

## Introduction

This installation guide provides instructions for installation, startup, and adjustment. To receive a copy of the instruction manual, contact your local Fisher Sales Office or Sales Representative or view a copy at [www.FISHERregulators.com](http://www.FISHERregulators.com). For further information refer to: Type 92W Instruction Manual, form 5237, D101268X012.

## P.E.D. Categories

This product may be used as a safety accessory with pressure equipment in the following Pressure Equipment Directive 97/23/EC categories. It may also be used outside of the Pressure Equipment Directive using sound engineering practice (SEP) per table below.

PRODUCT SIZE	CATEGORIES	FLUID TYPE
DN 25 (1-inch)	SEP	1
DN 40, 50, 65, 80, 100, 150 x 100 (1, 1-1/2, 2, 2-1/2, 3, 4, and 6 x 4-inch)	I, II	

## Specifications

### Main Valve Body Sizes and End Connection Styles<sup>(1)</sup>

See table 1

### Maximum Inlet and Pilot Supply Pressure<sup>(1)</sup>

**Cast Iron Main Valve and Pilot:** 17 bar (250 psig) or body rating limit, whichever is lower

**Steel Main Valve and Pilot:** 21 bar (300 psig) or body rating limit, whichever is lower

### Minimum and Maximum Differential Pressures<sup>(1)</sup>

See table 2

### Maximum Outlet Pressures<sup>(1)</sup>

See table 3

### Outlet (Control) Pressure Ranges

See table 4

### Maximum Allowable Loading Pressure for Pilot with Tapped Spring Case<sup>(1)</sup>

Combination of pilot control spring setting and spring case loading pressure must not exceed 10 bar (150 psig) for Type 6492H pilot or 1,7 bar (25 psig) for Type 6492L pilot

### Proof Test Pressure

All Pressure Retaining Components have been proof tested per Directive 97/23/EC - Annex 1, Section 7.4

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

Table 1. Main Valve Body Sizes and End Connection Styles

BODY SIZE , DN (INCHES)	END CONNECTION STYLE AND RATING	
	Cast Iron Body	Steel Body
25, 40, 50 (1, 1-1/2, 2)	NPT; Class 125FF, or 250RF flanged	NPT; Class 150RF, 300RF, or 600RF flanged
65, 80, 100 (2-1/2, 3, and 4)	Class 125FF or 250RF flanged	Class 150RF, 300RF, or 600RF flanged
150 x 100 (6 x 4) <sup>(1)</sup>	Not Available	Class 300RF or 600RF flanged

1. The two-number designation indicates end connection size by trim size.

## Maximum Material Temperature Capabilities<sup>(1)</sup>

**Cast Iron Construction:** 208°C (406°F)

**Steel Construction:** 260°C (500°F)

## Installation



### WARNING

Only qualified personnel should install or service a regulator. Regulators should be installed, operated, and maintained in accordance with international and applicable codes and regulations, and Fisher instructions.

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

Personal injury, equipment damage, or leakage due to escaping fluid or bursting of pressure-containing parts may result if this regulator is overpressured or is installed where service conditions could exceed the limits given in the Specifications section, or where conditions exceed any ratings of the adjacent piping or piping connections.

To avoid such injury or damage, provide pressure-relieving or pressure-limiting devices (as required by the appropriate code, regulation, or standard) to prevent service conditions from exceeding limits.

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

Clean out all pipelines before installation of the regulator and check to be sure the regulator has not been damaged or has collected foreign material during shipping. For NPT bodies, apply pipe compound to the male pipe threads. For flanged bodies, use suitable line gaskets and approved piping and bolting practices. Install the regulator in any position desired, unless otherwise specified, but be sure flow through the body is in the direction indicated by the arrow on the body.

### Note

It is important that the regulator be installed so that the vent hole in the spring case is unobstructed at all times. For outdoor installations, the regulator should be located away from vehicular traffic and positioned so that water, ice, and other foreign materials cannot

Table 2. Minimum and Maximum Differential Pressures

BODY SIZE , DN (INCHES)	MINIMUM DIFFERENTIAL PRESSURE	MAXIMUM DIFFERENTIAL PRESSURE
25, 40, 50 (1, 1-1/2, 2)	1,0 bar (15 psi)	14 bar (200 psi) or body rating limit, whichever is lower
65, 80, 100, 150 x 200 (2-1/2, 3, 4, 6 x 4)	1,4 bar (20 psi)	12 bar (175 psi) or body rating limit, whichever is lower



# Type 92W

Table 3. Maximum Outlet Pressures

PILOT TYPE	MAXIMUM OPERATING OUTLET PRESSURE, bar (PSIG)	MAXIMUM EMERGENCY OUTLET PRESSURE (IF EXCEEDED, PRESSURE VESSEL INTEGRITY MAY NOT BE RETAINED AND PERSONAL INJURY OR PROPERTY DAMAGE COULD RESULT)	
		Cast Iron Main Valve and Pilot Body	Steel Main Valve and Pilot Body
6492H	10 (150)	17 (250) or main valve body rating limit, whichever is lower	21 (300) or main valve body rating limit, whichever is lower
6492L	1,7 (25)	6,9 (100)	

Table 4. Outlet (Control) Pressure Ranges

OUTLET (CONTROL) PRESSURE RANGE, bar (PSIG)	
Type 6492L Pilot	Type 6492H Pilot
0,14 to 0,41 (2 to 6)	0,69 to 2,1 (10 to 30)
0,34 to 1,0 (5 to 15)	1,7 to 5,2 (25 to 75)
0,90 to 1,7 (13 to 25)	4,8 to 10 (70 to 150)

enter the spring case through the vent. Avoid placing the regulator beneath eaves or downspouts, and be sure it is above the probable snow level.

## Overpressure Protection

The recommended pressure limitations are stamped on the regulator nameplate. Some type of overpressure protection is needed if the actual inlet pressure exceeds the maximum operating outlet pressure rating. Overpressure protection should also be provided if the regulator inlet pressure is greater than the safe working pressure of the downstream equipment.

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

## Startup

The regulator is factory set at approximately the midpoint of the spring range or the pressure requested, so an initial adjustment may be required to give the desired results. With proper installation completed and relief valves properly adjusted, slowly open the upstream and downstream shutoff valves.

## Adjustment

To change the outlet pressure, remove the closing cap or loosen the locknut and turn the adjusting screw clockwise to increase outlet pressure or counterclockwise to decrease pressure. Monitor the outlet pressure with a test gauge during the adjustment. Replace the closing cap or tighten the locknut to maintain the desired setting.

## Taking Out of Service (Shutdown)



### WARNING

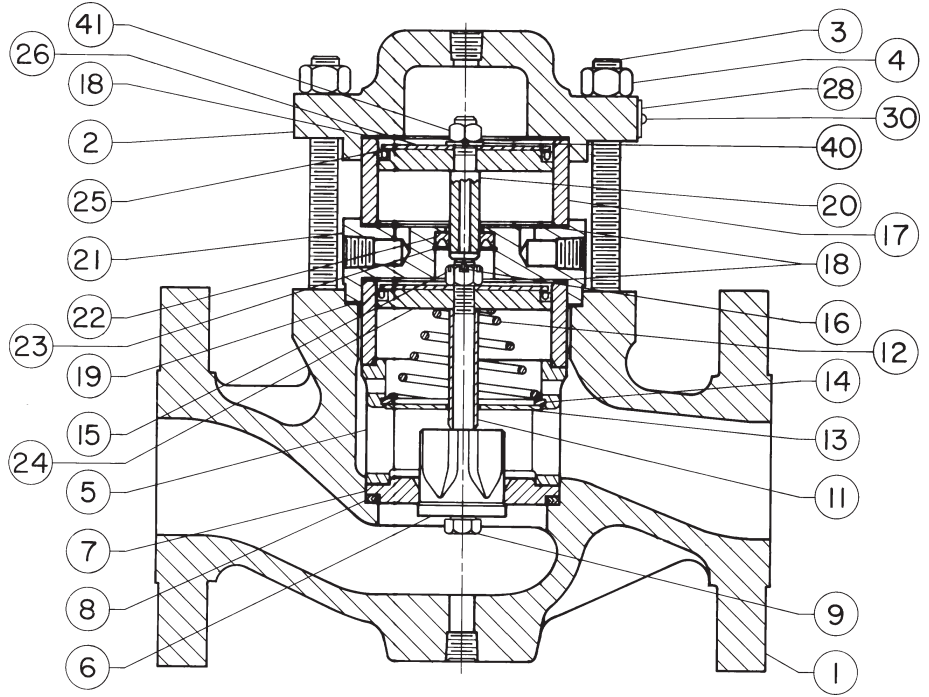
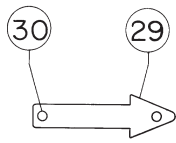
To avoid personal injury resulting from sudden release of pressure, isolate the regulator from all pressure before attempting disassembly.

## Type 92W Main Valve Parts List

Key	Description
1	Body
2	Body Flange
3	Stud Bolt
5	Cage
6	Valve Plug
7	Seat Ring
8	Spiral Wound Gasket
9	Bottom Stem
11	Piston Spacer
12	Spring
13	Baffle
14	Retaining Ring
15	Stem Nut
16	Cotter Pin
17	Cylinder
18	Cylinder Gasket
19	Body Gasket
20	Top Stem
21	Cylinder Spacer
22	Stem Seal
23	Stem Seal Retainer
24	Piston
25	Piston Ring
26	Ring Retainer
28	Nameplate
29	Flow Arrow
30	Drive Screw
32	Spring Seat
33	Plug Spacer
34	Washer
35	Groove Pin
38	O-Ring
40	Lockwasher
41	Hex Nut

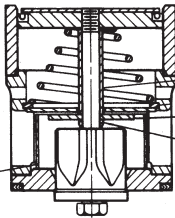
## Type 6492L and 6492H Pilots Parts List

Key	Description
1	Body
2	Plug Guide
3	Plug Spring
4	Plug
5	Seat Ring
7	Stem
8	Bellows Retainer
9	Bellows
10	Diaphragm
11	Lower Spring Seat
12	Control Spring
13	Upper Spring Seat
14	Spring Case
15	Adjusting Screw
16	Hex Nut
17	Cap Screw
18	Diaphragm Gasket
19	Drive Screw
20	Nameplate
24	Diaphragm Plate Assembly
74	Pipe Plug
76	Bleed Restriction
77	Screen
78	Reducing Bushing
87	Sealing Washer



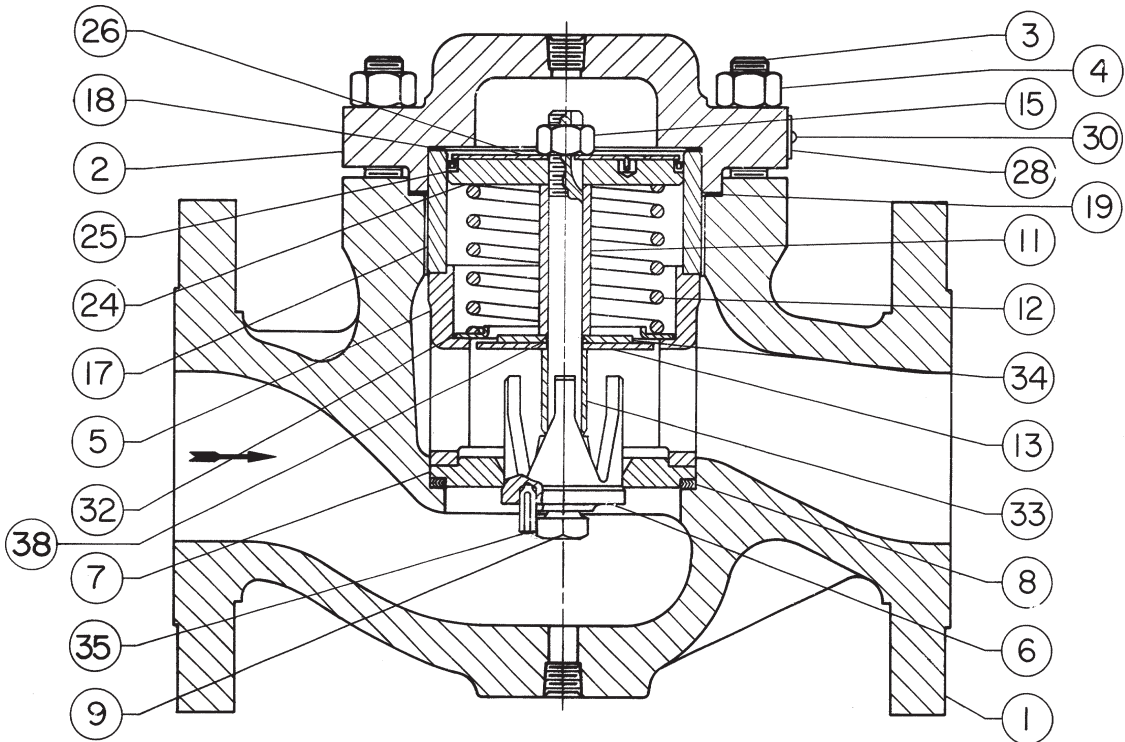
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DN 25, 40, OR 50 (1, 1-1/2, OR 2-INCH) BODY SIZE



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DETAIL OF WHISPER TRIM  
NOISE ATTENUATOR

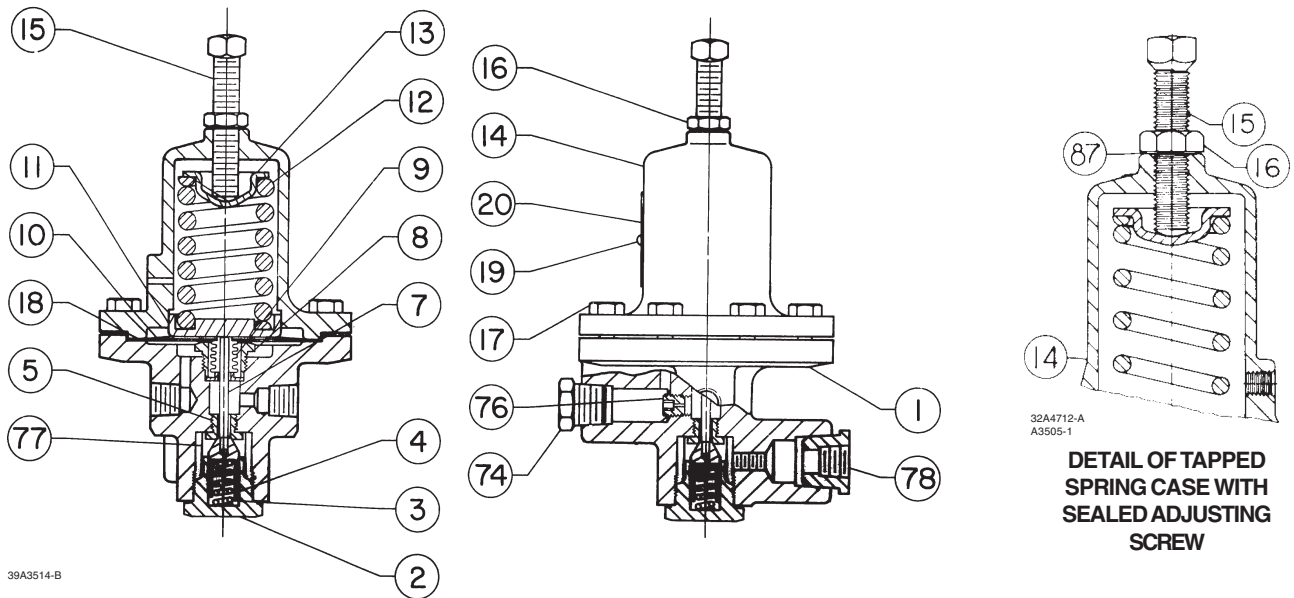


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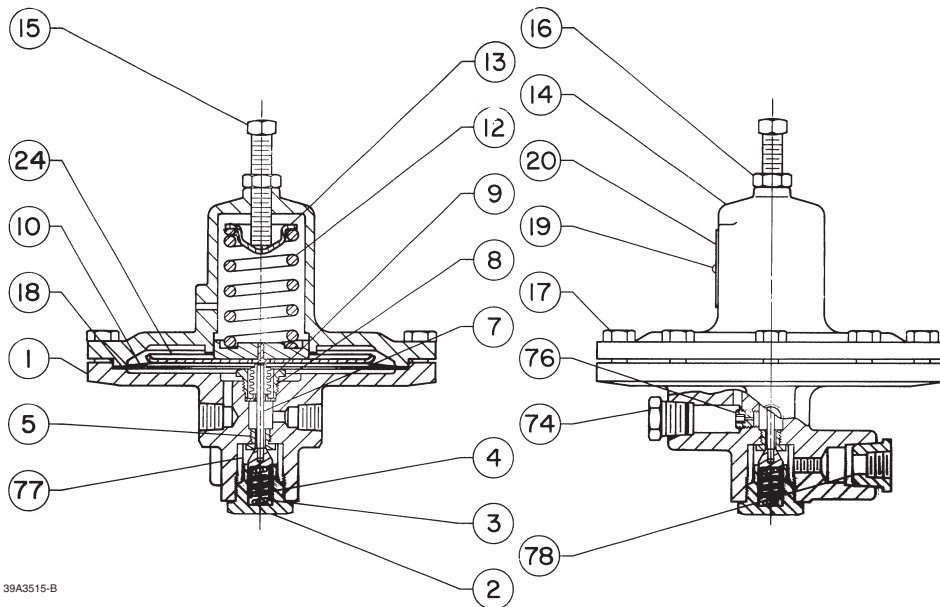
DN 65, 80, 100, 150 x 100 (2-1/2, 3, 4, OR 6 x 4-INCH) BODY SIZE

Figure 1. Type 92W Main Valve Assemblies

# Type 92W



**COMPLETE TYPE 6492H PILOT**



**COMPLETE TYPE 6492L PILOT**

*Figure 2. Pilot Assemblies*

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