

DESCRIPTION

The SC9 Series Manifolds are 2-way, normally closed, direct acting, general purpose valves. All stainless steel or brass manifold bodies with synthetic seating and sealing materials make them suitable for use with a variety of liquids, oils, and gases. Manifolds may be mounted in any position. A spring-loaded plunger assures positive shutoff.

OPERATION

SC9 Manifolds are normally closed (N.C.) and open when electrically energized.

SPECIFICATIONS

Use SC9 Manifolds within the specified operating ranges as indicated on the nameplate and in the complete Catalog Number. (max. psi, voltage, cycle, max. media temperature at F ambient, Cv factor, etc.).

OPERATING TEMPERATURES

Ambient	Elastomer	Fluid (EPR)
32° - 125° F	A - FFKM	32° - 295° F
32° - 125° F	C - EPR	32° - 295° F
32° - 125° F	N - Nitrile	32° - 180° F
32° - 125° F	V - FKM	32° - 230° F
32° - 125° F	T - PTFE	32° - 366° F

For other applications, consult the factory.

INSTALLATION

Check valve specifications to make sure of proper application.

1. Clear all lines of foreign matter.
2. Valves are multiposited and may be mounted in any position. Media flow must be in the direction indicated on the valve body. If sediment is a problem, install a fine mesh strainer having adequate capacity ahead of the valve.
3. Do not use the solenoid housing as a handle. Apply thread seal to the male threads only.
4. Provide clearance for solenoid removal.
5. Wire in accordance with applicable local and national electrical codes. Apply correct voltage.

MAINTENANCE

Incorrect reassembly can cause coil burnout. At all times, take care not to nick, dent, or damage the plunger tube.

COIL REPLACEMENT

Turn off the electrical power supply to the solenoid before disconnecting the coil lead wires.

It is not necessary to remove the manifold from the pipeline. Follow Steps 1, 2, and 3 under **MANIFOLD DISASSEMBLY**. Disassemble the solenoid, taking care to note the exact order of placement and quantity of parts. Repeat per station.

PARTS

The charts that follow cover replaceable coil part numbers and Rebuild kits for most SC9 series manifolds.

When ordering parts/kits, specify the Catalog Number, Serial Number, and Part Name. If your valve's Catalog Number is not listed, obtain the complete Serial Number, and consult the factory.

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REBUILD KIT

The Rebuild Kit contains a plunger/spring/seat disc assembly, plunger tube assembly, and O-rings.

Note – The below kits work for both metering (F) and non-metering manifolds.

REBUILD & REPAIR KIT CHART

Valve	Rebuild Kits	Repair Kits
SC91_YH_AB__(F)	KSC9102ABA5	-
SC91_YH_AD__(F)	KSC9102ADA5	-
SC91_YH_CB__(F)	KSC9102CBA5	-
SC91_YH_CD__(F)	KSC9102CDA5	-
SC91_YH_NB__(F)	KSC9102NDA5	-
SC91_YH_ND__(F)	KSC9102TBA5	-
SC91_YH_TB__(F)	KSC9102TDA5	-
SC91_YH_TD__(F)	KSC9102VTBA5	-
SC91_YH_VB__(F)	KSC9102VDA5	-
SC91_YH_VD__(F)	KSC9102VDA5	-

COIL CHART

Valve	Voltage	DIN Coil	Lead Wire
SC91_YH02	120V 50/60	C944	C944L
SSC91_YH24	24V 50/60	C987	C987L
SC91_YH15	12 VDC 4W	C999	C999L
SC91_YH44	24 VDC 4W	C926	C926L

Cleaning

Cleaning fluid must be compatible with all valve components. It is recommended that SC9 Series Manifolds be cleaned on a routine basis by qualified personnel. Valves should be cleaned where flow media or service conditions may determine the life of the valve. If excessive leakage occurs or if the operation is sluggish, the unit must be cleaned.

DISASSEMBLY AND REPAIR KIT INSTALLATION

WARNING

Disassembly, reassembly or internal adjustment without factory test may result in hazardous condition. If valve does not operate properly after following the **INSTALLATION and MAINTENANCE** instructions, complete valve must be replaced by a trained and experienced service-person.

1. Unscrew the top nut (1).
2. Lift off the coil (2) from the plunger tube.
3. Do not damage the solenoid assembly.
5. Use 13mm deep socket or similar tool to remove plunger tube (3). Do not nick, dent, or damage plunger tube (3), or valve seating surfaces.
6. Hold plunger tube (3) in position when removing from manifold body (6) to prevent loss of internal parts.
7. Carefully remove the plunger/spring/seat disc assembly (5).
8. Check seating surfaces on the seat disc (5) and manifold body (6) for damage or wear.
9. Replace plunger/spring/seat disc assembly (5) and other parts as necessary. Consult the "REBUILD & REPAIR KIT CHART" for the correct kit part number.
10. Re-assemble in reverse order from above taking care to properly install the plunger (5) and plunger tube (3).
11. Tighten plunger tube (3) to 25 In/Lbs.
12. Repeat per manifold station.
12. Replace coil (2) and top nut (1). Tighten to approximately 15 In/Lbs.
12. Re-connect electrical and test for proper operation.

TROUBLESHOOTING

If the valve fails to open, check the voltage against the rating on the nameplate, check the voltage at solenoid lead connections, and check the control circuit and solenoid coil for burnout. If the valve fails to close, check the condition of the synthetic seat insert. Also, check for a damaged spring. The valve must be free of dirt to ensure tight shutoff. If media contaminants are a problem, install a fine mesh strainer to ensure proper closing and trouble-free operation.

Buzzing can be caused by low voltage or contaminants between the top of the plunger and the tube head. Check voltage—clean the plunger/interior of the tube assembly.

