Fisher Controls

Instruction Manual

Type 95L and 95H Pressure Regulators

FISHER

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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.

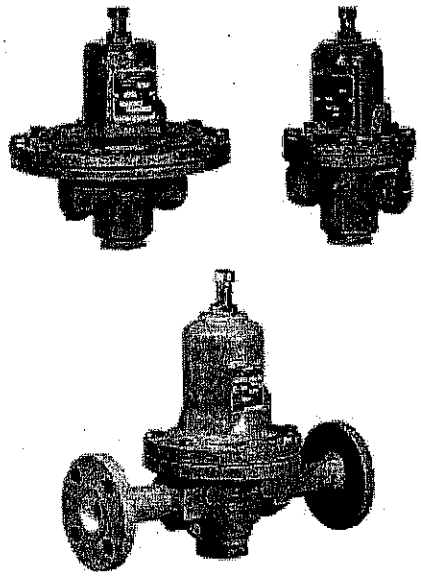

Figure 1. Type 95L Flanged Body (Bottom), NPT Body (Top Left), and 95H Pressure Regulators

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. Typical Type 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-determined spring

D100256 X012

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 build-up 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.

Over Pressure 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 over pressure protection is needed if the actual inlet pressure exceeds the maximum operating outlet pressure

Table 1. Reduced Pressure Ranges

Body Size, Inches	Spring Color Code	Type 95L Reduced Pressure Range	Type 95H Reduced Pressure Range
1/4, 1/2, 3/4, 1	Yellow	2 to 6 psi	15 to 30 psi
	Green	5 to 15 psi	25 to 75 psi
	Red	13 to 30 psi	70 to 150 psi
1-1/2 or 2	Lt. Blue	---	5 to 80 psi
	Lt. Gray	---	60 to 120 psi
	Yellow	---	100 to 140 psi
	Black	---	120 to 150 psi

Table 2. Maximum Inlet Pressure and Temperature

Type Number	Body Material	Diaphragm and Valve Plug Material	Maximum Inlet Pressure and Temperature
95H and 95L	Cast Iron	Neoprene	250 psi; 180°F
95H and 95L	Cast Iron	Stainless Steel	250 psi; 410°F
95H and 95L	Cast Steel	Stainless Steel	300 psi; 450°F
95H and 95L	Cast Steel	Neoprene	300 psi;180°F
95H and 95L	Cast Iron	Fluoroelastomer	250 psi; 300°F
95H and 95L	Cast Steel	Fluoroelastomer	300 psi; 300°F

rating. Over pressure protection should also be provided if the regulator inlet pressure is greater than the safe working pressure of downstream equipment.

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

REGULATOR TYPE	BODY AND SPRING CASE MATERIALS	MAXIMUM EMERGENCY OUTLET AND SPRING CASE PRESSURE	
		Psig	Bar
95L	Cast Iron	50	3.5
	Cast Steel or Stainless Steel	125	8.6
95H	Cast Iron	250(1)	17.2
	Cast Steel or Stainless Steel	300	20.7

1. Maximum outlet pressure for 1-inch 95H is 165 psig.

Table 4. Torque Specifications

Body Size, Inches	Spring Case Ft-Lbs	Orifice Ft-Lbs	Plug Guide Ft-Lbs
1/4	4.5 - 5.0	8 - 12	42 - 58
1/2	10 - 13	29 - 35	70 - 90
3/4 - 1	24 - 30	33 - 42	130 - 160
1-1/2 - 2	40 - 50	140 - 170	170 - 200

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

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	R95HX 000012
	1/2-inch body	R95HX 000022
	3/4 and 1-inch body	R95HX 000032
	For Composition, Trim 3A	
	1/4-inch body	R95HX 000102
	1/2-inch body	R95HX 000112
	3/4 and 1-inch body	R95HX 000122
	1-1/2 and 2-inch body	R95HX 000042
	For Metal Trim	
	1/4-inch body	R95HX 000052
	1/2-inch body	R95HX 000062
	3/4 and 1-inch body	R95HX 000072
	1-1/2 and 2-inch body	R95HX 000082
	Extra parts for 1-1/2 and 2□inch body include keys 45, 47, 51 and 52	
	Type 95L	
	For Composition, Trim 2	
	1/4-inch body	R95LX 000012
	1/2-inch body	R95LX 000022
	3/4 and 1-inch body	R95LX 000032
	For Composition, Trim 3A	
	1/4-inch body	R95LX 000102
	1/2-inch body	R95LX 000112
	3/4 and 1-inch body	R95LX 000122
	For Metal Trim	
	1/4-inch body	R95LX 000042
	1/2-inch body	R95LX 000052
	3/4 and 1-inch body	R95LX 000062
1	Regulator Body S ee following table	
2	Spring Case See following table	
3*	Orifice	
	416 SST (for metal seat)	
	1/4-inch body	1E3916 46172
	1/2-inch body	1E3950 46172
	3/4 and 1-inch body	1E3980 46172
	1-1/2 and 2-inch body, Type 95H only	2P7870 46172
	Brass (for composition seat)	
	1/4-inch body	1E3932 14012
	1/2-inch body	1E3962 14012
	3/4 and 1-inch body	1E3995 14012
	416 SST (for composition seat)	
	1-1/2 and 2-inch body, Type 95H only	1P7860 35132
	NACE, 316 stainless steel	
	For composition seat	
	1/2-inch body	1E3962 35072
	3/4 and 1-inch body	1E3995 35072
4*	Valve Plug See Following Table	
5	Valve Plug Guide	
	Brass	
	1/4-inch body	1E3918 14012
	1/2-inch body	1E3952 14012
	3/4 and 1-inch body	1E3982 14012
	1-1/2 and 2-inch body, Type 95H only	1U4041 X0022
	416 SST	
	1/4-inch body	1E3918 35132
	1/2-inch body	1E3952 35132
	3/4 and 1-inch body	1E3982 35132
	1-1/2 and 2-inch-body, Type 95H only	1U4041 35132
	NACE, 316 stainless steel	
	Composition seat	
	1/2-inch body	1E3952 35072
	3/4 and 1-inch body	1E3982 35072
6	Stem Assembly	
	Stainless steel	
	1/4-inch body	1F2113 000A2
	1/2-inch body	1F2114 000A2
	3/4 and 1-inch body	1F2115 000A2
	NACE, 316 stainless steel	
	Composition seat	
	1/2-inch body	1F2114 X0082
	3/4 and 1-inch body	1F2115 X0072
	Stem, stainless steel, Type 95H only	
	1-1/2 and 2-inch body	1P7853 35232
7*	Stem Guide Bushing	
	Stainless steel	
	1/4 and 1/2-inch body	1E3922 35132
	3/4 and 1-inch body	1E3985 35132
	1-1/2 and 2-inch body, Type 95H only	1P7854 35132
	NACE, 316 stainless steel	
	Composition seat	
	1/2-inch body	1E3922 35072
	3/4 and 1-inch body	1E3985 35072
8	Lower Spring Seat Type 95H only,	
	Aluminum	
	1/4-inch body	1E3923 09012
	1/2-inch body	1E3954 08012
	3/4 and 1-inch body	1E3986 08012
	Steel	
	1-1/2 and 2-inch body	1P7877 24152
9	Upper Spring Seat, Steel	
	1/4-inch body	1B7985 25062
	1/2-inch body	1D6671 25072
	3/4 and 1-inch body	1E3987 25072
	1-1/2 and 2-inch body (Type 95H)	1P7876 24092

*Recommended spare parts

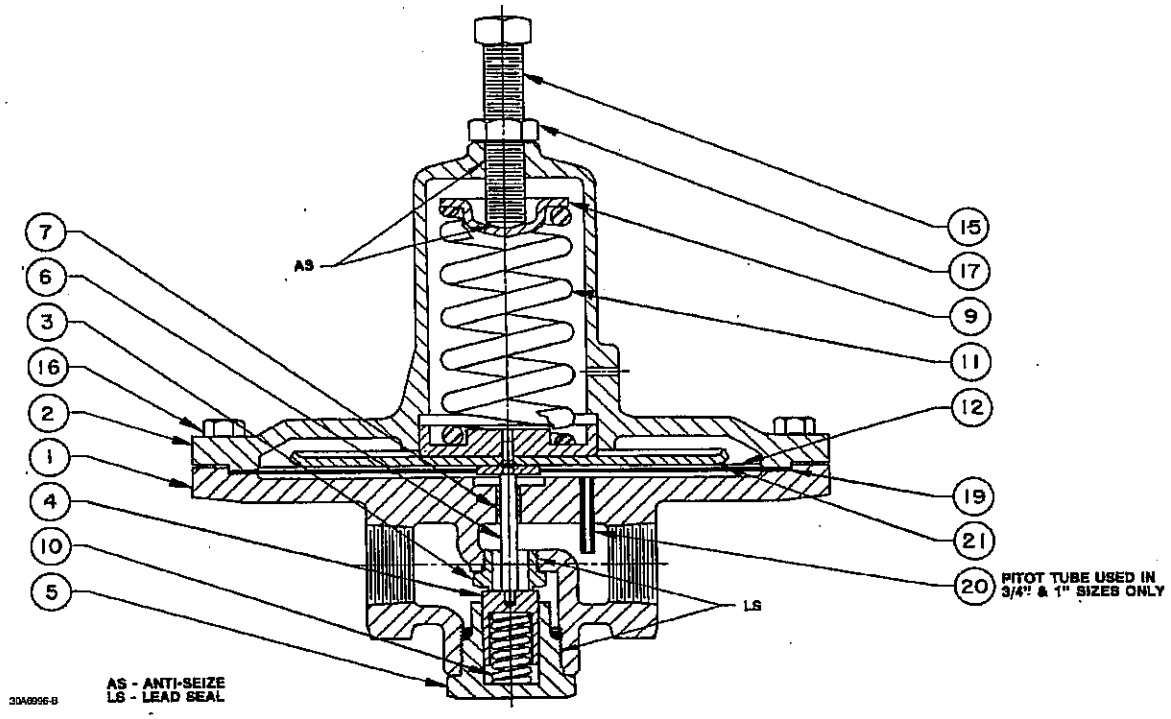

Figure 2. Type 95L, Sizes 1/4 to 1-Inch Stainless Steel Trim

Key	Description	Part Number
10	Valve Plug Spring	
	Stainless steel	
	1/4-inch body	1E3924 37022
	1/2-inch body	1E3955 37022
	3/4 and 1-inch body	1E3988 37022
	1-1/2 and 2-inch body (Type 95H)	1P7858 37012
	NACE, Inconel[1]	
	1/2-inch body	19A2861 X012
	3/4 and 1-inch body	1P8443 X0012
11	Regulator Spring See following table	
12*	Diaphragm S ee following table	
13	Nameplate, Aluminum	11A5496 X0A2
14	Diaphragm Protector, TFE	
	1/4-inch body	
	Type 95L	11A512 6X012
	Type 95H	11A512 9X012
	1/2-inch body	
	Type 95L	11A512 7X012
	Type 95H	11A513 0X012
	3/4 and 1-inch body	
	Type 95L	11A512 8X012
	Type 95H	11A513 1X012
15	Adjusting Screw, Steel	
	1/4-inch body	1E6399 28992
	1/2-inch body	1D9954 48702
	1/2-inch body with handwheel	1J4964 28982
	3/4 and 1-inch body	1A3308 28982
	1-1/2 and 2-inch body	1A6801 28992

Key	Description	Part Number
16	Cap Screw, Steel	
	1/4-inch body	
	Type 95L (10 req d), Type 95H (6 req d)	1A4078 24052
	1/2-inch body	
	Type 95L (10 req d), Type 95H (8 req d)	1A3816 24052
	3/4 and 1-inch body	
	Type 95L (12 req d), and	
	Cast iron, Type 95H (8 req d)	1A3369 24052
	Steel, Type 95H (8 req d)	1A3418 24052
	1-1/2 and 2-inch, Type 95H (8 req d)	1K5684 28982
17	Jam Nut, Steel	
	1/4-inch body	1A3522 25122
	1/2-inch body	1A3537 24122
	3/4 and 1-inch body	1A3192 24122
	1-1/2 and 2-inch body	1A3681 24112
18	Drive Screw, Stainless steel (2 req d)	1A3682 28982
19*	Diaphragm Gasket, Composition (Use with metal diaphragm)	
	1/4-inch body	
	Type 95L	1E3940 04022
	Type 95H	1E3931 04022
	1/2-inch body	
	Type 95L	1E3970 04022
	Type 95H	1E3961 04022
	3/4 and 1-inch body	
	Type 95L	1E3904 04022
	Type 95H	1E3993 04022
	1-1/2 and 2-inch body	
	Type 95H	1P7879 04022

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

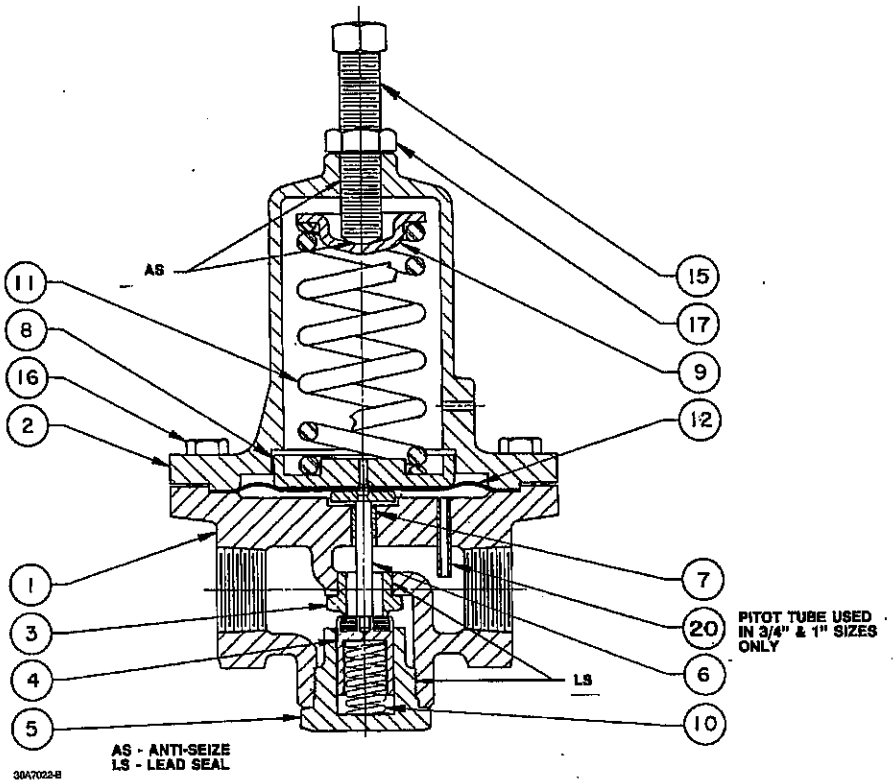

Figure 3. Type 95H, Sizes 1/4 to 1-Inch Composition Trim

Key	Description	Part Number
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

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	1P7849 35132
	Metal seat	1P7851 35132
31	Locknut, Steel	1P7887 24122
45*	O-Ring, Nitrile (Use with neoprene diaphragm)	1C7822 06992
47*	Diaphragm Gasket, Composition	
	Use with metal diaphragm (2 req d)	1P7880 04022
48	Diaphragm Head, Steel (2 req d)	1P7882 25012
49	Lockwasher, Steel	1A4878 28992
50	Packing Follower	
	416 Stainless steel	1P7855 35232
51*	O-Ring, TFE	1P7859 06242
52	Spring, Stainless steel	1P7857 37012
54	Valve Plug Base,	
	416 Stainless steel	1U4040 46172
56	NACE Tag	19A6034 X012
57	Tag Wire	1U7581 X0022

*Recommended spare parts

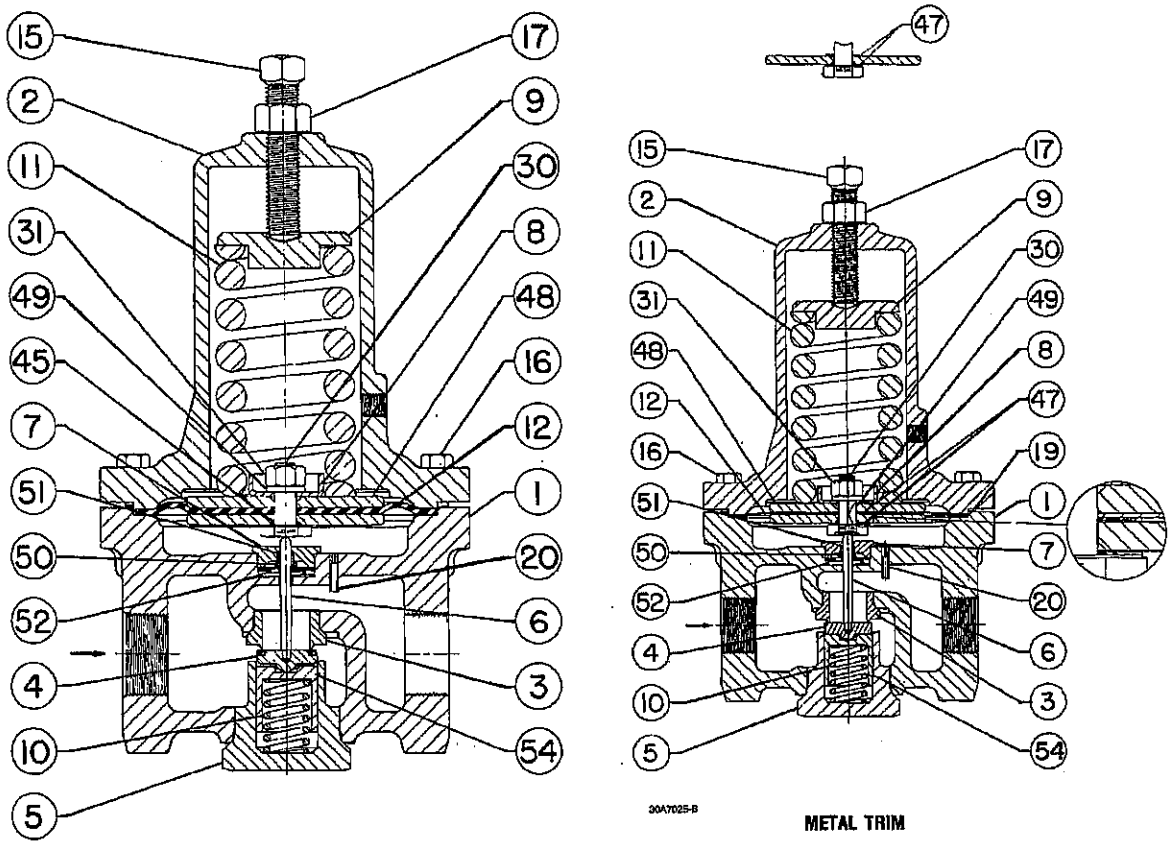

Figure 4. Type 95H, Sizes 1-1/2 and 2 Inch

Key 1 Regular Body, NPT

BODY SIZE, INCHES	TYPE 95L BODY MATERIAL				TYPE 95H BODY MATERIAL			
	Cast Iron	Steel	SST	WCB Steel (NACE)	Cast Iron	Steel	SST	WCB Steel (NACE)
1/4	1E3911 19012	1J1277 22012	1J1277 33092	---	1E3910 19012	1J1273 22012	1J1273 33092	---
1/2	2E3945 19012	2L9080 22012	2L9080 33092	2L9080 X0062	1E3943 19012	2L9077 22012	2L9077 33092	2L9077 X0062
3/4	2E3974 19012	2E8637 22012	2E8637 33092	2E8637 X0112	2E3972 19012	2E4084 22012	2E4084 33092	2E4084 X0092
1	2E3975 19012	2E8638 22012	2E8638 33092	2E8638 X0012	2E3973 19012	2E4085 22012	2E4085 33092	2E4085 X0012
1-1/2	---	---	---	---	3P7843 19012	3P7843 22012	3P7843 33092	---
2	---	---	---	---	3P7842 19012	3P7842 22012	3P7842 33092	---

*Recommended spare part.

Key 1 Regulator Body, ANSI Class 150 & 300 Flanges

BODY SIZE, INCHES	TYPE 95L BODY MATERIAL				TYPE 95H BODY MATERIAL			
	Steel		Stainless Steel		Steel		Stainless Steel	
	ANSI Class				ANSI Class			
	150	300	150	300	150	300	150	300
1/2	2V5673 X0022	20A4569 X012	2V5673 X0012	20A4569 X022	16A6787 X012	12B5376 X012	16A6787 X022	12B5376 X022
3/4	2V4262 X0012	20A3088 X012	2V4262 X0022	20A3088 X032	2V9941 X0012	20A4013 X012	2V9941 X0032	20A4013 X022
1	2V3546 X0052	2U7969 X0022	2V3546 X0012	2U7969 X0092	2V3879 X00A2	2V3944 X0012	2V3879 X0012	2V3944 X0042
1-1/2	---	---	---	---	1V4939 X0012	2V3881 X0012	1V4939 X0032	2V3881 X0062
2	---	---	---	---	2V5703 X0012	20A1091 X012	2V5703 X0032	20A1091 X022

Key1 Regulator Body, Socket Weld

BODY SIZE, INCHES	TYPE 95L BODY MATERIAL		TYPE 95H BODY MATERIAL	
	Steel	Stainless Steel	Steel	Stainless Steel
1/2	2P5185 22012	2P5185 X0012	2N6939 22012	2N6939 X0012
3/4	2K6327 22012	2K6327 33092	2H8520 22012	2H8520 X00A2
1	2H1606 000A2	2H1606 X00A2	2F4855 22012	2F4855 X0012
1-1/2	---	---	3V3880 22012	3V3880 33092
2	---	---	3V2796 22012	3V2796 X0012

Key 2 Spring Case

BODY SIZE, INCHES	VENT STYLE	TYPE 95L		TYPE 95H	
		Cast Iron	Steel	Cast Iron	Steel
1/4	Drilled	2E3913 19012	2J1279 22012	2E3912 19012	2J1275 22012
	Tapped	2L4427 19012	2L4428 22012	2L4429 19012	2L4430 22012
1/2	Drilled	3J4963 19012	3L4161 22012	2J4962 19012	2L4163 22012
	Tapped	3L4421 19012	3L4422 22012	2L4419 19012	2L4420 22012
3/4 or 1	Drilled	4E3979 19012	4E5929 22012	3E3978 19012	3E4087 22012
	Tapped	4L4610 19012	4L4609 22012	3L4608 19012	3L4607 22012
1-1/2 or 2	Drilled	---	---	---	---
	Tapped	---	---	4P7840 19012	3P7904 22012

Key 4 Valve Plug

VALVE PLUG MATERIAL	BODY SIZE, (INCHES)			
	1/4	1/2	3/4 and 1	1-1/2 and 2
416 SST	1E3917 46172	1E3951 46172	1E3981 46172	1U4037 46172
Brass/Neoprene	1E3933 000C2	1E3963 000A2	1E3996 000A2	1U4039 X0052
416 SST/Nitrile	---	---	---	1U4039 000A2
Brass/Fluoroelastomer	1E3933 X0082	1E3963 X0072	1E3996 X0072	---
416 SST/Fluoroelastomer	1E3933 X0102	1E3963 X0092	1E3996 X0092	1U4039 X00A2
Brass/TFE	1E3933 X0032	1E3963 X0022	1E3996 X0022	---
416 SST/TFE	1E3933 000A2	1E3963 000D2	1E3996 000E2	---
Monel[1]	1E3917 50192	1E3951 46222	---	1U4037 X0052
316 SST (NACE)	---	1E3963 X0012	1E3996 X0012	---
416 SST/Neoprene	1E3933 000E2	1E3963 000B2	1E3996 000B2	---

1. Trademark of International Nickel Company.

Key 11 Regulator Spring

VALVE SIZE, INCH	SPRING PART NUMBER	SPRING COLOR CODE	OUTLET PRESSURE RANGE, PSIG	
			95L	95H
1/4	1E3925 27022	Yellow	2 - 6	15 - 30
	1E3926 27012	Green	5 - 15	25 -75
	1E3927 27142	Red	13 - 30	70 - 150
1/2	1E3956 27022	Yellow	2 - 6	15 - 30
	1D7455 27142	Green	5 - 15	25 - 75
	1E3957 27192	Red	13 - 30	70 - 150
3/4 or 1	1E3989 27022	Yellow	2 - 6	15 - 30
	1E3990 27142	Green	5 - 15	25 - 75
	1E3991 27162	Red	13 - 30	70 - 150
1-1/2 or 2	1E7953 27082	Lt. Blue	□□□	5 - 80
	1E7954 27082	Lt. Gray	□□□	60 - 120
	1E7933 27082	Yellow	□□□	100 - 140
	1P7888 27082	Black	□□□	120 - 150

Key 12 Diaphragm

BODY SIZE, INCHES	DIAPHRAGM MATERIAL			
	302 SST	Neoprene	Fluoroelastomer	Monel[1] (2 req d)
		Type 95L		
1/4	1E3939 36012 (1 req d)	1E3941 02112	1E3941 02402 (1 req d)	1E3939 41012
1/2	1E3969 36012 (2 req d)	1E3971 02112	1E3971 02402 (2 req d)	1E3969 41012
3/4 and 1	1E3905 36012 (2 req d)	1E3903 02112	1E3903 02332 (2 req d)	1E3905 41012
		Type 95H		
1/4	1E3928 36012 (2 req d)	1E3935 02112	1E3935 02402 (1 req d)	1E3928 41012
1/2	1E3958 36012 (2 req d)	1E3966 02112	1E3966 02402 (2 req d)	1E3958 41012
3/4 and 1	1E3992 36012 (2 req d)	1D3999 02112	1E3999 02402 (2 req d)	1E3992 41012
1-1/2 and 2	1P7878 36012 (2 req d)	1P7881 02192	11A1347 X012 (2 req d)	1P7878 X00A2

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