6350 and 6360 Series Pilot Construction

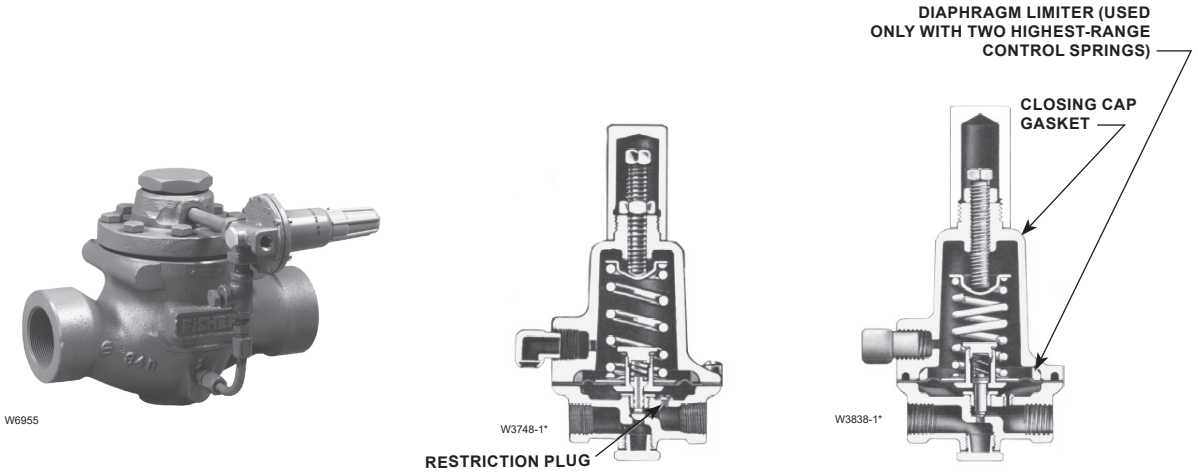

Figure 1. *Typical Pressure Relief or Backpressure Pilot Constructions*

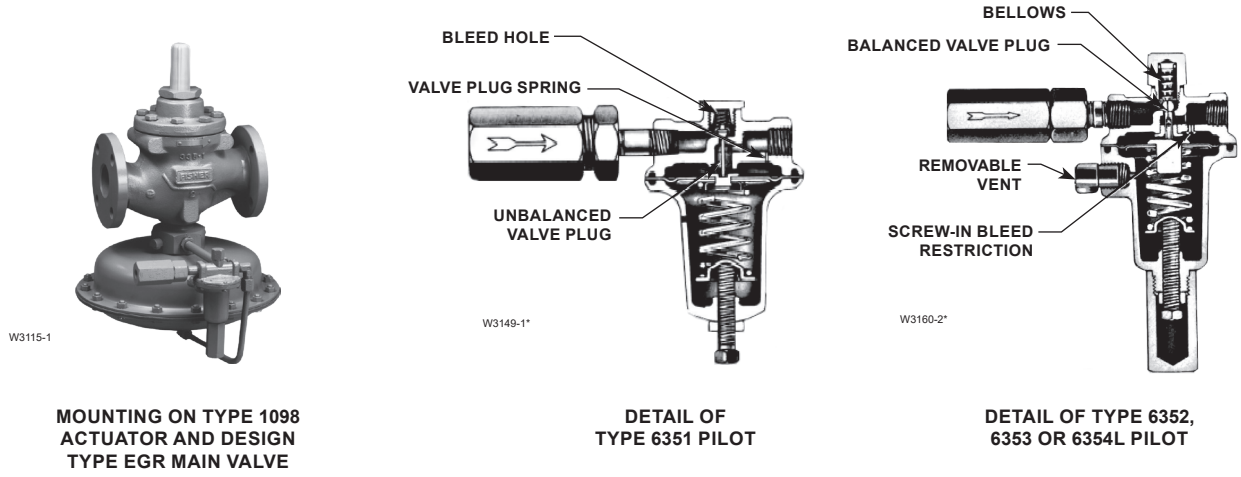

Figure 2. *Typical Pressure Reducing Pilot Constructions*

Specifications

The Specifications section on this page provides the ratings and other specifications for the 6350 and 6360 Series. Factory specifications are stamped on the pilot spring case at the factory.

Available Configurations
See Table 1

Maximum Inlet Pressure(1)
See Table 2 or 3, but cannot exceed maximum inlet pressure for complete regulator or relief valve, whichever is less

Outlet (Control) Pressure Ranges For Pressure Reducing Pilots
See Table 2

Set Pressure Ranges For Relief or Backpressure Pilots
See Table 3

Construction Materials

Type 6351 Pilot
Body, Body Plug and Spring Case: Aluminum
Valve Plug Stem: Brass **(standard)** or Stainless steel
Diaphragm, O-rings and Gaskets: Nitrile (NBR) **(standard)**, Fluorocarbon (FKM) or Composition

Type 6352, 6353, 6354L, 6354M or 6354H Pilot
Body, Body Plug, Spring Case and Closing Cap: Aluminum **(standard)** or Stainless steel
Diaphragm: Nitrile (NBR), Fluorocarbon (FKM) or Ethylenepropylene (EPR)
Types 6354M and 6354H
Diaphragm Limiter: Aluminum
O-rings and Soft Parts: Nitrile (NBR) **(standard)** or Fluorocarbon (FKM)

Construction Materials (continued)

6358 Series Pilot
Body, Body Plug, Spring Case and Closing Cap: Aluminum **(standard)** or Stainless steel
Valve Plug and Stem: Nitrile (NBR) **(standard)** or Fluorocarbon (FKM) plug and stainless steel stem
Diaphragm: Nitrile (NBR) **(standard)** or Fluorocarbon (FKM)
Stem Guide and Valve Spring: Stainless steel
O-rings and Gaskets: Nitrile (NBR) **(standard)**, Fluorocarbon (FKM) or Composition

Type 6365 Pilot
Body and Spring Case: Aluminum
Valve Plug and Stem: Polyethylene
Diaphragm: Nitrile (NBR)
Stem Guide and Valve Spring: Stainless steel
Control Spring: Plated steel
Filter (if used): Brass (Type P594-1 **standard**) or aluminum (Type P593-1)
Vents: Plastic

Process Temperature Capabilities(1)
Standard Elastomers: -20 to 150°F / -29 to 66°C
High-Temperature Elastomers: 0 to 300°F / -18 to 149°C, except 0 to 180°F / -18 to 82°C for water service

Connections(2)
NPS 1/4 female

Approximate Weight
2 lbs / 1 kg

Additional Options
See Table 1

1. The pressure/temperature limits in this Bulletin and any applicable standard or code limitations should not be exceeded.
2. Connections threaded to various national or international standards can usually be supplied. Contact your local Sales Office.

Introduction

A 6350 or 6360 Series pilot (Figure 1 or 2) is typically used with one of several different main valves in a pressure reducing, pressure relief or backpressure application (see Table 1). All of these pilots can be used in gas service, and all except the Type 6351 pilot can be used in liquid service. All pilots described in this bulletin have an easily-installed valve plug that can be removed without removing the valve plug stem guide.

Construction

Refer to the Specifications section on this page. Review the description to the right of each specification and in the referenced tables; specify the desired selection wherever there is a choice to be made.

Always specify the type number of other desired equipment as well as the pilot. The standard-gain pilot restriction will be provided automatically unless an optional-gain restriction is ordered.

Table 1. *Available Configurations*

CONSTRUCTION FEATURE		TYPE NUMBER				
		6351	6352, 6353, 6354L, 6354M, 6354H	6365	6358	6358B, 6358EB, 6358EBH
Unbalanced valve plug		X		X	X	X
Balanced valve plug (specify when rapidly changing loads or varying supply pressures are anticipated)			X			
Standard gain (will be provided unless otherwise specified)	Fixed restriction and no letter code on body	X				
	Field-changeable green-coded restriction screw and S stamped on body		X			
	Field-changeable yellow-coded restriction screw and H stamped on body			X		X
	Plugged restriction with bleed through valve plug				X	
Optional lower gain (field-changeable red-coded restriction screw and S stamped on body)				X		X
Optional low gain for liquid service and/or broader proportional bands	Threaded restriction without screw and with L stamped on body		X			X
Optional high gain for narrower proportional bands(such as with low-differential boiler fuel service)	Field-changeable red-coded restriction screw and H on body		X			
P590 Series filter	Standard	X	X			
	Optional			X	X	X
Standard spring case	Drilled no vent or closing cap	X				
	1/4 in. / 6.4 mm tapped with removable vent and gasketed closing cap for remote venting or for pressure loading applications		X	X	X	X
Handwheel	Optional		X			
Sour gas service constructions			X	X	X	X

Table 2. *Outlet (Control) Pressure Ranges for Pressure Reducing Pilots*

TYPE NUMBER		MAXIMUM INLET PRESSURE(1)		OUTLET (CONTROL) PRESSURE RANGE		PILOT CONTROL SPRING DATA	
		psig	bar	psig	bar	Color Code	Part Number
Without diaphragm limiter	6351	600	41.4	3 to 20 5 to 35 35 to 100	0.21 to 1.4 0.34 to 2.4 2.4 to 6.9	Green Cadmium Red	1B986027212 1B788327022 1K748527202
	6352			14 in. w.c. to 2 psig 2 to 10	35 mbar to 0.14 bar 0.14 to 0.69	Yellow Black	14A9672X012 14A9673X012
	6353			3 to 40 35 to 125	0.21 to 2.8 2.4 to 8.6	Yellow Red	1E392527022 1K748527202
	6354L			85 to 200	5.9 to 13.8	Blue	1L346127142
With diaphragm limiter	6354M			175 to 220	12.1 to 15.2	Blue	1L346127142
	6354H			200 to 300	13.8 to 20.7	Green	15A9258X012

1. Maximum inlet pressure for complete regulator, if less than this value, cannot be exceeded.

Table 3. *Set Pressure Ranges for Relief or Backpressure Pilots*

PILOT TYPE	MAXIMUM INLET PRESSURE		SPRING RANGE(1)		PART NUMBER	SPRING COLOR
	psig	bar	psig	bar		
6365	50	3.45	14 in. w.c. to 2 psig	35 mbar to 0.14 bar	14A9672X012	Yellow
6358	150	10.3	3 to 18	0.21 to 1.24	1B986027212	Green
			10 to 40	0.69 to 2.76	1E392527022	Yellow
			20 to 125	1.4 to 8.62	1K748527202	Red
6358B			2 to 10	0.14 to 0.69	14A9673X012	Black
			3 to 18	0.21 to 1.24	1B986027212	Green
			10 to 30	0.69 to 2.07	1B788327022	Silver
			15 to 40	1.03 to 2.76	1E392527022	Yellow
			30 to 60	2.07 to 4.14	1B788427022	Blue
			10 to 125	0.69 to 8.62	1K748527202	Red
6358EB	650	44.8	75 to 140	5.17 to 9.65	17B1261X012	Green
			130 to 200	8.96 to 13.8	17B1263X012	Blue
			180 to 350	12.4 to 24.1	17B1264X012	Red
6358EBH			250 to 450	17.2 to 31.0	17B1263X012	Blue
			400 to 600	27.6 to 41.4	17B1264X012	Red

1. Main valve may limit advertised spring range.

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