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Type EZR Relief Valve or Backpressure Regulator

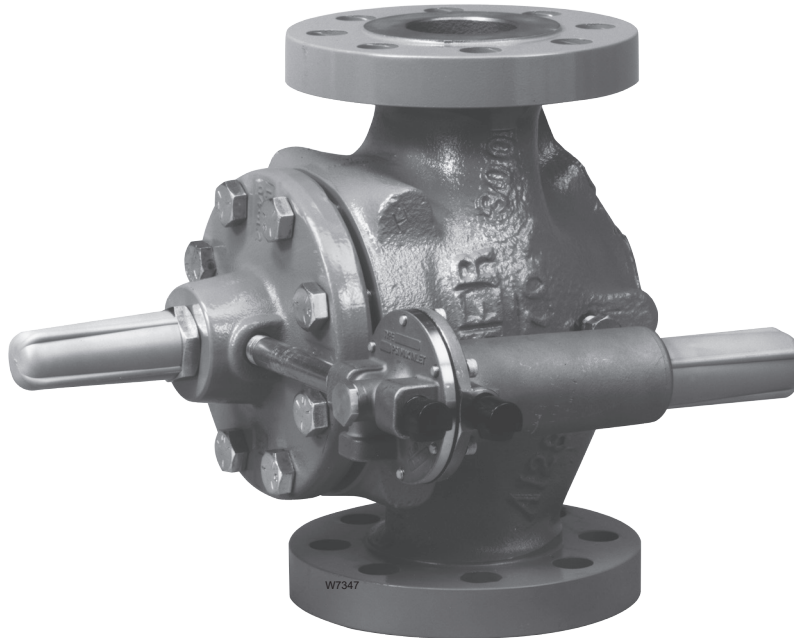


Figure 1. Type EZR Relief Valve or Backpressure Regulator

Introduction

Scope of the Manual

This Instruction Manual provides installation, startup, shutdown and maintenance procedures and parts ordering information for the Type EZR relief valve or backpressure regulator with a 6358 Series or Type PRX/182 pilot. Any accessories used with this relief valve or backpressure regulator are covered in their respective manuals.

Product Description

The Type EZR pilot-operated, pressure relief valve or backpressure regulator is typically used in city gate and district stations as a relief valve for overpressure protection or in commercial and industrial applications as a backpressure regulator. The diaphragm and plug assembly moves in response to the pilot loading pressure to control upstream system pressure. Force from the main spring provides downward pressure to keep the main valve tightly shut off.

Principle of Operation

A pressure relief valve is a throttling pressure control device that opens and closes to ensure the inlet pressure does not rise above a predetermined pressure. Fisher™ relief valves cannot be used as ASME safety relief valves. A backpressure regulator is a device that controls and responds to changes in the upstream pressure. It functions the same as a relief valve in that it opens on increasing upstream pressure.

Relief Valve

As long as the inlet pressure is below the set pressure, the pilot control spring keeps the pilot valve plug closed. Inlet pressure passes through the pilot restriction and registers as loading pressure on top of the main valve diaphragm and plug assembly. Force from the main spring, in addition to pilot loading pressure, provide downward loading pressure to keep the main valve diaphragm and plug assembly tightly shut off.

Type EZR Relief

Specifications

This section lists the specifications for the Type EZR relief valve or backpressure regulator. The set pressure range for a pilot as it comes from the factory appears on the spring case. Other information for an individual main valve appears on the nameplate.

Main Valve Body Sizes, End Connection Styles and Body Ratings⁽¹⁾ See Table 1	Main Valve Flow Direction Up through the center of the cage down through cage slots
Maximum Relief (Inlet) Pressure⁽¹⁾ See Table 6	Pressure Registration External through upstream control line
Minimum Relief Set Pressure⁽¹⁾ 20 psig / 1.4 bar	Upstream Control Line Connection 1/4 NPT in pilot body
Set Pressure Ranges See Table 3	Pilot Spring Case Vent Connection 1/4 NPT tapping
Diaphragm Selection See Tables 4, 5 and 6	Process Temperature Capabilities⁽¹⁾ See Table 4

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

When the inlet pressure rises above the set pressure, the pressure on the pilot diaphragm overcomes the pilot control spring and opens the pilot valve plug. The pilot then exhausts the loading pressure from the top of the main valve diaphragm and plug assembly. The pilot continuously exhausts gas when the inlet pressure is above the set pressure. The inlet pressure unbalance overcomes the main spring force and opens the diaphragm and plug assembly.

As the inlet pressure drops below the set pressure, the pilot control spring closes the pilot valve plug and the exhaust to atmosphere stops. Force from the main spring, along with pilot loading pressure, pushes the diaphragm and plug assembly onto the knife edged seat, producing tight shutoff.

Backpressure Regulator

As long as inlet pressure remains below setpoint, the pilot control spring keeps the pilot valve plug closed. Inlet pressure passes through the upper port around the upper portion of the valve plug and then through the hollow passage in that valve plug. Force from the main spring, in addition to pilot loading pressure, provide downward loading pressure to keep the main valve diaphragm and plug assembly tightly shut off.

When inlet pressure rises above the set pressure, pressure on the pilot diaphragm overcomes the control spring to close the upper port and stroke the valve plug to open the lower port. The pilot exhausts loading pressure from the top of the main valve diaphragm. Inlet pressure unbalance overcomes the main spring force to open the diaphragm and plug assembly.

While the main valve is throttling, the upper port of the pilot stays closed. The pilot exhausts only when it repositions the main valve. As inlet pressure drops below setpoint, the pilot control spring overcomes the diaphragm force to stroke the valve plug down to close the lower port and open the upper port. Force from the main spring, along with pilot loading pressure, pushes the diaphragm and plug assembly onto the knife edged seat, producing tight shutoff.

Pilot Descriptions

The following pilot configurations are available for the Type EZR relief valve or backpressure regulator.

Relief Valve

The Type EZR relief valve uses the Types 6358B, 6358EB, 6358EBH and PRX/182 relief pilots. The pilot bleeds constantly while the relief valve is in operation. The pilot does not bleed when inlet pressure is below set pressure. The pilot exhaust can be connected directly to the main valve exhaust pipe if the pilot connection and the exhaust pipe are designed to prevent significant backpressure buildup during full-flow conditions.

The pilot restriction code is indicated by a letter stamped on the bottom of the pilot body: an H for the yellow, small-diameter, high gain restriction (standard); S for the red, medium diameter, medium gain restriction; and L for the blue, large-diameter, low gain restriction. The high gain restriction has the lowest buildups and fastest speed of response.

Type 6358B—Set pressure range from 20 to 125 psig / 1.4 to 8.6 bar in two ranges. This pilot is available with a high, medium or low gain restriction.

Type 6358EB—Set pressure range of 75 to 350 psig / 5.2 to 24.1 bar in three ranges. This pilot is available with a high or low gain restriction.

Type 6358EBH—Set pressure range of 250 to 600 psig / 17.2 to 41.4 bar in two ranges. This pilot is available with a high or low gain restriction.

Type PRX/182—Set pressure range of 29 to 1160 psig / 2.0 to 80.0 bar in two ranges.

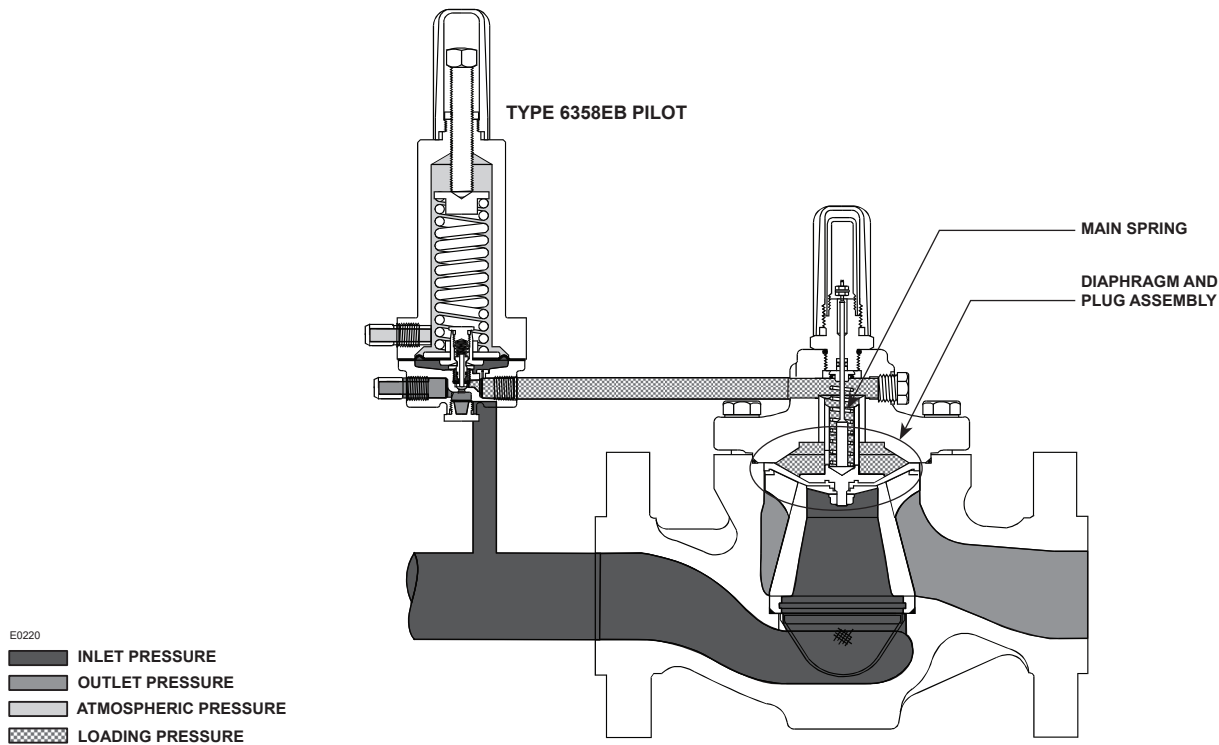


Figure 2. Type EZR Relief Valve or Backpressure Regulator with Type 6358EB Pilot Operational Schematic

Backpressure Regulator

The Type 6358 is a low bleed pilot, so it only exhausts while it is repositioning the main valve. There is no constant bleed with this construction which is useful for backpressure applications where minimizing emissions is important and the pilot exhaust can not be piped to the downstream piping. This also minimizes dirt buildup in the pilot. The Types PRX/182, 6358B, 6358EB and 6358EBH pilots can also be used in backpressure applications but they will exhaust any time inlet pressure is above setpoint.

Type 6358—Set pressure range from 20 to 125 psig / 1.4 to 8.6 bar in two ranges. This pilot has a restriction plug.

Optional Travel Indicator

The travel indicator responds with the precise movement of the diaphragm and plug assembly to show actual valve position. A travel indicator can be used for in-line inspection and troubleshooting, and remote stem positioning and alarming when combined with the Type 4310 or 4320 wireless position monitor.

Optional Inlet Strainer

The stainless steel inlet strainer is designed with holes smaller than the cage slots to prevent pipeline debris from becoming trapped in the main valve body. Once trapped in the body, the debris can clog the cage slot affecting shutoff performance. Inlet strainers are typically not used on relief valves because debris can clog the strainer, restricting the flow through the body.

Optional Pilot Supply Filter

The Type 252 pilot supply filter prevents pipeline debris from entering the pilot; a primary cause of pilot clogging. The aluminum body is rated for 2150 psig / 148 bar and the stainless steel body for 2750 psig / 190 bar. Both are available in standard or extended length with a pipe plug or a drain valve. When the upstream system is free of debris, the Type EZR may be installed without a filter. Pilot supply filters are not typically used on relief valves because debris can plug the filter, hampering pilot operation.

Installation

WARNING

Personal injury, equipment damage or leakage due to escaping gas or bursting of pressure-containing parts may result if the Type EZR is installed where its capabilities can be exceeded or where conditions exceed any ratings of the adjacent piping or connections. To avoid this, install a Type EZR relief valve or backpressure regulator where:

- Service conditions are within unit capabilities (including those in the Specifications section)
- Service conditions are within applicable codes, regulations or standards

Type EZR Relief

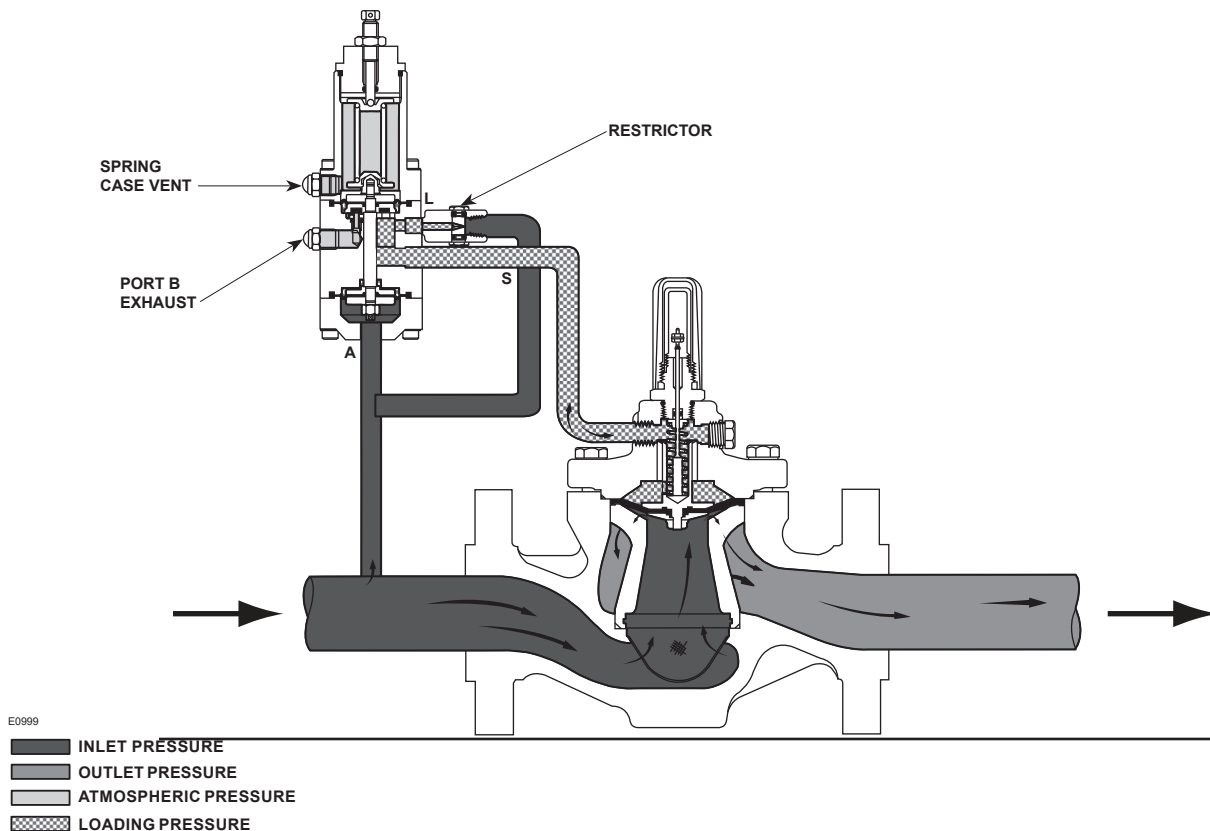


Figure 3. Type EZR Relief or Backpressure Regulator with Type PRX/182 Pilot

Additionally, physical damage to the relief valve or backpressure regulator could break the pilot off the main valve, causing personal injury and property damage due to escaping gas. To avoid such injury or damage, install the unit in a safe location.

1. Only personnel qualified through training and experience should install, operate and maintain a relief valve or backpressure regulator. Before installation, make sure that there is no damage to or debris in the main valve body or pilot. Also, make sure that all tubing and piping are clean and unobstructed.

CAUTION

When installing Type EZR trim in an existing Fisher™ E-body, damage can result if flow is not in the correct direction. Look at the body web to confirm that flow is in the correct direction—up through the center of the cage and down through the cage slots. Change the existing flow arrow if necessary.

After assembly, check for shutoff and leakage to atmosphere.

2. A Type EZR relief valve or backpressure regulator may be installed in any orientation, as long as flow through it matches the direction of the arrow on the main valve body.
3. Figure 1 shows the standard mounting position. Rotate the bonnet (key 2, Figure 9) or the pilot (Figure 14, 15 or 16) for other mounting positions.
4. An upstream control line is required and must be installed—as shown in Figures 5 and 6—into the 1/4 NPT connection in the pilot body assembly (Figures 17 and 18), if required. One control line is required for the 6358 Series and one control line for the Type PRX/182. Do not make the upstream pipeline connection in or directly downstream of a turbulent area such as a swage or elbow. A filter may be installed in the control line upstream of the pilot to provide clean operating gas. Inspect and clean this filter regularly to make sure it is not plugged, which can prevent proper pilot operation.
5. Apply a good grade of pipe compound to the male pipeline threads for a screwed body or use suitable line gaskets for a flanged body. Use approved piping procedures when installing the regulator.

Type EZR Relief

Table 1. Main Valve Body Sizes, End Connection Styles and Structural Design Ratings⁽¹⁾

MAIN VALVE BODY SIZE		MAIN VALVE BODY MATERIAL	END CONNECTION STYLE ⁽¹⁾	STRUCTURAL DESIGN RATING ⁽²⁾	
NPS	DN			psig	bar
2, 3, 4 and 6	50, 80, 100 and 150	Cast Iron	NPT (NPS 2 / DN 50 only)	400	27.6
			CL125 FF	200	13.8
1, 2, 3, 4 and 6	25, 50, 80, 100 and 150	WCC Steel	NPT or SWE (NPS 1 and 2 / DN 25 and 50 only)	1480	102
			CL150 RF	285	19.7
			CL300 RF	740	51.0
			CL600 RF or BWE	1480	102
8	200	LCC Steel	CL150 RF	285	19.7
			CL300 RF	740	51.0
			CL600 RF	1480	102

1. Ratings and end connections for other than ANSI standard can usually be provided. Contact your local Sales Office for assistance.
2. See Tables 3, 4, 5, 6 and 7 for diaphragm materials and additional pressure ratings.

Table 2. Main Valve Minimum Differential Pressures⁽¹⁾

MAIN VALVE BODY SIZE		MAIN SPRING PART NUMBER AND COLOR CODE	DIAPHRAGM MATERIAL	MINIMUM DIFFERENTIAL, PERCENT OF CAGE CAPACITY			
NPS	DN			FOR 90% CAPACITY		FOR 100% CAPACITY	
				100% Trim		100% Trim	
			psi	bar	psi	bar	
1	25	19B2400X012, Light Blue	17E68 and 17E88	24	1.7	24	1.7
		GE12727X012, Black	17E97	35	2.5	35	2.5
			17E68 and 17E88	30	2.1	30	2.1
		19B2401X012, Black with White Stripe ⁽³⁾	17E88 and 17E97	43	3.0	43	3.0
2	50	19B0951X012, Yellow ⁽²⁾	17E68 and 17E88	12	0.83	12	0.83
		18B2126X012, Green	17E97	24	1.7	24	1.7
			17E68 and 17E88	18	1.2	19	1.3
		18B5955X012, Red ⁽³⁾ GE05504X012, Purple ⁽³⁾	17E88 and 17E97	29	2.0	31	2.1
3	80	T14184T0012, Yellow ⁽²⁾	17E68 and 17E88	16	1.1	23	1.6
		19B0781X012, Light Blue	17E97	23	1.6	23	1.6
			17E68 and 17E88	21	1.5	28	1.9
		19B0782X012, Black ⁽³⁾	17E88 and 17E97	32	2.2	38	2.6
4	100	T14184T0012, Yellow ⁽²⁾	17E68 and 17E88	10	0.69	25	1.7
		18B8501X012, Green	17E97	16	1.1	34	2.3
			17E68 and 17E88	16	1.1	30	2.1
		18B8502X012, Red ⁽³⁾	17E88 and 17E97	21	1.5	40	2.8
6	150	19B0364X012, Yellow ⁽²⁾	17E97	10	0.69	12	0.83
			17E88	10	0.69	12	0.83
		19B0366X012, Green	17E97	14	0.97	19	1.3
			17E88	17	1.2	20	1.4
		19B0365X012, Red ⁽³⁾	17E88 and 17E97	23	1.6	30	2.1
8	200	GE09393X012, Yellow ⁽²⁾	17E97	16	1.1	19	1.3
		GE09396X012, Green		20	1.4	23	1.6
		GE09397X012, Red ⁽³⁾		26	1.8	30	2.1

1. See Table 1 for structural design ratings, Table 3 for pilot ratings and Table 6 for maximum pressure ratings.
2. The white and yellow springs are only recommended for inlet pressures under 100 psig / 6.9 bar.
3. The red, black, purple, red stripe and black with white stripe springs are only recommended for applications where the maximum inlet pressure can exceed 500 psig / 34.5 bar.

Type EZR Relief

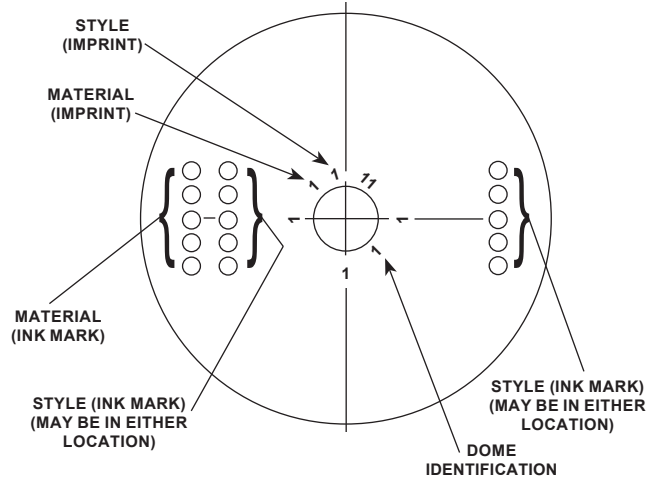


Figure 4. Diaphragm Markings

Table 3. Set Pressure Ranges, Pilot Pressure Ratings and Pilot Information⁽¹⁾

PILOT TYPE	RELIEF SET PRESSURE RANGE		PILOT CONTROL INFORMATION									
			Part Number	Color	Wire Diameter		Free Length		Maximum Operating Pressure		Maximum Emergency Pressure	
	psig	bar			In.	mm	In.	mm	psig	bar	psig	bar
6358 and 6358B	20 to 40	1.4 to 2.8	1E392527022	Yellow	0.148	3.76	2.00	50.8	150	10.3	150	10.3
	35 to 125	2.4 to 8.6	1K748527202	Red	0.187	4.75	2.19	55.6				
6358EB	75 to 140	5.2 to 9.7	17B1261X012	Green	0.225	5.71	3.70	94.0	650	44.8	750	51.7
	130 to 200	9.0 to 13.8	17B1263X012	Blue	0.262	6.65	3.85	97.8				
	180 to 350	12.4 to 24.1	17B1264X012	Red	0.294	7.47	4.22	107				
6358EBH	250 to 450	17.3 to 31.0	17B1263X012	Blue	0.262	6.85	3.85	97.8	609	42.0	1480	102
	400 to 600	27.6 to 41.4 ⁽²⁾	17B1264X012	Red	0.294	7.47	4.22	107				
PRX/182	29 to 116	2 to 8	M0255220X12	Black	0.157	4.00	2.16	55.0	1160	80.0	1480	102
	73 to 290	5 to 20	M0255200X12	Gold	0.217	5.50	2.01	51.0				
	217 to 609	15 to 42	M0255190X12	Red	0.256	6.50	1.97	50.0				
PRX/182-AP	435 to 1160	30 to 80	M0273790X12	Clear	0.335	8.50	3.94	100	1160	80.0	1480	102

1. See the Main Valve Body Sizes, End Connections, Structural Design Ratings tables and the Main Valve Diaphragm and Spring Pressure Ratings table for additional pressure ratings.
2. Fluorocarbon (FKM) diaphragms are limited to 450 psig / 31.0 bar.

Table 4. Diaphragm Material Selection and Pressure Ratings

	17E68 NITRILE (NBR)	17E97 ⁽³⁾ NITRILE (NBR)	17E88 FLUOROCARBON (FKM)
Gas Temperature (for lower temperatures contact your local Sales Office)	-20 to 150°F / -28 to 66°C	0 to 150°F / -17 to 66°C	0 to 250°F / -17 to 121°C ⁽¹⁾
General Applications	Best for Cold Temperatures	Best for high pressure conditions, i.e. transmission service or high pressure industrial service. It is also the best for abrasive or erosive service applications.	Best for natural gas having aromatic hydrocarbons. It is also the best for high temperature applications.
Heavy Particle Erosion	Fair	Excellent	Good
Natural Gas With:			
Up to 3% Aromatic Hydrocarbon Content ⁽²⁾	Good	Excellent	Excellent
3 to 15% Aromatic Hydrocarbon Content ⁽²⁾	Poor	Good	Excellent
15 to 50% Aromatic Hydrocarbon Content ⁽²⁾	Not Recommended	Poor	Excellent
Up to 3% H ₂ S (Hydrogen Sulfide or Sour Gas)	Good	Good	Good
Up to 3% Ketone	Fair	Fair	Fair
Up to 10% Alcohol	Good	Good	Fair
Up to 3% Synthetic Lube	Fair	Fair	Good

1. For differential pressures above 400 psig / 27.6 bar diaphragm temperature is limited to 150°F / 66°C.
2. The aromatic hydrocarbon content is based on percent volume.
3. The NPS 6 / DN 150, 17E97 diaphragm will perform in gas temperatures as low as -20°F / -29°C.

Table 5. Diaphragm Imprint Codes

STYLE		MATERIAL		DIAPHRAGM MATERIAL
Imprint	Ink Mark	Imprint	Ink Mark	
2	130	2	17E68	17E68 - Nitrile (NBR) (Low Temperature)
		4	17E88	17E88 - Fluorocarbon (FKM) (High Aromatic Hydrocarbon Content Resistance)
		5	17E97	17E97 - Nitrile (NBR) (High Pressure and/or Erosion Resistance)

Table 6. Main Valve Maximum Pressure Ratings, Diaphragm Selection Information and Main Spring Selection⁽¹⁾

BODY SIZE		DIAPHRAGM MATERIAL	MAXIMUM OPERATING INLET PRESSURE ⁽⁴⁾		MAXIMUM OPERATING DIFFERENTIAL PRESSURE ⁽⁴⁾		MAXIMUM EMERGENCY INLET AND DIFFERENTIAL PRESSURE		MAIN SPRING COLOR CODE	DIAPHRAGM DESIGNATION
NPS	DN		psig	bar	psid	bar d	psid	bar d		
1	25	17E68 Nitrile (NBR) Low Temperature	100	6.9	100	6.9	100	6.9	Light Blue	130
			460	31.7	400	27.6	460	31.7	Black	
		17E97 Nitrile (NBR) High Pressure and/or Erosion Resistance	500	34.5	500	34.5	1050	72.4	Black	
			1050	72.4	800	55.2	1050	72.4	Black with White Stripe ⁽²⁾	
		17E88 Fluorocarbon (FKM) High Aromatic Hydrocarbon Content Resistance	100	6.9	100	6.9	100	6.9	Light Blue	
			500	34.5	500	34.5 ⁽³⁾	750	51.7	Black	
750	51.7		500	34.5 ⁽³⁾	750	51.7	Black with White Stripe ⁽²⁾			
2	50	17E68 Nitrile (NBR) Low Temperature	100	6.9	100	6.9	100	6.9	Yellow	
			460	31.7	400	27.6	460	31.7	Green	
		17E97 Nitrile (NBR) High Pressure and/or Erosion Resistance	500	34.5	500	34.5	1050	72.4	Green	
			1050	72.4	800	55.2	1050	72.4	Red ⁽²⁾ or Purple ⁽²⁾	
		17E88 Fluorocarbon (FKM) High Aromatic Hydrocarbon Content Resistance	100	6.9	100	6.9	100	6.9	Yellow	
			500	34.5	500	34.5 ⁽³⁾	750	51.7	Green	
750	51.7		500	34.5 ⁽³⁾	750	51.7	Red ⁽²⁾ or Purple ⁽²⁾			
3	80	17E68 Nitrile (NBR) Low Temperature	100	6.9	100	6.9	100	6.9	Yellow	
			360	24.8	300	20.7	500	34.5	Light Blue	
		17E97 Nitrile (NBR) High Pressure and/or Erosion Resistance	500	34.5	500	34.5	1050	72.4	Light Blue	
			1050	72.4	800	55.2	1050	72.4	Black ⁽²⁾	
		17E88 Fluorocarbon (FKM) High Aromatic Hydrocarbon Content Resistance	100	6.9	100	6.9	100	6.9	Yellow	
			500	34.5	500	34.5 ⁽³⁾	750	51.7	Light Blue	
750	51.7		500	34.5 ⁽³⁾	750	51.7	Black ⁽²⁾			
4	100	17E68 Nitrile (NBR) Low Temperature	100	6.9	100	6.9	100	6.9	Yellow	
			360	24.8	300	20.7	500	34.5	Green	
		17E97 Nitrile (NBR) High Pressure and/or Erosion Resistance	500	34.5	500	34.5	1050	72.4	Green	
			1050	72.4	800	55.2	1050	72.4	Red ⁽²⁾	
		17E88 Fluorocarbon (FKM) High Aromatic Hydrocarbon Content Resistance	100	6.9	100	6.9	100	6.9	Yellow	
			500	34.5	500	34.5 ⁽³⁾	750	51.7	Green	
750	51.7		500	34.5 ⁽³⁾	750	51.7	Red ⁽²⁾			
6	150	17E97 Nitrile (NBR) High Pressure and/or Erosion Resistance	100	6.9	100	6.9	100	6.9	Yellow	
			500	34.5	500	34.5	1050	72.4	Green	
			1050	72.4	800	55.2	1050	72.4	Red ⁽²⁾	
		17E88 Fluorocarbon (FKM) High Aromatic Hydrocarbon Content Resistance	100	6.9	100	6.9	100	6.9	Yellow	
			500	34.5	500	34.5 ⁽³⁾	750	51.7	Green	
			750	51.7	500	34.5 ⁽³⁾	750	51.7	Red ⁽²⁾	
8	200	17E97 Nitrile (NBR) High Pressure and/or Erosion Resistance	100	6.9	100	6.9	100	6.9	Yellow	
			500	34.5	500	34.5	1050	72.4	Green	
			1050	72.4	800	55.2	1050	72.4	Red ⁽²⁾	

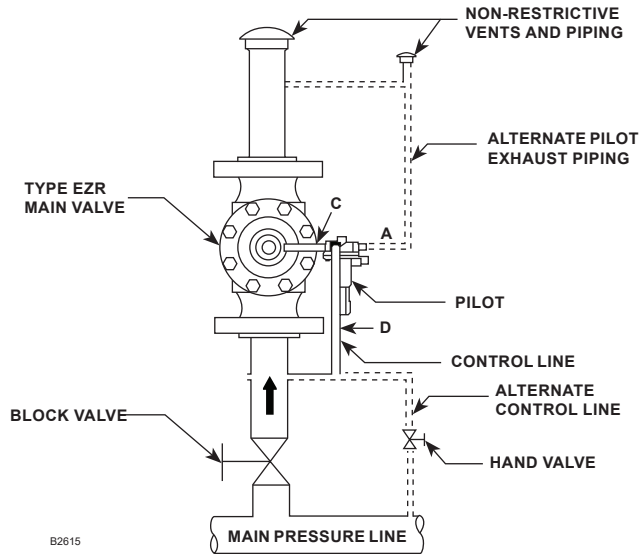
1. See Table 1 for main valve structural design ratings and Table 3 for pilot ratings.

2. The red, black, purple, red stripe and black with white stripe springs are only recommended for applications where the maximum inlet pressure can exceed 500 psig / 34.5 bar.

3. For differential pressures above 400 psid / 27.6 bar d diaphragm temperatures are limited to 150°F / 66°C.

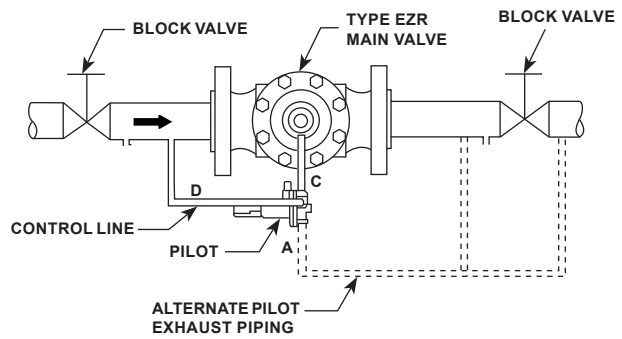
4. These are recommendations that provide the best regulator performance for a typical application. Please contact your local Sales Office for further information if a deviation from the standard recommendations is required.

Type EZR Relief



A - VENT (TO ATMOSPHERE OR DOWNSTREAM PIPING)
 C - TO TYPE EZR LOADING CHAMBER
 D - PILOT SUPPLY (FROM UPSTREAM)

Figure 5. Relief Pressure Control Installation Schematics



A - VENT (TO ATMOSPHERE OR DOWNSTREAM PIPING)
 C - TO TYPE EZR LOADING CHAMBER
 D - PILOT SUPPLY (FROM UPSTREAM)

Figure 6. Backpressure Control Installation Schematics



WARNING

When used in relief valve service, the Type EZR main valve and pilot both exhaust gas. In hazardous or flammable gas service, personal injury, death or property damage may occur due to fire or explosion of vented gas that has accumulated. To prevent such injury or damage, provide piping or tubing to vent the gas to a safe location. The exhaust piping must be designed and installed to guard against excessive flow restriction. This piping must be protected against condensation or debris that could clog it.

For safety during shutdown, vent valves are required immediately upstream and downstream of the main valve on a backpressure or bypass installation.

1. If system operation during maintenance is required, install isolating and vent valves as needed.
2. If the vent assembly (key 16, Figure 14, 15 or 17) remains in the pilot body (key 1, Figure 14 or 15), then it must be pointed down if possible or otherwise protected. One control line is required for the 6358 Series and two control lines for the Type PRX/182. If the exhaust is to be piped to the main valve exhaust or remotely vented, remove the vent assembly and install tubing or piping into the 1/4 NPT pilot exhaust connection. Protect the open end of the exhaust pipe by installing a screened vent cap.

3. The pilot spring case vent (key 16, Figure 14, 15 or 17) must be kept open to atmospheric pressure. Protect the vent assembly from icing, moisture or debris that may cause blockage, as required. To change the vent orientation, twist the vent assembly in the spring case. To remotely vent the pilot spring case, remove the vent assembly and install tubing or piping into the 1/4 NPT spring case vent tapping. Protect the open end of the vent line by installing a screened vent cap.

Startup and Shutdown



CAUTION

If pressure is introduced first to the main valve before the pilot, the main valve may go wide-open and subject the downstream system to full inlet pressure.

Note

The maximum inlet pressure for specific constructions are given in Table 1 or 2. Use a pressure gauge to monitor inlet pressure during startup.

Relief Installation (Figure 5)

Startup

1. Close vent valve (not shown).
2. Slowly open block valve and hand valve, if installed.
3. Adjust the pilot as needed.

Shutdown

1. Close block valve and hand valve, if installed.
2. Slowly open vent valve (not shown).

Backpressure Installation (Figure 6)

Startup

1. Close upstream and downstream vent valves (not shown).
2. Slowly open upstream block valve first and then slowly open downstream block valve.
3. Adjust the pilot as needed. If the pilot is not piped downstream, make sure the pilot exhaust is pointed in the correct direction.

Shutdown

1. Close upstream block valve first and then close the downstream block valve.
2. Open downstream and upstream vent valves (not shown).

6358 Series Pilot Adjustment (See Figure 14 or 15)

If set pressure adjustment is necessary, monitor relief (inlet) pressure with a gauge during the adjustment procedure. Remove the pilot closing cap (key 12) and loosen the locknut (key 11). Turn the adjusting screw (key 10) into the spring case to increase the set pressure. Turn the adjusting screw out of the spring case to decrease the set pressure. When adjustment is completed, tighten the locknut to lock the adjusting screw in position and replace the pilot closing cap.

PRX Series Pilot Adjustment (See Figure 19)

If set pressure adjustment is necessary, monitor relief (inlet) pressure with a gauge during the adjustment procedure. Loosen the locknut (key 2). Turn the adjusting screw (key 1) into the spring case to increase the set pressure. Turn the adjusting screw (key 1) out of the spring case to decrease the set pressure. When adjustment is completed, tighten the locknut to lock the adjusting screw in position.

The adjustment of the relief valve or backpressure regulator is performed by means of the pilot adjusting screw, which varies the compression of the control spring.

Maintenance

Relief valve or backpressure regulator parts are subject to normal wear and must be inspected periodically and replaced as necessary. Due to the care Fisher™ takes in meeting all manufacturing requirements (heat treating, dimensional tolerances, etc.), use only replacement parts manufactured or furnished by Fisher. Also when lubrication is required, use a good quality lubricant and sparingly coat the recommended parts.

The frequency of inspection and replacement depends upon the severity of service conditions and upon applicable codes, government regulations and company standards. Table 7 lists various regulator problems and possible solutions.

WARNING

Avoid personal injury or damage to property from sudden release of pressure or uncontrolled gas or other process fluid. Before starting to disassemble, carefully release all pressures according to the appropriate shutdown procedure. Use a gauge to monitor relief (inlet) pressure while releasing it.

Type EZR Main Valve Maintenance

Trim Parts

Instructions are given for complete disassembly and assembly. Key numbers are referenced in Figures 9 through 13 unless otherwise noted.

WARNING

Avoid personal injury or damage to property from sudden release of pressure or uncontrolled gas or other process fluid. Before starting to disassemble, carefully release all pressures according to the shutdown procedure. Use gauges to monitor inlet and outlet pressures while releasing these pressures.

Note

The regulator may remain in the pipeline during maintenance procedures.

Disassembly

1. Shutdown, isolate depressurize the main valve and pilot.
2. Remove travel indicator assembly or travel indicator plug assembly using the Travel Indicator Assembly Maintenance section.
3. Remove the cap screws (key 3). Lift up and remove the bonnet (key 2) from the body (key 1).
4. Remove the diaphragm and plug assembly (key 9) and bonnet O-ring (key 28).
5. Pull out the cage (key 7), O-ring (key 8) and inlet strainer or strainer shim (if strainer is not used) (key 23).
6. Clean parts and replace if necessary.

Converting a Fisher E-Body to Type EZR:

Remove all trim parts from the main valve and clean the body interior. Then follow procedure in Assembly section to convert a Fisher E-body to a Type EZR.

Type EZR Relief

Table 7. Maintenance Tips

PROBLEM	POSSIBLE SOLUTION (SEE FIGURES 7 AND 8 FOR PARTS LOCATION)
Unit does not provide tight shutoff when inlet pressure is below set pressure	Check for: <ul style="list-style-type: none"> • damage or improper installation of the main valve O-rings • erosion or trapped debris on the cage and diaphragm surfaces • damage or debris on the surfaces of the pilot plug and seat
Main valve is wide-open when inlet pressure is below set pressure	Check for: <ul style="list-style-type: none"> • debris in the pilot or pilot supply filter • debris in the main valve • main valve and pilot diaphragms for damage
Gas escapes from pilot spring case	<ul style="list-style-type: none"> • Replace diaphragm assembly
Gas escapes from travel indicator	<ul style="list-style-type: none"> • Replace indicator stem O-ring, if indicator is not desired, convert to a non-travel indicator assembly
Unit does not open when inlet pressure is above set pressure	Check for: <ul style="list-style-type: none"> • clogged main valve inlet strainer (if used) or pilot supply filter (if used) • pilot icing or blockage, Types 6358B, 6358EB and 6358EBH pilots should be exhausting gas • main valve diaphragm damage • proper control line connection and make sure control line hand valve (if used) is open
Inlet pressure rises higher than expected	Check for: <ul style="list-style-type: none"> • correct main valve sizing • clogged main valve inlet strainer • restrictive inlet or outlet piping • plugged or restricted control line • proper control line location (should not be installed in or directly downstream of an elbow or swage) • proper springs in the main valve and pilot
Relief valve opens properly then closes unexpectedly	Check for: <ul style="list-style-type: none"> • icing inside the pilot

CAUTION

When installing a Type EZR trim package make sure flow is up through the center of the cage and down through the cage slots. In some cases, correct flow path is achieved by removing the body from the line and turning it around. If this is done, change the flow arrow to indicate the correct direction. Damage may result if flow is not in the correct direction. After assembly, check the regulator for shutoff and leakage to atmosphere.

Assembly

1. Install the inlet strainer or shim (key 23) into the body (key 1).

Note

For installation in a vertical orientation, lubricant can be applied to the bottom of the inlet strainer or shim (key 23) to help hold parts in place while the cage assembly is installed.

2. Lightly lubricate and install the cage O-ring (key 8).
3. Apply lubricant lightly to all O-rings or the mating part before installing them.
4. Install the cage (key 7) and lightly lubricate and install the bonnet O-ring (key 28).

Note

For the NPS 6 / DN 150, secure the cage (key 7) to the restrictor plate (key 71) using the cap screws (key 126), using a torque of 10 to 12 ft-lbs / 14 to 16 N•m.

5. Lubricate the top and bottom of the outer edge (bead area) of the diaphragm and place diaphragm and plug assembly (key 9) on the cage (key 7) making sure the bead is in the cage groove. Lubricate the top plug (key 5) recess.
6. Prior to installing the travel indicator or travel indicator plug, install the bonnet (key 2) in proper orientation.

CAUTION

Make sure to use a Type EZR bonnet. The Type EZR bonnet is not interchangeable with other Fisher™ E-body bonnets. Installing an improper bonnet can result in stem assembly breakage and unit failure. The bonnet can be identified by the Type EZR markings on the top.

7. Lubricate cap screws (key 3) and secure the bonnet (key 2), using an even crisscross pattern. It may be necessary to push down on the bonnet to start the cap screws. Tighten cap screws to the proper torque (see Table 8).
8. Lightly lubricate the travel indicator assembly threads and install the indicator fitting (key 19) into the bonnet (key 2, Figure 14), tighten to the proper torque (see Table 8).

Diaphragm and Plug Assembly Maintenance

The diaphragm and plug assembly can be replaced as a single unit (a diaphragm cartridge) or individual components within the assembly can be replaced. When replacing individual components, inspect each component for damage and wear and replace parts as needed. Key numbers for the following assembly and disassembly procedure are referenced in Figures 7 and 9.

Table 8. Torque Values

BODY SIZE		TORQUE							
		Cap Screws		Flange Lock Nut		Indicator Fitting		Indicator Plug	
NPS	DN	Ft-lbs	N•m	Ft-lbs	N•m	Ft-lbs	N•m	Ft-lbs	N•m
1	25	75 to 95	102 to 129	4 to 6	5.4 to 10.8	90 to 160	122 to 217	90 to 160	122 to 217
2	50	55 to 70	75 to 95	6 to 8	8 to 10.8	90 to 160	122 to 217	90 to 160	122 to 217
3	80	100 to 130	136 to 176	19 to 25	25.8 to 33.9	200 to 300	271 to 407	200 to 300	271 to 407
4	100	160 to 210	217 to 285	19 to 25	25.8 to 33.9	200 to 300	271 to 407	200 to 300	271 to 407
6	150	375 to 425	509 to 577	50 to 100	68 to 136	300 to 425	407 to 577	300 to 425	407 to 577
8	200	400 to 450	542 to 610	90 to 110	122 to 144	300 to 425	407 to 577	300 to 425	407 to 577

- Place a screwdriver or similar tool through the hole in the top plug (key 5).
- Remove the flanged locknut (key 13) from the bottom plug (key 11). This loosens the entire assembly.

Note

On NPS 1 / DN 25 body, remove the socket head screw (key 129) and lock washer (key 130) from the bottom plug.

- Remove the bottom plug (key 11) and the bottom plug O-ring (key 10).
- Remove the diaphragm (key 9).
- Remove the top plug O-rings (keys 14 and 70).
- Check all components for damage or wear and replace as necessary.
- When reassembling, be sure to lubricate all O-rings before installing.
- Hold the top plug (key 5). Place the parts on the top plug in the following order:
 - O-ring (key 14)
 - O-ring (key 70)
 - Diaphragm (key 9)
 - O-ring (key 10)
 - Bottom Plug (key 11)
 - Flanged Locknut (key 13)
- Reassemble in the reverse order. Tighten flange locknut (key 13) to the proper torque (see Table 8).

Travel Indicator Assembly Maintenance

Travel indicator assembly key numbers are referenced in Figures 8, 9 and 13. The indicator assembly can be removed and installed without removing the bonnet (key 2) from the body (key 1). Travel indicator maintenance is performed for two reasons:

- When damaged or worn parts need replacing.
- When travel indicator is removed and replaced with a travel indicator plug assembly.



WARNING

Avoid personal injury or damage to property from sudden release of pressure or uncontrolled gas or other process fluid. Before starting to disassemble, carefully release all pressures according to the shutdown procedure. Use gauges to monitor inlet, loading and outlet pressures while releasing these pressures.

- Remove the indicator protector (key 22, Figure 9) and indicator cover (key 21).
- Remove the first hex nut (key 4) and the indicator washer (key 20).
- Unscrew the second hex nut (key 4) to the top of the indicator stem (key 15). Do not remove.
- Use a wrench to remove indicator fitting (key 19).
- Lift out travel indicator assembly. If replacing travel indicator with travel indicator plug, skip to step 9.
- Compress the main spring (key 12). Remove the second hex nut (key 4). Parts will separate easily when the hex nut is removed.
- Slide the indicator stem (key 15) out of the indicator fitting (key 19). The main spring (key 12) and upper spring seat (key 17) will be free.
- If necessary, use the indicator stem (key 15) to pry the backup rings (key 16) and O-ring (key 18) out of the indicator fitting (key 19).
- Check the indicator fitting O-ring (key 6). Lubricate and replace if necessary.
- To replace travel indicator parts, lubricate all O-rings, backup rings and threads. To reassemble, hold the indicator stem (key 15) and place the parts on the stem in the following order:
 - Washer (key 79 for NPS 6 / DN 150 size only)
 - Main Spring (key 12), small end first
 - Upper Spring Seat (key 17), make sure to place the large end toward the spring
 - First Backup Ring (key 16)

Type EZR Relief

- O-ring (key 18)
- Second Backup Ring (key 16)
- Indicator Fitting (key 19), the backup rings (key 16) and O-ring (key 18) should slide into the indicator fitting and the small end of the upper spring seat (key 17) should slide into the indicator fitting.
- First Hex Nut (key 4)
- Indicator Washer (key 20)
- Second Hex Nut (key 4)

Install the indicator fitting (key 19) into the bonnet (key 2, Figure 9), tighten using the proper torque (see Table 8).

To set the travel indicator, hold the indicator cover (key 21) next to the indicator fitting (key 19). Screw the hex nuts (key 4) and the indicator washer (key 20) down on the indicator stem (key 15) until the washer is even with the lowest marking on the indicator cover. Lightly lubricate the indicator cover threads and install. Replace the indicator protector (key 22).

To replace the travel indicator with the non-travel indicator option on a NPS 2 / DN 50 body, lubricate all O-rings and threads. Hold the stem (key 15) and install parts on the stem in the following order:

- Main Spring (key 12)
- Upper Spring Seat (key 17)
- Machine Screw (key 83), insert and tighten
- Indicator Plug (key 19)

Install the indicator plug (key 19) into the bonnet using the proper torque (see Table 8).

To replace the travel indicator with the non-travel indicator option on a NPS 1, 3, 4 or 6 body / DN 25, 80, 100 and 150 place the main spring (key 12) into the bonnet and install the indicator plug (key 19) using the proper torque (see Table 8).

6358 Series Pilots

Key numbers are referenced in Figures 14, 15 and 16 unless otherwise noted. Unless replacing or removing the body assembly (key 1), the pilot may remain on the pipe nipple (key 29, Figure 17) during maintenance.



WARNING

Avoid personal injury or damage to property from sudden release of pressure or uncontrolled gas or other process fluid. Before starting to disassemble, carefully release all pressures according to the shutdown procedure. Use gauges to monitor inlet, loading and outlet pressures while releasing these pressures.

Disassembly

1. If necessary to check the outlet end of the body cavity and the seating surfaces for moisture or debris, remove the body plug (key 3) and body plug O-ring (key 13) from the body (key 1).
2. Remove the closing cap (key 12), loosen the locknut (key 11) and back out the adjusting screw (key 10) until compression is removed from the control spring (key 7).
3. Remove the machine screws (key 17) and separate the spring case (key 2) from the body assembly. Remove the control spring seat (key 8), the control spring (key 7) and, if used, the diaphragm limiter (key 40).
4. Lift out the diaphragm assembly (key 5) and valve plug (key 4). Check the stem guide (key 9) and restriction (key 20) for damage or plugging. The 6358 Series has a restriction plug, not a restriction.
5. If necessary to replace the diaphragm assembly, the valve plug (key 4), the valve spring (key 14) or the stem O-ring (key 37), remove the connector cap (key 6) and connector cap O-ring or gasket (key 36) from the top of the diaphragm assembly.

Assembly

1. If removed, install the body plug O-ring (key 13) over the body plug (key 3) and install the body plug into the body (key 1).
2. Install the stem guide (key 9), if removed make sure to install the connector cap O-ring or gasket (key 36) between the body (key 1) and the stem guide.

Note

In step 3, if installing a different size restriction, be sure to remove the code letter on the bottom of the pilot and indicate the new letter.

3. If the restriction or restriction plug (key 20) was removed, coat the threads with lubricant and install it.
4. If replacing the stem O-ring (key 37), sparingly apply lubricant and install the O-ring over the valve plug (key 4).
5. If removed, install the valve plug (key 4) and valve spring (key 14) into the diaphragm assembly (key 5). Install a replacement connector cap O-ring or gasket (key 36) on the diaphragm assembly and secure with the connector cap (key 6).
6. Install the diaphragm assembly (key 5) and push down on it to see if the valve plug (key 4) moves smoothly. The diaphragm assembly should stroke approximately 1/16 in. / 1.6 mm after the valve plug contacts the port.

Note

In step 7, if installing a control spring of a different set pressure range, be sure to remove the set pressure range on the spring case and indicate the new range.

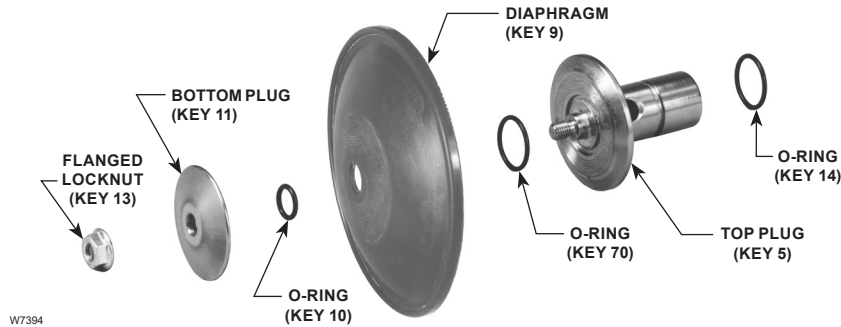


Figure 7. Diaphragm and Plug Assembly Components

7. Stack the control spring (key 7), the control spring seat (key 8) and, if used, the diaphragm limiter (key 40) onto the diaphragm assembly (key 5). Make sure to install the diaphragm limiter beveled side up.
8. Install the spring case (key 2) on the body (key 1) with the vent assembly (key 16) oriented to prevent clogging or entrance of moisture. Install the machine screws (key 17) and tighten in a crisscross pattern, using 5 to 7 ft-lbs / 7 to 9 N•m of torque.
9. Replace the closing cap gasket (key 19) if necessary install the closing cap (key 12). When all maintenance is complete, refer to the Startup and Shutdown section to put the relief valve or backpressure regulator into operation and adjust the pressure setting.

Type PRX/182 Pilot

A Type PRX/182 pilot has the ability to handle a wide range of setpoints from 29 to 1160 psig / 2.0 to 80.0 bar.

Type PRX/182 Pilot Maintenance



Always remove spring tension before performing maintenance on this unit. To remove spring compression, loosen locknut (key 2, Figure 19) and back out adjusting screw (key 1) until compression is removed from the spring (key 7).

Note

Apply an anti-seize compound to the adjusting screw threads and other areas as needed.

Lower Case Maintenance

1. Disconnect pilot and remove it from the line.
2. Remove machine screws (key 10) from lower cover (key 21) and the separate lower cover from the body (key 16).
3. Use a wrench to hold the stem (key 23) and break loose the stem nut (key 20). Remove the stem nut and washer (key 11).

4. Remove the diaphragm plate (key 13), diaphragm (key 14), lower diaphragm plate (key 15) and O-ring (key 18). Inspect parts for damage or wear, replace if necessary.
5. Lightly lubricate the O-ring (key 25). Place O-ring over the stem (key 23) and press it down into the body (key 16).
6. Lightly lubricate the rims of the diaphragm (key 14) and place it on top of the lower diaphragm plate (key 15). Set the diaphragm plate (key 13) on the diaphragm (key 14).
7. Lightly lubricate the O-ring (key 18) and place it in the lower cover (key 21).
8. Place the washer (key 11) and stem nut (key 20) on the stem (key 23) and tighten. If also performing Upper Case Maintenance, skip to step 2 of the Upper Case Maintenance section.
9. Insert washers (key 11) and machine screws (key 10) in the lower cover (key 21) and tighten uniformly to ensure proper seal.

Upper Diaphragm Maintenance

1. Disconnect pilot and remove it from the line.
2. Loosen locknut (key 2) and back out adjusting screw (key 1) until compression is removed from the spring. Remove cap (key 3).
3. Lift the upper spring seat (key 6), spring (key 7) and O-ring (key 4) out of the spring case (key 8). Inspect O-ring and replace if necessary.
4. Remove the machine screws (key 10) and the washers (key 11), separate the spring case (key 8) from the body (key 16) and lift the lower spring seat (key 9) away from upper diaphragm nut (key 26). Use a wrench to hold stem (key 23) securely while removing the upper diaphragm nut.
5. Remove remaining loose components: washer (key 11), upper diaphragm plate (key 13), diaphragm (key 14), disk holder (key 22) and O-ring (key 18). Inspect diaphragm and O-ring for damage or wear and replace if necessary.

Type EZR Relief

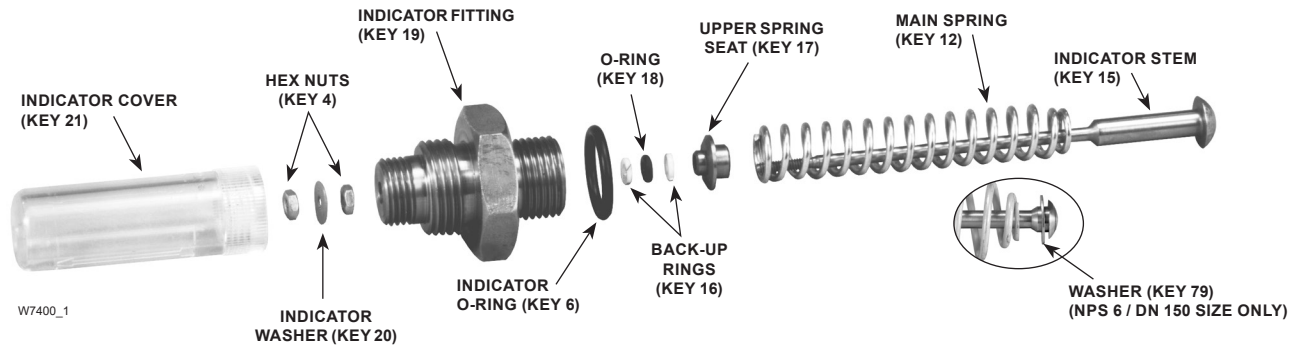


Figure 8. Travel Indicator Parts

6. Remove seat (key 19) and O-ring (key 17). Inspect the parts for damage or wear replace if necessary. Lightly lubricate the O-ring and place in the body (key 16). Install the orifice.
7. Set the disk holder (key 22) in the body (key 16).
8. Lightly lubricate the rims of the diaphragm plate (key 14). Position the diaphragm convolution facing down, make sure that the diaphragm is not deformed and is properly installed. Take the diaphragm (key 14) and place it in the body (key 16) on top of the disk holder (key 22).
9. Set the upper diaphragm plate (key 13) on top of the diaphragm (key 14).
10. Place washer (key 11) and stem nut (key 26) on the stem (key 23) and tighten using a wrench to hold the stem.
11. Place the upper spring seat (key 9) on the upper diaphragm nut (key 26) and mount the spring case (key 8) on top of the body (key 24) and the diaphragm (key 14).
12. Place and uniformly tighten the machine screws (key 10) and washers (key 11) to hold the body (key 24) and spring case (key 8) together.
13. Install spring (key 7) and upper spring seat (key 6) on top of the lower spring seat (key 9) inside the spring case (key 8). Install Cap (key 3).
14. Screw in adjusting screw (key 1) at desired spring compression and use the lock nut (key 2) to lock the adjusting screws position. Refer to Pilot Adjustment section (page 11) to adjust pilot settings.

Parts Ordering

Each regulator is assigned a serial number, which can be found on the nameplate. Refer to the number when contacting your local Sales Office for technical information or when ordering parts.

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

*Recommended spare part

Parts List

Type EZR Main Valve (Figures 9 to 13)

Key	Description	Part Number
Parts Kits		
Diaphragm Cartridge and O-rings (Included are keys 5, 6, 8, 9, 10, 11, 13, 14, 16, 18, 28, 66, 67, 70 and 121)		
NPS 1 / DN 25		
	17E68 Nitrile (NBR)	10C0502X032
	17E97 Nitrile (NBR)	REZR000CS12
	17E88 Fluorocarbon (FKM)	10C0502X012
NPS 2 / DN 50		
	17E68 Nitrile (NBR)	18B5959X012
	17E97 Nitrile (NBR)	18B5959X022
	17E88 Fluorocarbon (FKM)	18B5959X032
NPS 3 / DN 80		
	17E68 Nitrile (NBR)	18B9884X022
	17E97 Nitrile (NBR)	18B9884X032
	17E88 Fluorocarbon (FKM)	18B9884X042
NPS 4 / DN 100		
	17E68 Nitrile (NBR)	18B8508X022
	17E97 Nitrile (NBR)	18B8508X032
	17E88 Fluorocarbon (FKM)	18B8508X042
NPS 6 / DN 150		
	17E97 Nitrile (NBR)	REZR000CS62
	17E88 Fluorocarbon (FKM)	19B2840X032
NPS 8 / DN 200		
	17E97 Nitrile (NBR)	REZR000CS82
Diaphragm and O-rings (Included are keys 6, 8, 9, 10, 13, 14, 18, 28 and 70)		
NPS 1 / DN 25		
	17E68 Nitrile (NBR)	19B2412X022
	17E97 Nitrile (NBR)	REZR0000S12
	17E88 Fluorocarbon (FKM)	19B2412X042
NPS 2 / DN 50		
	17E68 Nitrile (NBR)	18B5952X012
	17E97 Nitrile (NBR)	18B5952X022
	17E88 Fluorocarbon (FKM)	18B5952X032
NPS 3 / DN 80		
	17E68 Nitrile (NBR)	18B9885X022
	17E97 Nitrile (NBR)	18B9885X032
	17E88 Fluorocarbon (FKM)	18B9885X042
NPS 4 / DN 100		
	17E68 Nitrile (NBR)	18B8507X022
	17E97 Nitrile (NBR)	18B8507X032
	17E88 Fluorocarbon (FKM)	18B8507X042
NPS 6 / DN 150		
	17E97 Nitrile (NBR)	REZR0000S62
	17E88 Fluorocarbon (FKM)	19B2837X032
NPS 8 / DN 200		
	17E97 Nitrile (NBR)	REZR0000S82

Type EZR Relief

Key	Description	Part Number	Key	Description	Part Number
1	Valve Body	See Table 9	9*	Diaphragm	
2	Bonnet Assembly, Steel			NPS 1 / DN 25 body	
	NPS 1 / DN 25 body	39B2403X022		17E97 Nitrile (NBR), High Pressure	GE11960X012
	NPS 2 / DN 50 body	38B2122X022		17E68 Nitrile (NBR), Low Temperature	30C1009X012
	NPS 3 / DN 80 body	38B5963X022		17E88 Fluorocarbon (FKM)	39B2397X022
	NPS 4 / DN 100 body	38B2133X022		NPS 2 / DN 50 body	
	NPS 6 / DN 150 body	49B0355X022		17E68 Nitrile (NBR), Low Temperature	29B1909X012
	NPS 8 / DN 200 body	GE18697X022		17E97 Nitrile (NBR), High Pressure	28B2123X052
3	Cap Screw, Zinc-plated steel			17E88 Fluorocarbon (FKM)	29B2715X012
	NPS 1 / DN 25 body (4 required)	1R281124052		NPS 3 / DN 80 body	
	NPS 2 / DN 50 body (8 required)	1A453324052		17E68 Nitrile (NBR), Low Temperature	38B9886X012
	NPS 3 / DN 80 body (8 required)	1A454124052		17E97 Nitrile (NBR), High Pressure	39B2726X012
	NPS 4 / DN 100 body (8 required)	1A440224052		17E88 Fluorocarbon (FKM)	38B8512X022
	NPS 6 / DN 150 body (12 required)	1U513124052		NPS 4 / DN 100 body	
4	Hex Nut (2 required)			17E68 Nitrile (NBR), Low Temperature	38B8509X012
	NPS 1 and 2 / DN 25 and 50 bodies, Zinc-plated carbon steel	1H322228982		17E97 Nitrile (NBR), High Pressure	39B3996X012
	NPS 3, 4 and 6 / DN 80, 100 and 150 bodies Stainless steel	1L286338992		17E88 Fluorocarbon (FKM)	39B1154X012
	NPS 8 / DN 200 body, Zinc-plated carbon steel	1A573528982		NPS 6 / DN 100 body	
5	Top Plug, Stainless steel			17E97 Nitrile (NBR)	49B0357X012
	NPS 1 / DN 25 body	29B2404X012		17E88 Fluorocarbon (FKM)	40C1035X012
	NPS 2 / DN 50 body	28B2130X012	10*	NPS 8 / DN 200 body	
	NPS 3 / DN 80 body	28B8511X012		17E97 Nitrile (NBR)	40C1888X012
	NPS 4 / DN 100 body	28B5964X012		O-ring	
	NPS 6 / DN 150 body	39B0370X012		NPS 1 / DN 25 body	
	NPS 8 / DN 200 body	39B5071X012		Nitrile (NBR)	1E216306992
6*	O-ring			Fluorocarbon (FKM)	1L949306382
	NPS 1 / DN 25 body			NPS 2 / DN 50 body	
	Nitrile (NBR)	18B3438X012		Nitrile (NBR)	1E216306992
	Fluorocarbon (FKM)	1N430306382		Fluorocarbon (FKM)	1L949306382
	NPS 2 / DN 50 body			NPS 3 and 4 / DN 80 and 100 bodies	
	Nitrile (NBR)	18B3438X012		Nitrile (NBR)	1J4888X0052
	Fluorocarbon (FKM)	1N430306382		Fluorocarbon (FKM)	1J4888X0032
	NPS 3 / DN 80 body			NPS 6 / DN 100 body	
	Nitrile (NBR)	10A8931X012		Nitrile (NBR)	11A8741X052
	Fluorocarbon (FKM)	10A8931X052		Fluorocarbon (FKM)	11A8741X012
	NPS 4 / DN 100 body			NPS 8 / DN 200 body	
	Nitrile (NBR)	10A8931X012		Nitrile (NBR)	1F4636X0032
	Fluorocarbon (FKM)	10A8931X052		Fluorocarbon (FKM)	1N571406382
	NPS 6 / DN 150 body		11	Bottom Plug, Stainless steel	
	Nitrile (NBR)	10A3800X012		NPS 1 / DN 25 body	19B2407X012
	Fluorocarbon (FKM)	1R727606382		NPS 2 / DN 50 body	18B2127X012
	NPS 8 / DN 200 body			NPS 3 / DN 80 body	18B8513X012
	Nitrile (NBR)	10A3800X012		NPS 4 / DN 100 body	18B5966X012
	Fluorocarbon (FKM)	1R727606382		NPS 6 / DN 150 body	29B0763X012
7	Cage, Stainless steel		12	Main Spring	
	NPS 1 / DN 25 body	39B2413X012		NPS 1 / DN 25 body	
	NPS 2 / DN 50 body	37B9748X012		White	19B2399X012
	NPS 3 / DN 80 body	48B5961X012		Light Blue	19B2400X012
	NPS 4 / DN 100 body	48B2135X012		Black	19B2401X012
	NPS 6 / DN 150 body	49B0353X012		NPS 2 / DN 50 body	
	NPS 8 / DN 200 body	59B5955X012		Yellow	19B0951X012
8*	Cage O-ring			Green	18B2126X012
	NPS 1 / DN 25 body			Red	18B5955X012
	Nitrile (NBR)	14A5713X012		Purple	GE05504X012
	Fluorocarbon (FKM)	13A2351X012		NPS 3 / DN 80 body	
	NPS 2 / DN 50 body			Yellow	T14184T0012
	Nitrile (NBR)	10B4428X012		Light Blue	19B0781X012
	Fluorocarbon (FKM)	10B4428X022		Black	19B0782X012
	NPS 3 / DN 80 body			NPS 4 / DN 100 body	
	Nitrile (NBR)	10B4366X012		Yellow	T14184T0012
	Fluorocarbon (FKM)	10B4366X022		Green	18B8501X012
	NPS 4 / DN 100 body			Red	18B8502X012
	Nitrile (NBR)	10B4373X012		NPS 6 / DN 150 body	
	Fluorocarbon (FKM)	10B4373X022		Yellow	19B0364X012
	NPS 6 / DN 150 body			Green	19B0366X012
	Nitrile (NBR)	1H862306992		Red	19B0365X012
	Fluorocarbon (FKM)	1H8623X0022		NPS 8 / DN 200 body	
	NPS 8 / DN 200 body			Yellow	GE09393X012
	Nitrile (NBR)	1V9229X0042		Green	GE09396X012
	Fluorocarbon (FKM)	1V9229X0022		Red	GE09397X012

*Recommended spare part

Type EZR Relief

Key	Description	Part Number	Key	Description	Part Number
13*	Flanged Locknut, Steel NPS 2 / DN 50 body NPS 3 and 4 / DN 80 and 100 bodies NPS 6 / DN 150 body NPS 8 / DN 200 body	18B2139X012 15A7591X012 19B0361X012 10C1267X012	23	Inlet Strainer, Stainless steel NPS 1 / DN 25 body NPS 2 / DN 50 body NPS 3 / DN 80 body NPS 4 / DN 100 body NPS 6 / DN 150 body NPS 8 / DN 200 body	20B8004X012 10B4409X012 20B4367X012 20B4374X012 20B7853X012 29B5966X012
14*	Top Plug O-ring NPS 1 / DN 25 body Nitrile (NBR) Fluorocarbon (FKM) NPS 2 / DN 50 body Nitrile (NBR) Fluorocarbon (FKM) NPS 3 and 4 / DN 80 and 100 bodies Nitrile (NBR) Fluorocarbon (FKM) NPS 6 / DN 150 body Nitrile (NBR) Fluorocarbon (FKM) NPS 8 / DN 200 body Nitrile (NBR) Fluorocarbon (FKM)	13A1584X052 13A1584X022 13A1584X052 13A1584X022 10A3803X062 10A3803X032 T12050X0012 T12050X0022 T12050X0012 T12050X0022	23	Strainer Replacement Shim, Stainless steel NPS 1 / DN 25 body NPS 2 / DN 50 body NPS 3 / DN 80 body NPS 4 / DN 100 body NPS 6 / DN 150 body NPS 8 / DN 200 body	13B8061X012 13B8062X012 13B8063X012 13B8064X012 13B8065X012 39B5967X012
15	Stem, Stainless steel NPS 1 and 2 / DN 25 and 50 bodies NPS 3 and 4 / DN 80 and 100 bodies NPS 6 / DN 150 body NPS 8 / DN 200 body	T14185T0012 T21074T0012 29B0366X012 29B5076X012	24	Nameplate	-----
16	Backup Ring, Polytetrafluoroethylene (PTFE) (2 required) NPS 1 and 2 / DN 25 and 50 bodies NPS 3, 4 and 6 / DN 80, 100 and 150 bodies NPS 8 / DN 200 body	1N659106242 1J418806992 1K786806992	25	Flow Arrow, Stainless steel	-----
17	Upper Spring Seat, Stainless steel NPS 1 and 2 / DN 25 and 50 bodies NPS 3 and 4 / DN 80 and 100 bodies NPS 6 / DN 150 body NPS 8 / DN 200 body	18B2129X012 18B5968X012 29B0764X012 20C1357X012	26	Drive Screw, Stainless steel (5 required) NPS 8 / DN 200 body (6 required)	1A368228982
18*	O-ring NPS 1 and 2 / DN 25 and 50 bodies Nitrile (NBR) Fluorocarbon (FKM) NPS 3, 4 and 6 / DN 80, 100 and 150 bodies Nitrile (NBR) Fluorocarbon (FKM) NPS 8 / DN 200 body Nitrile (NBR) Fluorocarbon (FKM)	1H2926X0032 1H2926X0022 1D191706992 1N423906382 1E472706992 1N430406382	28*	O-ring NPS 1 / DN 25 body Nitrile (NBR) Fluorocarbon (FKM) NPS 2 / DN 50 body Nitrile (NBR) Fluorocarbon (FKM) NPS 3 / DN 80 body Nitrile (NBR) Fluorocarbon (FKM) NPS 4 / DN 100 body Nitrile (NBR) Fluorocarbon (FKM) NPS 6 / DN 150 body Nitrile (NBR) Fluorocarbon (FKM) NPS 8 / DN 200 body Nitrile (NBR) Fluorocarbon (FKM)	19B2838X012 19B2838X022 18B2124X012 18B2124X022 18B8514X012 18B8514X022 18B2140X012 18B2140X022 19B0359X012 10A3591X012 1P5585X0022 1P5585X0032
19	Indicator Fitting, Stainless steel NPS 1 and 2 / DN 25 and 50 bodies NPS 3 and 4 / DN 80 and 100 bodies NPS 6 / DN 150 body NPS 8 / DN 200 body	28B2128X012 28B5969X012 39B0358X012 30C1356X012	47	Nut, steel (NPS 8 / DN 200 only, 8 required)	1A4452X0612
19	Indicator Plug, Stainless steel NPS 1 / DN 25 body NPS 2 / DN 50 body NPS 3 and 4 / DN 80 and 100 bodies NPS 6 and 8 / DN 150 and 200 bodies	19B2409X012 GE17585X012 28B5970X012 39B0767X012	63	Pilot Supply Pipe Plug (2 required) NPS 1 to 6 / DN 25 to 150 NPS 8 / DN 200 LCC Steel body WCC Steel body	1A767524662 1A369224492 1A767524662 1A767524662 1A767524662 1A369224492
20	Indicator Washer NPS 1 and 2 / DN 25 and 50 bodies NPS 3, 4 and 6 / DN 80, 100 and 150 bodies NPS 8 / DN 200 body	18B2138X012 18B8503X012 20C2461X012	64	Bonnet Pipe Plug, Carbon steel NPS 1 to 6 / DN 25 to 150 NPS 8 / DN 200	1A767524662 1A767524662 1A369224492
21	Indicator Cover, Plastic NPS 1 and 2 / DN 25 and 50 bodies NPS 3 and 4 / DN 80 and 100 bodies NPS 6 and 8 / DN 150 and 200 bodies	T14188T0012 19B2270X012 19B4691X012	70*	O-ring NPS 1 and 2 / DN 25 and 50 body Nitrile (NBR) Fluorocarbon (FKM) NPS 3 and 4 / DN 80 and 100 bodies Nitrile (NBR) Fluorocarbon (FKM) NPS 6 and 8 / DN 150 and 200 body Nitrile (NBR) Fluorocarbon (FKM)	13A1584X052 13A1584X022 10A3803X062 10A3803X032 T12050X0012 T12050X0022
22	Indicator Protector, Plastic NPS 1 and 2 / DN 25 and 50 bodies NPS 3, 4, 6 and 8 / DN 80, 100, 150 and 200 bodies	24B1301X012 29B2269X012	79	Washer, Stainless steel (NPS 6 / DN 150 body only)	19B0362X012
			83	Machine Screw, Stainless steel (NPS 2 / DN 50 only)	18B5956X012
			121*	O-ring NPS 6 / DN 150 body only Nitrile (NBR) Fluorocarbon (FKM)	1D269206992 1D2692X0022
			126	Cap Screw, Steel (4 required) (NPS 6 / DN 150 body only)	1L7325X0042
			129	Socket Head Screw, Stainless steel (NPS 1 / DN 25 only)	1D6170X0012
			130	Lock Washer Stainless steel (NPS 1 / DN 25 only)	1D6170X0012

*Recommended spare part

Type EZR Main Valve (Figures 9 to 13) (continued)

Key	Description	Part Number
133*	O-ring, (NPS 8 / DN 200 only)	1N3330X0032
136	Stud, Steel (NPS 8 / DN 200 only, 8 required)	11A5189X282
137	Lower Spring Seat, Stainless steel (NPS 8 / DN 200 only)	GE09140X012
140	Bushing, Carbon Steel, NPS 6 and 8 / DN 150 and 200 only	1C379026232

Parts Ordering

When corresponding with your local Sales Office about this unit, provide the serial number or FS number from the nameplate (key 24, Figure 10). When ordering replacement parts, reference the eleven digit part number of each part.

Parts List

6358 Series Pilots (Figures 14, 15, 16 and 17)

Key	Description	Part Number
	Repair Kit	
	Type 6358B	R6358X00032
	Type 6358EB (75 to 200 psig / 5.17 to 13.8 bar)	R6358X00052
	Type 6358EB (180 to 350 psig / 12.4 to 24.1 bar)	R6358X00062
	Type 6358EBH	R6358X00072
1	Pilot Body, Stainless steel	39A5972X012
2	Spring Case, Stainless steel	
	Types 6358 and 6358B	28A9277X012
	Types 6358EB and 6358EBH	27B9722X012
3	Body Plug, Stainless steel	1B7975X0052
4*	Valve Plug	
	Types 6358 and 6358B	
	Stainless steel/Nitrile (NBR)	14B6372X012
	Stainless steel/Plastic	16A2924X012
	Type 6358EB or 6358EBH	
	Stainless steel/Nitrile (NBR)	18B3427X012
	Stainless steel/Fluorocarbon (FKM)	18B3427X022
	Stainless steel/Plastic	16A2924X012
5*	Diaphragm Assembly	
	Types 6358 and 6358B	
	Nitrile (NBR)	15A6216X072
	Fluorocarbon (FKM)	15A6216X172
	Type 6358EB	
	Nitrile (NBR)	
	75 to 200 psig / 5.2 to 13.8 bar	18B3428X012
	180 to 350 psig / 12.4 to 24.1 bar	18B3428X022
	Fluorocarbon (FKM)	
	75 to 200 psig / 5.2 to 13.8 bar	18B3428X042
	180 to 350 psig / 12.4 to 24.1 bar	18B3428X052
	Type 6358EBH, Nitrile (NBR)	18B3429X012
6	Connector Cap, Stainless steel	
	Types 6358 and 6358B	16A2921X012
	Type 6358EB or 6358EBH	14B9813X012
7	Control Spring, Steel	
	Type 6358	
	20 to 40 psig / 1.4 to 2.8 bar, Yellow	1E392527022
	35 to 125 psig / 2.4 to 8.6 bar, Red	1K748527202
	Type 6358B	
	20 to 40 psig / 1.4 to 2.8 bar, Yellow	1E392527022
	35 to 125 psig / 2.4 to 8.6 bar, Red	1K748527202

6358 Series Pilots (Figures 14, 15, 16 and 17) (continued)

Key	Description	Part Number
7	Control Spring, Steel (continued)	
	Type 6358EB	
	75 to 140 psig / 5.2 to 9.7 bar, Green	17B1261X012
	130 to 200 psig / 9.0 to 13.8 bar, Blue	17B1263X012
	180 to 350 psig / 12.4 to 24.1 bar, Red	17B1264X012
	Type 6358EBH	
	250 to 450 psig / 17.3 to 31.1 bar, Blue	17B1263X012
	400 to 600 psig / 27.6 to 41.4 bar, Red	17B1264X012
8	Spring Seat, Zinc-plated steel	
	Types 6358 and 6358B	1B798525062
	Type 6358EB or 6358EBH	17B0515X012
9	Stem Guide, Stainless steel	16A2923X012
10	Adjusting Screw, Steel	
	Types 6358 and 6358B	10B7192X012
	Type 6358EB	
	75 to 140 psig / 5.2 to 9.7 bar	17B1227X012
	130 to 200 psig / 9.0 to 13.8 bar	10B3081X012
	Types 6358EB (180 to 350 psig / 12.4 to 24.1 bar range spring) and 6358EBH	10B3080X012
11	Locknut, Zinc-plated steel	
	Types 6358 and 6358B	1A946324122
	Type 6358EB or 6358EBH	1D667728982
12	Closing Cap	
	Types 6358 and 6358B	1H2369X0032
	Type 6358EB or 6358EBH	24B1301X012
13*	Body Plug O-ring	
	Nitrile (NBR)	1F113906992
	Fluorocarbon (FKM)	1N463906382
14	Valve Spring	
	Types 6358, 6358EB and 6358EBH, Stainless steel	1E701337022
	Type 6358B	
	Fluorocarbon (FKM) plug, stainless steel	1E701337022
	Nitrile (NBR) plug, Inconel®	17A2328X012
15*	O-ring (Type 6358EBH only), Nitrile (NBR)	10A7777X012
16	Vent Assembly, Type Y602X1-A12 (2 required)	27A5515X012
17	Machine Screw, Steel (6 required)	
	Type 6358	1V4360X0022
	Type 6358B	1V4360X0112
	Type 6358EB	1V4360X0022
	Type 6358EBH	T12980T0012
18*	O-ring (Types 6358EB and 6358EBH)	
	Nitrile (NBR)	10A0904X012
	Fluorocarbon (FKM)	10A0904X032
19*	Closing Cap Gasket	
	(Types 6358 and 6358B), Composition	15A6218X012
20	Restriction Plug (Type 6358), Steel	1A346128982
20	Restriction, Steel	
	Type 6358B	
	High gain	17A7279X012
	Medium gain	17A2029X012
	Low gain	17A7277X012
	Type 6358EB or 6358EBH	
	High gain	17A7279X012
	Low gain	17A2030X012
36*	Connector Cap Gasket, Fluorocarbon (FKM)	
	Types 6358 and 6358B (2 required)	1U1716X0012
	Types 6358EB and 6358EBH (1 required)	1U1716X0012
37	Stem O-ring	
	Nitrile (NBR)	16A2920X012
	Fluorocarbon (FKM)	16A2920X022
38	Lower Spring Seat, Thermoplastic	
	Types 6358EB and 6358EBH	18B1248X012
40	Diaphragm Limiter for Type 6358EB at 180 to 350 psig / 12.4 to 24.1 bar, Stainless steel	10B4407X012

*Recommended spare part
Inconel® is a mark owned by Special Metals Corporation.

Type EZR Relief

6358 Series Pilot Mounting Parts (Figure 17)

Standard Pilot Mounting

Key	Description	Part Number
29	Mounting Pipe Nipple	
	NPS 1 / DN 25	1N584226232
	NPS 2 / DN 50	1N624026232
	NPS 3 / DN 80	1U264426232
	NPS 4 / DN 100	1U5728X0012
	NPS 6 / DN 150	1C210026232
	NPS 8 / DN 200	1C215726012
44	Vent, Type Y602-12	-----

PRX Series Pilot Mounting Parts (Figure 18)

Key	Description	Part Number
64	Nipple, Steel (NPS 6 and 8 / DN 150 and 200)	1C782526012
70	Pipe Nipple, Hex (NPS 1 to 4 / DN 25 to 100)	GE13860X012
71	Bleed Orifice, Copper alloy	GE01698X012
72	Connection Tubing, Stainless steel	-----
73	Tubing, Stainless steel	-----
74	Pipe Tee, Carbon steel	1B8606X0032
75	Pipe Nipple, Steel	1C488226232
76	Elbow Tube, Stainless steel (3 required)	-----

PRX Series Pilots (Figure 19)

Key	Description	Part Number
	Parts Kits	
	Elastomer Parts Kits Without Disk (include keys 4, 5, 14, 17, 18, 25 and 28)	
	Nitrile (NBR)	RPRX00X0N12
	Fluorocarbon (FKM)	RPRX00X0F12
	Elastomer Parts Kits With Disk (include keys 4, 5, 14, 17, 18, 22, 25 and 28)	
	Nitrile (NBR)	RPRX00X0N22
	Fluorocarbon (FKM)	RPRX00X0F22
1	Adjusting Screw, Stainless steel	M0253340X12
2	Locknut	M5036008X12
3	Cap, Steel	M0253350X12
4*	Spring Case O-ring, (2 required for Type PRX-AP)	
	Nitrile (NBR)	M6010178X12
	Fluorocarbon (FKM)	M6020112X12

PRX Series Pilots (Figure 19) (continued)

Key	Description	Part Number
5*	O-ring	
	Nitrile (NBR)	M6010005X12
	Fluorocarbon (FKM)	M6020001X12
6	Upper Spring Seat, Stainless steel	M0253360X12
7	Spring	See Table 3
8	Spring Case, Steel	M0298540X12
9	Lower Spring Seat, Stainless steel	M0253380X12
10	Machine Screw, Zinc-plated steel (12 required)	M5011018X12
11	Washer (14 required)	M5055001X12
12	Filter	M4500367X12
13	Diaphragm Plate, Stainless steel (2 required)	M0253390X12
14*	Diaphragm	
	Nitrile (NBR)	GG05785X012
	Fluorocarbon (FKM)	GG05785X022
15	Diaphragm Plate, Stainless steel	M0253410X12
16	Body, Carbon steel	M0253310X12
17*	Orifice O-ring	
	Nitrile (NBR)	M6010003X12
	Fluorocarbon (FKM)	M6020126X12
18*	Lower Cover O-ring (2 required)	
	Nitrile (NBR)	M6010098X12
	Fluorocarbon (FKM)	M6020132X12
19	Seat, Stainless steel	M0253440X12
20	Nut, Zinc-plated steel	M5002004X12
21	Lower Cover, Steel	M0298600X12
22*	Disk Holder	
	Polyurethane (PU), standard	ERAA11220A0
	Polyurethane (PU)	ERAA56644A0
	Fluorocarbon (FKM)	M0279950X12
23	Stem, Steel	M0253430X12
24	Nameplate	-----
25*	Stem O-ring	
	Nitrile (NBR)	M6010223X12
	Fluorocarbon (FKM)	M6020133X12
26	Upper Diaphragm Nut	M5028005X12
28*	Restrictor/Damper O-ring, Fluorocarbon (FKM) (2 required)	M6020054X12
29	Nameplate	-----
31	Nameplate Screw, Stainless steel	M5061001X12
33	Restrictor Plug	M0257920X12
34	Pipe Plug, Stainless steel	M4500328X12
35	Spring Barrel Extension for AP, Steel	M0274100X12

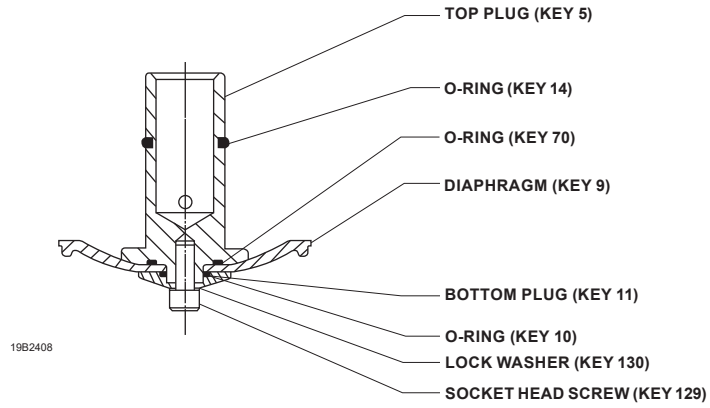
*Recommended spare part

Type EZR Relief

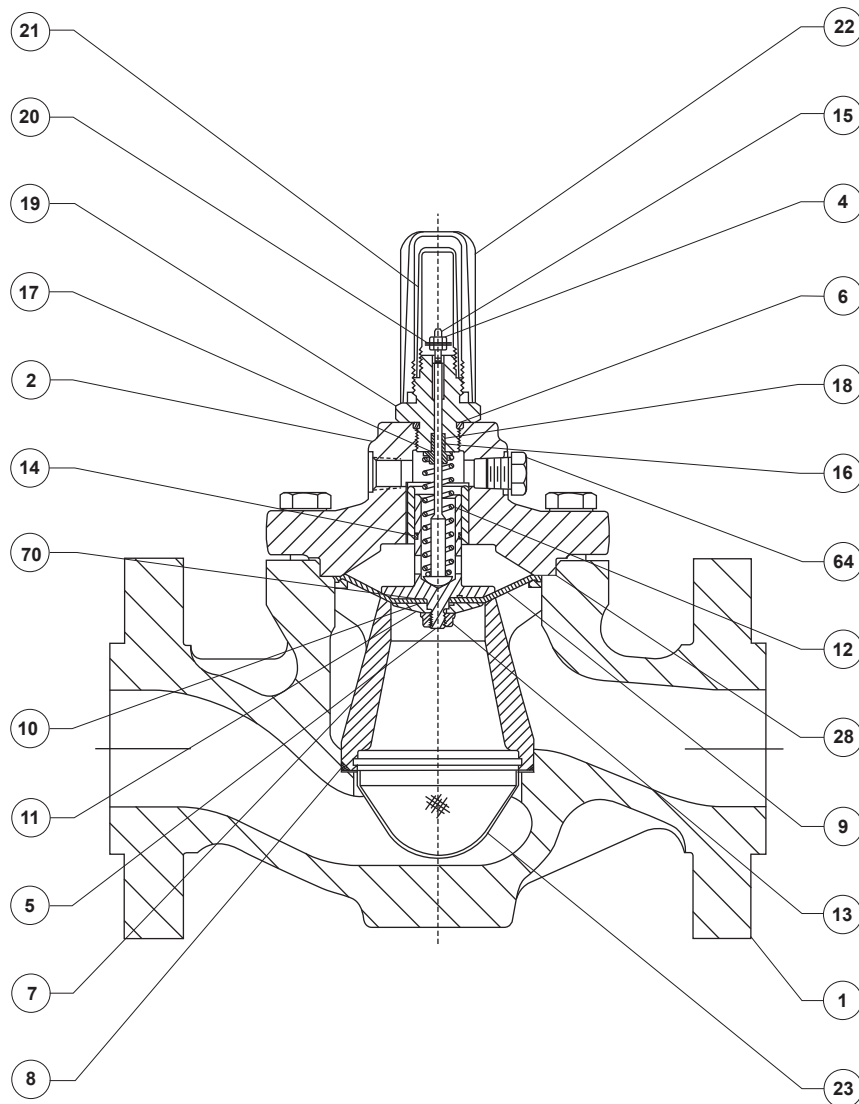
Table 9. Type EZR Main Valve Body Part Numbers (key 1, Figure 9)

BODY SIZE		BODY MATERIAL	END CONNECTION STYLE	BODY STYLE	
NPS	DN			Standard (Included Tapped Inlet)	Tapped Inlet and Tapped Outlet
1	25	WCC Steel	NPT	GE11581X012	GE32046X012
			SWE	GE11440X012	-----
			CL150 RF	GE11583X012	14B5623X032
			CL300 RF	GE11607X012	14B5623X042
			CL600 RF	GE11608X012	14B5623X052
			SCH 40 BWE	GE11610X012	14B5623X122
2	50	Cast Iron	NPT	GE10583X012	ERSA04807A0
			CL125 FF	GE10585X012	14B5834X012
		WCC Steel	NPT	GE10588X012	GG00315X012
			SWE	GE10682X012	GG04880X012
			CL150 RF	GE10676X012	14B5834X032
			CL300 RF	GE10678X012	14B5834X042
			CL600 RF	GE10679X012	14B5834X052
			SCH 40 BWE	GE10680X012	14B5834X072
3	80	Cast Iron	CL125 FF	GE10689X012	GG05163X012
		WCC Steel	CL150 RF	GE10699X012	14B5835X032
			CL300 RF	GE10700X012	14B5835X042
			CL600 RF	GE10701X012	14B5835X052
			SCH 40 BWE	GE10702X012	14B5835X102
4	100	Cast Iron	CL125 FF	GE10707X012	GG06484X012
		WCC Steel	CL150 RF	GE10835X012	14B5836X032
			CL300 RF	GE10839X012	14B5836X042
			CL600 RF	GE10842X012	14B5836X052
			SCH 40 BWE	GE10843X012	14B5836X092
6	150	Cast Iron	CL125 FF	GE11444X012	ERSA03400A0
		WCC Steel	CL150 RF	GE11447X012	24B5837X032
			CL300 RF	GE11449X012	24B5837X042
			CL600 RF	GE11451X012	24B5837X052
			SCH 40 BWE	GE11452X012	24B5837X072
8	200	LCC Steel	CL150 RF	-----	FA144718X12
			CL300 RF		FA144717X12
			CL600 RF		FA144716X12
			SCH 40 BWE		GE00715X012

Type EZR Relief



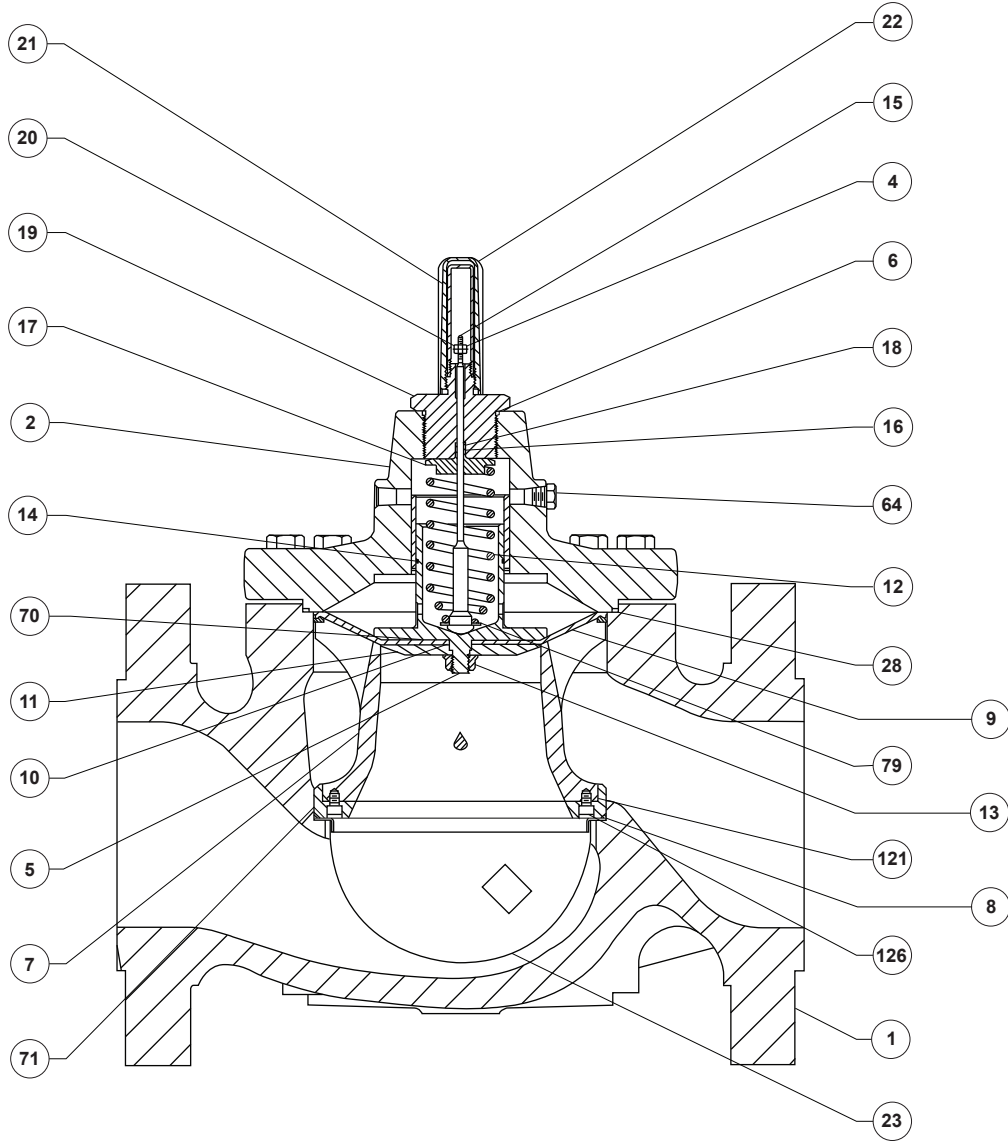
NPS 1 / DN 25 DIAPHRAGM ASSEMBLY



MAIN VALVE ASSEMBLY FOR NPS 1, 2, 3 AND 4 / DN 25, 50, 80 AND 100 BODY SIZES

Figure 9. Type EZR Main Valve with Travel Indicator

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MAIN VALVE ASSEMBLY FOR NPS 6 / DN 150 BODY SIZE

Figure 9. Type EZR Main Valve with Travel Indicator (continued)

Type EZR Relief

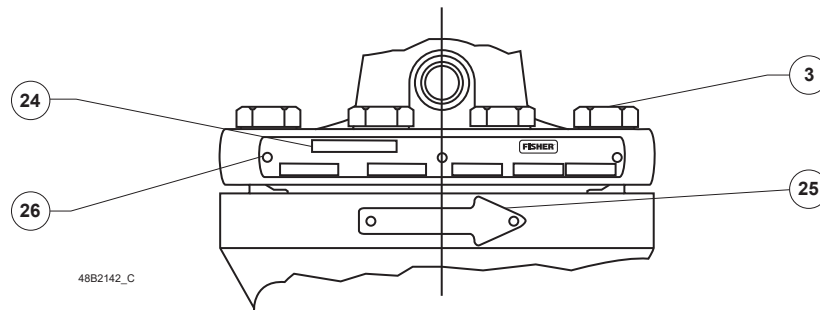


Figure 10. Type EZR Nameplate and Flow Arrow

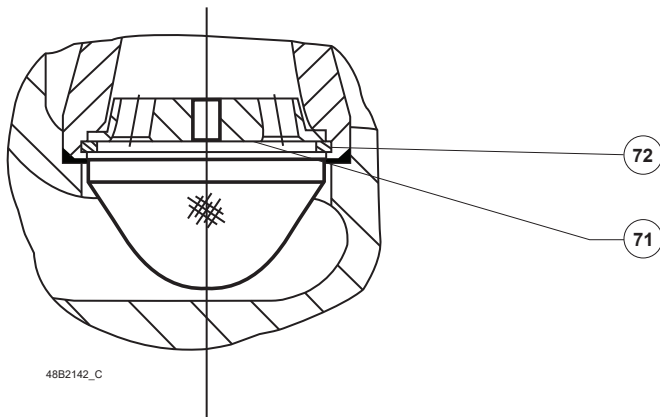


Figure 11. Type EZR Restricted Trim

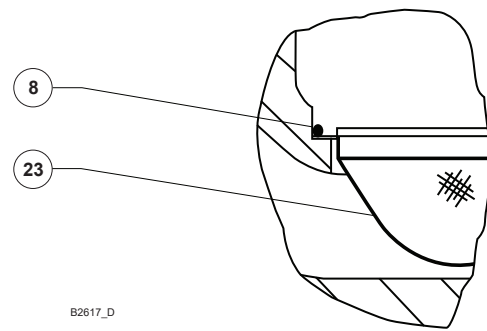
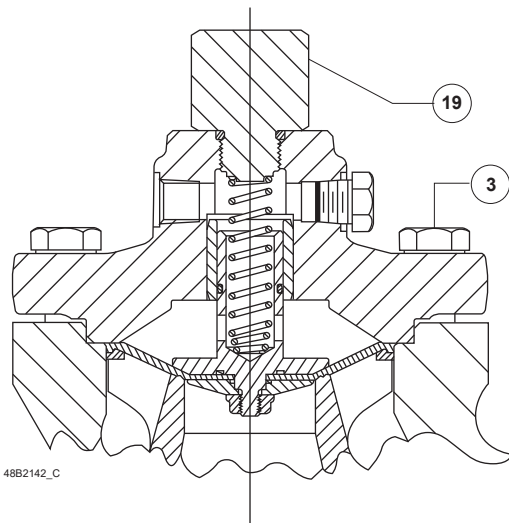
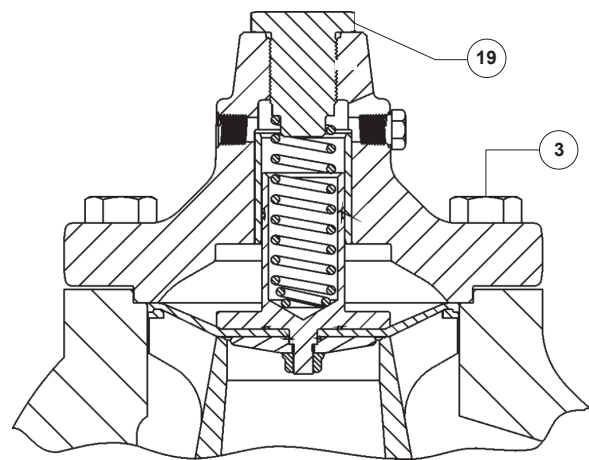


Figure 12. Type EZR Cage O-ring Placement

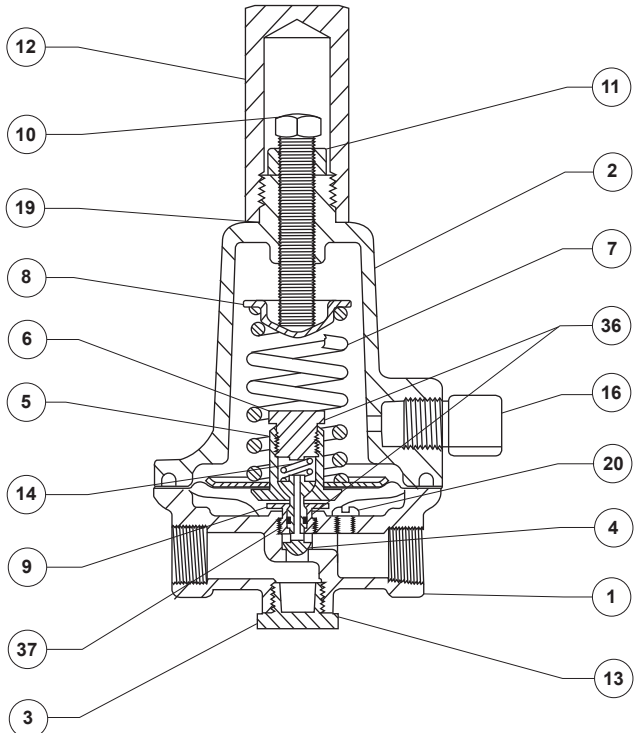


NPS 1, 2, 3 AND 4 / DN 25, 50, 80 AND 100 BODY SIZES



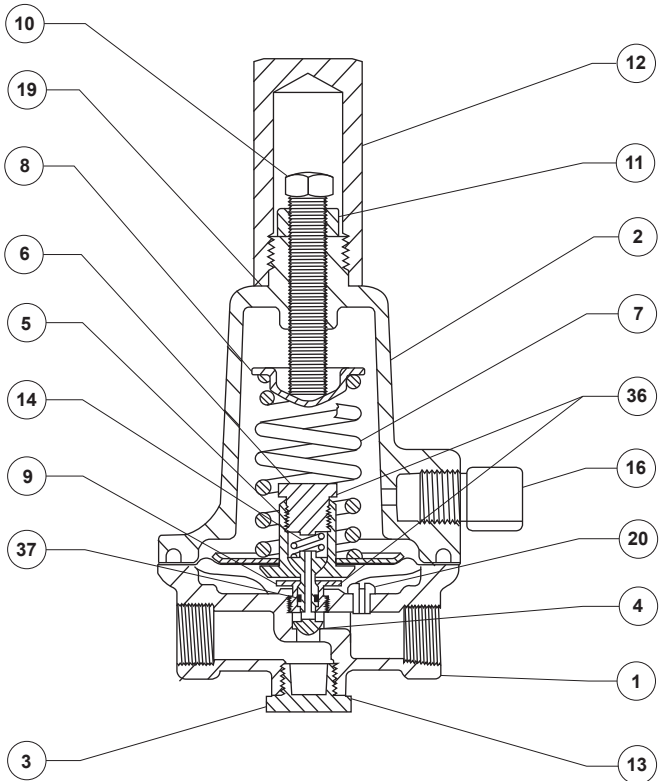
NPS 6 / DN 150 BODY SIZE

Figure 13. Type EZR Travel Indicator Plug Option



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6358 SERIES PILOT INTERIOR VIEW

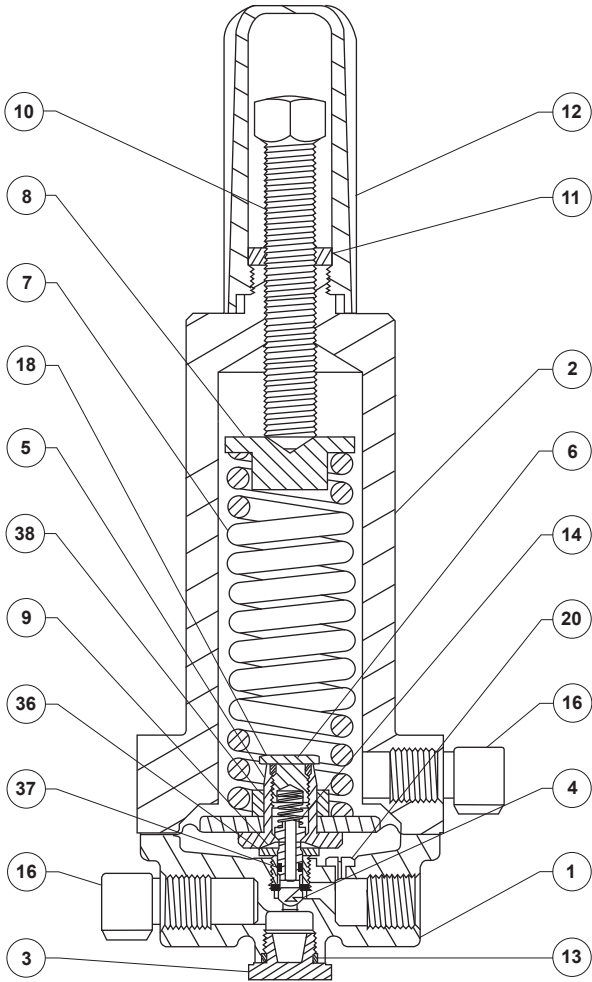


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TYPE 6358B PILOT INTERIOR VIEW

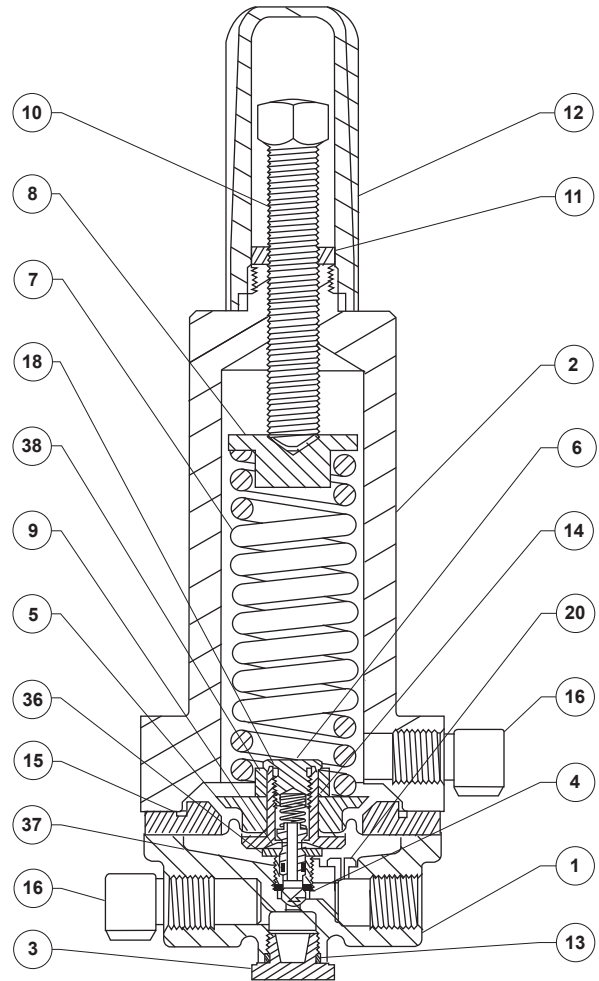
Figure 14. Types 6358 and 6358B Pilots

Type EZR Relief



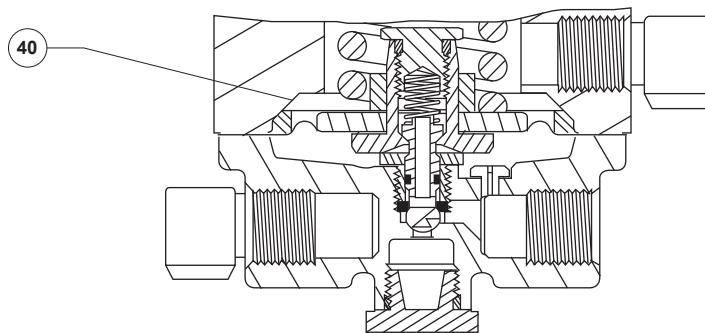
B2620-2

TYPE 6358EB PILOT INTERIOR VIEW



B2621-2

TYPE 6358EBH PILOT INTERIOR VIEW



A6920-2

**DETAIL OF TYPE 6358EB PILOT DIAPHRAGM LIMITER
FOR 180 TO 350 psig / 12.4 TO 24.1 bar
SET PRESSURE RANGE INTERIOR VIEW**

Figure 15. Types 6358EB and 6358EBH Pilots

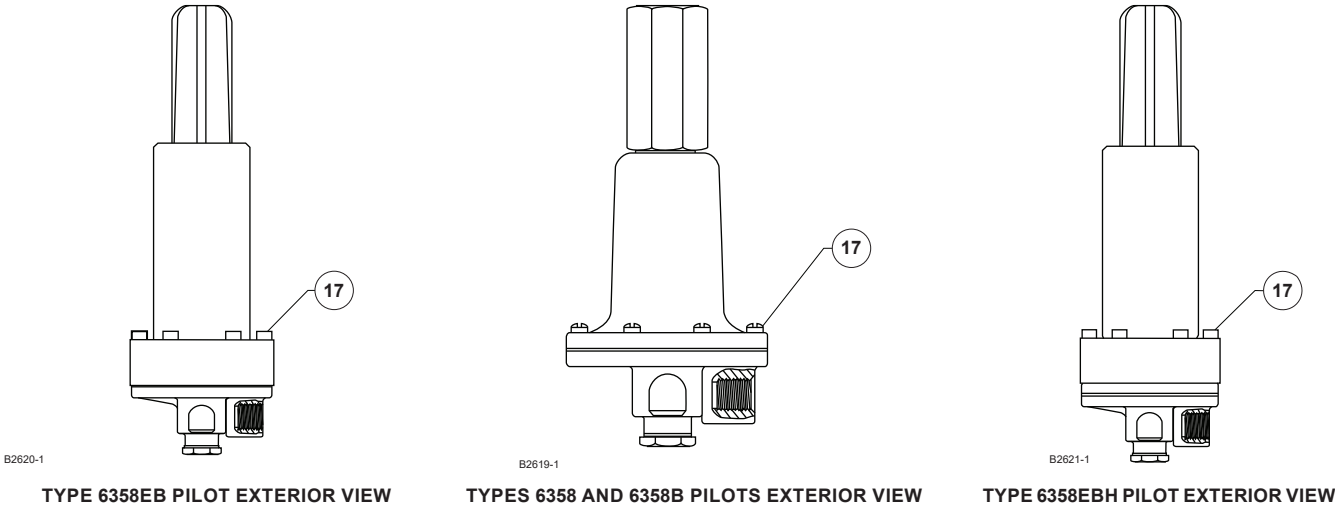


Figure 16. 6358 Series Pilots Exterior View

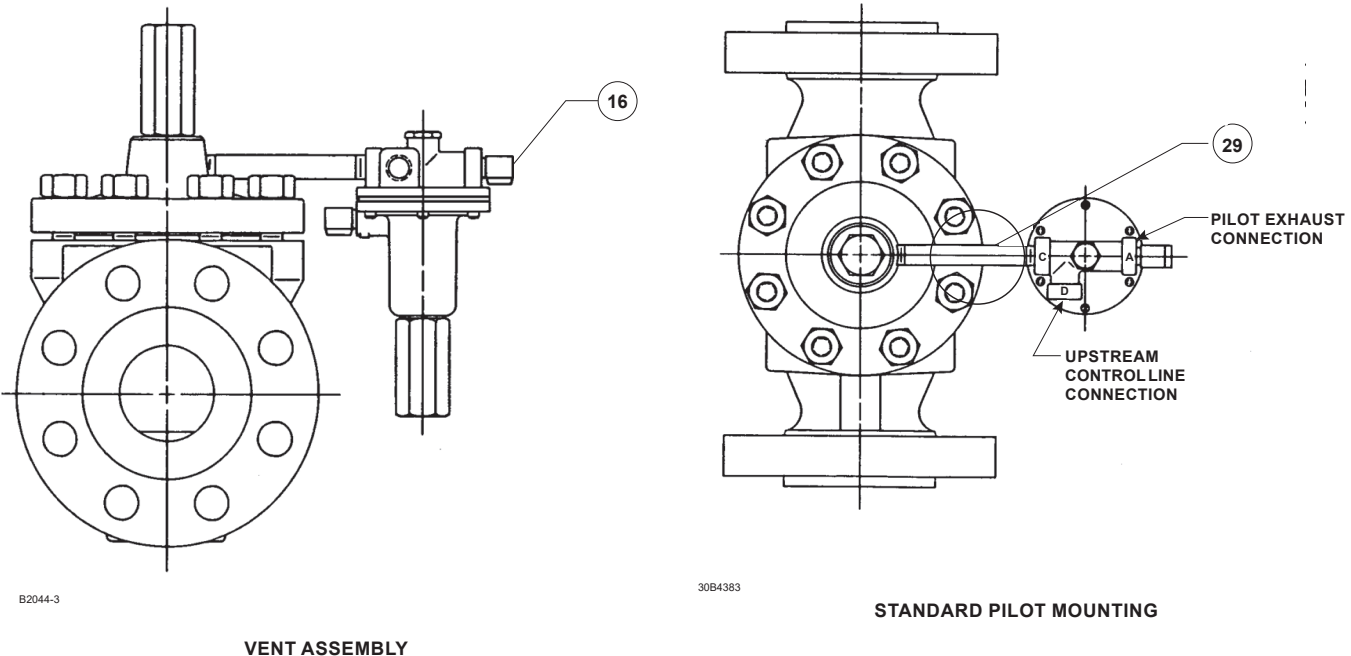
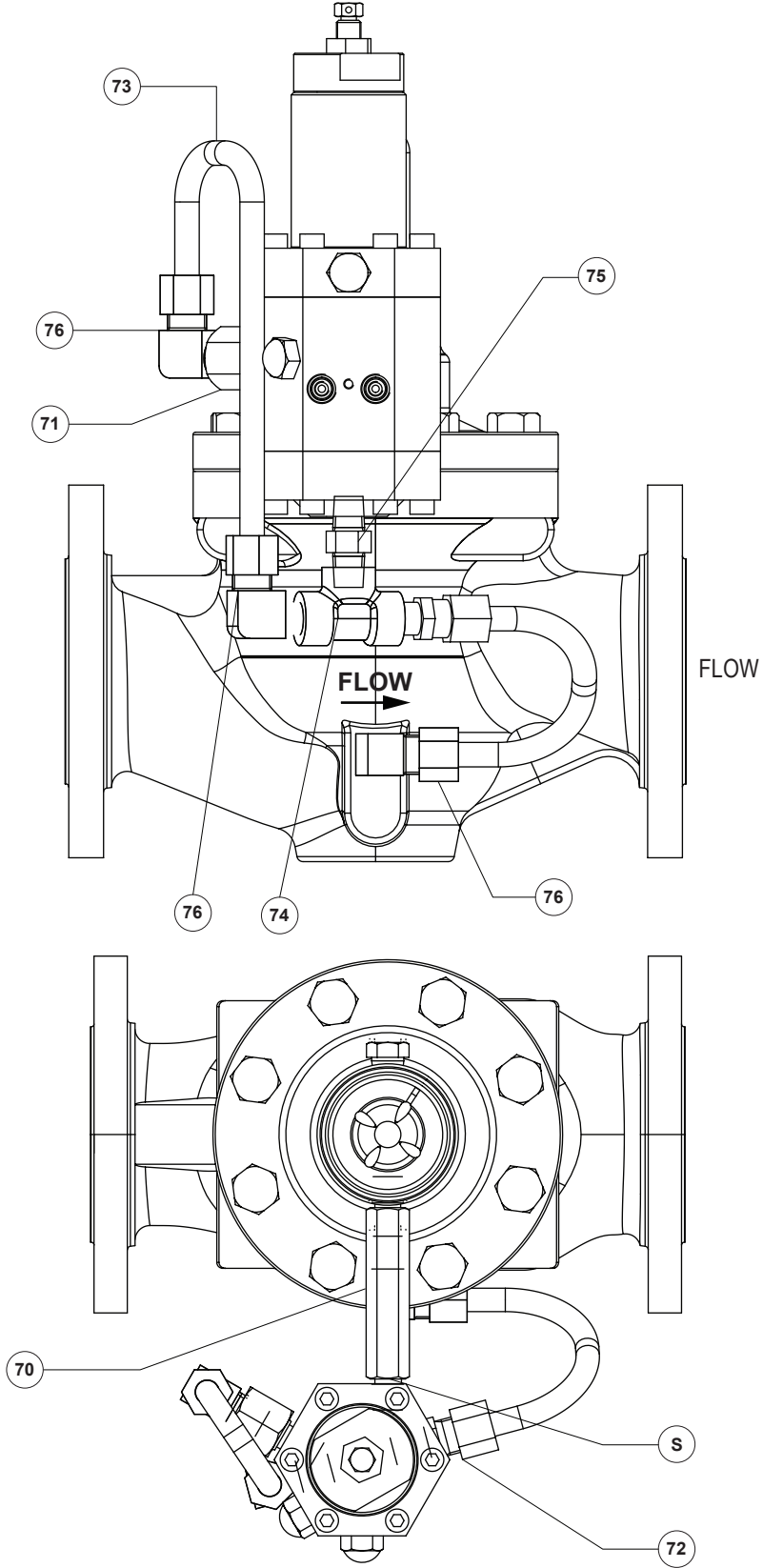


Figure 17. 6358 Series Pilot Mounting Parts

Type EZR Relief



ERCA04506_B

Figure 18. PRX Series Pilot Mounting Parts

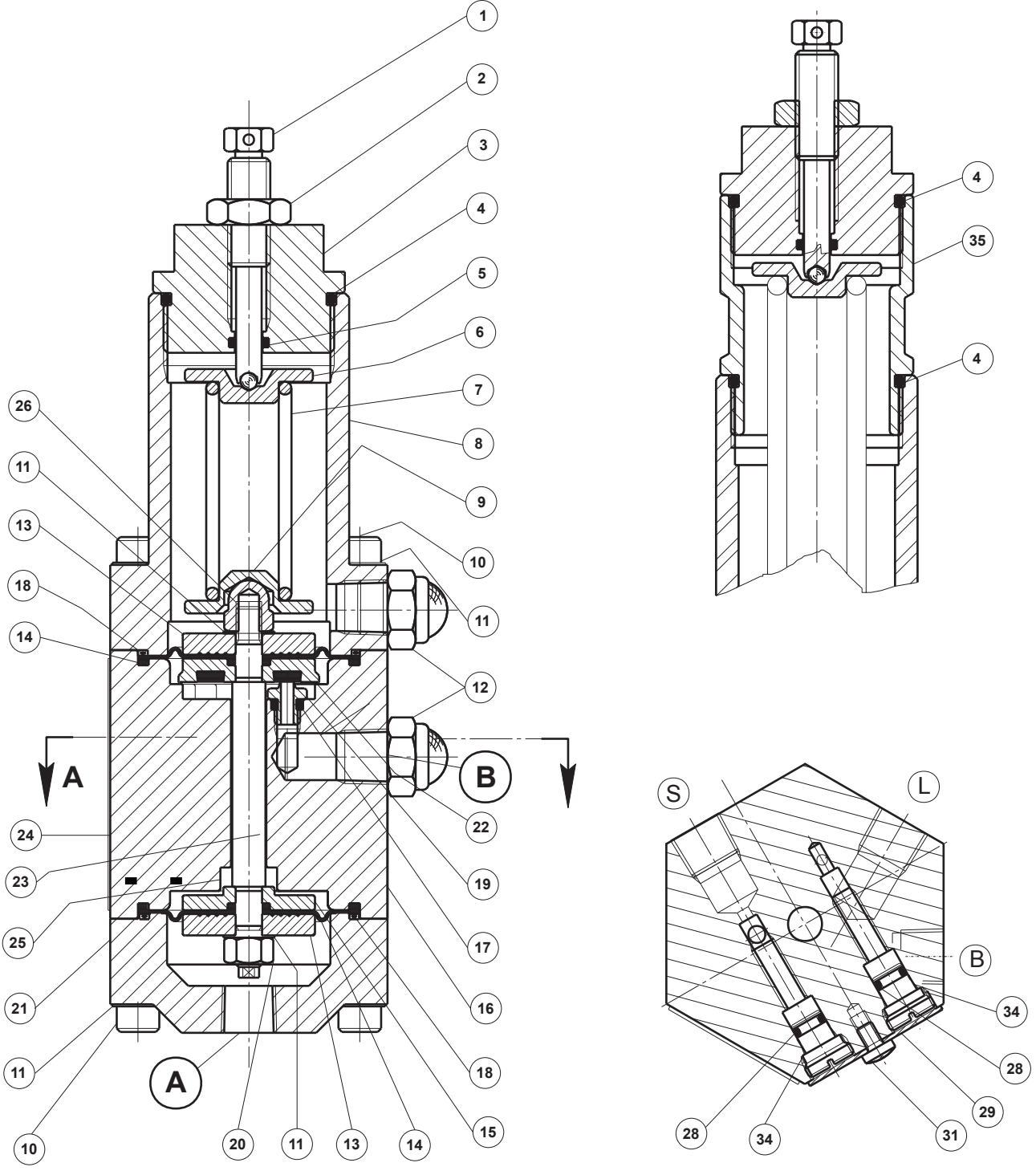


Figure 19. Type PRX/182 Pilot Schematics

Type EZR Relief

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