

ISU Steam Pressure Reducing Valve Selection Table For Main Building Entrance

Standard Station Sizes Based on Inlet Pressure of 90 psig and outlet Pressure of 12 psig.

Valve Train	Flow (#/hr)	Valve & Mat'l Store# (for FP&M use only)	Size	Trim	Model #
1	350-925	Control 7879.9030	1"	EQ % Microform	4160KR-667-EZ
2	850-2020	Control 7879.9040	1 ½"	Characterized Whisper I*	4160KR-667-ES
3	1750-2925 (not stocked)	Control	2"	Characterized Whisper I*	4160KR-667-ES
4	2000-5225	Control 7879.9050	2 ½"	Characterized Whisper I*	4160KR-667-ES
5	3700-7270	Control 7879.9060	3"	Characterized Whisper I*	4160KR-667-ES
6	6800-12,800	Control 7879.9070	4"	Characterized Whisper I*	4160KR-667-ES

Standard Sizes for PRV's are based on Fisher ES an EZ body globe valves. Standard size valves and repair parts are stocked in ISU Material Stores.

The PRV is characterized to provide for required steam flows, linearized performance and keep a noise level less than 85 DBA

* Valves with characterized Whisper I trim are a special order. The standard Whisper I is drilled out to allow a nearly linear response through the PRV station.

Processes requiring steam pressures greater than 15 psig require approval of Owners Representative.

667 is the control valve model number. All are set for "Air to open-fail closed". 4160K is the model number for the Wizard box controller. The 4160K has a "reset restriction valve" which opposes the proportional bellows and is a reverse acting (air to open) controller (thus adding the R on the end of the model number). Controller requires 35 psig air to operate and outputs a range of from 6 to 30 psig to actuator.

Mounted on valve is an air pressure reducing regulator type 67AFR which can accept an input pressure up to 250 psig. Set to put out 35 psig air. These have a built in filter.

For installations where a steam safety valve discharge line cannot be safely terminated, see exemption in ASME ANSI B31.1 Paragraph ???. A work and monitor PRV station can be used.

See [ISU Steam PRV Selection Table And Specifications – With Monitor](#).

Steam Pressure Reducing Valve Specification

Valve Train 1

1 inch control valve

1 inch CL150 RF steel EZ globe valve, 3/4 inch equal percentage trim #1, TFE packing 667 size 30 actuator, 6-30 psi bench set, 4160KR controller, 0-30 psi bronze bourdon tube with airset

Fisher 4160KR-667-EZ and no equal

Valve Train 2

1 1/2 inch control valve

1 inch CL150 RF steel ES globe valve, 1 5/16 inch whisper 1 characterized trim #1, TFE packing, 667 size 34 actuator, 6-30 psi bench set, 4160KR controller, 0-30 psi bronze bourdon tube with airset

Fisher 4160KR-667-ES and no equal

Valve Train 3

2 inch control valve

2 inch CL150 RF steel ES globe valve, 2 5/16 inch whisper 1 characterized trim #1, TFE packing, 667 size 45 actuator, 10-30 psi bench set, 4160KR controller, 0-30 psi bronze bourdon tube with airset

Fisher 4160KR-667-ES and no equal

Valve Train 4

2 1/2 inch control valve

2 1/2 inch CL150 RF steel ES globe valve, 2 7/8 inch whisper 1 characterized trim #1, TFE packing, 667 size 45 actuator, 14-30 psi bench set, 4160KR controller, 0-30 psi bronze bourdon tube with airset

Fisher 4160KR-667-ES and no equal

Valve Train 5

3 inch control valve

3 inch CL150 RF steel ES globe valve, 3 7/16 inch whisper 1 characterized trim #1, TFE packing, 667 size 45 actuator, 14-30 psi bench set, 4160KR controller, 0-30 psi bronze bourdon tube with airset

Fisher 4160KR-667-ES and no equal

Valve Train 6

4 inch control valve

4 inch CL150 RF steel ES globe valve, 4 3/8 inch whisper 1 characterized trim #1, TFE packing, 667 size 70 actuator, 14-30 psi bench set, 4160KR controller, 0-30 psi bronze bourdon tube with airset

Fisher 4160KR-667-ES and no equal