Type SR5 Sanitary Pressure Regulator

Figure 1. *Type SR5*

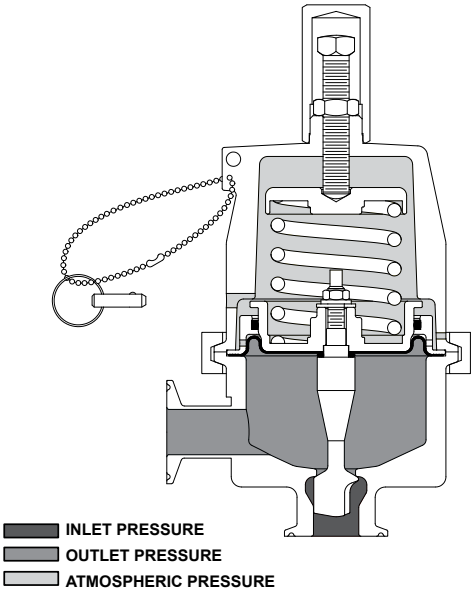


Figure 2. *Type SR5 Operational Schematic*

WARNING

Failure to follow these instructions or to properly install and maintain this equipment could result in an explosion, fire and/or chemical contamination causing property damage and personal injury or death.

Fisher® sanitary regulators must be installed, operated, and maintained in accordance with federal, state, and local codes, rules and regulations, and Emerson Process Management Regulator Technologies, Inc. instructions.

If the regulator vents gas or a leak develops in the system, service to the unit may be required. Failure to correct trouble could result in a hazardous condition.

Installation, operation, and maintenance procedures performed by unqualified personnel may result in improper adjustment and unsafe operation. Either condition may result in equipment damage or personal injury. Use qualified personnel when installing, operating, and maintaining the Type SR5 Sanitary Pressure Regulator.

Introduction

The Type SR5 self-contained pressure regulators are suitable for pressure control of steam, liquid, or gaseous service. Typical setpoint ranges from 2 to 135 psig (0,14 to 9,3 bar) (ranges vary depending on body size). These regulators are designed to meet sanitary application and material requirements.

Scope of the Manual

This manual provides installation, startup, maintenance, and parts ordering information for the Type SR5 Sanitary Pressure Regulator.

D103099X012

Specifications

Body Sizes, Inlet and Outlet Connection Style
NPS 1/2, 3/4, 1, 1-1/2, 2, and 3
(DN 15, 20, 25, 40, 40 x 25, 50, and 80)

End Connection[4]
Tri-Clamp® Sanitary connections

Body Pressure/Temperature Ratings[1]

MAXIMUM TEMPERATURE , °F (°C)	MAXIMUM INLET PRESSURE, PSIG (bar)	MAXIMUM OUTLET PRESSURE, PSIG (bar)
150 (65)	210 (14,5)	210 (14,5)
275 (135)	180 (12,4)	180 (12,4)
400 (204)	160 (11,0)	160 (11,0)

Maximum Operating Pressures[1][3]
See Table 1

Set Pressure Ranges
See Table 2

Maximum Differential Pressures[1]
See Table 3

Regulator Temperature Capabilities[1]
See Table 4

Pressure Registration
Internal

Vacuum Protection Option

Maximum Vacuum Pressure
14 psig (0,96 bar) (vacuum)

Service Media

NPS 1/2, 3/4, 1, and 1-1/2 x 1 (DN 15, 20, 25, and 40 x 25): Steam, Gas, and Liquid
NPS 1-1/2 (DN 40) full port: Steam and Gas only, Liquid not recommended
NPS 2 and 3 (DN 50 and 80): Steam, Gas, and Liquid Service

Options
Vacuum protection
Pressure loaded spring case
T-handle adjusting screw

Pressure Loaded Spring Case Option

Maximum Loading Pressure
NPS 1/2, 3/4 and 1 (DN 15, 20 and 25) bodies: 135 psig (9,3 bar)
NPS 1-1/2 (DN 40) body: 100 psig (6,9 bar)
NPS 2 and 3 (DN 50 and 80) bodies: 75 psig (5,2 bar)

1/4 NPT tapped vent connection

Certifications Available Upon Request
3A certificate
FDA approved elastomers/plastics
Material and Functional Test Certificates
USP Class VI approved elastomers/plastics[2]

1. The pressure/temperature limits in this Instructional Manual and any applicable standard or code limitation should not be exceeded.
2. Contact your local Sales Office for details on available constructions.
3. Maximum pressure to prevent damage to internal parts and leakage to atmosphere.
4. End connection clamps and gaskets to be supplied by the user.

Table 1. *Maximum Operating Pressures*

BODY SIZE, NPS (DN)	MAXIMUM TEMPERATURE, °F (°C)	MAXIMUM INLET PRESSURE, PSIG (bar)	MAXIMUM OUTLET PRESSURE, PSIG (bar)
1/2, 3/4, 1, 1-1/2 (15, 20, 25, 40)	150 (65)	210 (14,5)	210 (14,5)
	275 (135)	180 (12,4)	180 (12,4)
	400 (204)	160 (11,0)	160 (11)
2 and 3 (50 and 80)	150 (65)	210 (14,5)	150 (10,3)
	275 (135)	180 (12,4)	125 (8,6)
	400 (204)	160 (11,0)	110 (7,6)

Principle of Operation

Pressure in the controlled system (regulator outlet pressure) registers beneath the diaphragm of the regulator and opposes the force provided by the predetermined spring compression. When regulator spring force exceeds diaphragm force exerted by the outlet pressure, the spring will keep the valve plug open to permit additional flow to the downstream system. As downstream demand decreases the outlet pressure will increase. This increase registers on the diaphragm and the valve plug moves closer to the orifice to decrease the flow rate.

Table 2. *Outlet Pressure Ranges and Control Spring Data*

BODY SIZE, NPS (DN)	OUTLET PRESSURE RANGES, PSIG (bar)	COLOR	WIRE DIAMETER, INCH (mm)	FREE LENGTH, INCH (mm)	PART NUMBER
1/2, 3/4 (15, 20)	2 to 8 (0,14 to 0,55) [1]	Blue	0.138 (3,51)	2.75 (69,9)	GE06780X012
	5 to 25 (0,34 to 1,7)	Silver	0.177 (4,50)	2.75 (69,9)	GE06781X012
	10 to 50 (0,69 to 3,4)	Green	0.192 (4,88)	2.75 (69,9)	GE06782X012
	25 to 90 (1,7 to 6,2)	Red	0.225 (5,72)	2.75 (69,9)	GE06783X012
	35 to 135 (2,4 to 9,3)	Red/ Yellow	0.225 (5,72) 0.148 (3,76)	2.75 (69,9) 2.75 (69,9)	GE06783X012 GE06784X012
1, 1-1/2 x 1 (25, 40 x 25)	2 to 8 (0,14 to 0,55) [1]	Blue	0.225 (5,72)	3.25 (82,6)	GE02763X012
	5 to 25 (0,34 to 1,7)	Silver	0.282 (7,16)	3.25 (82,6)	GE02764X012
	10 to 50 (0,69 to 3,4)	Green	0.331 (8,41)	3.25 (82,6)	GE02765X012
	25 to 90 (1,7 to 6,2)	Red	0.362 (9,19)	3.25 (82,6)	GE02766X012
	35 to 135 (2,4 to 9,3)	Red/ Yellow	0.362 (9,19) 0.250 (6,35)	3.25 (82,6) 3.25 (82,6)	GE02766X012/ GE06090X012
1-1/2 (40) full port	5 to 25 (0,34 to 1,7)	Silver	0.282 (7,16)	3.25 (82,6)	GE02764X012
	10 to 50 (0,69 to 3,4)	Green	0.331 (8,41)	3.25 (82,6)	GE02765X012
	25 to 75 (1,7 to 5,2)	Red	0.362 (9,19)	3.25 (82,6)	GE02766X012
	35 to 100 (2,4 to 6,9)	Green/ Yellow	0.331 (8,41) 0.250 (6,35)	3.25 (82,6) 3.25 (82,6)	GE02765X012/ GE06090X012
2 and 3 (50 and 80)	10 to 25 (0,69 to 1,7)	Silver	0.562 (14,3)	6.00 (152)	GE14003X012
	15 to 50 (1,0 to 3,4)	Green	0.625 (15,9)	6.00 (152)	GE14004X012
	25 to 75 (1,7 to 5,2)	Red	0.625 (15,9)	6.00 (152)	GE14005X012

1. The 2 to 8 psig (0,14 to 0,55 bar) spring is not available with the metal diaphragm.

Table 3. *Maximum Differential Pressures*

BODY SIZE, NPS (DN)	PRESSURE RANGES, PSIG (bar)	COLOR	MAXIMUM DIFFERENTIAL PRESSURE, PSID (bar d)
1/2, 3/4, 1, and 1-1/2 x 1 (15, 20, 25, and 40 x 25)	2 to 8 (0,14 to 0,55)	Blue	50 (3,4)
	5 to 25 (0,34 to 1,7)	Silver	75 (5,2)
	10 to 50 (0,69 to 3,4)	Green	100 (6,9)
	25 to 90 (1,7 to 6,2)	Red	125 (8,6)
	35 to 135 (2,4 to 9,3)	Red/Yellow	125 (8,6)
1-1/2 (40) full port	5 to 25 (0,34 to 1,7)	Silver	75 (5,2)
	10 to 50 (0,69 to 3,4)	Green	100 (6,9)
	25 to 75 (1,7 to 5,2)	Red	125 (8,6)
	35 to 100 (2,4 to 6,9)	Green/Yellow	125 (8,6)
2 and 3 (50 and 80)	10 to 25 (0,69 to 1,7)	Silver	60 (4,1)
	15 to 50 (1,0 to 3,4)	Green	120 (8,3)
	25 to 75 (1,7 to 5,2)	Red	130 (9,0)

Table 4. *Temperature Capabilities*

SEAT TYPE	DIAPHRAGM MATERIAL	O-RING MATERIAL	TEMPERATURE RANGE, °F (°C)
Metal (316L)	EPDM	EPDM	-20° to 275° (-28° to 135°)
	316L SST	PTFE/FKM [1]	20° to 400° (-6° to 204°)
	PTFE/FKM	PTFE/FKM	20° to 400° (-6° to 204°)
Soft (PTFE/316L)	EPDM	EPDM	-20° to 150° (-28° to 65°)
	316L SST	PTFE/FKM [1]	20° to 150° (-6° to 65°)
	PTFE/FKM	PTFE/FKM	20° to 150° (-6° to 65°)
Soft (PEEK/316L)	EPDM	EPDM	-20° to 275° (-28° to 135°)
	316L SST	PTFE/FKM [1]	20° to 400° (-6° to 204°)
	PTFE/FKM	PTFE/FKM	20° to 400° (-6° to 204°)

1. O-ring material is PTFE for the NPS 1/2 and 3/4 (DN 15 and 20) sizes. Temperature range is the same.

Installation

Clean out all pipelines before installation of the regulator and check to be sure the regulator has not been damaged or collected foreign material during shipping. The regulator may be installed in any position desired. However, to ensure self-draining (from outlet to inlet) the regulator should be installed with the spring case in the upright vertical position. The arrow on the body indicates flow direction.

The piping flange to regulator end connection flange clamps and gaskets are supplied by the user. Clamp gaskets must be compatible with the system requirements. Install and tighten clamps to manufacture's specifications.

Note

It is important that the regulator be installed so that the vent hole in the spring case is unobstructed at all times.

Pressure Loaded Construction

The spring case can be pressure loaded to adjust outlet pressure. An optional tapped spring case, guide ring seal and sealing washer on the adjusting screw must be used for these applications. The loading pressure is connected to the 1/4 NPT connection in the spring case allowing registration on the spring side of the diaphragm. Adjusting loading pressure will proportionally change the outlet pressure setting of the regulator. A small amount of mechanical spring load, in addition to the pressure load, is recommended. Regulator set pressure achieved from the combination of spring load and pressure load should not exceed the outlet pressure ranges listed in Table 2.

Overpressure Protection

The recommended pressure limitations are stamped on the regulator nameplate. Some type of overpressure protection is needed if the actual inlet pressure exceeds the maximum operating outlet pressure rating. Overpressure protection should also be provided if the regulator inlet pressure is greater than the safe working pressure of downstream equipment.

Startup

The regulator is factory set to the midpoint of the spring range. To change the setpoint, refer to the Adjustment section for directions. **Make sure the CIP/SIP Pin (key 30, Figure 4) is not installed in the spring case.** See the section on Clean in Place or Steam in Place (CIP/SIP). With proper installation completed and relief valves properly adjusted (when applicable), slowly open the upstream and downstream shutoff valves.

WARNING

The CIP/SIP pin must be removed before regulator is placed in operation. The pin will inhibit the proper operation and function of the regulator, a result in overpressure of the downstream system.

Note

When the pressure load option is used, always open block valves on main line before applying loading pressure to the spring case to avoid diaphragm damage.

Adjustment

The setting of the regulator can be varied within the pressure range stamped on the nameplate. It is important to have a nominal amount of downstream demand while adjusting the setpoint. Typically 5 to 10% of maximum capacity is adequate. To change the outlet pressure, loosen the locknut (key 17, Figure 4) or locking lever (key 22, Figure 4) and turn the adjusting screw (key 18, Figure 4) clockwise to increase outlet pressure, or counterclockwise to decrease it. Monitor the outlet pressure with a test gauge during the adjustment. Tighten the locknut or locking lever to maintain the desired setting. All regulator springs can be backed off to provide zero outlet. Available spring ranges, recommended maximum allowable differential pressures and spring data are shown in Tables 2 and 3.

Shutdown

Close the upstream shutoff valve. Close downstream shutoff valve. Open the bleed valve between the regulator and the downstream shutoff valve. Without changing regulator spring adjustment, all pressure between the upstream and downstream shutoff valves is released through the bleed valve, since the regulator opens in response to the decreased outlet pressure.

Note

When the pressure loaded option is used, bleed all pressure from the spring case before bleeding pressure under the diaphragm to avoid internal part damage.

Clean in Place or Steam in Place (CIP/SIP)

To prevent valve plug closing, insert the CIP/SIP pin (key 30, Figure 4) completely so that spring ball in the end of pin is secured into the vent hole on the side of the spring case. Be sure to insert pin when regulator is in the open position.

WARNING

The CIP/SIP pin must be removed before regulator is placed in operation. The pin will inhibit the proper operation and function of the regulator and result in overpressure of the downstream system.

Maintenance

WARNING

Before disassembling the regulator, isolate it from the pressure system and release all pressure from the regulator as specified in the Shutdown section. Relieve all spring compression and isolate regulator from the pressurized system prior to removing the clamp (key 15).

Due to normal wear that may occur, parts must be periodically inspected and replaced if necessary. The frequency of inspection depends on the severity of service conditions. A Preventative Maintenance schedule should be implemented that checks regulator setpoint and lockup and that evaluates regulator performance to the system requirements. Regulator performance outside the system requirements will require either adjustment, part maintenance or regulator replacement to meet system requirements.

This section includes instructions for disassembly and replacement of parts. All key numbers refer to Figure 4 or 5.

1. If damage to the diaphragm or seating surface is suspected, or to inspect other internal parts, loosen the locknut (key 17) or locking lever (key 22) and turn the adjusting screw (key 18) counterclockwise to remove all spring compression.
2. Loosen the sanitary clamp (key 15) to remove the spring case (key 14). Remove the upper spring seat (key 11) and regulator spring (keys 12 and 13, when applicable).

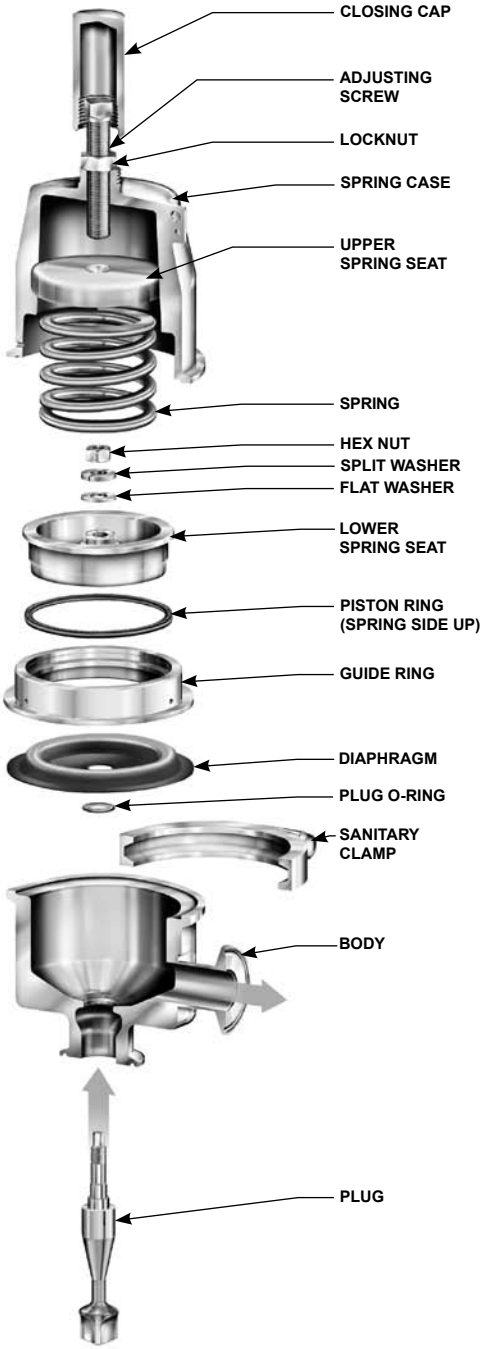


Figure 3. *Type SR5 Parts Explosion*

Note

The regulator should be taken out of the line if the internal wetted parts need to be inspected. If the regulator is kept in the line the plug could fall into the inlet piping.

3. Remove body from the line to inspect the internal wetted parts.

Note

If the product is disassembled and includes a metal diaphragm, both diaphragm gaskets (key 6) should be replaced to ensure a good seal at the diaphragm flange.

If removed from the guide ring (key 9), the piston ring (key 5) should be replaced. Take care not to damage the piston ring during replacement.

4. Loosen the nut (key 16) while holding wrench flats on plug (key 3) to inspect internal wetted parts. Remove the lock washer (key 24) and flat washer (key 23). The lower spring seat (key 8), guide ring (key 9), diaphragm (key 7), and plug O-ring (key 3) can now be removed from the plug (key 2). An optional lower diaphragm plate (key 10) and O-ring (key 4) are included for the constructions offering protection against vacuum conditions.
5. Remove the plug (key 2) through the inlet port of the body (key 1). Inspect parts for damage. Replace if damage is noted. Refer to the section titled Soft Seat Maintenance when the seat needs to be replaced.
6. Reassemble in the reverse order of the above procedure. Start by inserting the plug (key 2) through the inlet port of the body (key 1). The order is listed below or please refer to Figure 3.
    a.) Plug (key 2)
    b.) Plug O-ring (key 3)
    c.) Diaphragm plate (key 10) (vacuum protection construction only)
    d.) Diaphragm plate O-ring (key 4) (vacuum protection construction only)
    e.) Diaphragm gasket (key 6) (Metal diaphragms only)
    f.) Diaphragm (key 7)
    g.) Diaphragm gasket (key 6) (Metal diaphragms only)
    h.) Guide ring assembly (keys 9 and 5)
    i.) Lower spring seat (key 8)
    j.) Flat Washer (key 23)
    k.) Lock Washer (key 24)
    l.) Hex Nut (key 16)
7. Hold wrench flats on plug (key 2), then torque hex nut (key 16) to 6 to 8-inch-pounds (0,7 to 0,9 N•m) for the NPS 1/2 and 3/4 (DN 15 and 20), 5 to 7 foot-pounds (7 to 9 N•m) for the NPS 1 and 1-1/2 (DN 25 and 40) and 28 to 30 foot-pounds (38 to 41 N•m) for the NPS 2 and 3. After tightening, apply Loctite 290 or equivalent to the nut/thread interface.
8. Position diaphragm assembly in body (key 1). Replace regulator spring (keys 12 and 13, when applicable) and upper spring seat (key 11). Replace the spring case (key 14) and sanitary clamp (key 15). Torque clamp nuts to 20 to 22 foot-pounds (27 to 30 N•m) for the NPS 1/2 through 1-1/2 (DN 15 through 40) and 38 to 40 foot-pounds (52 to 54 N•m) for the NPS 2 and 3 (DN 50 and 80).

Note

Lubricate the adjusting screw (key 18) threads and the sanitary clamp bolt threads (key 15) to reduce galling of the stainless steel. Factory recommends Bostik Never Seez white food grade lubricant.

Keep even spacing between clamp halves when tightening clamp nuts. This will ensure even loading of the diaphragm. If clamp halves touch, please contact factory for a replacement clamp.

9. Install in pipeline and follow Startup and Adjustment procedures.

Soft Seat Maintenance

Take care not to damage the internal/wetted surface finish when performing Soft Seat Maintenance.

1. Disassemble the regulator as stated above.
2. To access soft seat (key 28), unscrew the lower plug (key 27) from the upper plug (key 26). If damaged, replace with new part. Apply Loctite 246 or equivalent to the male threads before assembly. Proper torque for the assembly is 6 to 8-inch-pounds (0,7 to 0,9 N•m) for the NPS 1/2 and 3/4 (DN 15 and 20); 8 to 10-inch-pounds (0,9 to 1,1 N•m) for the NPS 1 and NPS 1-1/2 x 1 (DN 25 and 40 x 25); and 5 to 7 foot-pounds (7 to 9 N•m) for the NPS 1-1/2 (DN 40). Torque for NPS 2 and 3 (DN 50 and 80) is 23 to 25 foot-pounds (31 to 34 N•m).
3. Reassemble as stated in the prior section.

Parts Ordering

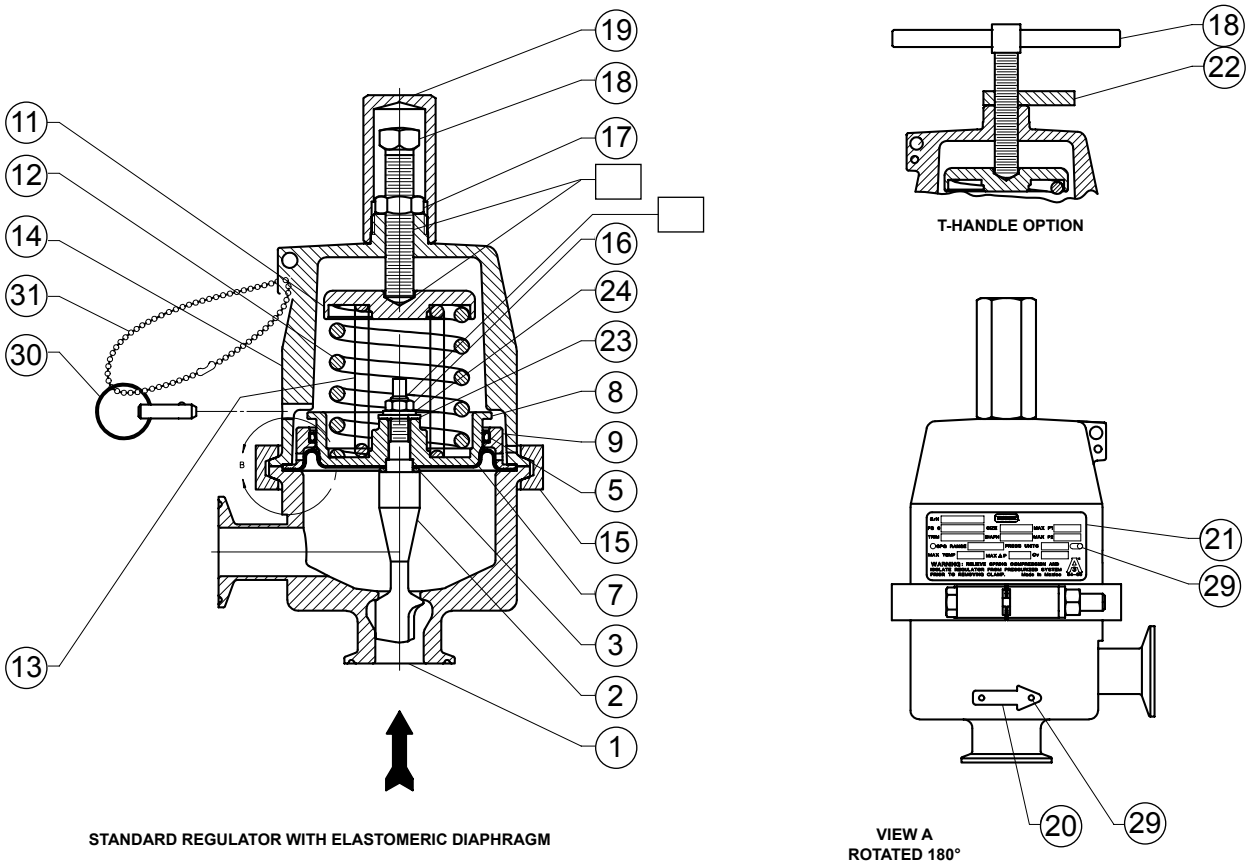
When corresponding with your local Sales Office about this equipment, always reference the equipment serial number and FS number that can be found on the nameplate.

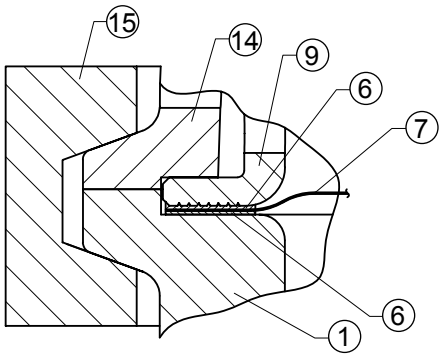
When ordering replacement parts, reference the key number of each needed part as found in the following parts list. Separate kits containing all recommended spare parts are available.

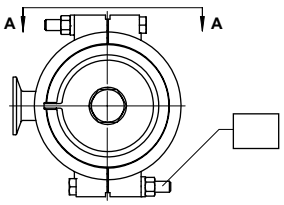
Parts List

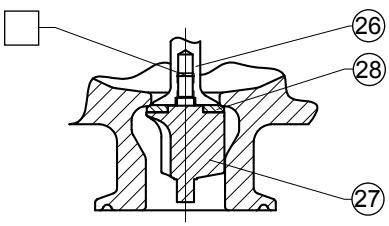
Key	Description	Part Number
	Parts Kits	
	Diaphragm Kits (includes keys 3, 5, and 7. Stainless steel kits include key 6, quantity 2). Does not include all applicable parts for changing between elastomer and metal diaphragm constructions. See parts list for differences.	
	NPS 1/2 and 3/4 (DN 15 and 20) bodies	
	EPDM diaphragm and O-ring	RSR58X00E12
	316L SST Diaphragm and PTFE/FKM O-rings	RSR58X00S12
	PTFE/FKM Diaphragm and O-rings	RSR58X00V12
	NPS 1 and 1-1/2 (DN 25 and 40) bodies	
	EPDM diaphragm and O-rings	RSR58X00E22
	316L SST Diaphragm and PTFE/FKM O-rings	RSR58X00S22
	PTFE/FKM Diaphragm and O-rings	RSR58X00V22
	NPS 2 and 3 (DN 50 and 80) bodies	
	EPDM diaphragm and O-rings	RSR58X00E32
	316L SST Diaphragm and PTFE/FKM O-rings	RSR58X00S32
	Soft Seat Kits (includes keys 26, 27, and 28)	
	NPS 1/2 (DN 15) body	
	PTFE/316L SST	GE06787X012
	PEEK/316L SST	GE06787X022
	NPS 3/4 (DN 20) body	
	PTFE/316L SST	GE06796X012
	PEEK/316L SST	GE06796X022
	NPS 1 (DN 25) body	
	PTFE/316L SST	GE06193X012
	PEEK/316L SST	GE06193X022
	NPS 1-1/2 (DN 40) body	
	PTFE/316L SST	GE06194X012
	PEEK/316L SST	GE06194X022
	NPS 2 and 3 (DN 50 and 80) bodies	
	PTFE/316L SST	GE14008X012
	PEEK/316L SST	GE14008X022
1	Body	
	NPS 1/2 (DN 15) body	GE07951X012
	NPS 3/4 (DN 20) body	GE07952X012
	NPS 1 (DN 25) body	GE07949X012
	NPS 1-1/2 (DN 40) body	GE07950X012
	NPS 1-1/2 x 1 (DN 40 x 25) body	GE07776X012
	NPS 2 (DN 50) body	GE13988X012
	NPS 3 (DN 80) body	GE13989X012
2	Plug (metal seat)	
	NPS 1/2 (DN 15) body	GE06785X012
	NPS 3/4 (DN 20) body	GE06794X012
	NPS 1 and 1-1/2 x 1	
	(DN 25 and 40 x 25) bodies	GE02890X012
	NPS 1-1/2 (DN 40) body	GE06190X012
	NPS 2 and 3 (DN 50 and 80) bodies	GE14006X012
3	Plug O-Ring	
	NPS 1/2 and 3/4 (DN 15 and 20) bodies	
	Elastomer diaphragms	
	EPDM	1H2919X0022
	PTFE/FKM	1P8453X0042
	316L Stainless Steel diaphragms	
	PTFE	GE10788X012
	EPDM	14B1935X032
	NPS 1 and 1-1/2 (DN 25 and 40) bodies	
	Elastomer diaphragms	
	EPDM	1D2888X0042
	PTFE/FKM	1C7822X0142

Key	Description	Part Number
3	Plug O-Ring (continued)	
	316L Stainless Steel diaphragms	
	PTFE/FKM	16A6903X022
	EPDM	14A1968X042
	NPS 2 and 3 (DN 50 and 80) bodies	
	Elastomer diaphragms	
	EPDM	1B8855X0112
	PTFE/FKM	12A0006X022
	316L Stainless Steel diaphragms	
	PTFE/FKM	12A0006X022
	EPDM	1B8855X0112
4	Diaphragm Plate O-Ring	
	NPS 1/2 and 3/4 (DN 15 and 20) bodies	
	EPDM	1W1932X0082
	PTFE/FKM	1W1932X0092
	NPS 1 and 1-1/2 (DN 25 and 40) bodies	
	EPDM	1V3234X0042
	PTFE/FKM	1V3234X0052
	NPS 2 and 3 (DN 50 and 80) bodies	
	EPDM	1V3303X0082
	PTFE/FKM	1V3303X0092
5	Piston Ring	
	NPS 1/2 and 3/4 (DN 15 and 20) bodies	GE09274X012
	NPS 1 and 1-1/2 (DN 25 and 40) bodies	GE09273X012
	NPS 2 and 3 (DN 50 and 80) bodies	GE14027X012
6	Diaphragm Gasket for use with 316L Stainless steel diaphragm only, PTFE (2 required)	
	NPS 1/2 and 3/4 (DN 15 and 20) bodies	GE06772X012
	NPS 1 and 1-1/2 (DN 25 and 40) bodies	GE06076X012
	NPS 2 and 3 (DN 50 and 80) bodies	GE13995X012
7	Diaphragm	
	NPS 1/2 and 3/4 (DN 15 and 20) bodies	
	EPDM	GE06778X012
	316L Stainless steel	GE06777X012
	PTFE/FKM	GE06779X012
	NPS 1 and 1-1/2 (DN 25 and 40) bodies	
	EPDM	GE02299X012
	316L Stainless steel	GE02643X012
	PTFE/FKM	GE06086X012
	NPS 2 and 3 (DN 50 and 80) bodies	
	EPDM	GE14001X012
	316L SST	GE14000X012
8	Lower Spring Seat	
	NPS 1/2 and 3/4 (DN 15 and 20) bodies	
	Without Vacuum Protection	GE06774X012
	With Vacuum Protection	GE06775X012
	NPS 1, 1-1/2, and 1-1/2 x 1	
	(DN 25, 40, and 40 x 25) bodies	
	Without Vacuum Protection	
	Elastomer Diaphragm	GE06330X012
	316L Stainless steel	GE11038X012
	With Vacuum Protection	GE02638X012
	NPS 2 and 3 (DN 50 and 80) bodies	
	Without Vacuum Protection	GE13997X012
	With Vacuum Protection	GE13998X012
9	Guide Ring	
	NPS 1/2 and 3/4 (DN 15 and 20) bodies	GE06770X012
	NPS 1 and 1-1/2 (DN 25 and 40) bodies	GE02637X012
	NPS 2 and 3 (DN 50 and 80) bodies	GE13994X012
10	Diaphragm Plate	
	NPS 1/2 and 3/4 (DN 15 and 20) bodies	GE06776X012
	NPS 1, 1-1/2, and 1-1/2 x 1	
	(DN 25, 40, and 40 x 25) bodies	GE02642X012
	2 and 3-inch (DN 50 and 80) bodies	GE13999X012
11	Upper Spring Seat	
	NPS 1/2 and 3/4 (DN 15 and 20) bodies	GE06773X012
	NPS 1 and 1-1/2 (DN 25 and 40) bodies	GE02639X012
	NPS 2 and 3 (DN 50 and 80) bodies	GE13996X012
12	Spring	See Table 2
13	Inner Spring	See Table 2









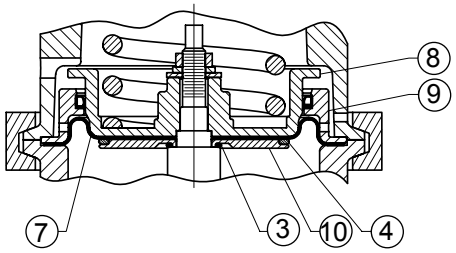


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Figure 4. *Type SR5 Sanitary Regulator Assembly*
NPS 1/2 through 1-1/2 (DN 15 through 40)

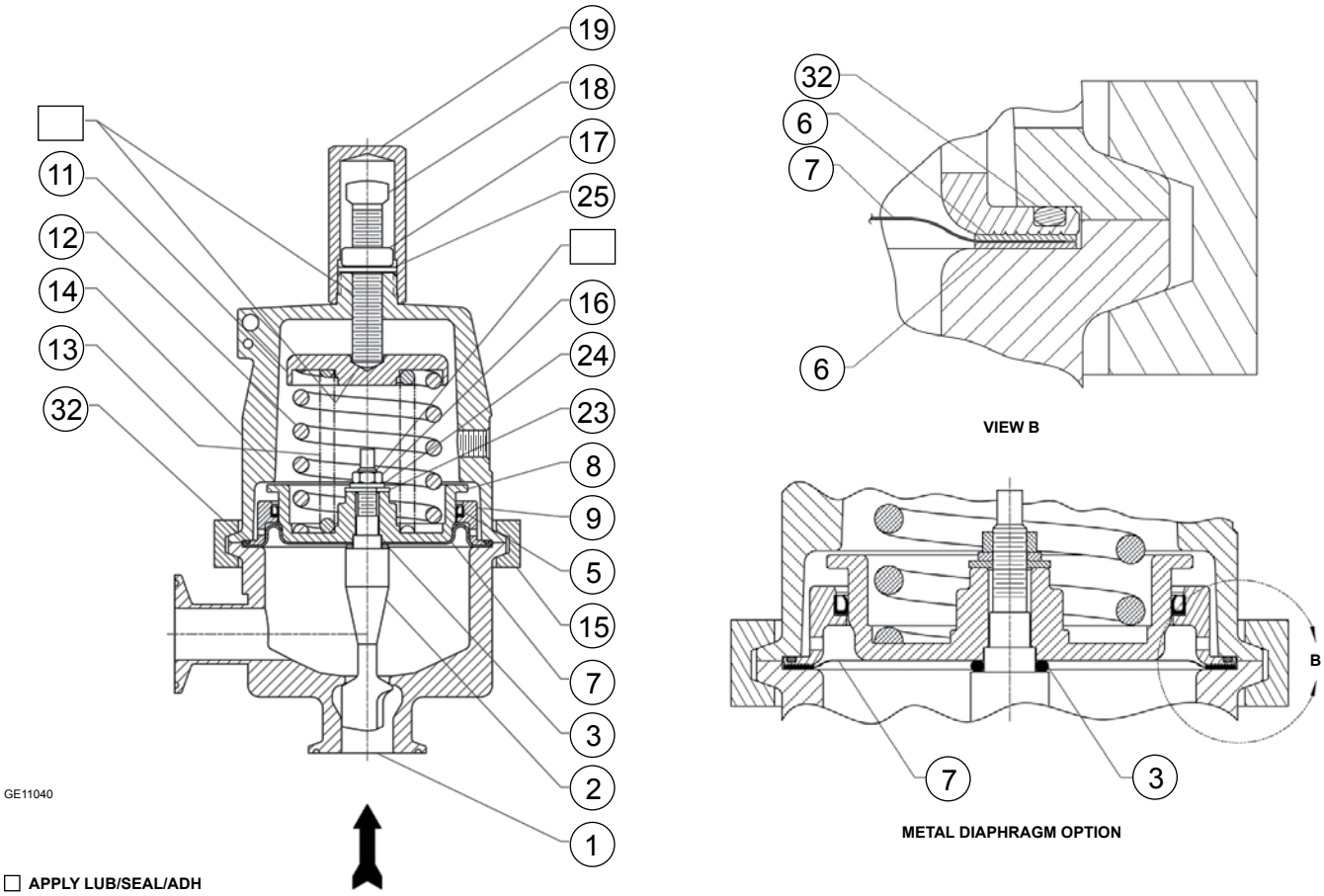

Figure 5. *Type SR5 Sanitary Regulator Assembly with Pressure Loaded Spring Case NPS 1/2 through 1-1/2 (DN 15 through 40)*

Key	Description	Part Number
14	Spring Case	
	NPS 1/2 and 3/4 (DN 15 and 20) bodies	
	CF8M	
	Standard	GE06767X012
	Pressure Loaded	GE06768X012
	316 SST	
	Standard	GE17730X012
	Pressure Loaded	GE14020X012
	NPS 1 and 1-1/2 (DN 25 and 40) bodies	
	CF8M	
	Standard	GE02641X012
	Pressure Loaded	GE06118X012
	316 SST	
	Standard	GE17755X012
	Pressure Loaded	GE14021X012
	NPS 2 and 3 (DN 50 and 80) bodies	
	CF8M	
	Standard	GE13992X012
	Pressure Loaded	GE13991X012
	316 SST	
	Standard	GE14018X012
	Pressure Loaded	GE14019X012
15	Bolted Clamp	
	NPS 1/2 and 3/4 (DN 15 and 20) bodies	GE06769X012
	NPS 1 and 1-1/2 (DN 25 and 40) bodies	GE06116X012
	NPS 2 and 3 (DN 50 and 80) bodies	GE13993X012
16	Hex Nut	
	NPS 1/2 and 3/4 (DN 15 and 20) bodies	10A1341X022
	NPS 1 and 1-1/2 (DN 25 and 40) bodies	1A309338992
	NPS 2 and 3 (DN 50 and 80) bodies	T1208735252
17	Hex Nut	
	NPS 1/2 and 3/4 (DN 15 and 20) bodies	1A3465X0032
	NPS 1 and 1-1/2 (DN 25 and 40) bodies	T1208635252
	NPS 2 and 3 (DN 50 and 80) bodies	1A3511X0072
18	Adjusting Screw	
	NPS 1/2 and 3/4 (DN 15 and 20) bodies	
	Standard	GE08849X012
	T-Handle	GE08987X012
	NPS 1 and 1-1/2 (DN 25 and 40) bodies	
	Standard	GE06080X012
	T-Handle	GE08985X012
	NPS 2 and 3 (DN 50 and 80) bodies	
	Standard	GE14024X012
	T-Handle	GE14025X012
19	Closing Cap	
	NPS 1/2, 3/4, 1 and, 1-1/2 (DN 15, 20, 25, and 40) bodies	
	316 SST	1E5433X0032
	Plastic	20B3082X012
	NPS 2 and 3 (DN 50 and 80) bodies	GE14028X012
20	Arrow, Flow	1V105938982
21	Nameplate	- - - - - - - - - - -

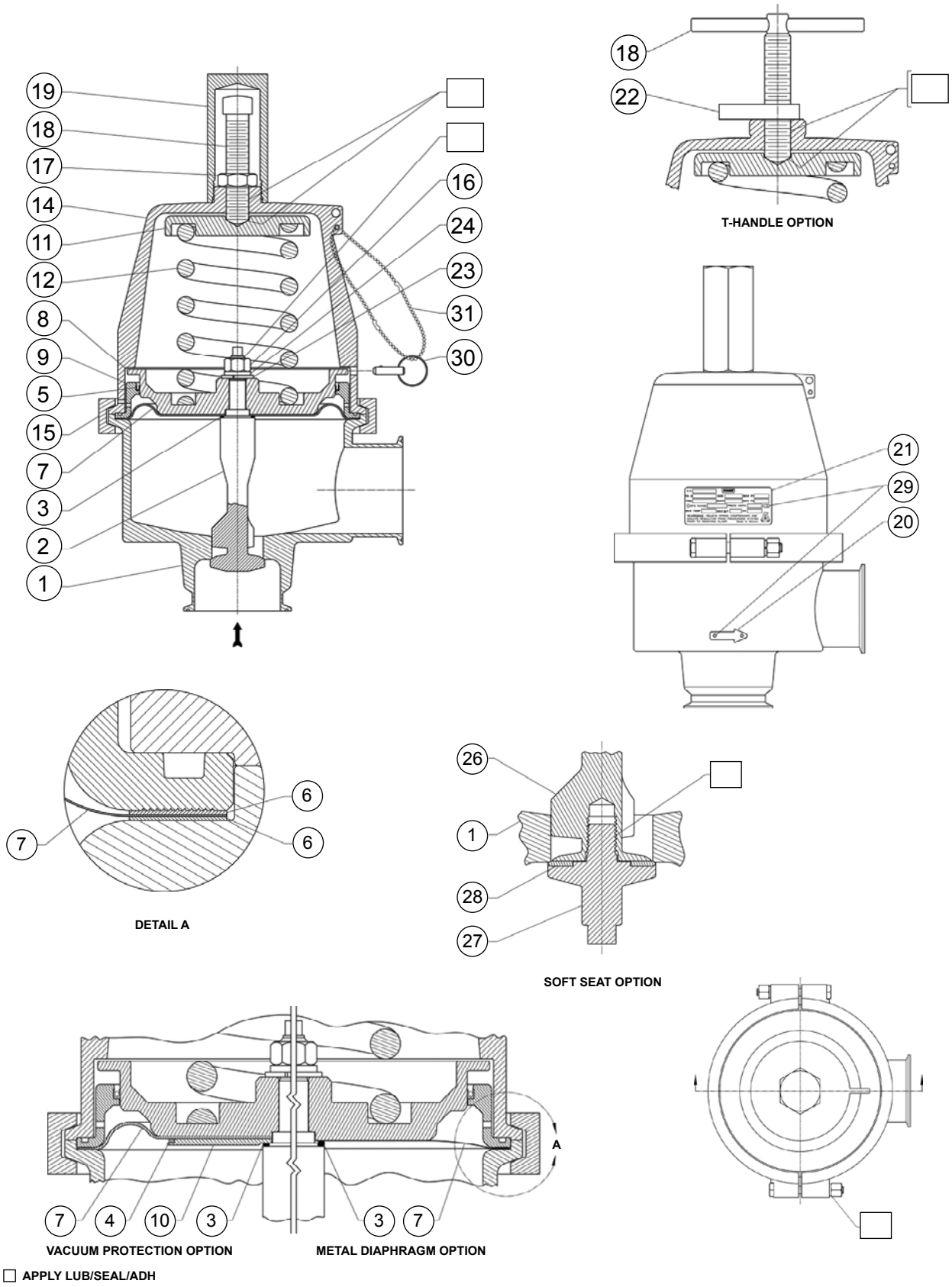

Figure 6. *Type SR5 Sanitary Regulator Assembly NPS 2 and 3 (DN 50 and 80)*

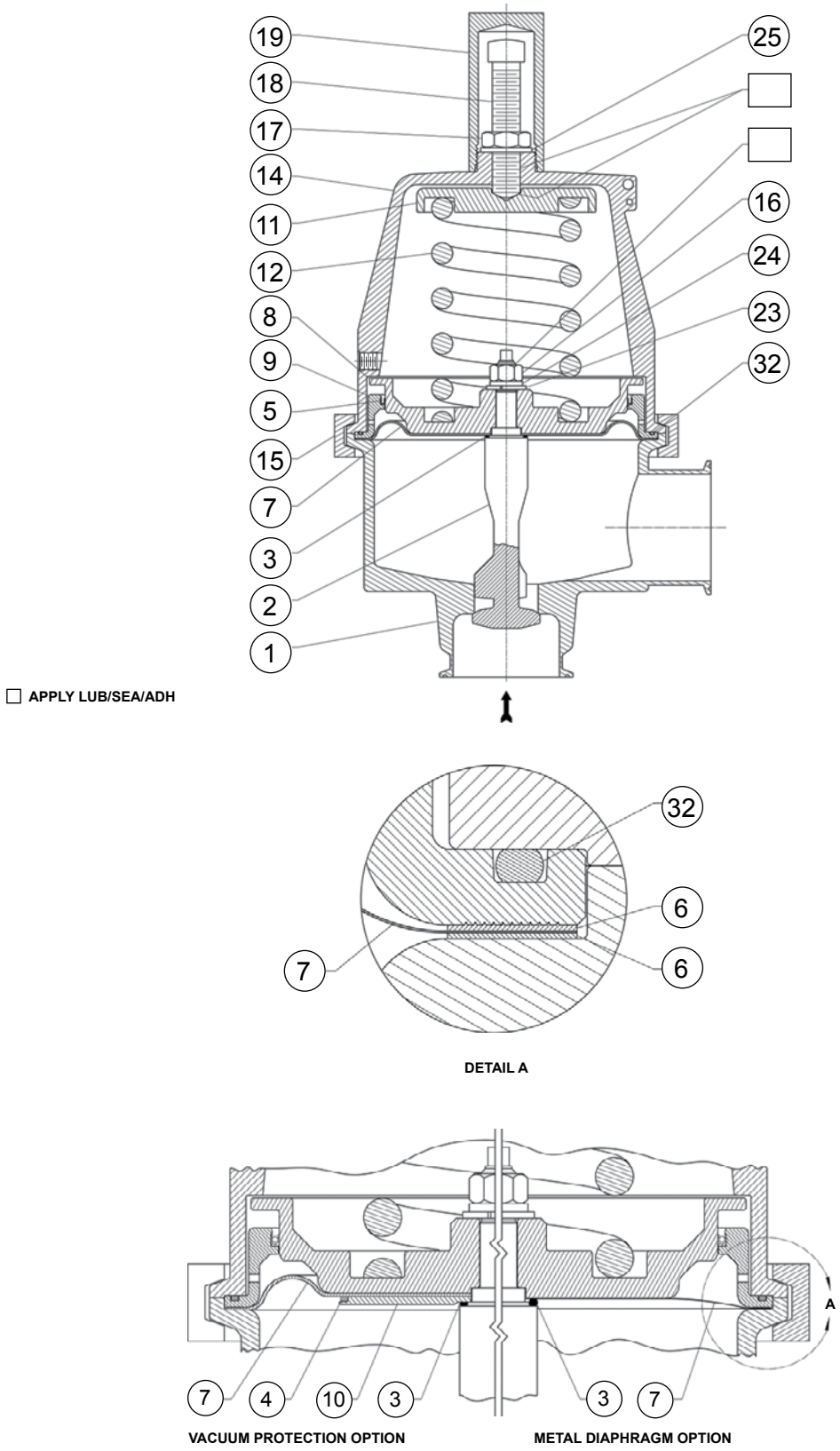

Figure 7. *Type SR5 Sanitary Regulator Assembly with Pressure Loaded Spring Case NPS 2 and 3 (DN 50 and 80)*

Type SR5

Key	Description	Part Number
22	Locking Lever	
	NPS 1/2 and 3/4 (DN 15 and 20) bodies	GE08989X012
	NPS 1 and 1-1/2 (DN 25 and 40) bodies	GE08988X012
	NPS 2 and 3 (DN 50 and 80) bodies	GE14026X012
23	Flat Washer	
	NPS 1/2 and 3/4 (DN 15 and 20) bodies	1C3329X0022
	NPS 1 and 1-1/2 (DN 25 and 40) bodies	GC060805X22
	NPS 2 and 3 (DN 50 and 80) bodies	1A5189X0022
24	Lock Washer	
	NPS 1/2 and 3/4 (DN 15 and 20) bodies	1H3395X0012
	NPS 1 and 1-1/2 (DN 25 and 40) bodies	1C2257K0012
	NPS 2 and 3 (DN 50 and 80) bodies	1A639638992
25	Sealing Washer	
	NPS 1/2 and 3/4 (DN 15 and 20) bodies	12A3880X022
	NPS 1 and 1-1/2 (DN 25 and 40) bodies	GE20712X012
	NPS 2 and 3 (DN 50 and 80) bodies	1V4246X0022
26	Upper Plug	
	NPS 1/2 (DN 15) body	GE06790X012
	NPS 3/4 (DN 20) body	GE06799X012
	NPS 1 and 1-1/2 x 1 (DN 25 and 40 x 25) bodies	GE06195X012
	NPS 1-1/2 (DN 40) body	GE06201X012
	NPS 2 and 3 (DN 50 and 80) bodies	GE14011X012
27	Lower Plug	
	NPS 1/2 (DN 15) body	GE06791X012
	NPS 3/4 (DN 20) body	GE06800X012
	NPS 1 and 1-1/2 x 1 (DN 25 and 40 x 25) bodies	GE06196X012
	NPS 1-1/2 (DN 40) body	GE06202X012
	NPS 2 and 3 (DN 50 and 80) bodies	GE14012X012

Key	Description	Part Number
28	Soft Seat	
	NPS 1/2 (DN 15) body	
	PTFE	GE06789X012
	PEEK	GE06789X022
	NPS 3/4 (DN 20) body	
	PTFE	GE06798X012
	PEEK	GE06798X022
	NPS 1 and 1-1/2 x 1 (DN 25 and 40 x 25) bodies	
	PTFE	GE06197X012
	PEEK	GE06197X022
	NPS 1-1/2 (DN 40) body	
	PTFE	GE06200X012
	PEEK	GE06200X022
	NPS 2 and 3 (DN 50 and 80) bodies	
	PTFE	GE14010X012
	PEEK	GE14010X022
29	Drive Screw (2 required)	1E953028982
30	Ring Grip Pin	GE08991X012
31	Bead Chain	GE08990X012
32	Guide Ring Seal	
	NPS 1/2 and 3/4 (DN 15 and 20) bodies	GE18400X012
	NPS 1 and 1-1/2 (DN 25 and 40) bodies	GE18399X012
	NPS 2 and 3 (DN 50 and 80) bodies	GE11039X012
33	Bostik Never Seez Food Grade (white) or equivalent	----------
34	Loctite 290 or equivalent	----------
35	Loctite 246 or equivalent	----------

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