Series PRV-71H Pressure Reducing Valve Operation and Maintenance Manual

All Hydro Instruments Chemical Feed systems are carefully designed and tested for years of safe, accurate field service. All Hydro Instruments systems are tested prior to shipment. All Hydro Instruments products are made of the finest materials. To ensure best operation, read these instructions carefully and completely and store them where all maintenance personnel will have access to them.

Pressure Reducing Valve Operation and Maintenance Manual

Table of Contents

PRV-71H Torque Specifications

Item	ft./lbs.
Flanged Lower End Cap Screws	25
Hex Head Screws and Nuts	80

General Specifications

Maximum Pressure: 600 PSI (41 Bar)

Outlet Pressure Range: 0-45 PSI (0-3 Bar)
(See Section I.4 for manual PRVs & Section II.4 for Actuated PRVs for more information.)

Operating Temperature: -15°F (-26°C) to 225°F (107°C)

* **Operating Temperature:** -15°F (-26°C) to 150°F (65°C)

Inlet/Outlet Connections: ¾" FPT or 1" FPT

Vent Connection: ¼" FPT
(See Section I.2 for manual PRVs & Section II.2 for Actuated PRVs for more information on installing the vent connection.)

Mounting: Inline or wall mounted with PRH-353A-8000 mounting bracket.

Capacity: 8000 PPD Cl_2 or SO_2 (4000 PPD NH_3)
12,000 PPD Cl_2 or SO_2 (6000 PPD NH_3)

* **Power:** 120VAC or 240VAC, 50/60 Hz

* **Relay/Limit Switch:** 1 NO or NC, 22 Amps

* For electronically actuated PRVs only.

I. MANUALLY SET PRESSURE REDUCING VALVE

1. INTRODUCTION

The PRV-71H (manually operated) is a normally open, spring loaded, diaphragm type, self actuating pressure reducing valve. Its purpose is to reduce and control downstream pressure between 15 to 45 psig by the manual adjustment of the adjustment screw. The valve will close if downstream pressure exceeds the set pressure.

The upper valve body is provided with a ¼" FNPT vent connection. If the diaphragm fails, the pressurized gas can be directed to an appropriate location by use of the vent connection.

The PRV-71H design incorporates a removable trim capsule assembly, allowing for easy maintenance and cleaning.

2. INSTALLATION

Because of its weight, the PRV-71H (manually operated) should always be supported. An optional wall-mounting bracket is available and includes four ⅜" x 1" wall mounting slots. The PRV should be installed in the upright position.

Inlet and outlet connections are ¾" or 1" female NPT depending on the model chosen. A label is provided to show the direction of flow and help identify the inlet and outlet. Note that the outlet connection and vent connection are on the same side of the valve. There is also a ¼" FNPT vent connection on the top body of the PRV in case of diaphragm failure. The vent line should be ½" schedule 80 carbon steel pipe and slope at least 2 degrees downward to prevent water/moisture entry. An insect screen must also be installed on the outlet of the vent piping to prevent insects from blocking the pipeline.

The valve should be installed downstream of the chlorine filter and liquid traps (drip legs).

A pressure gauge should always be installed in the downstream piping to indicate the reduced pressure.

All upstream and downstream piping will be under pressure. Strict safety precautions and regulations must be followed. All pipe and fittings must be carefully cleaned and checked for leaks before system startup. For details on piping guidelines, see the Chlorine Institute Inc. Pamphlet 6 or Hydro Instruments own Ton Container Manifolds for Gas Withdrawal Systems - Design Considerations (Doc. TCMGWS-DC).

CAUTION: The pressure reducing valve has been pressure tested prior to shipment. However, due to shipment and installation handling, the lead gasket seal under the lower end cap may have loosened. To prevent possible gas leaks, after installation, the end cap screws may need to be re-torqued to the torque specifications in this manual (pg.2) before gas is allowed to flow through the system.

The lower end cap screws and hex head screws & nuts must be periodically checked during operation to ensure a leak has not formed.

3. OPERATION

The outlet pressure is adjustable by means of the Adjustment Screw (PRH-396G-8000). By rotating the Upper End Cap (PRH-378U-8000) the user can access the adjustment screw. Turning the Adjustment Screw allows the user to increase (clockwise) or decrease (counterclockwise) the compression on the Loading Spring (SPH-424A-8000) thus controlling how much the valve opens. Turning the Adjustment Screw clockwise will increase the tension on the loading spring, thus

increasing the outlet pressure and turning it counterclockwise will decrease the outlet pressure. Adjustments should be made slowly and carefully, while monitoring the pressure with a pressure gauge installed on the downstream side of the pressure reducing valve.

4. MAINTENANCE

The frequency of required cleaning or maintenance will depend on the quality of the gas supply and the gas flow rate. However, it is recommended that that the valve be serviced at least once per year.

Parts/Maintenance Kits are offered and contain the parts necessary to accomplish the recommended maintenance as well as a parts diagram.

Note: Please refer to the parts diagram for those items included in the Part & Maintenance Kits.

Maximum Discharge Pressure Settings to Prevent Liquifaction

Cl_2 Service: 40 psig (275 kPa guage)
SO_2 Service: 15 psig (103 kPa guage)
NH_3 service: 40 psig (275 kPa guage)

II. ELECTRICALLY ACTUATED PRESSURE REDUCING VALVE

1. INTRODUCTION

The PRV-71H (electronically operated) is an electronically actuated, spring loaded diaphragm type gas pressure reducing and shut-off valve. Its purpose is to reduce and control downstream pressure between 15 to 45 psig. The outlet pressure is manually adjusted by the position of the lock nuts. The electronic actuator is spring loaded normally closed and upon loss or disconnection of power, then the spring will move the pressure reducing valve to the closed position. Upon recieving or restoring power, the electronic actuator will close an internal solenoid valve and start an internal motor driven pump that is used to force the ram down until it reaches the manually set operating position.

2. INSTALLATION

Because of its weight the PRV-71H (electronically operated) should always be supported. An optional wall-mounting bracket is available for fast and easy installation. This wall mounting bracket includes four ⅜"x 1" mounting slots. The PRV should be installed in the upright position.

Inlet and outlet connections to the pressure reducing valve are ¾" or 1" FNPT depending on the model chosen. A label is provided to indicate the direction of flow and help identify the inlet and the outlet. There is also a
¼" FNPT vent connection above the outlet connection in case of diaphragm failure and it is recommended that ½" schedule 80 carbon steel vent piping be used. Vent piping should also slope downward at least 2 degrees to prevent water/moisture entry and an insect screen must be installed on the vent pipeline outlet to prevent insects from blocking the pipeline.

The installation of this valve should be downstream of any chlorine filters and drip legs, and a pressure gauge should be mounted on the downstream side of the valve to monitor outlet pressure.

Depending on the model, the electronic actuator will require either a 120 or 240 VAC (50/60 Hz) single phase power supply connected to the line terminals on the actuator unit with the ground line connected to the screw underneath the common (COM). The unit also includes a contact relay offering both normally open (N.O.) and normally closed (N.C.) connections, and their proper wiring location can be seen on the valve. To get remote closure of the actuator based on an alarm condition, wire a SPST switch into the L1 (phase) side of the power line. When operating, the valve operator requires 170 VA.

All upstream and downstream piping will be under pressure. Strict safety precautions and regulations must be followed. All pipe and fittings must be carefully cleaned and checked for leaks before system startup. For details on piping guidelines, see the Chlorine Institute Inc. Pamphlet 6 or Hydro Instruments own Ton Container Manifolds for Gas Withdrawal Systems - Design Considerations (Doc. TCMGWS-DC) and Vaporizer Piping (Doc. EVP-002-CL2).

IMPORTANT: The PRV hex head screws & nuts as well as the lower end cap screws must be checked and tightened according to the torque specifications listed in this manual (pg.2), before system startup. The lower end cap screws, hex head screws & nuts should be checked periodically during operation to ensure a leak does not form.

3. OPERATION

With voltage applied to the electronic actuator, an internal solenoid valve will close and a motor driven pump will apply pressure to a spring loaded piston. The ram valve which is connected to this piston will move down into position set by the lock nuts. Once the lock nuts hit the bottom of the yoke, the resistance will be picked up by the actuator and the motor will stop, holding the ram valve in place. Thus, the downstream pressure is set by the position of the lock nuts. Lowering the lock nuts will reduce the amount of tension applied to the loading spring, lowering downstream pressure, while raising the lock nuts will increase the tension applied to the loading spring, increasing the downstream pressure.

Warning: Do not adjust the lock nuts while the actuator is on. Doing so will result in damage of the actuator. To adjust the outlet pressure remove from power source and adjust, then re-apply power to get new pressure setting. Repeat until the correct outlet pressure is achieved

When in position, the ram valve compresses an internal spring, which in turn presses down on a diaphragm and opens up the orifice between the valve seat and valve plug. This opening allows for gas to enter through the reducing valve at a controlled pressure. Downstream pressure is regulated by the counteracting forces on the diaphragm between the spring and the gas. For example, when flow demand is increased there will be less force acting up on the diaphragm. This will allow the spring to expand down more, enlarging the orifice and allowing more gas flow into the regulator in order to establish a new diaphragm equilibrium position.

When power is lost, the solenoid valve will open and the ram valve will go up out of contact with the loading spring. This removes tension on the loading spring, causing the diaphragm to move up and the pressure reducing valve to close.

4. MAINTENANCE

The frequency of required cleaning or maintenance will depend on the quality of the gas supply and the gas flow rate. However, it is recommended that the valve be serviced at least once per year.

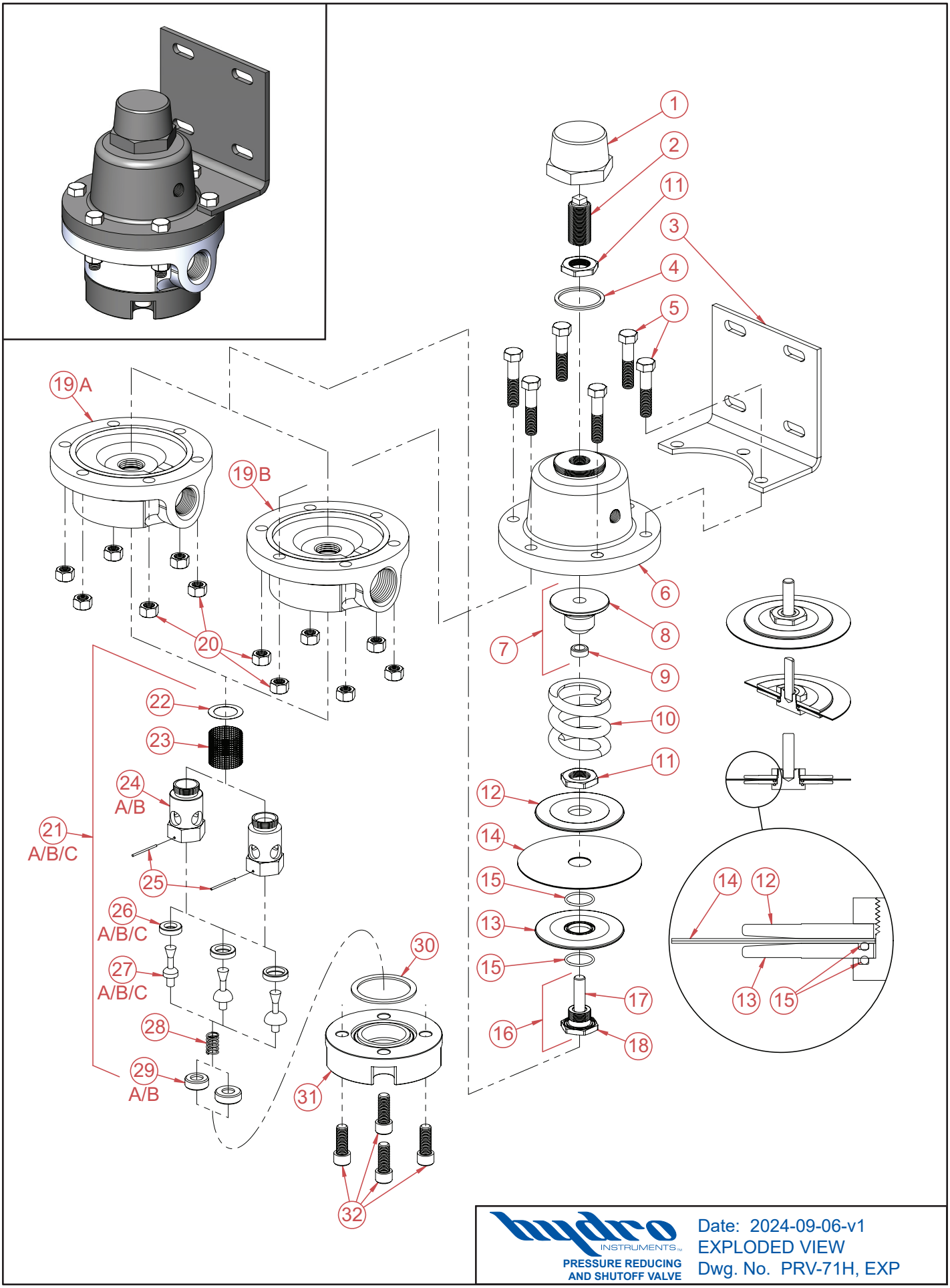
The electronic actuator does not require any routine maintenance and should not be tampered with unless by factory trained personnel. If you are experiencing problems with the actuator contact Hydro Instruments or your local Hydro Instruments sales representative. If the actuator no longer is able to open the valve, then it may require replacement.

Parts/Maintenance Kits are offered and contain the parts necessary to accomplish the recommended maintenance as well as a parts diagram.

Note: Please refer to the parts diagram for those items included in the Part &Maintenance Kits.

Maximum Discharge Pressure Settings to Prevent Liquifaction

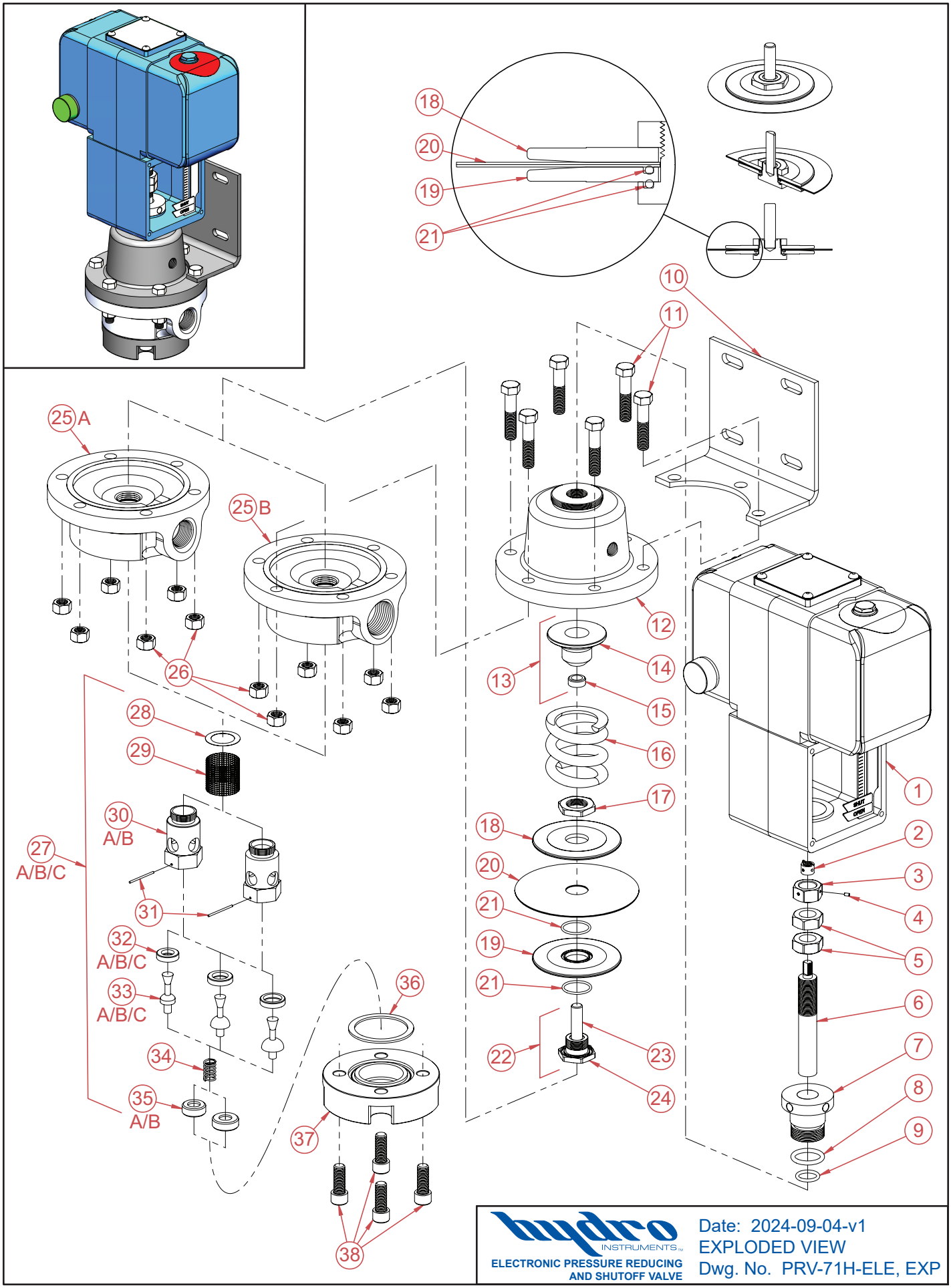
Cl_2 Service: 40 psig (275 kPa guage)
SO_2 Service: 15 psig (103 kPa guage)
NH_3 service: 40 psig (275 kPa guage)



hydro INSTRUMENTS
PRESSURE REDUCING AND SHUTOFF VALVE

Date: 2024-09-06-v1
EXPLODED VIEW
Dwg. No. PRV-71H, EXP

Item No.		Description	Quantity	Part No.
1		Upper End Cap	1	PRH-378U-8000
2		Adjustment Screw	1	PRH-396G-8000
3		Mounting Bracket	1	PRH-353A-8000
4	PM	Lead Gasket (Upper End Cap)	1	GAH-LED-333
5		Hex Head Screw, ⅜-16 x 1¾"	6	BTH-STA-040F
6		Upper Valve Body	1	PRH-23076-8000
7		Seat Cap and Seat Cap Bushing Assembly	1	
8		Seat Cap (pre-assembled with bushing)	1	PRH-640A-8000
9		Seat Cap Bushing (pre-assembled with cap)	1	PRH-640B-8000
10		Loading Spring	1	SPH-424A-8000
11		¾-16 Brass Hex Nut	2	PRH-397A-8000
12		Diaphragm Backing Plate	1	PRH-391G-8000
13		Diaphragm Backing Plate (with o-ring groove)	1	PRH-392G-8000
14	PM	Diaphragm (Set of Two)	1	DIH-425C-8000
15	PM	O-Ring	2	OH-VIT-020
16		Diaphragm Bolt and Diaphragm Bolt Base Assembly	1	PRH-639A-8000
17		Diaphragm Bolt (pre-assembled, press fit with base)	1	
18		Diaphragm Bolt Base (with o-ring groove) (pre-assembled, press fit with bolt)	1	
19A		Lower Valve Body (¾")	1	PRH-24000-8000
19B		Lower Valve Body (1")	1	PRH-24000-12000
20		Hex Nut, ⅜-16	6	BTH-STA-145M
21A	*	Trim Capsule Assembly (8000 PPD)	1	PRH-668-8000
21B	*	Trim Capsule Assembly (12,000 PPD)	1	PRH-668-12000
21C	*	Trim Capsule Assembly (16,000 PPD)	1	PRH-668-16000
22	PM	Gasket	1	GAH-334C-8000
23	PM	Valve Screen	1	PRH-433S-8000
24A		Valve Body Capsule (8000 PPD)	1	PRH-433A-8000
24B		Valve Body Capsule (12,000 PPD & 16,000 PPD)	1	PRH-433A2-12000
25		Pin	1	PRH-398A-8000
26A	PM	Valve Seat with O-Ring (8000 PPD)	1	PRH-433F-8000
26B	PM	Valve Seat with O-Ring (12,000 PPD)	1	PRH-433F2-12000
26C	PM	Valve Seat with O-Ring (16,000 PPD)	1	PRH-433F3-16000
27A		Valve Plug (8000 PPD)	1	PRH-433C-8000
27B		Valve Plug (12,000 PPD)	1	PRH-433C2-12000
27C		Valve Plug (16,000 PPD)	1	PRH-433C3-16000
28		Trim Spring	1	SPH-424B-8000
29A		Spring Seat Cap (8000 PPD)	1	PRH-378D-8000
29B		Spring Seat Cap (12,000 PPD & 16,000 PPD)	1	PRH-378D2-12000
30	PM	Lead Gasket (Lower End Cap)	1	GAH-LED-335
31		Lower End Cap - Flanged	1	PRH-380L-12000
32		⅜-16 x 1" Socket Head Cap Screw (Monel)	4	BTH-STA-139
	PM	Part & Maintenance Kit (8000 PPD)		KTH-PRV-71H-CL2-21
	PM	Part & Maintenance Kit (12,000 PPD)		KTH-PRV-71H-CL2-31
	PM	Part & Maintenance Kit (16,000 PPD)		KTH-PRV-71H-CL2-41
	*	Replacement requires new GAH-LED-335		



ELECTRONIC PRESSURE REDUCING AND SHUTOFF VALVE

Date: 2024-09-04-v1
EXPLODED VIEW
Dwg. No. PRV-71H-ELE, EXP

Item No.		Description	Quantity	Part No.
1A		Actuator (120 V)	1	PRHA-766-120
1B		Actuator (240 V)	1	PRHA-1025-240
2		Stem Nut	1	PRH-142E-000
3		Hex Nut, Actuator	1	BTH-STA-AN
4		Set Screw, 5-40 x ⅛", SS	2	BTH-STA-54018
5		Locking Nuts, HCX, ⅝-18	2	BTH-STA-5818
6		Valve Ram Stem	1	PRH-433E-000
7		Valve Gland	1	PRH-433G-000
8	PM	O-Ring	1	OH-VIT-212
9	PM	O-Ring	1	OH-VIT-114
10		Mounting Bracket	1	PRH-353A-8000
11		Hex Head Screw, ⅜-16 x 1¾"	6	BTH-STA-040F
12		Upper Valve Body, Electronic	1	PRH-23078-12000
13		Seat Cap and Seat Cap Bushing Assembly, Electronic	1	
14		Seat Cap, Electronic (pre-assembled with bushing)	1	PRH-640A2-12000
15		Seat Cap Bushing (pre-assembled with cap)	1	PRH-640B-8000
16		Loading Spring	1	SPH-424A-8000
17		¾-16 Brass Hex Nut	1	PRH-397A-8000
18		Diaphragm Backing Plate	1	PRH-391G-8000
19		Diaphragm Backing Plate (with o-ring groove)	1	PRH-392G-8000
20	PM	Diaphragm (Set of Two)	1	DIH-425C-8000
21	PM	O-Ring	2	OH-VIT-020
22		Diaphragm Bolt and Diaphragm Bolt Base Assembly	1	PRH-639A-8000
23		Diaphragm Bolt (pre-assembled, press fit with base)	1	
24		Diaphragm Bolt Base (with o-ring groove) (pre-assembled with bolt)	1	
25A		Lower Valve Body (¾")	1	PRH-24000-8000
25B		Lower Valve Body (1")	1	PRH-24000-12000
26		Hex Nut, ⅜-16	6	BTH-STA-145M
27A	*	Trim Capsule Assembly (8000 PPD)	1	PRH-668-8000
27B	*	Trim Capsule Assembly (12,000 PPD)	1	PRH-668-12000
27C	*	Trim Capsule Assembly (16,000 PPD)	1	PRH-668-16000
28	PM	Gasket	1	GAH-334C-8000
29	PM	Valve Screen	1	PRH-433S-8000
30A		Valve Body Capsule (8000 PPD)	1	PRH-433A-8000
30B		Valve Body Capsule (12,000 PPD & 16,000 PPD)	1	PRH-433A2-12000
31		Pin	1	PRH-398A-8000
32A	PM	Valve Seat with O-Ring (8000 PPD)	1	PRH-433F-8000
32B	PM	Valve Seat with O-Ring (12,000 PPD)	1	PRH-433F2-12000
32C	PM	Valve Seat with O-Ring (16,000 PPD)	1	PRH-433F3-16000
33A		Valve Plug (8000 PPD)	1	PRH-433C-8000
33B		Valve Plug (12,000 PPD)	1	PRH-433C2-12000
33C		Valve Plug (16,000 PPD)	1	PRH-433C3-16000
34		Trim Spring	1	SPH-424B-8000
35A		Spring Seat Cap (8000 PPD)	1	PRH-378D-8000
35B		Spring Seat Cap (12,000 PPD & 16,000 PPD)	1	PRH-378D2-12000
36	PM	Lead Gasket (Lower End Cap)	1	GAH-LED-335
37		Lower End Cap - Flanged	1	PRH-380L-12000
38		⅜-16 x 1" Socket Head Cap Screw (Monel)	4	BTH-STA-139
PM		Part & Maintenance Kit (8000 PPD)		KTH-PRV-71H-CL2-21
PM		Part & Maintenance Kit (12,000 PPD)		KTH-PRV-71H-CL2-31
PM		Part & Maintenance Kit (16,000 PPD)		KTH-PRV-71H-CL2-41
*		Replacement requires new GAH-LED-335		

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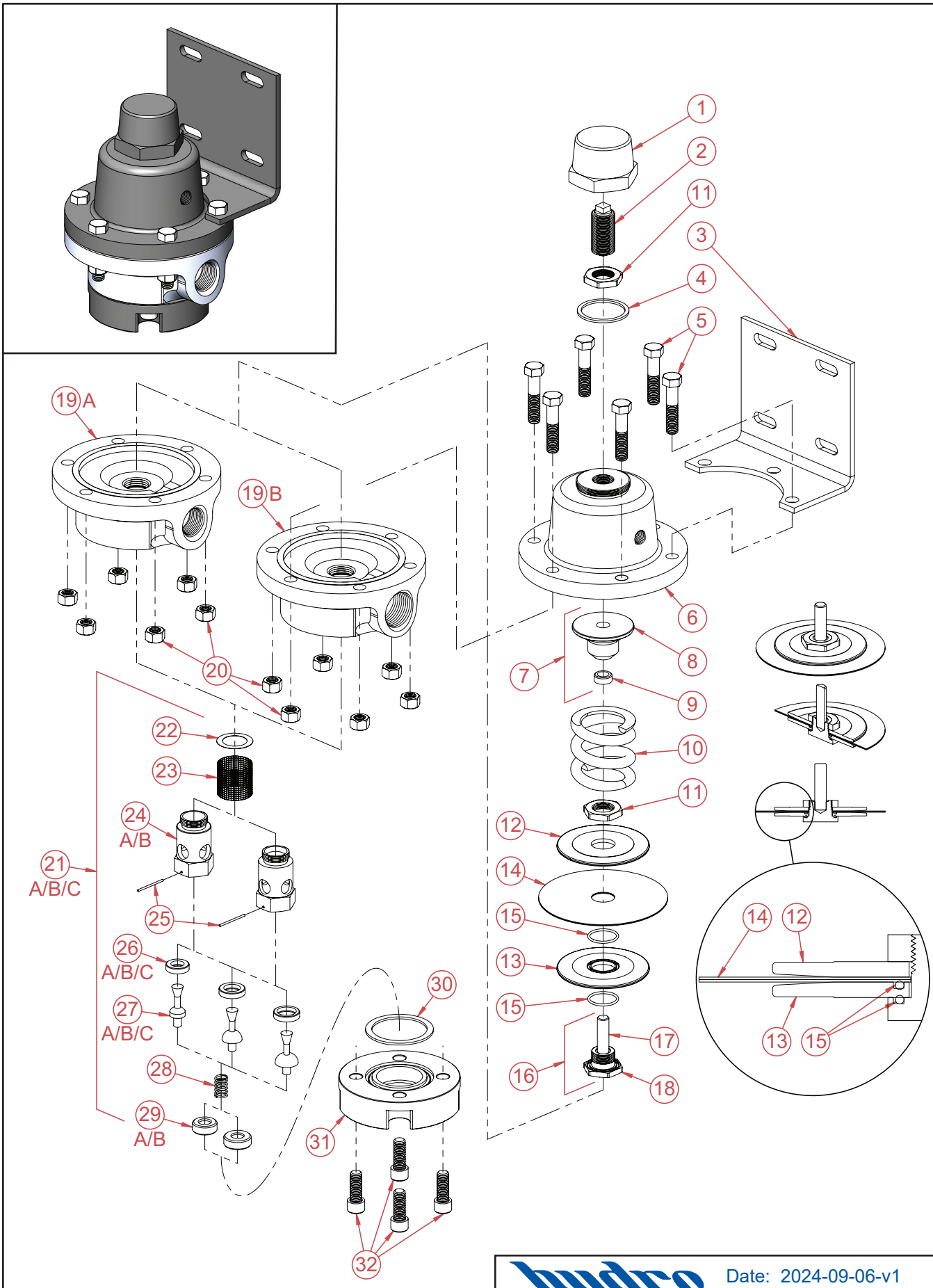
ELECTRONIC PRESSURE REDUCING AND SHUTOFF VALVE

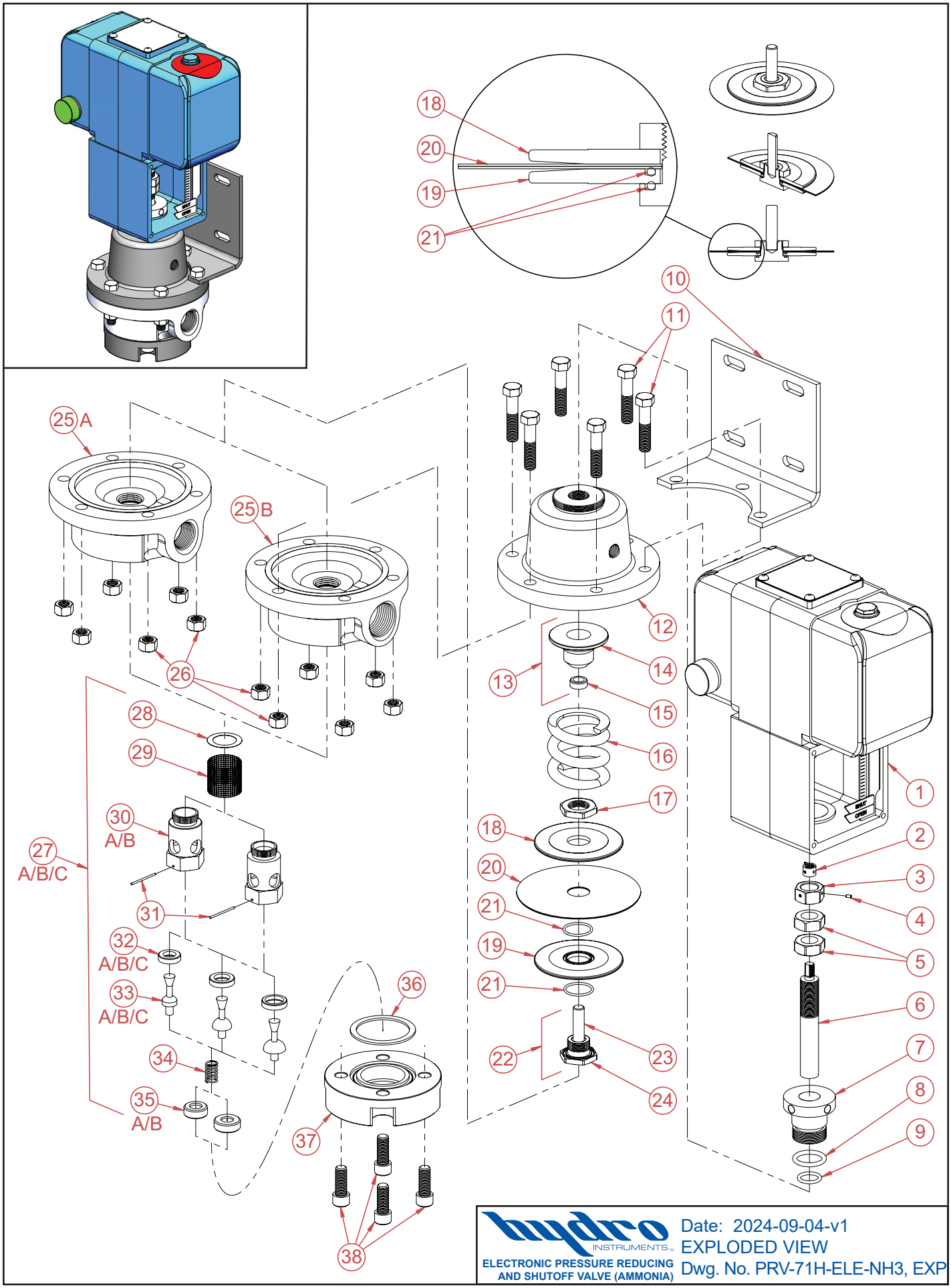
Date: 2024-09-04-v1
BILL OF MATERIALS
Dwg. No. PRV-71H-ELE, BOM



PRESSURE REDUCING
AND SHUTOFF VALVE (AMMONIA)

Date: 2024-09-06-v1
EXPLODED VIEW
Dwg. No. PRV-71H-NH3, EXP

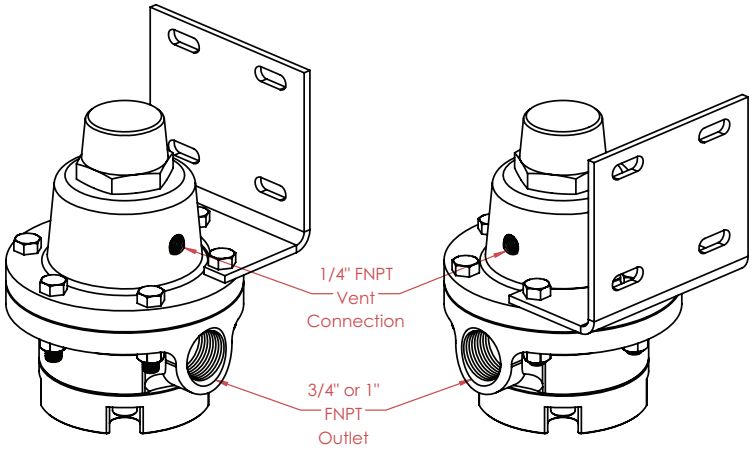
Item No.		Description	Quantity	Part No.
1		Upper End Cap	1	PRH-378U-8000
2		Adjustment Screw	1	PRH-396G-8000
3		Mounting Bracket	1	PRH-353A-8000
4	PM	Upper End Cap Lead Gasket	1	GAH-LED-333
5		Hex Head Screw, ⅜-16 x 1¾" (Stainless)	6	BTH-STA-040F-SS
6		Upper Valve Body	1	PRH-23076-8000
7		Seat Cap and Seat Cap Bushing Assembly	1	
8		Seat Cap (pre-assembled with bushing)	1	PRH-640A-8000
9		Seat Cap Bushing (pre-assembled with cap)	1	PRH-640B-8000
10		Loading Spring	1	SPH-424A-8000
11		¾-16 Brass Hex Nut	2	PRH-397A-8000
12		Diaphragm Backing Plate	1	PRH-391G-8000
13		Diaphragm Backing Plate (with o-ring groove)	1	PRH-392G-8000
14	PM	Diaphragm (Set of Two)	1	DIH-425C-8000
15	PM	O-Ring	2	OH-BUN-020
16		Diaphragm Bolt and Diaphragm Bolt Base Assembly	1	PRH-639A-8000-SS
17		Diaphragm Bolt (pre-assembled, press fit with base)	1	
18		Diaphragm Bolt Base (316 SS) (with o-ring groove) (pre-assembled, press fit with bolt)	1	
19 A		Lower Valve Body (¾")	1	PRH-24000-8000
19 B		Lower Valve Body (1")	1	PRH-24000-12000
20		Hex Nut, ⅜-16 (Stainless)	6	BTH-STA-145M-SS
21 A	*	Trim Capsule Assembly (4000 PPD NH_3)	1	PRH-668-8000-SS
21 B	*	Trim Capsule Assembly (6000 PPD NH_3)	1	PRH-668-12000-SS
21 C	*	Trim Capsule Assembly (8000 PPD NH_3)	1	PRH-668-16000-SS
22	PM	Gasket	1	GAH-334C-8000
23	PM	Valve Screen (Hastelloy)	1	PRH-433S-8000-HC
24 A		Valve Body Capsule (316SS) (4000 PPD NH_3)	1	PRH-433A-8000-SS
24 B		Valve Body Capsule (316SS) (6000 PPD & 8000 PPD NH_3)	1	PRH-433A2-12000-SS
25		Pin (Stainless)	1	PRH-398A-8000-SS
26 A	PM	Valve Seat with O-Ring (4000 PPD NH_3)	1	PRH-433F-8000-A
26 B	PM	Valve Seat with O-Ring (6000 PPD NH_3)	1	PRH-433F2-12000-A
26 C	PM	Valve Seat with O-Ring (8000 PPD NH_3)	1	PRH-433F3-16000-A
27 A		Valve Plug (4000 PPD NH_3)	1	PRH-433C-8000-SS
27 B		Valve Plug (6000 PPD NH_3)	1	PRH-433C2-12000-SS
27 C		Valve Plug (8000 PPD NH_3)	1	PRH-433C3-16000-SS
28		Trim Spring (Hastelloy)	1	SPH-424B-8000-HC
29 A		Spring Seat Cap (316SS) (4000 PPD NH_3)	1	PRH-378D-8000-SS
29 B		Spring Seat Cap (316SS) (6000 PPD & 8000 PPD NH_3)	1	PRH-378D2-12000-SS
30	PM	Lead Gasket (Lower End Cap)	1	GAH-LED-335
31		Lower End Cap - Flanged	1	PRH-380L-12000
32		⅜-16 x 1" Socket Head Cap Screw (Monel)	4	BTH-STA-139
PM		Part & Maintenance Kit (4000 PPD NH_3)		KTH-PRV-71H-NH3-21
PM		Part & Maintenance Kit (6000 PPD NH_3)		KTH-PRV-71H-NH3-31
PM		Part & Maintenance Kit (8000 PPD NH_3)		KTH-PRV-71H-NH3-41
*		Replacement requires new GAH-LED-335		

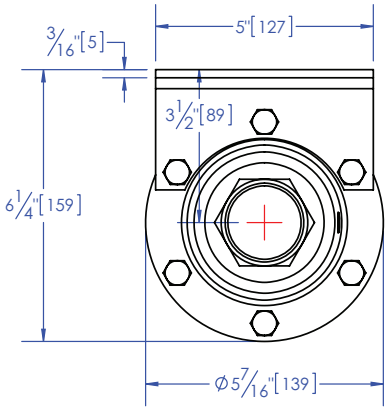


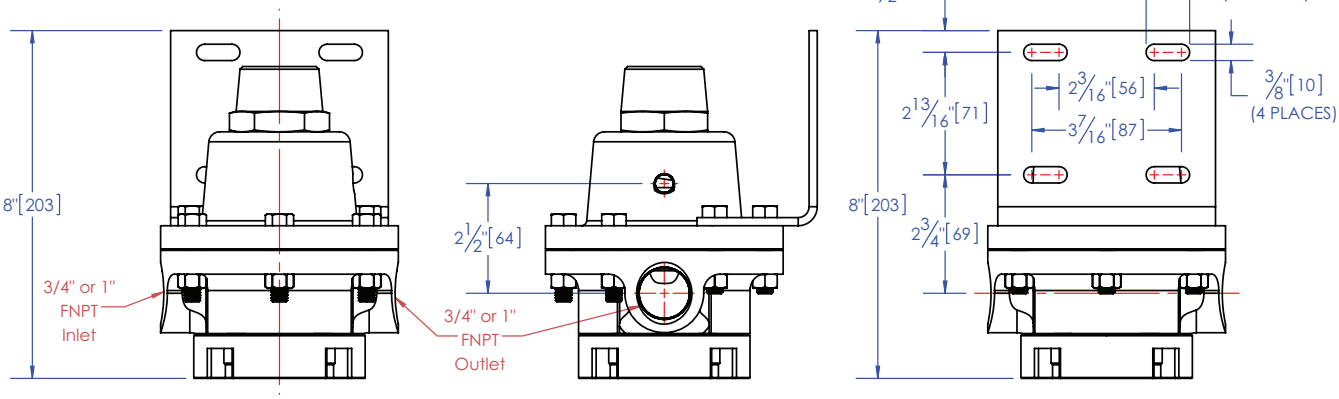
ELECTRONIC PRESSURE REDUCING AND SHUTOFF VALVE (AMMONIA)

Date: 2024-09-04-v1
EXPLODED VIEW
Dwg. No. PRV-71H-ELE-NH3, EXP

Item No.		Description	Quantity	Part No.
1 A		Actuator (120 V)	1	PRHA-766-120
1 B		Actuator (240 V)	1	PRHA-1025-240
2		Stem Nut	1	PRH-142E-000
3		Hex Nut, Actuator	1	BTH-STA-AN
4		Set Screw, 5-40 x ⅛", SS	2	BTH-STA-54018
5		Locking Nuts, HCX, ⅝-18	2	BTH-STA-5818
6		Valve Ram Stem	1	PRH-433E-000
7		Valve Gland	1	PRH-433G-000
8	PM	O-Ring	1	OH-BUN-212
9	PM	O-Ring	1	OH-BUN-114
10		Mounting Bracket	1	PRH-353A-8000
11		Hex Head Screw, ⅜-16 x 1¾" (Stainless)	6	BTH-STA-040F-SS
12		Upper Valve Body, Electronic	1	PRH-23078-12000
13		Seat Cap and Seat Cap Bushing Assembly, Electronic	1	
14		Seat Cap, Electronic (pre-assembled with bushing)	1	PRH-640A2-12000
15		Seat Cap Bushing (pre-assembled with cap)	1	PRH-640B-8000
16		Loading Spring	1	SPH-424A-8000
17		¾-16 Brass Hex Nut	1	PRH-397A-8000
18		Diaphragm Backing Plate	1	PRH-391G-8000
19		Diaphragm Backing Plate (with o-ring groove)	1	PRH-392G-8000
20	PM	Diaphragm (Set of Two)	1	DIH-425C-8000
21	PM	O-Ring	2	OH-BUN-020
22		Diaphragm Bolt and Diaphragm Bolt Base Assembly	1	PRH-639A-8000-SS
23		Diaphragm Bolt (pre-assembled, press fit with base)	1	
24		Diaphragm Bolt Base (316SS) (with o-ring groove) (pre-assembled with bolt)	1	
25 A		Lower Valve Body (¾")	1	PRH-24000-8000
25 B		Lower Valve Body (1")	1	PRH-24000-12000
26		Hex Nut, ⅜-16 (Stainless)	6	BTH-STA-145M-SS
27 A	*	Trim Capsule Assembly (4000 PPD NH_3)	1	PRH-668-8000-SS
27 B	*	Trim Capsule Assembly (6000 PPD NH_3)	1	PRH-668-12000-SS
27 C	*	Trim Capsule Assembly (8000 PPD NH_3)	1	PRH-668-16000-SS
28	PM	Gasket	1	GAH-334C-8000
29	PM	Valve Screen (Hastelloy)	1	PRH-433S-8000-HC
30 A		Valve Body Capsule (316SS) (4000 PPD NH_3)	1	PRH-433A-8000-SS
30 B		Valve Body Capsule (316SS) (6000 PPD & 8000 PPD NH_3)	1	PRH-433A2-12000-SS
31		Pin (Stainless)	1	PRH-398A-8000-SS
32 A	PM	Valve Seat with O-Ring (4000 PPD NH_3)	1	PRH-433F-8000-A
32 B	PM	Valve Seat with O-Ring (6000 PPD NH_3)	1	PRH-433F2-12000-A
32 C	PM	Valve Seat with O-Ring (8000 PPD NH_3)	1	PRH-433F3-16000-A
33 A		Valve Plug (4000 PPD NH_3)	1	PRH-433C-8000-SS
33 B		Valve Plug (6000 PPD NH_3)	1	PRH-433C2-12000-SS
33 C		Valve Plug (8000 PPD NH_3)	1	PRH-433C3-16000-SS
34		Trim Spring (Hastelloy)	1	SPH-424B-8000-HS
35 A		Spring Seat Cap (316SS) (4000 PPD NH_3)	1	PRH-378D-8000
35 B		Spring Seat Cap (316SS) (6000 PPD & 8000 PPD NH_3)	1	PRH-378D2-12000
36	PM	Lead Gasket (Lower End Cap)	1	GAH-LED-335
37		Lower End Cap - Flanged	1	PRH-380L-12000
38		⅜-16 x 1" Socket Head Cap Screw (Monel)	4	BTH-STA-139
PM		Part & Maintenance Kit (4000 PPD NH_3)		KTH-PRV-71H-NH3-21
PM		Part & Maintenance Kit (6000 PPD NH_3)		KTH-PRV-71H-NH3-31
PM		Part & Maintenance Kit (8000 PPD NH_3)		KTH-PRV-71H-NH3-41
*		Replacement requires new GAH-LED-335		



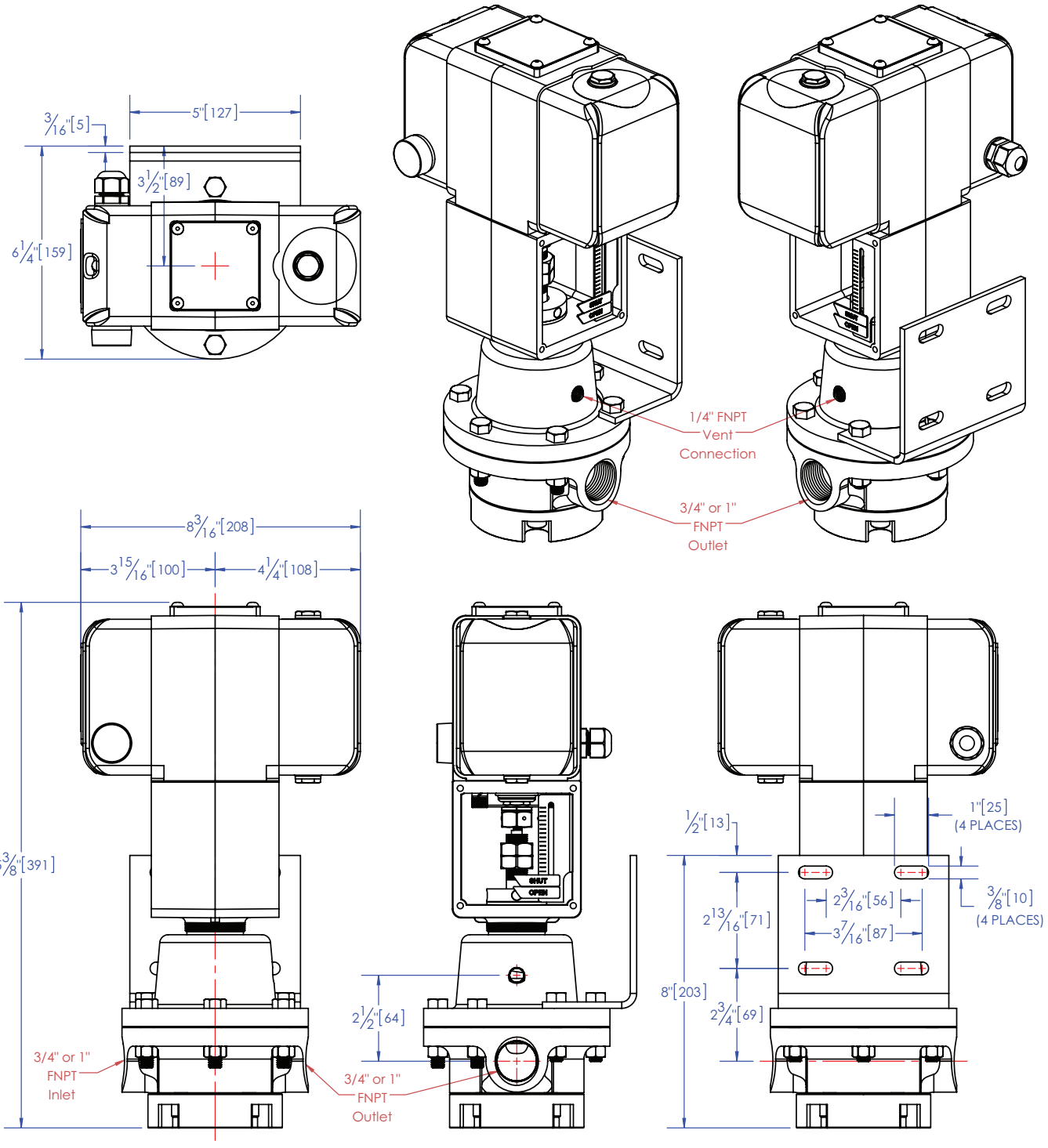




NOTE: Dimensions across threaded connections are approximate.

Hydro Instruments

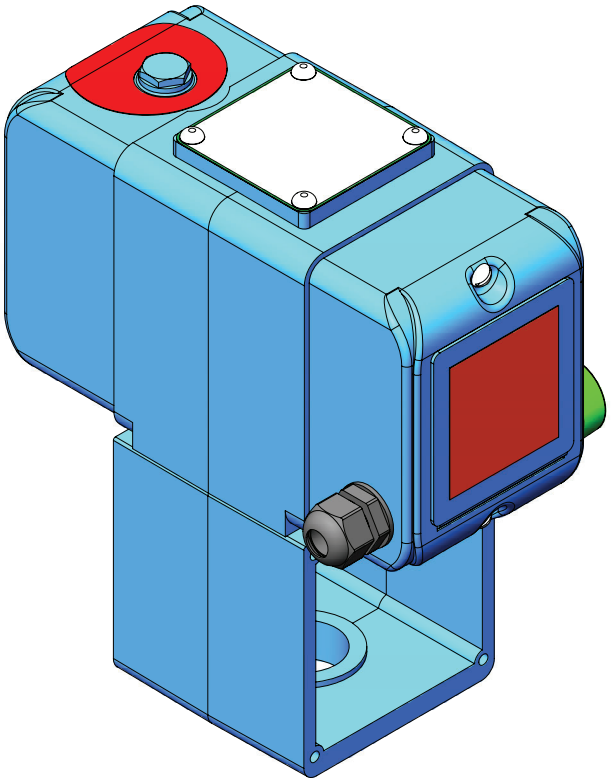
PART NAME:	PART NUMBER:
Pressure Reducing and ShutOff Valve	PRV-71H
MEASUREMENTS: Inches [Millimeters]	DATE: 2024-06-30

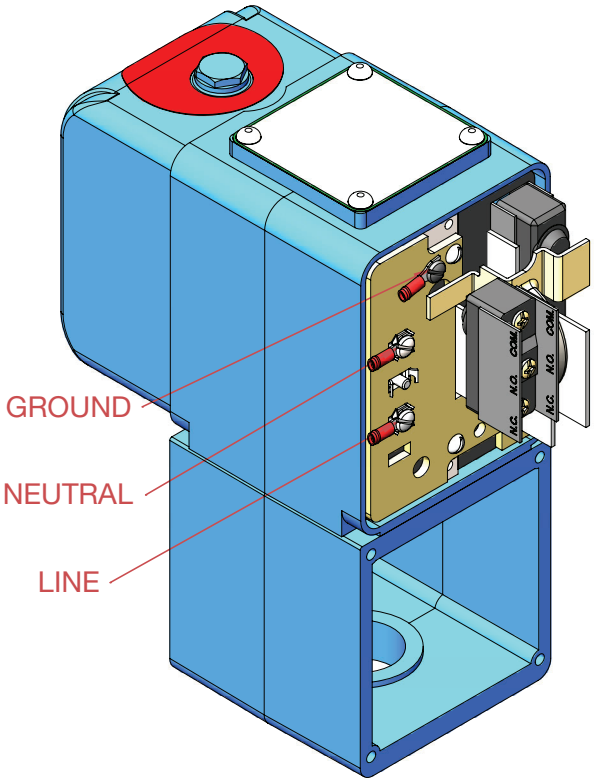


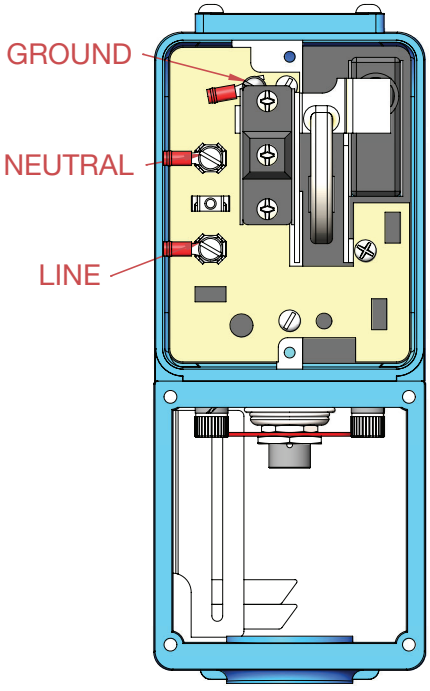
NOTE: Dimensions across threaded connections are approximate.

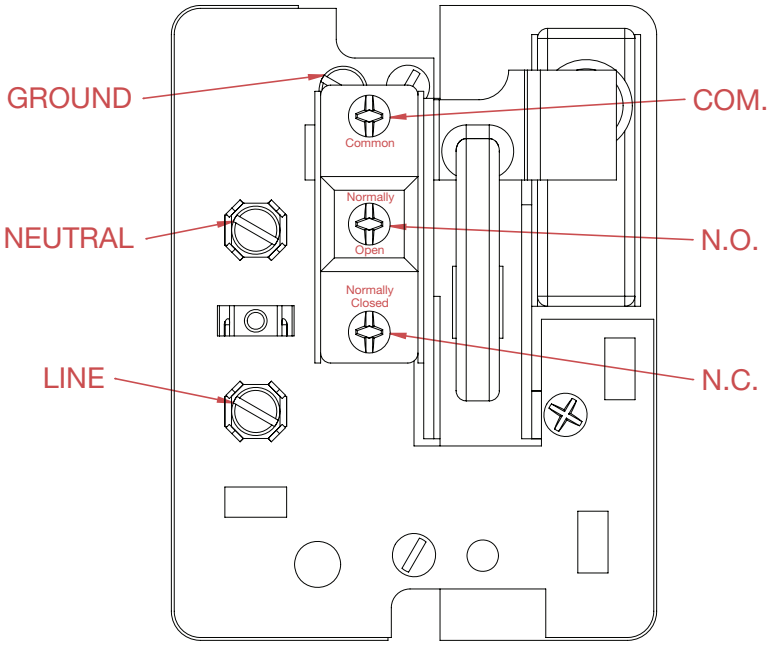
Hydro Instruments

PART NAME:	PART NUMBER:
Electronic Pressure Reducing and ShutOff Valve	PRV-71H-ELE
MEASUREMENTS: Inches [Millimeters]	DATE: 2024-06-30





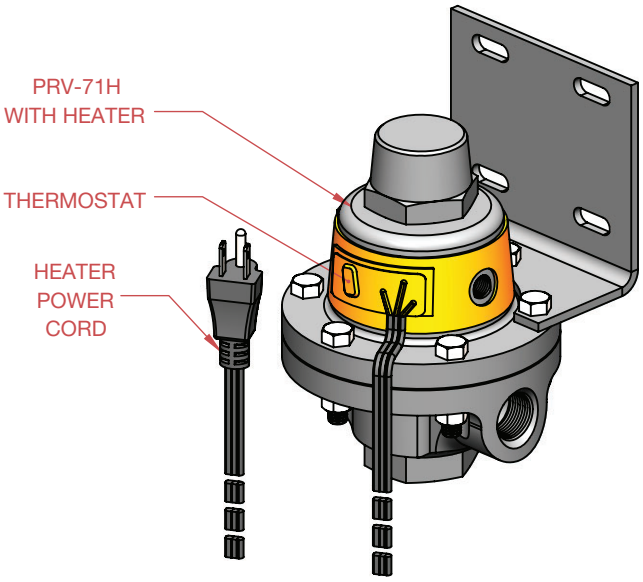


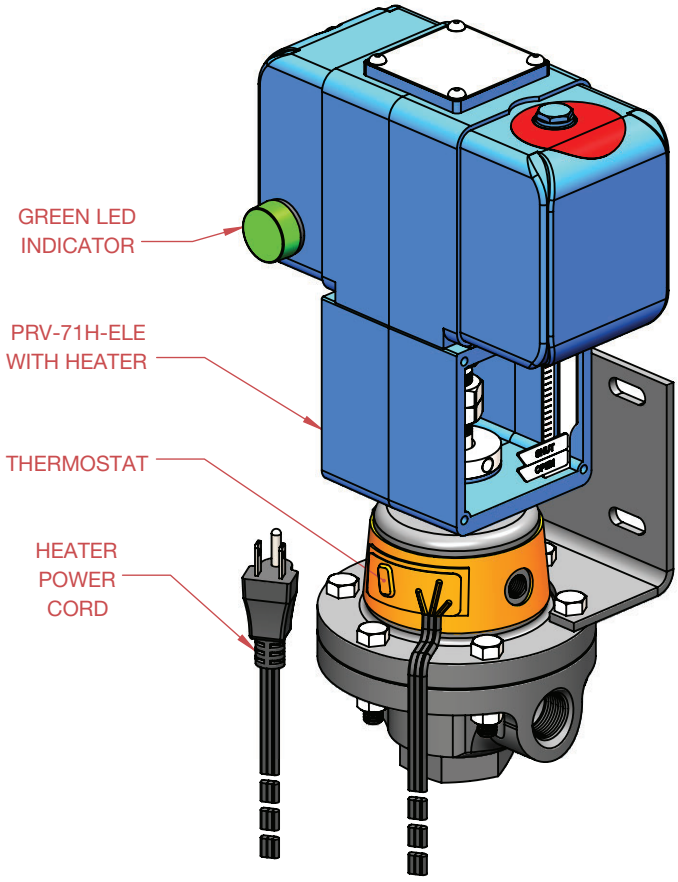


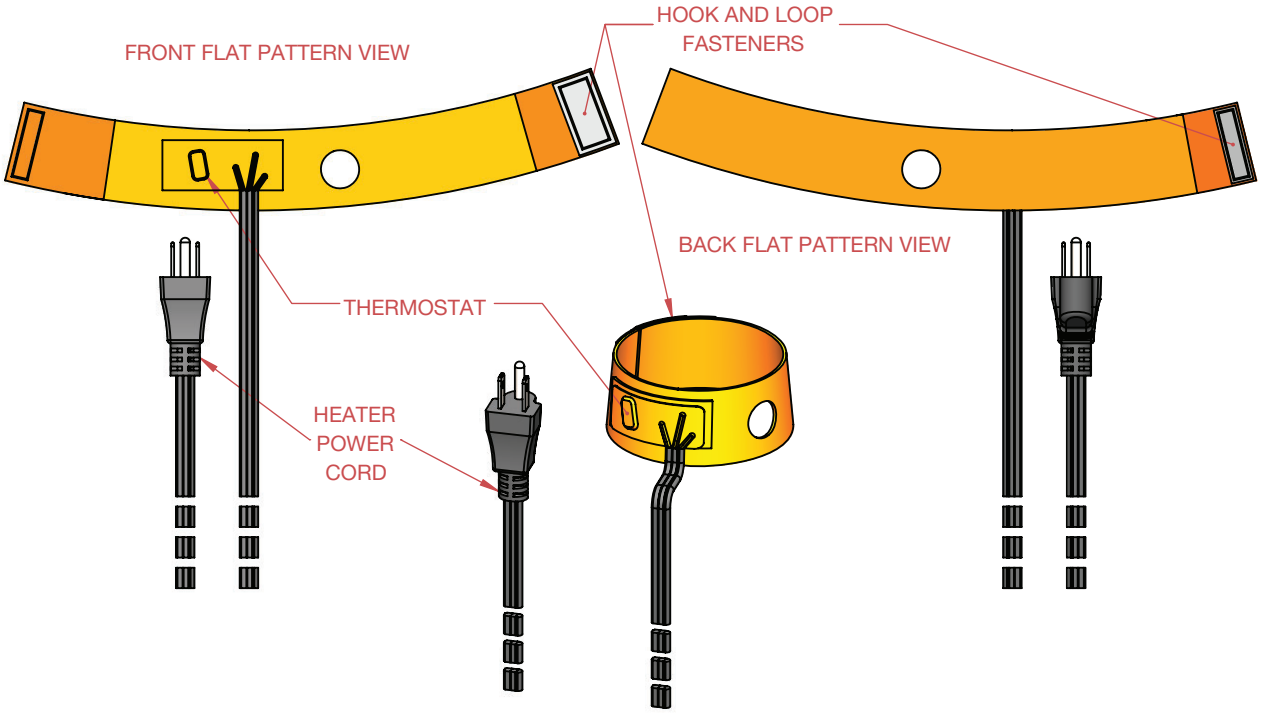
hydro INSTRUMENTS

PRV-71H-ELE
CIRCUIT BOARD

Date: 2019-09-16-v1
Dwg. No. PRV-PCB-1







Date: 2019-09-16-v1
HEATER for PRV-71H
and PRV-71H-ELE