normal operation will be 10.2 watts or less. The coils are designed to operate with a line voltage from 85% to 110% of rated coil voltage. Operating with a line voltage above or below these limits may result in coil burn out.

Ordering Guide: Specify valve type (S81 or S82), port and connection size, and coil voltage and frequency.

NOTE : For SC valve suction capacity tables, please reference pages 4.6 - 4.9 of this catalog

S81 / S82 Liquid Capacities in Evaporator Kilowatts

Based on 37.7° C Condensing, 4.4° C Evaporator and no flashing through the valve for the pressure drop listed.

Port Size	Cv	R22	R22	R134a	R134a	R404a	R404a
		0.14 bar pr drop	0.27 bar pr drop	0.14 bar pr drop	0.27 bar pr drop	0.14 bar pr drop	0.27 bar pr drop
9mm	1,5	23	32	21	30	14	20
15mm	3,3	50	71	47	67	31	44
22mm	5,1	78	110	73	103	48	68
28mm	8,1	123	174	116	164	76	107
35mm	11,3	172	243	162	229	106	150
42mm	18,0	274	387	258	365	169	239
54mm	27,0	411	581	387	547	253	358
66mm	36,0	548	775	516	729	338	477