

November 2016

Type Y692 Low-Pressure Gas Blanketing Regulator



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™ 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. (Emerson) 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 Y692 Low-Pressure Gas Blanketing Regulator.

Introduction

Scope of the Manual

This instruction manual provides installation, startup, maintenance and parts ordering information for the Type Y692 Low-Pressure Gas Blanketing Regulator.

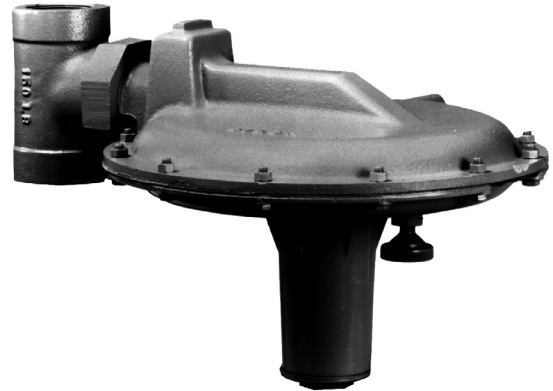


Figure 1. Type Y692 Low-Pressure Gas Blanketing Regulators

Product Description

The Accu-Pressure™ Type Y692 Gas Blanketing Regulator (Figure 1) is a pressure reducing direct-operated regulator with internal registration or external pressure registration. It is used for accurate pressure control on very low-pressure blanketing systems. Blanketing with low-pressure gas helps prevent corrosion, helps control emissions from the blanketed product and helps protect against any contamination to the blanketed product by atmospheric conditions.

The regulator will maintain a positive vessel pressure reducing the possibility of vessel wall collapse. The Type Y692 is available in NPS 1-1/2 and 2 / DN 40 and 50 body sizes.

Type Y692 with external pressure registration regulators have a stem seal with O-rings and a 1/2 NPT control line connection in the diaphragm case. The control line can be used to more accurately control the pressure in the tank if the regulator is mounted an extended distance from the control point. The stem seal separates the body outlet pressure from the diaphragm case.

Type Y692

Specifications

The Specifications section lists specifications for Type Y692 Gas Blanketing Regulator. Specifications for a given regulator as it originally comes from the factory are stamped on the spring case nameplate.

Available Configurations

Direct-operated pressure reducing regulator with external or internal pressure registration with seven outlet (control) pressure ranges from 1 in. w.c. to 7 psig / 2 mbar to 0.48 bar. Available in NPS 1-1/2 and 2 / DN 40 and 50 body sizes.

Body Sizes and End Connection Styles⁽¹⁾⁽²⁾

Cast Iron: NPS 1-1/2 / DN 40, NPT
NPS 2 / DN 50, NPT or CL125 FF
Steel: NPS 1-1/2 or 2 / DN 40 or 50, NPT, SWE, CL150 RF, CL300 RF or PN 16/25/40
Stainless Steel: NPS 1-1/2 or 2 / DN 40 or 50, NPT, CL150 RF, CL300 RF or PN 16/25/40

Maximum Allowable Inlet Pressure⁽¹⁾

150 psig / 10.3 bar or body rating limit

Maximum Control (Casing) Pressure⁽¹⁾

15 psig / 1.0 bar

Control Pressure Ranges⁽¹⁾

See Table 1

Orifices Sizes and Flow Coefficients

See Table 2

IEC Sizing Coefficients

See Table 3

Pressure Registration

Internal (**standard**) or External

Maximum Operating Control Pressure to Avoid Internal Part Damage⁽¹⁾

3 psig / 0.21 bar above control pressure setting

Temperature Capabilities⁽¹⁾

Nitrile (NBR): -20 to 180°F / -29 to 82°C

Fluorocarbon (FKM): 0 to 300°F / -18 to 149°C

Ethylenepropylene (EPDM): -20 to 275°F / -29 to 135°C

Perfluoroelastomer (FFKM): -20 to 300°F / -29 to 149°C

Spring Case Connection

1/4 NPT

Approximate Weights

Cast Iron Body: 45 lbs / 20 kg

Steel/Stainless Steel Body: 57 lbs / 26 kg

1. The pressure/temperature limits in this Instruction Manual and any applicable standard limitation should not be exceeded.

Table 1. Control Pressure Ranges

CONTROL PRESSURE RANGES WITH CASE BARREL POINTED DOWN			CONTROL SPRING COLOR CODE	CONTROL SPRING PART NUMBER	SPRING WIRE DIAMETER		SPRING FREE LENGTH	
Type	psig	bar			In.	mm	In.	mm
Light Spring Assembly	1 to 3 in. w.c. ⁽²⁾⁽³⁾	2 to 7 mbar ⁽²⁾⁽³⁾	Brown	1D892527022	0.109	2.77	6.12	155
	3 to 11 in. w.c. ⁽²⁾⁽⁴⁾	7 to 27 mbar ⁽²⁾⁽⁴⁾	Iridite	0B019727052	0.148	3.76	6.00	152
	6.5 in. w.c. to 1.2 psig ⁽⁵⁾	16 mbar to 0.08 bar ⁽⁵⁾	Green	0B019427052	0.187	4.75	6.00	152
	0.7 to 2	0.05 to 0.14	Blue	0B019627032	0.225	5.71	6.00	152
	1 to 3.2	0.07 to 0.22	Orange	0A081127202	0.250	6.35	6.00	152
Heavy spring Assembly	2 to 5.5	0.14 to 0.38	Metallic with green stripe	0Y066427022	0.363	9.22	6.00	152
	4 to 7	0.28 to 0.48	Metallic (silver)	1H802427032	0.406	10.3	6.00	152

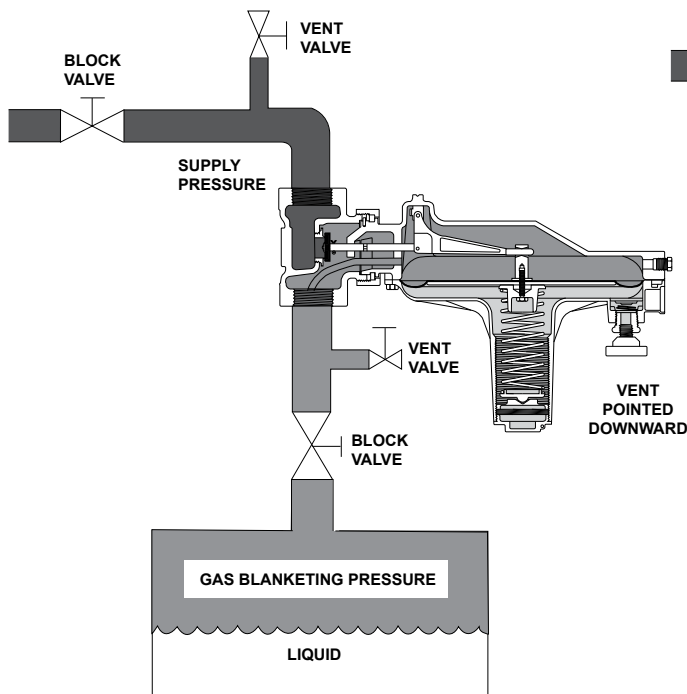
1. Install with spring case pointing down to achieve low setpoints in these spring ranges.
2. Do not use Fluorocarbon (FKM) diaphragm with these springs at diaphragm temperature lower than 60°F / 16°C.
3. Installation with spring case pointing up will change outlet (control) pressure range to 3 to 5 in. w.c. / 7 to 12 mbar.
4. Installation with spring case pointing up will change outlet (control) pressure range to 5.75 to 14 in. w.c. / 14 to 35 mbar.
5. Installation with spring case pointing up will change outlet (control) pressure range to 7.5 in. w.c. to 1.3 psig / 19 to 90 mbar.

Table 2. Orifice Sizes and Flow Coefficients

BODY SIZE		ORIFICE SIZE		WIDE-OPEN C _v	WIDE-OPEN C _g	C _i
NPS	DN	In.	mm			
1-1/2 and 2	40 and 50	1/4	6.4	1.51	53.0	35
		3/8	9.5	3.14	111.0	
		1/2	13	5.43	190.0	
		3/4	19	11.9	415.0	
		1	25	20	700.0	
		1-3/16	30	26	910.0	

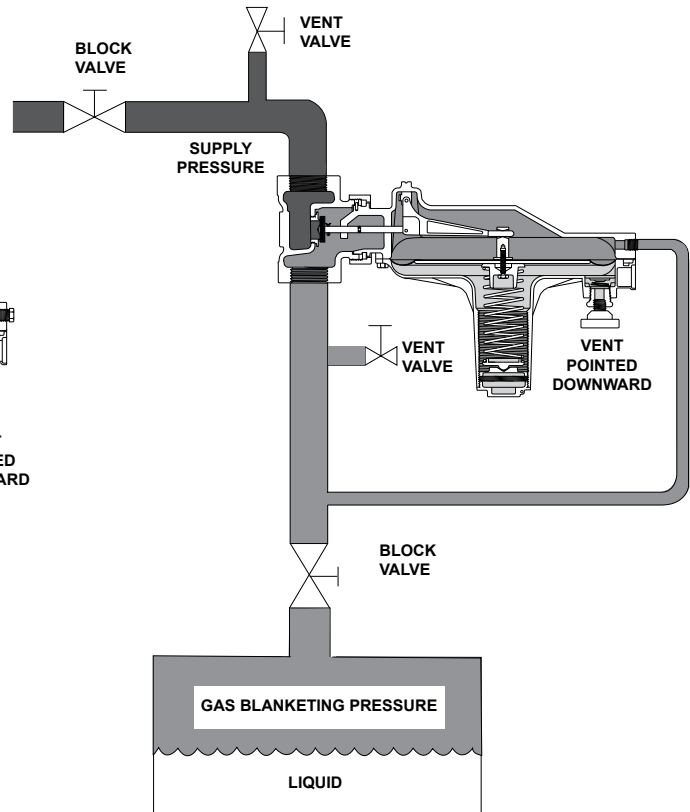
Table 3. IEC Sizing Coefficients

X _T	F _D	F _L
0.775	0.50	0.89



A6340
 ■ INLET PRESSURE
 ■ CONTROL PRESSURE
 ■ ATMOSPHERIC PRESSURE

Figure 2. Type Y692 with Internal Registration Operational Schematic



■ INLET PRESSURE
 ■ CONTROL PRESSURE
 ■ ATMOSPHERIC PRESSURE

Figure 3. Type Y692 with External Registration Operational Schematic

Principle of Operation

The Type Y692 Gas Blanketing Regulator reduces a high-pressure gas to maintain a positive low-pressure of blanket gas over a stored liquid when the liquid is being pumped out of the vessel (see Figures 2 and 3). Also when the vessel (or tank) is suddenly cooled, causing vapors to contract, the regulator replaces the volume of contracting vapors with a volume of blanketing gas to prevent the internal vessel pressure from decreasing. In both cases, a positive vessel pressure prevents outside air from entering the vessel and reduces the possibility of atmospheric pressure collapsing the vessel.

Gas blanketing regulators respond to a slight decrease in internal vessel pressure by throttling open to increase the flow rate of gas into the vessel. When the vessel's liquid level has been lowered to the desired point and the vapor pressure re-established, the regulator throttles closed.

When the liquid level drops and vessel pressure decreases below the setting of the control spring, the spring force on the diaphragm opens the disk assembly to supply the required flow of gas to the vessel. When vessel pressure has been satisfied, control pressure tends to increase slightly, acting on the diaphragm. When the control (vessel) pressure exceeds the control spring setting, the diaphragm moves to close the disk assembly.

The Type Y692 Gas Blanketing Regulator provides a constant set pressure for accurate gas blanketing. When vessel pressure decreases below the control spring setpoint, the force of the spring moves the disk away from the orifice allowing gas to flow into the vessel. As the vessel pressure increases, the increase is sensed by the diaphragm through the pitot tube or control line. This movement of the diaphragm causes the disk to move toward the orifice, decreasing the flow of blanketing gas. When the vessel pressure reaches the system setpoint, the disk will seat against the orifice shutting off the flow of gas.

Installation

WARNING

Personal injury, equipment damage or leakage due to escaping accumulated gas or bursting of pressure-containing parts may result if the gas blanketing regulator is overpressured or installed where service conditions could exceed the limits given in Specifications section or where conditions exceed any ratings of the adjacent piping or piping connections. To avoid such injury or damage, provide pressure-relieving or pressure-limiting devices (as required by Title 49, Part 192, of the U.S. Code of Federal Regulations, by the National Fuel Gas Code Title 54 of the National Fire Codes of the National Fire Protection Association or by other applicable codes) to prevent service conditions from exceeding those limits.

Additionally, physical damage to the gas blanketing regulator could result in personal injury and property damage due to escaping accumulated gas. To avoid such injury and damage, install the gas blanketing regulator in a safe and well ventilated location.

1. Use qualified personnel when installing, operating and maintaining the regulator. Before installing, inspect the regulator for any shipment damage or foreign material that may have collected during crating and shipment. Make certain the body interior is clean and the pipelines are free of foreign material. Apply pipe compound only to the external pipe threads.
2. To achieve the published capacities, install the regulator as close as possible to the blanketed vessel using a straight run of pipe the same size or larger as the regulator body. Flow through the regulator body is indicated by the flow arrow cast on the body. If a block valve is required, install a full flow valve between the regulator and the blanketed vessel. **For proper operation, the regulator must be installed with the spring case barrel pointed down (as shown in Figures 2 and 3).** Key numbers referenced in this section are shown in Figure 6.

WARNING

If the regulator vents some 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. In hazardous or flammable gas service, vented gas may accumulate and cause personal injury, death or property damage due to fire or explosion. Vent a regulator in hazardous gas service to a remote, safe location away from air intakes or any hazardous location. The vent line or stack opening must be protected against condensation or clogging.

3. To keep the spring case vent from being plugged or the spring case from collecting moisture, corrosive chemicals or other foreign material, point the vent down or otherwise protect it.
4. To remotely vent the regulator, remove the vent (key 56) and install obstruction-free tubing or piping into the 1/4 NPT vent tapping. Provide protection on a remote vent by installing a screened vent cap into the remote end of the vent pipe.
5. If continuous operation of the system is required during inspection or maintenance, install a parallel run with a three-valve bypass around the regulator.

For Types with external pressure registration which require a downstream control line, be sure to install the control line before putting the regulator into operation. The control line pipe should be at least 1/2 in. / 13 mm in diameter and connected to a straight section of outlet piping 5 to 10 pipe diameters downstream of the regulator. If turbulence exists, a hand valve can be installed in a straight section of the control line. This hand valve can be throttled down to dampen out pulsations which may cause instability or cycling of the regulator. If a block valve is required, install a full flow valve between the regulator and the blanketed vessel.

Startup and Adjustment

WARNING

To avoid personal injury, property damage or equipment damage caused by bursting of pressure containing parts or explosion of accumulated gas, never adjust the control spring to produce a control pressure higher than the upper

limit of the control pressure range or that particular spring (see Specifications section). If the desired control pressure is not within the range of the control spring, install a spring of the proper range according to the Diaphragm and Spring Case Area section of the Maintenance procedure.

With installation completed, the regulator can be placed in operation by slowly opening the upstream and downstream block valves, if used, while using gauges to monitor pressure. The regulator takes control when downstream pressure is established.

The regulator has been adjusted at the factory to provide approximately the control pressure requested. To ensure the correct pressure setting always use a pressure gauge to verify the pressure setting. The range of allowable pressure settings is stamped on the spring casing nameplate. If a pressure setting beyond the stamped range is required, install a spring with the desired range by following the procedures for changing the spring and diaphragm in the Maintenance section. To adjust the pressure setting, perform the following steps (key numbers are referenced in Figure 6):

1. Remove the closing cap (key 3, if required).
2. Turn the adjusting screw (key 2) either clockwise to increase control pressure or counterclockwise to decrease control pressure. The regulator will go into immediate operation. To ensure correct operation always use a pressure gauge to monitor the blanket pressure when making adjustments.
3. Replace the closing cap (key 3, if required).

Shutdown

Installation arrangements vary, but in any installation it is important to open and close valves slowly and to close the upstream block valve first when shutting down the system.

First, close the nearest upstream block valve and then, close the nearest downstream block valve to vent the regulator properly. Next, open the vent valve between the regulator and the downstream block valve nearest to it. Then, open the upstream vent valve and the vent valve in the control line. All pressure between these block valves is released through the open vent valves, since a gas blanketing regulator remains open in response to the decreasing downstream pressure. If vent valves are not installed, safely bleed off both inlet and outlet pressures and check that the regulator contains no pressure.

Maintenance

Regulator parts are subject to normal wear and must be inspected and replaced as necessary. The frequency of inspection and replacement of parts depends upon the severity of service conditions or the requirements of local, state and federal regulations. Due to care Emerson takes in meeting all manufacturing requirements (heat treating, dimensional tolerances, etc.), use only replacement parts manufactured or furnished by Emerson.

WARNING

To avoid personal injury, property damage or equipment damage caused by sudden release of pressure, isolate the regulator from all pressure and cautiously release trapped pressure from the regulator before attempting disassembly.

Key numbers are referenced in Figure 6.

Body Area

This procedure is for gaining access to the disk assembly, orifice, body gasket, split ring and pitot tube if used. All pressure must be released from the regulator, before these steps can be performed.

1. Unscrew the union nut (key 19) from the body (key 28) and remove the lower casing assembly (key 20) and split ring (key 17). The lower casing assembly (key 20) must be tipped toward the body outlet to allow removal clearance for the pitot tube (key 74).
2. Inspect and replace the orifice (key 27) if necessary. Lubricate the threads of the replacement orifice with a good grade of pipe thread sealant. Install the orifice with 75 to 100 ft-lbs / 102 to 136 N•m of torque.
3. Remove the cotter pin (key 14) if it is necessary to replace the disk assembly (key 25).
4. To replace the pitot tube (key 74) on units with internal pressure registration, remove the flared end connection and press a new pitot tube into the pitot tube hole and secure by flaring the end. Rotate the pitot tube so that it points into the outlet of the body (key 28) after the lower casing assembly (key 20) is installed.

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5. Install the disk assembly (key 25) and secure it with the cotter pin (key 14).
6. If necessary, install a replacement body gasket (key 16) into the body (key 28).
7. Slide the union nut (key 19) as far as it will go onto the lower casing assembly (key 20). Install both halves of the split ring (key 17) into the slots of the lower casing assembly (key 20) and secure them by sliding the union nut down on the split ring.
8. Install the lower casing assembly (key 20) with the attached split ring (key 17) and union nut (key 19) so that the pitot tube fits into the outlet of the body.
9. Tighten the union nut (key 19) until the lower casing assembly (key 20) is secure on the body (key 28).

Diaphragm and Spring Case Area

This procedure is for gaining access to the spring, diaphragm and lever assembly. All pressure must be released from the diaphragm case assembly before these steps can be performed.

To Change the Control Spring:

1. Remove the closing cap (key 3, if required) and turn the adjusting screw (key 2) counterclockwise until all compression is removed from the control spring (key 1).
2. Remove the adjusting screw (key 2) and spring seats (keys 4 and 44). Change the control spring to match the desired spring range.
3. Replace the spring seats (keys 4 and 44) and the adjusting screw (key 2).
4. Install a replacement closing cap gasket (key 35), if necessary and reinstall the closing cap (key 3, if used).
5. If the spring range was changed, be sure to change the stamped spring range on the nameplate.

To Disassemble and Reassemble Diaphragm Parts:

Key numbers are referenced in Figure 6.

1. Remove the closing cap (key 3, if required) and turn the adjusting screw (key 2) counterclockwise to remove the adjusting screw (key 2) and the control spring (key 1).

2. Remove the hex nuts (key 22), cap screws (key 21) and spring case (key 23).
3. *In a regulator with a light control spring (see Figure 4):* Lift the upper spring seat (key 44), lower spring seat (key 4) and control spring (key 1) off the diaphragm and plate assembly (key 5).

In a regulator with a heavy control spring (see Figure 5): Lift the two spring seats (key 4) and control spring (key 1) off the diaphragm and plate assembly (key 5).

4. Remove the diaphragm and plate assembly (key 5) by tilting them so that the pusher post (key 8) slips off the lever assembly (key 9).
5. To separate the diaphragm assembly (key 5) from the attached parts, unscrew the diaphragm cap screw (key 30) from the pusher post (key 8).
6. To replace the lever assembly (key 9), remove the machine screws (key 11). To replace the stem (key 13) or access the stem seal O-ring (key 15, for Types with external pressure Registration) perform body area maintenance procedure steps 1 and 3 and pull the stem (key 13) out of the lower casing assembly (key 20).
7. Inspect the stem (key 13) and replace if required. Install the stem into the lower casing assembly (key 20) and perform body area maintenance procedure steps 5 through 9 as necessary.
8. Install the lever assembly (key 9) into the stem (key 13) and secure the lever assembly (key 9) with the machine screws (key 11).
9. During the assembly procedure, use lubricants on parts as indicated in Figure 6 and replace parts as required.
10. Install the parts on the pusher post (key 8) in the order listed below:
 - Diaphragm plate gasket (key 7)
 - Lower diaphragm plate (key 6)
 - Diaphragm and plate assembly (key 5) pattern side up
 - Lower spring seat (key 4)
11. Insert and tighten the diaphragm cap screw (key 30) to secure the diaphragm parts to the pusher post (key 8). Carefully tighten to a torque of 7 to 9 ft-lbs / 9 to 12 N•m.
12. Install the assembled parts in the lower casing (key 20). Make sure that the lever (key 9) fits in the pusher post (key 8) and that the holes in the diaphragm align with the holes in the lower casing.

13. Install the spring case (key 23) on the lower casing assembly (key 20) so that the vent assembly (key 56) is correctly oriented and secure with the cap screws (key 21) and hex nuts (key 22) finger tight only.

14. *In a regulator with a light control spring (see Figure 4):* Insert the lower control spring (key 1) into the spring case (key 23), followed by the upper spring seat (key 44) and the adjusting screw (key 2).

In a regulator with a heavy control spring (see Figure 5): Insert the lower spring seat (key 4) and the control spring (key 1), into the spring case (key 23), followed by the upper spring seat (key 4) and the adjusting screw (key 2).

15. Turn the adjusting screw (key 2) clockwise until there is enough control spring (key 1) force to provide proper slack to the diaphragm (key 5). Using a crisscross pattern, finish tightening the cap screws (key 21) and hex nuts (key 22) to 15 to 20 ft-lbs / 20 to 27 N•m of torque. To adjust the control pressure to the desired setting, refer to the Startup and Adjustment section.

16. Install a replacement closing cap gasket (key 35) if necessary and then install the closing cap (key 3, if used).

Parts Ordering

When corresponding with your local Sales Office 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 NACE International Standard MR0175 and/or MR0103.

Type Y692 Regulator (Figure 6)

Key	Description	Part Number
	Type Y692 Parts Kit	
	For 1/4, 3/8 and 1/2 in. / 6.4, 9.5 and 13 mm) Orifice Sizes (includes keys 5, 7, 14, 16, 25 and 35)	RY692X00012
	For 3/4, 1 and 1-3/16 in. / 19, 25 and 30 mm) Orifice Sizes (includes keys 5, 7, 14, 16, 25, 35, 46 and 47)	RY692X00022
1	Control Spring, Plated steel	See Table 1
2	Adjusting Screw	See Table 4
3	Closing Cap	See Table 4
4	Lower Spring Seat	See Table 4
5*	Diaphragm and Plate Assembly	
	Nitrile (NBR)	1N9722X0012
	Fluorocarbon (FKM)	1N9722X0022
	Ethylenepropylene (EPDM)	1N9722X0052
	Silicone (VMQ)	1N9722X0062
6	Lower Diaphragm Plate	
	Stainless steel	0V003935032
	Stainless steel (NACE)	0V0039X0022
7	Diaphragm Plate Gasket, Composition	1A348704022
8	Pusher Post	
	Stainless steel (also NACE)	0Y096435072
9	Lever Assembly	
	Stainless steel (also NACE)	1E3409X0052
11	Machine Screw (2 required)	
	Stainless steel	1A866935032
	Stainless steel (NACE)	1A8669X0012
12	Stem Bushing, 303 Stainless steel	1F513035032
13	Stem	
	Stainless steel	1E767635032
	Stainless steel (NACE)	1E7676X0012
14*	Cotter Pin	
	Stainless steel	1A866537022
	Stainless steel (NACE)	1A8665X00A2
15	Stem Seal (O-Ring)	
	Nitrile (NBR)	1E472706992
	Fluorocarbon (FKM)	1N430406382
	Perfluoroelastomer (FFKM)	1D6875X0082
	Ethylenepropylene (EPDM)	1D6875X0032
16*	Body Gasket, Composition	1A348004032
17	Split Ring, Zinc-plated steel	0Y095828982
19	Union Nut	
	Malleable iron	0Z0176X0032
	Stainless steel	0Z017624092
	Stainless steel (NACE)	0Z0176X0012
20	Lower Casing	
	For Internal Registration	
	Cast iron	3B973519012
	Steel	3F191622012
	Steel (NACE)	3F1916X0022
	Stainless steel	3F191633092
	For External Registration	
	Cast iron	3E767819012
	Steel	39A7502X022
	Stainless steel	39A7502X012
21	Diaphragm Case Cap Screw (12 required)	
	Zinc-plated steel	1B136324052
	Stainless steel	1B136338992

*Recommended Spare Parts

Type Y692

Key	Description	Part Number	Key	Description	Part Number
22	Hex Nut (12 required)		28	Body (continued)	
	Zinc-plated steel	1A309324122		Steel	
	Stainless steel	1A309338992		NPS 1-1/2 in. / DN 40 size	2L244522012
23	Spring Case			NPS 2 in. / DN 50 size	2L243322012
	Cast Iron	2B155719042		Stainless steel	
	Steel	34B2157X012		NPS 1-1/2 in. / DN 40 size	2L244533092
	Stainless steel	34B2157X042		NPS 2 in. / DN 50 size	2L2433X00A2
	Aluminum (setpoint under 1.2 psi / 0.08 bar)	AE6180X0012		Socket Weld End	
	Aluminum (setpoint over 1.2 psi / 0.08 bar)	AE6180X0032		NPS 1-1/2 in. / DN 40 size	2E2291X0012
25*	Disk Assembly			NPS 2 in. / DN 50 size	2H562322012
	Stainless steel disk holder with			CL150 RF Flanged	
	Nitrile (NBR) disk			Steel	
	1/2 in. / 13 mm orifice and smaller	1A8431000B2		NPS 1-1/2 in. / DN 40 size	14B3208X262
	3/4 in. / 19 mm orifice and larger	1C7831X0072		NPS 2 in. / DN 50 size	14B3208X012
	Fluorocarbon (FKM) disk			NPS 1-1/2 in. / DN 40 size (NACE)	14B3208X252
	1/2 in. / 13 mm orifice and smaller	1A8431X0072		NPS 2 in. / DN 50 size (NACE)	14B3208X202
	3/4 in. / 19 mm orifice and larger	1C7831X0092		Stainless steel	
	Polytetrafluoroethylene (PTFE) disk			NPS 1-1/2 in. / DN 40 size	14B3208X272
	1/2 in. / 13 mm orifice and smaller	1A8431X0092		NPS 2 in. / DN 50 size	14B3208X042
	3/4 in. / 19 mm orifice and larger	1C7831X0112		CL300 RF Flanged	
	Ethylenepropylene (EPDM) disk			Steel	
	1/2 in. / 13 mm orifice and smaller	1A8431X0182		NPS 1-1/2 in. / DN 40 size	14B3208X022
	Stainless steel disk holder with			NPS 2 in. / DN 50 size	14B3208X032
	Neoprene (CR) disk (NACE)			NPS 1-1/2 in. / DN 40 size (NACE)	14B3208X242
	1/2 in. / 13 mm orifice and smaller	1A8431X0132		NPS 2 in. / DN 50 size (NACE)	14B3208X162
	3/4 in. / 19 mm orifice and larger	1C7831X0152		CL300 RF Flanged	
	Stainless steel disk holder with			Stainless steel	
	Fluorocarbon (FKM) disk (NACE)			NPS 1-1/2 in. / DN 40 size	14B3208X052
	1/2 in. / 13 mm orifice and smaller	1A8431X0142		NPS 2 in. / DN 50 size	14B3208X062
	3/4 in. / 19 mm orifice and larger	1C7831X0162		EN PN 16/25/40RF	
	Stainless steel disk holder with FFKM disk (NACE)			Steel	
	1/2 in. / 13 mm orifice and smaller	1A8431X0162		NPS 1-1/2 in. / DN 40 size	14B3208X072
	3/4 in. / 19 mm orifice and larger	1C7831X0202		NPS 2 in. / DN 50 size	14B3208X082
	Stainless steel disk holder with PTFE disk (NACE)			NPS 1-1/2 in. / DN 40 size (NACE)	14B3208X222
	1/2 in. / 13 mm orifice and smaller	1A8431X0192		NPS 2 in. / DN 50 size (NACE)	14B3208X232
	3/4 in. / 19 mm orifice and larger	1C7831X0212		Stainless steel	
	Stainless steel disk holder with EPDM disk (NACE)			NPS 1-1/2 in. / DN 40 size	14B3208X092
	1/2 in. / 13 mm orifice and smaller	1A8431X0202		NPS 2 in. / DN 50 size	14B3208X102
	3/4 in. / 19 mm orifice and larger	1C7831X0222	29	Pipe Plug	See Table 4
27	Orifice		30	Diaphragm Cap Screw	See Table 4
	Stainless Steel		35*	Closing Cap Gasket, Neoprene (CR)	1N446206992
	1/4 in. / 6.4 mm	0L087835032	44	Upper Spring Seat	See Table 4
	3/8 in. / 9.5 mm	0H082535072	46	Valve Disk Washer	
	1/2 in. / 13 mm	0L040135032		3/4 in. / 19 mm orifice and over only	
	3/4 in. / 19 mm	1A832335072		Stainless steel	0X014635032
	1 in. / 25 mm	1A832435072		Stainless steel (NACE)	0X0146X0012
	1-3/16 in. / 30 mm	1C783435072	47	Machine Screw	
	Stainless steel (NACE)			3/4 in. / 19 mm orifice and over only	
	1/4 in. / 6.4 mm	0L0878X0012		Stainless steel (also NACE)	19A7151X022
	3/8 in. / 9.5 mm	0H0825X0012	51	Drive Screws (4 required)	-----
	1/2 in. / 13 mm	0L0401X0012	56	Vent Assembly, Plastic	
	3/4 in. / 19 mm	1A8323X0012		Type Y602-1 for down-pointing	
	1 in. / 25 mm	1A8324X0012		Spring case	17A6570X012
	1-3/16 in. / 30 mm	1C7834X0012	71	Bushing, Steel	1A3424X0042
28	Body		74	Pitot Tube, Stainless steel (also NACE)	1C947138082
	NPT		80	Lubricant, Dow Corning 33, 10 oz. tube	-----
	Cast iron		93	Hex Nut (see Figure 5)	See Table 4
	NPS 1-1/2 in. / DN 40 size	1B403619012			
	NPS 2 in. / DN 50 size	1B403719012			

*Recommended Spare Parts

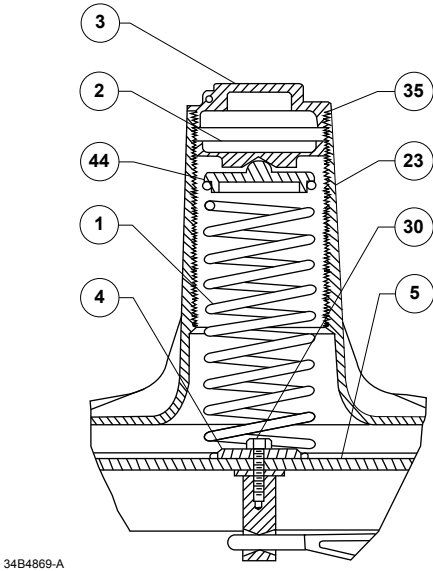


Figure 4. Type Y692 with a Light Control Spring Assembly

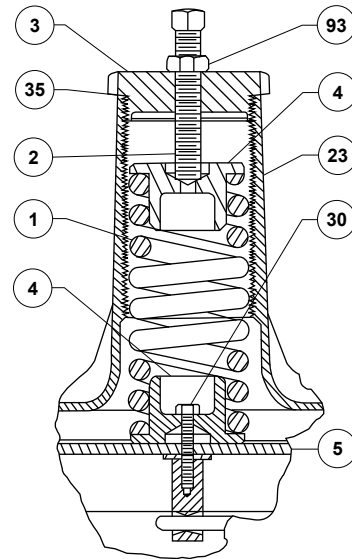
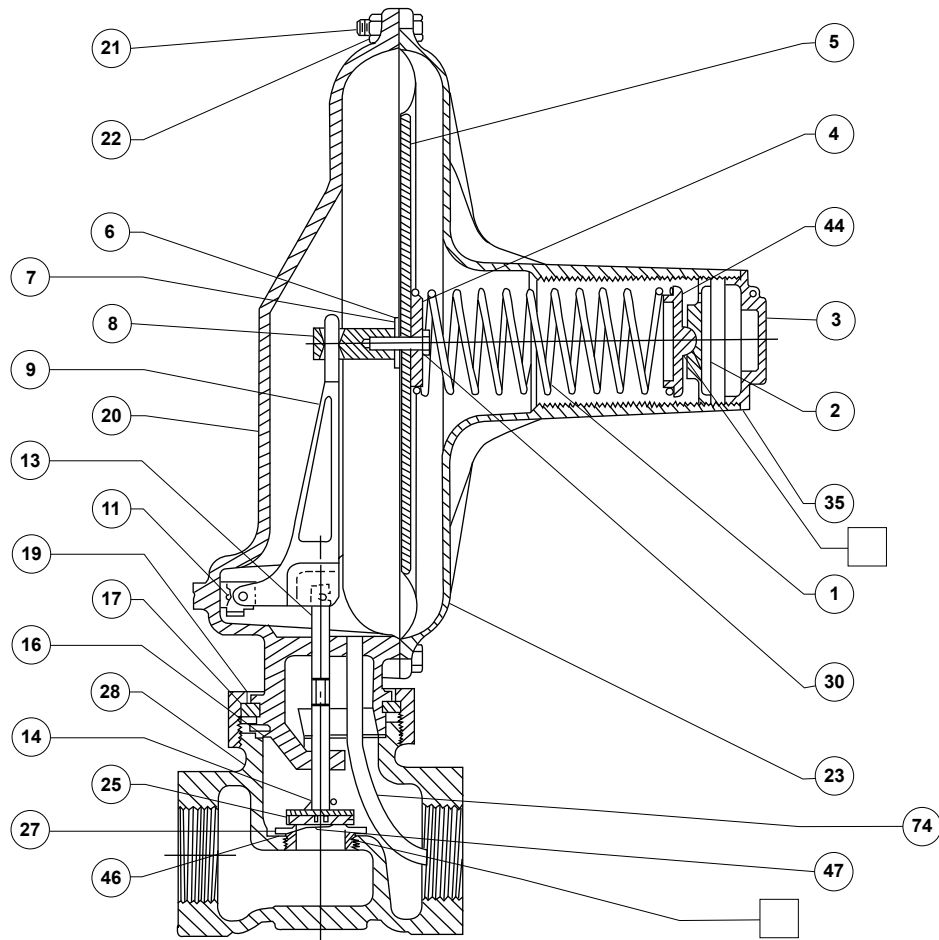


Figure 5. Type Y692 with a Heavy Control Spring Assembly

Table 4. Additional Part Numbers

KEY NUMBER	DESCRIPTION	FOR CONTROL SPRINGS EXCEPT 2 TO 5.5 AND 4 TO 7 psig / 0.14 TO 0.38 AND 0.28 TO 0.48 bar SPRINGS		FOR 2 TO 5.5 AND 4 TO 7 psig / 0.14 TO 0.38 AND 0.28 TO 0.48 bar CONTROL SPRINGS ONLY	
		Standard Trim	Stainless Steel Trim	Standard Trim	Stainless Steel Trim
2	Adjusting Screw	1L928608012 Aluminum	1L928608012 Aluminum	1A500528982 Plated steel	1A500528982 Plated steel
3	Closing Cap	1A589544022 Steel	1J8801X0022 Stainless steel	1H798714012 Brass	1J8801X0022 Stainless steel
4	Lower Spring Seat	14B4240X012 Aluminum	14B4240X012 Aluminum	1H7974X0012 Plated steel	1H7974X0012 Plated steel
29	Pipe Plug	1C333528992 Steel	1C3335X0012 Stainless steel	1C333528992 Steel	1C3335X0012 Stainless steel
30	Cap Screw	1B720924052 Plated steel	1B720924052 Plated steel	1E4539X0012 Plated steel	1E4539X0012 Plated steel
44	Upper Spring Seat	0Y095644012 Aluminum	0Y095644012 Aluminum	----	----
93	Hex Head Nut	----	----	1A3524X0082 Plated steel	1A3524X0082 Plated steel

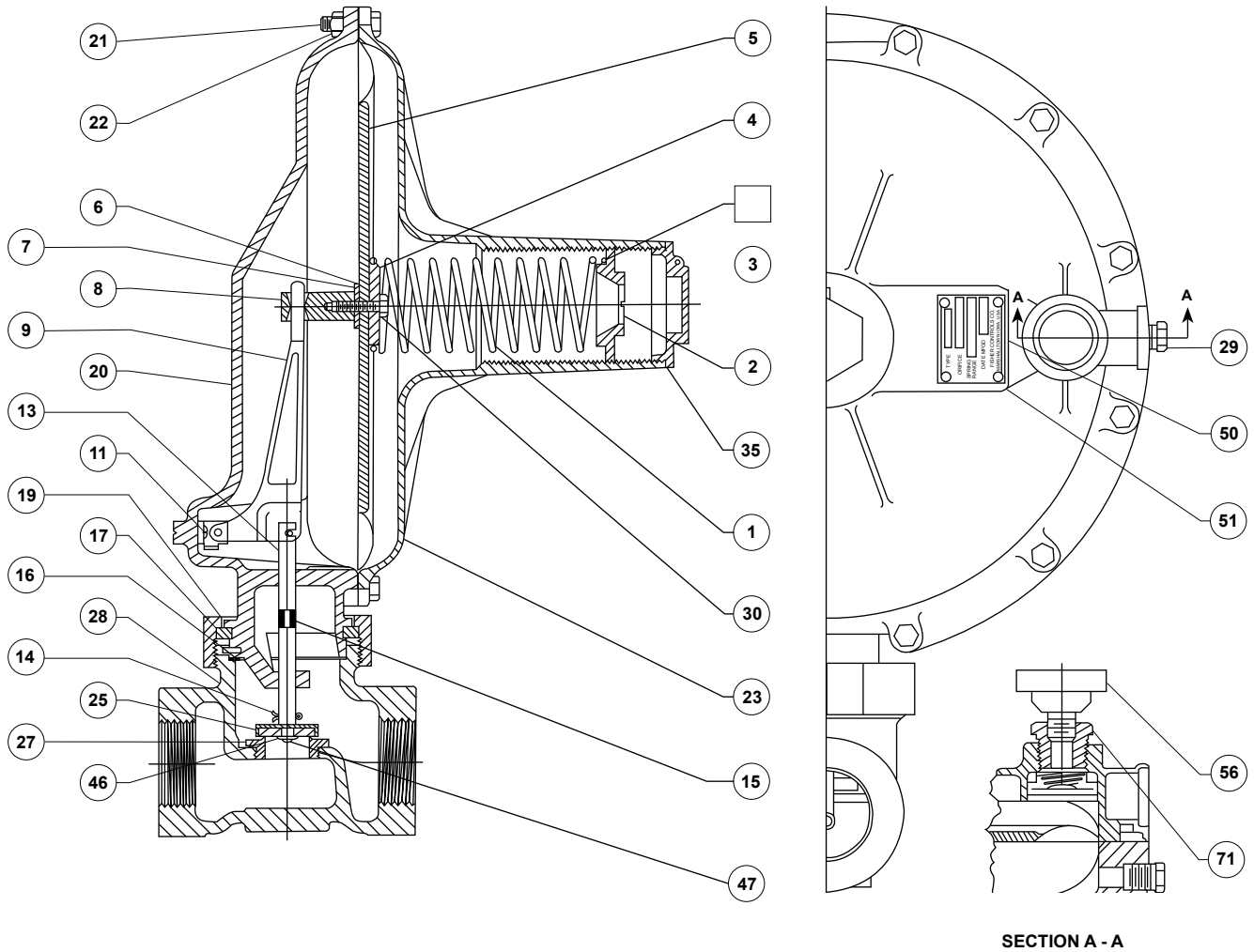


43B0674-B

□ APPLY LUBRICANT/SEALANT/ADHESIVE

INTERNAL REGISTRATION

Figure 6. Type Y692 Regulator Assembly



4343B0674-C

□ APPLY LUBRICANT/SEALANT/ADHESIVE

EXTERNAL REGISTRATION

Figure 6. Type Y692 Regulator Assembly (continued)

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