Types 95L and 95H Pressure Regulators

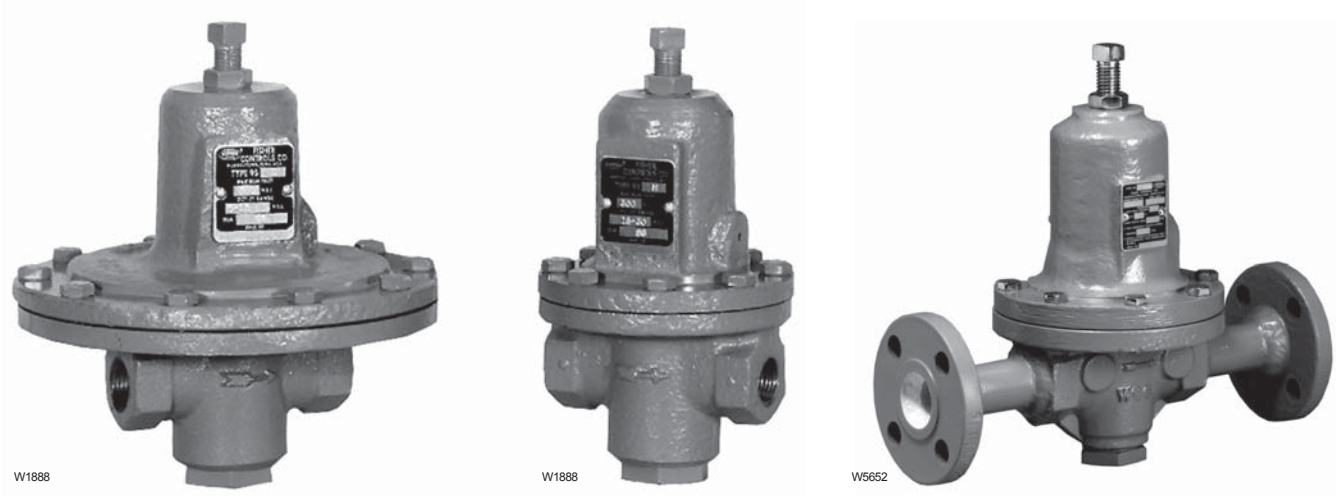

Figure 1. Type 95L NPT Body (Left), Type 95H NPT Body (Middle), and Type 95H Flanged Body (Right) Pressure Regulators

WARNING

Regulators should be installed, operated, and maintained in accordance with federal, state, and local codes, rules and regulations, and Fisher instructions.

If the regulator vents gas or a leak develops in the system, it indicates that service is required. Failure to take the regulator out of service immediately may create a hazardous condition.

Call a serviceman in case of trouble. Only a qualified person must install or service the regulator.

Introduction

Type 95L and 95H self-contained pressure regulators are suitable for pressure control of steam, air, gas, water, oil, and similar fluids requiring constant outlet pressures between 2 and 150 psig. TypicalType 95L and 95H regulators are shown in figure 1.

Description

Type 95L—Pressure reducing regulator suitable for controlling many gasses and liquids. Iron, steel or stainless steel bodies are available. Reduced pressure range is from 2 to 30 psig with three different springs available. Body sizes 1/4 through 1-inch NPT, 1/2 through 1-inch ANSI classes 150 and 300 flanges, and 1/2 through 1-inch socket weld end connections are available. The standard orifice sizes are 1/4, 3/8 and 9/16-inch diameter, dependent on body sizes.

Type 95H—Basically same as 95L, but permits higher reduced pressure ranges from 15 to 150 psig for the 1/4, 1/2, 3/4 and 1-inch sizes. Also available in 1-1/2 and 2-inch NPT, ANSI class 150 or 300, or socket weld bodies with a 1-1/16-inch orifice to give reduced pressure ranges from 5 to 150 psig.

Principle Of Operation

Pressure in the controlled system (regulator outlet pressures) registers beneath the diaphragm of the regulator and opposes the force provided by the pre-

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determined spring compression. When regulator spring force exceeds diaphragm force exerted by the outlet pressure, the spring will keep the stem pressed down, thereby compressing the valve spring and holding the valve plug away from the orifice to permit additional flow to the downstream system.

As outlet pressure increases to the setting of the regulator spring, the diaphragm is raised, and the valve spring moves the valve plug closer to the orifice to prevent additional buildup of outlet pressure.

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. Apply pipe compound to the male pipe threads and install the regulator in any position desired, but be sure flow through the body is in the direction indicated by the arrow cast on the body.

Note

It is important that the regulator be installed so that the vent hole in the spring case is unobstructed at all times. For outdoor installations, the regulator should be located away from vehicular traffic and positioned so that water, ice, and other foreign materials cannot enter the spring case through the vent. Avoid placing the regulator beneath eaves or downspouts, and be sure it is above the probable snow level.

On 1-1/2 or 2-inch Type 95H regulators, the spring case vent is tapped so a vent line can be connected to provide venting to a remote location. On 1/4, 1/2, 3/4 and 1-inch Type 95H body sizes the tapped vent option is available on request. The exposed end of the vent pipe should be protected with a weather and insect resistant vent assembly.

All vents and remote vent lines should be checked periodically to ensure that they are unobstructed.

Overpressure Protection

As is the case with most regulators, the Type 95L and 95H regulators have an outlet pressure rating lower than the inlet pressure rating. 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.

Table 1. Reduced Pressure Ranges

BODY SIZE, INCHES	SPRING COLOR CODE	TYPE 95L REDUCED PRESSURE RANGE, PSIG (bar)	TYPE 95H REDUCED PRESSURE RANGE, PSIG (bar)
1/4, 1/2, 3/4, 1	Yellow	2 to 6 (0,14 to 0,41)	15 to 30 (1,03 to 2,07)
	Green	5 to 15 (0,34 to 1,03)	25 to 75 (1,72 to 5,17)
	Red	13 to 30 (0,90 to 2,07)	70 to 150 (4,82 to 10,3)
1-1/2, 2	Lt. Blue	- - - -	5 to 80 (0,34 to 5,52)
	Lt. Gray	- - - -	60 to 120 (4,14 to 8,27)
	Yellow	- - - -	100 to 140 (6,9 to 9,65)
	Black	- - - -	120 to 150 (8,27 to 10,3)

Table 2. Maximum Inlet Pressure and Temperature

TYPE NUMBER	BODY MATERIAL	DIAPHRAGM AND VALVE PLUG MATERIAL	MAXIMUM INLET PRESSURE AND TEMPERATURE, PSIG AT °F (bar AT °C)
95H, 95L	Cast iron	Neoprene	250 at 180° (17,2 at 82°)
95H, 95L	Cast iron	Stainless steel	250 at 410° (17,2 at 210°)
95H, 95L	Steel	Stainless steel	300 at 450° (20,7 at 232°)
95H, 95L	Steel	Neoprene	300 at 180° (20,7 at 82°)
95H, 95L	Cast iron	Fluoroelastomer	250 at 300° (17,2 at 145°)
95H, 95L	Steel	Fluoroelastomer	300 at 300° (20,7 at 145°)

Regulator operation below the maximum pressure limitations does not preclude the possibility of damage from external sources or from debris in the line. The regulator should be inspected for damage after any over pressure condition as stated on the nameplate.

Startup

The regulator is set at the factory for the reduced pressure specified on the order, so no initial adjustment should be required to give the desired results. With proper installation completed and relief valves properly adjusted, slowly open the upstream and downstream shutoff valves.

Adjustment

The factory setting of the regulator can be varied within the pressure range stamped on the nameplate. To change the outlet pressure, loosen the locknut (key 17, figure 2, 3, or 4) and turn the adjusting screw (key 15, figure 2, 3, or 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 to maintain the desired setting.

All regulator springs can be backed off to provide zero outlet. Recommended outlet pressure ranges available, maximum inlet pressures and temperatures, maximum emergency outlet pressures, and color codes of the respective springs are shown in tables 1 through 3.

Table 3. Maximum Emergency Outlet Pressure

TYPE NUMBER	BODY AND SPRING CASE MATERIAL	MAXIMUM EMERGENCY OUTLET AND SPRING CASE PRESSURE, PSIG (bar)
95L	Cast iron	50 (3,4)
	Steel or Stainless steel	125 (8,6)
95H	Cast iron	250[1] (17,2)[1]
	Steel or Stainless steel	300 (20,7)

1. Maximum outlet pressure for 1-inch 95H is 165 psig (11,4 bar).

Table 3. Torque Specifications

BODY SIZE, INCHES	SPRING CASE, Ft-Lbs (N•m)	ORIFICE, Ft-Lbs (N•m)	PLUG GUIDE, Ft-Lbs (N•m)
1/4	4.5 - 5.0(6,1 - 6,8)	8 - 12(11 - 16)	42 - 58(57 - 79)
1/2	10 - 13(13 - 18)	29 - 35(39 - 47)	70 - 90(95 - 122)
3/4, 1	24 - 30(33 - 41)	33 - 42(45 - 57)	130 - 160(176 - 217)
1-1/2, 2	40 - 50(54 - 68)	140 - 170(190 - 230)	170 - 200(230 - 271)

Shutdown

Close the upstream shutoff valve. Close downstream shutoff valve. Open bleed valve between the regulator and the downstream shutoff valve. Without changing regulator spring adjustment, all pressure between the upstream and downstream shutoff valves will be released through the bleed valve, since the Type 95L or 95H opens in response to the decreased outlet pressure.

Maintenance

WARNING

Before disassembling the regulator, isolate it from the pressure system and release all pressure from the regulator as specified in the section Shutdown.

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. This section includes instructions for disassembly and replacement of parts. All key numbers refer to figures 2, 3, and 4.

1. Unscrew the valve plug guide (key 5) from the body (key 1). The valve plug spring (key 10) and the valve plug (key 4) will normally come out of the body along with the valve plug guide. On 1-1/2 or 2-inch units the stem (key 6, figure 4) will also come out of the regulator body.

2. Inspect the seating surface of the valve plug, being sure that the composition surface (or polished steel surface) of the valve plug is not damaged. Replace if damage is noted.

3. Inspect the seating edge of the orifice (key 3). If damage is noted, unscrew the orifice from the body and replace it with a new part. Torque per table 4. If no further maintenance is required, reassemble the regulator in the reverse of the above steps. When installing the valve plug guide (key 5) coat the threads and sealing surface with sealant to ensure an adequate metal-to-metal seal. Reassembly torque per table 4.

4. If diaphragm damage is suspected, or to inspect the diaphragm or other internal parts, loosen the locknut (key 17) and turn the adjusting screw (key 15) to remove all spring compression.

Steps 5 and 6 apply to the Type 95L and sizes 1/4 to 1-inch Type 95H. If the unit being disassembled is a 1-1/2 to 2-inch size Type 95H, proceed to Steps 7 and 8.

5. Remove the diaphragm case cap screws (key 16) and lift off the spring case (key 2). Remove the upper spring seat (key 9) and regulator spring (key 11). On 1/4 to 1-inch sizes Type 95H units only, remove the lower spring seat (key 8). On 95L units, remove the diaphragm head assembly (key 21).

6. Remove the diaphragm(s) and examine for damage. Replace if damage is noted. Note that if the diaphragm is metal, two diaphragms should be used.

7. Remove the diaphragm-diaphragm head assembly. It can be disassembled for inspection of the diaphragm (key 12) and two small diaphragm gaskets (key 47) or O-ring (key 45). Remove the locknut (key 31) from the pusher post (key 30) and separate the assembly. An O-ring is used to seal around the pusher post if a composition diaphragm is used, and the gaskets are used with stainless steel diaphragms.

8. Unscrew and remove the stem guide bushing (key 7). An O-ring (key 51) held in place by the packing follower (key 50) can then be examined for damage.

9. With diaphragm(s) removed, check to be sure the pressure registration hole (pitot tube, key 20, in 3/4 inch and larger sizes) is completely open and free of all obstructions.

10. If the unit has stainless steel diaphragms, replace the large diaphragm gasket (key 19). Install both diaphragms with their raised preformed centers facing toward the spring case.

11. Reassemble in the reverse of the above procedures. Lubricate the upper spring seat and the exposed threads of the adjusting screw with Anti-Seize lubricant.

Before tightening cap screw (key 16) be sure to install the adjusting screw, if completely removed, and turn it down so that diaphragm slack is obtained. This allows proper positioning of the diaphragm to permit full travel of the valve plug. Torque diaphragm cap screws per table 4. Complete reassembly procedures and turn the adjusting screw to produce the desired outlet pressure. Tighten the locknut to maintain the desired setting.

Parts Ordering

When corresponding with your Fisher sales office or sales representative about this equipment, always reference the equipment serial number or 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.

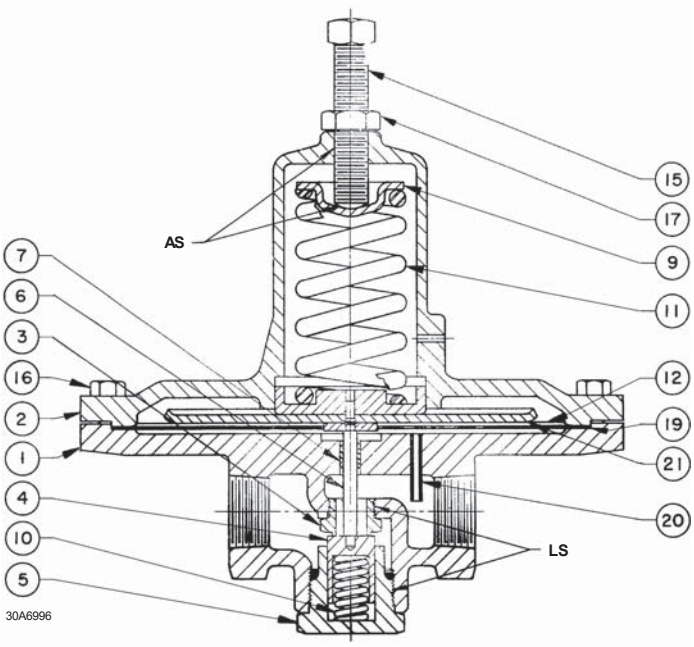
Parts List

Note

In this parts list, parts marked NACE are intended for corrosion-resistant service as detailed in the National Association of Corrosion Engineers (NACE) standard MR-01-75.

Key	Description	Part Number
	Parts Kit (Included are keys 3, 4, 10, 12, and 19)	
	Type 95H	
	For Composition, Trim 2	
	1/4-inch body	R95HX000012
	1/2-inch body	R95HX000022
	3/4 and 1-inch body	R95HX000032
	For Composition, Trim 3A	
	1/4-inch body	R95HX000102
	1/2-inch body	R95HX000112
	3/4 and 1-inch body	R95HX000122
	1-1/2 and 2-inch body	R95HX000042
	For Metal Trim	
	1/4-inch body	R95HX000052
	1/2-inch body	R95HX000062
	3/4 and 1-inch body	R95HX000072
	1-1/2 and 2-inch body	R95HX000082
	Extra parts for 1-1/2 and 2inch body include keys 45, 47, 51 and 52	
	Type 95L	
	For Composition, Trim 2	
	1/4-inch body	R95LX000012
	1/2-inch body	R95LX000022
	3/4 and 1-inch body	R95LX000032
	For Composition, Trim 3A	
	1/4-inch body	R95LX000102
	1/2-inch body	R95LX000112
	3/4 and 1-inch body	R95LX000122
	For Metal Trim	
	1/4-inch body	R95LX000042
	1/2-inch body	R95LX000052
	3/4 and 1-inch body	R95LX000062
1	Regulator Body—See following table	
2	Spring Case—See following table	
3*	Orifice	
	416 SST (for metal seat)	
	1/4-inch body	1E391646172
	1/2-inch body	1E395046172
	3/4 and 1-inch body	1E398046172
	1-1/2 and 2-inch body, Type 95H only	2P787046172
	Brass (for composition seat)	
	1/4-inch body	1E393214012
	1/2-inch body	1E396214012
	3/4 and 1-inch body	1E399514012
	416 SST (for composition seat)	
	1-1/2 and 2-inch body, Type 95H only	1P786035132
	NACE, 316 stainless steel	
	For composition seat	
	1/2-inch body	1E396235072
	3/4 and 1-inch body	1E399535072
4*	Valve Plug—See Following Table	
5	Valve Plug Guide	
	Brass	
	1/4-inch body	1E391814012
	1/2-inch body	1E395214012
	3/4 and 1-inch body	1E398214012
	1-1/2 and 2-inch body, Type 95H only	1U4041X0022
	416 SST	
	1/4-inch body	1E391835132
	1/2-inch body	1E395235132
	3/4 and 1-inch body	1E398235132
	1-1/2 and 2-inch-body, Type 95H only	1U404135132
	NACE, 316 stainless steel	
	Composition seat	
	1/2-inch body	1E395235072
	3/4 and 1-inch body	1E398235072
6	Stem Assembly	
	Stainless steel	
	1/4-inch body	1F2113000A2
	1/2-inch body	1F2114000A2
	3/4 and 1-inch body	1F2115000A2
	NACE, 316 stainless steel	
	Composition seat	
	1/2-inch body	1F2114X0082
	3/4 and 1-inch body	1F2115X0072
	Stem, stainless steel, Type 95H only	
	1-1/2 and 2-inch body	1P785335232
7*	Stem Guide Bushing	
	Stainless steel	
	1/4 and 1/2-inch body	1E392235132
	3/4 and 1-inch body	1E398535132
	1-1/2 and 2-inch body, Type 95H only	1P785435132
	NACE, 316 stainless steel	
	Composition seat	
	1/2-inch body	1E392235072
	3/4 and 1-inch body	1E398535072
8	Lower Spring Seat Type 95H only, Aluminum	
	1/4-inch body	1E392309012
	1/2-inch body	1E395408012
	3/4 and 1-inch body	1E398608012
	Steel	
	1-1/2 and 2-inch body	1P787724152
9	Upper Spring Seat, Steel	
	1/4-inch body	1B798525062
	1/2-inch body	1D667125072
	3/4 and 1-inch body	1E398725072
	1-1/2 and 2-inch body (Type 95H)	1P787624092
10	Valve Plug Spring	
	Stainless steel	
	1/4-inch body	1E392437022
	1/2-inch body	1E395537022
	3/4 and 1-inch body	1E398837022
	1-1/2 and 2-inch body (Type 95H)	1P785837012
	NACE, Inconel(1)	
	1/2-inch body	19A2861X012
	3/4 and 1-inch body	1P8443X0012

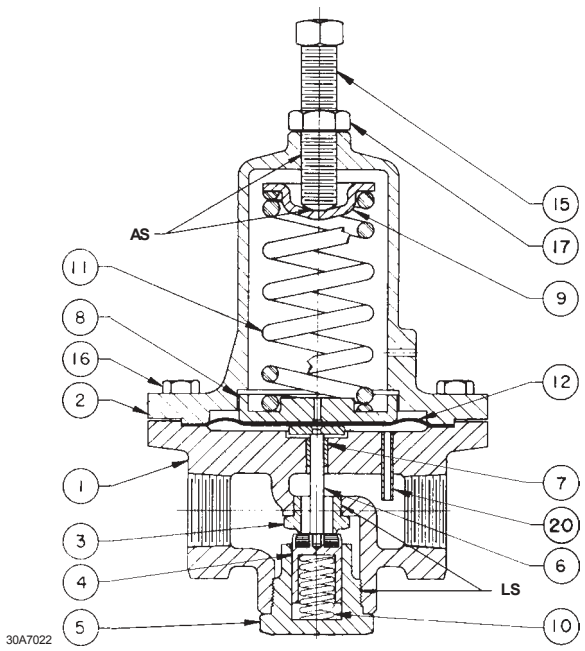
1. Trademark of International Nickel Co.
*Recommended spare parts



AS - ANTI-SEIZE
LS - SEALANT

PITOT TUBE USED IN 3/4 AND 1-INCH SIZES ONLY

Figure 2. Type 95L, Sizes 1/4 to 1-Inch Stainless Steel Trim



AS - ANTI-SEIZE
LS - SEALANT

PITOT TUBE USED IN 3/4 AND 1-INCH SIZES ONLY

Figure 3. Type 95H, Sizes 1/4 to 1-Inch Composition Trim

Key	Description	Part Number
11	Regulator Spring—See following table	
12*	Diaphragm—See following table	
13	Nameplate, Aluminum	11A5496X0A2
14	Diaphragm Protector, TFE	
	1/4-inch body	
	Type 95L	11A5126X012
	Type 95H	11A5129X012
	1/2-inch body	
	Type 95L	11A5127X012
	Type 95H	11A5130X012
	3/4 and 1-inch body	
	Type 95L	11A5128X012
	Type 95H	11A5131X012
15	Adjusting Screw, Steel	
	1/4-inch body	1E639928992
	1/2-inch body	1D995448702
	1/2-inch body with handwheel	1J496428982
	3/4 and 1-inch body	1A330828982
	1-1/2 and 2-inch body	1A680128992
16	Cap Screw, Steel	
	1/4-inch body	
	Type 95L (10 req'd), Type 95H (6 req'd)	1A407824052
	1/2-inch body	
	Type 95L (10 req'd), Type 95H (8 req'd)	1A381624052
	3/4 and 1-inch body	
	Type 95L (12 req'd), and	
	Cast iron, Type 95H (8 req'd)	1A336924052
	Steel, Type 95H (8 req'd)	1A341824052
	1-1/2 and 2-inch, Type 95H (8 req'd)	1K568428982
17	Jam Nut, Steel	
	1/4-inch body	1A352225122
	1/2-inch body	1A353724122
	3/4 and 1-inch body	1A319224122
	1-1/2 and 2-inch body	1A368124112
18	Drive Screw, Stainless steel (2 req'd)	1A368228982

Key	Description	Part Number
19*	Diaphragm Gasket, Composition (Use with metal diaphragm)	
	1/4-inch body	
	Type 95L	1E394004022
	Type 95H	1E393104022
	1/2-inch body	
	Type 95L	1E397004022
	Type 95H	1E396104022
	3/4 and 1-inch body	
	Type 95L	1E390404022
	Type 95H	1E399304022
	1-1/2 and 2-inch body	
	Type 95H	1P787904022
20	Pitot Tube,	
	3/4 and 1-inch body	
	Copper	1E3994 17012
	304 Stainless steel	1E3994 38072
	NACE, 316 stainless steel	
	Composition seat	1E3994 38092
	1-1/2 and 2-inch body	
	304 Stainless steel, Type 95H only	1P7856 38072
21	Diaphragm Head Assembly, Type 95L only	
	Aluminum and stainless steel	
	1/4-inch body	1E3936 X0012
	1/2-inch body	1E3967 X0012
	3/4 and 1-inch body	1E3907 X0012
22	Adjusting Screw Assembly	
	Steel (for tee-handle construction)	
	1/4-inch body	1F2236 000A2
	3/4 and 1-inch body	1F2238 000A2
	1-1/2 and 2-inch body	1V4372 X0012
23	Handwheel, Zinc (1/2-inch body)	1J4961 44012
24	Machine Screw, Steel (handwheel construction)	1A8517 28982
25	Lockwasher, Steel (handwheel construction)	1A3523 32992

*Recommended spare parts

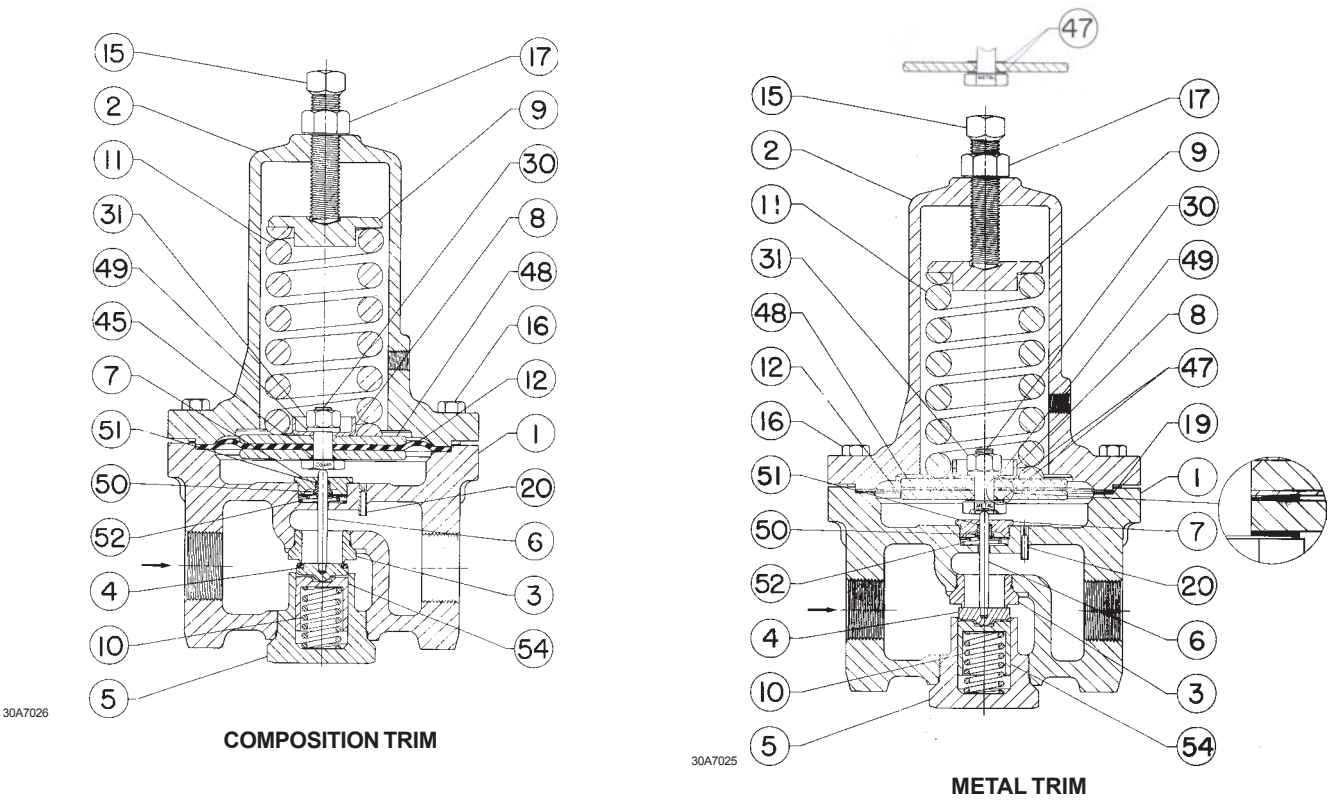


Figure 4. Type 95H, Sizes 1-1/2 and 2-Inch

Key	Description	Part Number
	The following parts are for the 1-1/2 and 2-inch Type 95H only	
30	Pusher Post, Stainless steel	
	Composition seat	1P784935132
	Metal seat	1P785135132
31	Locknut, Steel	1P788724122
45*	O-Ring, Nitrile (Use with neoprene diaphragm)	1C782206992
47*	Diaphragm Gasket, Composition	
	Use with metal diaphragm (2 req'd)	1P788004022
48	Diaphragm Head, Steel (2 req'd)	1P788225012
49	Lockwasher, Steel	1A487828992
50	Packing Follower	
	416 Stainless steel	1P785535232
51*	O-Ring, TFE	1P785906242
52	Spring, Stainless steel	1P785737012
54	Valve Plug Base,	
	416 Stainless steel	1U404046172
56	NACE Tag	19A6034X012
57	Tag Wire	1U7581X0022

Key 1 Regulator Body Part Numbers

BODY SIZE, INCHES	BODY MATERIAL									
	Cast Iron	Steel				Steel (NACE)	Stainless Steel			
	NPT	NPT	SWE	CL 150	CL 300	NPT	NPT	SWE	CL 150	CL 300
Type 95L										
1/4	1E391119012	1J127722012	- - -	- - -	- - -	- - -	1J127733092	- - -	- - -	- - -
1/2	2E394519012	2L908022012	2P518522012	2V5673X0022	20A4569X012	2L9080X0062	2L908033092	2P5185X0012	2V5673X0012	20A4569X022
3/4	2E397419012	2E863722012	2K632722012	2V4262X0012	20A3088X012	2E8637X0112	2E863733092	2K632733092	2V4262X0022	20A3088X032
1	2E397519012	2E863822012	2H160600A2	2V3546X0052	2U7969X0022	2E8638X0012	2E863833092	2H1606X00A2	2V3546X0012	2U7969X0092
Type 95H										
1/4	1E391019012	1J127322012	- - -	- - -	- - -	- - -	1J127333092	- - -	- - -	- - -
1/2	1E394319012	2L907722012	2N693922012	16A6787X012	12B5376X012	2L9077X0062	2L907733092	2N6939X0012	16A6787X022	12B5376X022
3/4	2E397219012	2E408422012	2H852022012	2V9941X0012	20A4013X012	2E4084X0092	2E408433092	2H8520X00A2	2V9941X0032	20A4013X022
1	2E397319012	2E408522012	2F485522012	2V3879X00A2	2V3944X0012	2E4085X0012	2E408533092	2F4855X0012	2V3879X0012	2V3944X0042
1-1/2	3P784319012	3P784322012	3V388022012	1V4939X0012	2V3881X0012	- - -	3P784333092	3V388033092	1V4939X0032	2V3881X0062
2	3P784219012	3P784222012	3V279622012	2V5703X0012	20A1091X012	- - -	3P784233092	3V2796X0012	2V5703X0032	20A1091X022

Key 2 Spring Case Part Numbers

BODY SIZE, INCHES	VENT STYLE	TYPE 95L		TYPE 95H	
		Cast Iron	Steel	Cast Iron	Steel
1/4	Drilled	2E391319012	2J127922012	2E391219012	2J127522012
	Tapped	2L442719012	2L442822012	2L442919012	2L443022012
1/2	Drilled	3J496319012	3L416122012	2J496219012	2L416322012
	Tapped	3L442119012	3L442222012	2L441919012	2L442022012
3/4 or 1	Drilled	4E397919012	4E592922012	3E397819012	3E408722012
	Tapped	4L461019012	4L460922012	3L460819012	3L460722012
1-1/2 or 2	Drilled	- - -	- - -	- - -	- - -
	Tapped	- - -	- - -	4P784019012	3P790422012

Key 4 Valve Plug Part Numbers

VALVE PLUG MATERIAL	BODY SIZE, INCHES			
	1/4	1/2	3/4 and 1	1-1/2 and 2
416 Stainless steel	1E391746172	1E395146172	1E398146172	1U403746172
Brass/Neoprene	1E3933000C2	1E3963000A2	1E3996000A2	1U4039X0052
416 Stainless steel/Nitrile	- - -	- - -	- - -	1U4039000A2
Brass/Fluoroelastomer	1E3933X0082	1E3963X0072	1E3996X0072	- - -
416 Stainless steel/Fluoroelastomer	1E3933X0102	1E3963X0092	1E3996X0092	1U4039X00A2
Brass/TFE	1E3933X0032	1E3963X0022	1E3996X0022	- - -
416 Stainless steel/TFE	1E3933000A2	1E3963000D2	1E3996000E2	- - -
Monel(1)	1E391750192	1E395146222	- - -	1U4037X0052
316 Stainless steel (NACE)	- - -	1E3963X0012	1E3996X0012	- - -
416 Stainless steel/Neoprene	1E3933000E2	1E3963000B2	1E3996000B2	- - -

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Key 11 Regulator Spring Part Numbers

VALVE SIZE, INCHES	SPRING PART NUMBER	SPRING COLOR CODE	OUTLET PRESSURE RANGE, PSIG (bar)	
			95L	95H
1/4	1E392527022	Yellow	2 to 6 (0,14 to 0,41)	15 to 30 (1,03 to 2,07)
	1E392627012	Green	5 to 15 (0,34 to 1,03)	25 to 75 (1,72 to 5,17)
	1E392727142	Red	13 to 30 (0,90 to 2,07)	70 to 150 (4,82 to 10,3)
1/2	1E395627022	Yellow	2 to 6 (0,14 to 0,41)	15 to 30 (1,03 to 2,07)
	1D745527142	Green	5 to 15 (0,34 to 1,03)	25 to 75 (1,72 to 5,17)
	1E395727192	Red	13 to 30 (0,90 to 2,07)	70 to 150 (4,82 to 10,3)
3/4 and 1	1E398927022	Yellow	2 to 6 (0,14 to 0,41)	15 to 30 (1,03 to 2,07)
	1E399027142	Green	5 to 15 (0,34 to 1,03)	25 to 75 (1,72 to 5,17)
	1E399127162	Red	13 to 30 (0,90 to 2,07)	70 to 150 (4,82 to 10,3)
1-1/2 and 2	1E795327082	Lt. Blue	- - - -	5 to 80 (0,34 to 5,52)
	1E795427082	Lt. Gray	- - - -	60 to 120 (4,14 to 8,27)
	1E793327082	Yellow	- - - -	100 to 140 (6,9 to 9,65)
	1P788827082	Black	- - - -	120 to 150 (8,27 to 10,3)

Key 12 Diaphragm Part Numbers

BODY SIZE, INCHES	DIAPHRAGM MATERIAL			
	302 Stainless Steel	Neoprene	Fluoroelastomer	Monel(1) (2 Required)
		Type 95L		
1/4	1E393936012 ()	1E394102112	1E394102402 ()	1E393941012
1/2	1E396936012 ()	1E397102112	1E397102402 ()	1E396941012
3/4 and 1	1E390536012 ()	1E390302112	1E390302332 ()	1E390541012
		Type 95H		
1/4	1E392836012 ()	1E393502112	1E393502402 ()	1E392841012
1/2	1E395836012 ()	1E396602112	1E396602402 ()	1E395841012
3/4 and 1	1E399236012 ()	1D399902112	1E399902402 ()	1E399241012
1-1/2 and 2	1P787836012 ()	1P788102192	11A1347X012 ()	1P7878X00A2

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Types 95L and 95H

February 1996

Errata Sheet
for

Type 95L and 95H Pressure Regulators
Form 1151, July 1990

This errata sheet covers information on the Type 95HP and the Type 95HT regulators that offer increased pressure ratings, increased set pressures, and increased temperature ratings to the 95 Series regulator line. The Types 95HP and 95HT were developed to provide control solutions in services up to 600 psig (41,4 bar) and/or 650°F (343°C).

Specifications

Available Configurations(1)

Type 95HP: Elastomeric diaphrgm for 15 to 400 psig (15,5 to 27,4 bar) set pressures
Type 95HP: 302 Stainless steel diaphragm for 15 to 300 psig (1,0 to 20,7 bar) set pressures

Maximum Inlet Pressures(1)

600 psig (41,4 bar)

Body Bolting

Steel and stainless steel bodies use ASME-193-B7 bolting

Allowable Temperature Ranges(1)

Type 95HP

Fluoroelastomer Parts: 0 to 300°F (-17 to 149°C)
Neoprene Parts: -40 to 180°F (-40 to 82°C)

Type 95HT with Metal Diaphragm and Seat

Steel Body and Spring Case:
-20 to 650°F (-4 to 343°C)

Stainless Steel Body and Spring Case:
-40 to 550°F (-40 to 287°C)

1. The pressure/temperature limits in this document and any applicable standard or code limitation should not be exceeded.

Parts List

The following parts list covers the Type 95HT and 95HP regulators. It is in addition to the parts list in the Type 95L and 95H Pressure Regulators Instruction Manual (fomr 1151). Refer to figure 3 of the instruction manual for location of parts.

Key	Description	Part Number
8	Lower SpringSeat, steel	
	1/4-inch body	
	1/2-inch body	
	3/4 and 1-inch body	
9	Upper Spring Seat, steel	
	1/4-inch body	
	1/2-inch body	
	3/4 and 1-inch body	
11	Regulator Spring—See following table	
16	Cap Screw	
	1/4-inch body	
	1/2-inch body	
	3/4 and 1-inch body	
19	Diaphragm Gasket (Type 95HT only)	
	1/4-inch body	
	1/2-inch body	
	3/4 and 1-inch body	

Key 11 Regulator Spring Part Numbers

VALVE SIZE, INCHES	OUTLET PRESSURE RANGES, PSIG (bar)	FREE LENGTH, INCHES (mm)	CONTROL SPRING WIRE DIAMETER, INCHES (cm)	PART NUMBER
1/4	15 to 100 (1,03 to 6,85)	1.96 (49,8)	0.192 (0,48)	14B9941X012
	Type 95HT: 80 to 300 (5,5 to 20,5)	1.96 (49,8)	0.282 (0,72)	14B9940X012
	Type 95HP: 80 to 400 (5,5 to 27,4)	1.96 (49,8)	0.282 (0,72)	14B9940X012
1/2	15 to 100 (1,03 to 6,85)	2.50 (63,5)	0.282 (0,72)	14B9943X012
	Type 95HT: 80 to 300 (5,5 to 20,5)	2.50 (63,5)	0.375 (0,95)	14B9942X012
	Type 95HP: 80 to 400 (5,5 to 27,4)	2.50 (63,5)	0.375 (0,95)	14B9942X012
3/4 and 1	15 to 100 (1,03 to 6,85)	4.03 (102)	0.437 (1,10)	14B9944X012
	Type 95HT: 80 to 300 (5,5 to 20,5)	4.03 (102)	0.562 (1,43)	14B9945X012
	Type 95HP: 80 to 400 (5,5 to 27,4)	4.03 (102)	0.562 (1,43)	14B9945X012

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