



RSV Series

-Slam Shut Off Valve

HI.16-XH-RSV_Catalouge _EN
=VER.02-Y200926

PRODUCT DESCRIPTION

Series **RSV** safety shut off valve shuts off the gas flow when the pressure it is monitoring rises and reaches the set point of the slam shut valve due to any failure in the pressure regulating system. The slam shut off device has to be reset manually.

These valves are used in variety of applications like Natural gas transmission & distribution systems, fuel gas supply to industrial boilers, furnaces and mixers and commercial or industrial businesses such as steel mills, asphalt plants & shopping centers.

Additional feature includes under pressure shut off and remote signal devices option.

TECHNICAL SPECIFICATION

- Valve size: 1" (DN25) to 8" (DN200)(Higher sizes on request)
- Body Rating: 150# ,300#& 600 # (Higher ratings on request)
- End connection : Flanged (As per ASME B16.5)
- Maximum Inlet pressure: For 150# : 19.0 barg.
For 300# : 48.0 barg.
For 600# : 100.0 barg.
- Set pressure range: Over pressure shut off (OPSO) : 0.1-75.0 barg.
Under pressure shut off (UPSO) : 0.5-50.0 barg.
- Flow capacities : Refer Table1
- Temperature capabilities: -20°C to 60°C



RSV-6050-BP161H
with higher pressure sensor



RSV-3050-SX
with Low pressure sensor

STANDARD MATERIAL OF CONSTRUCTION

- **Valve Body:** WCB/LCB/CF8/CF8M/CF3/CF3M
- **Pilot valve body :**Aluminum / SS304 /SS316
- **Trim parts:** SS 304 (Standard) / SS316 / Aluminum & Steel
- **Diaphragm/ O ring :**Nitrileand other material on request
- **Pressure setting Adjustment :**Adjustment can be done throughout the spring range by turning the adjusting set screw of pilot.
- **Pressure Registration:** External from downstream control line

PRODUCTS HIGHLIGHTS

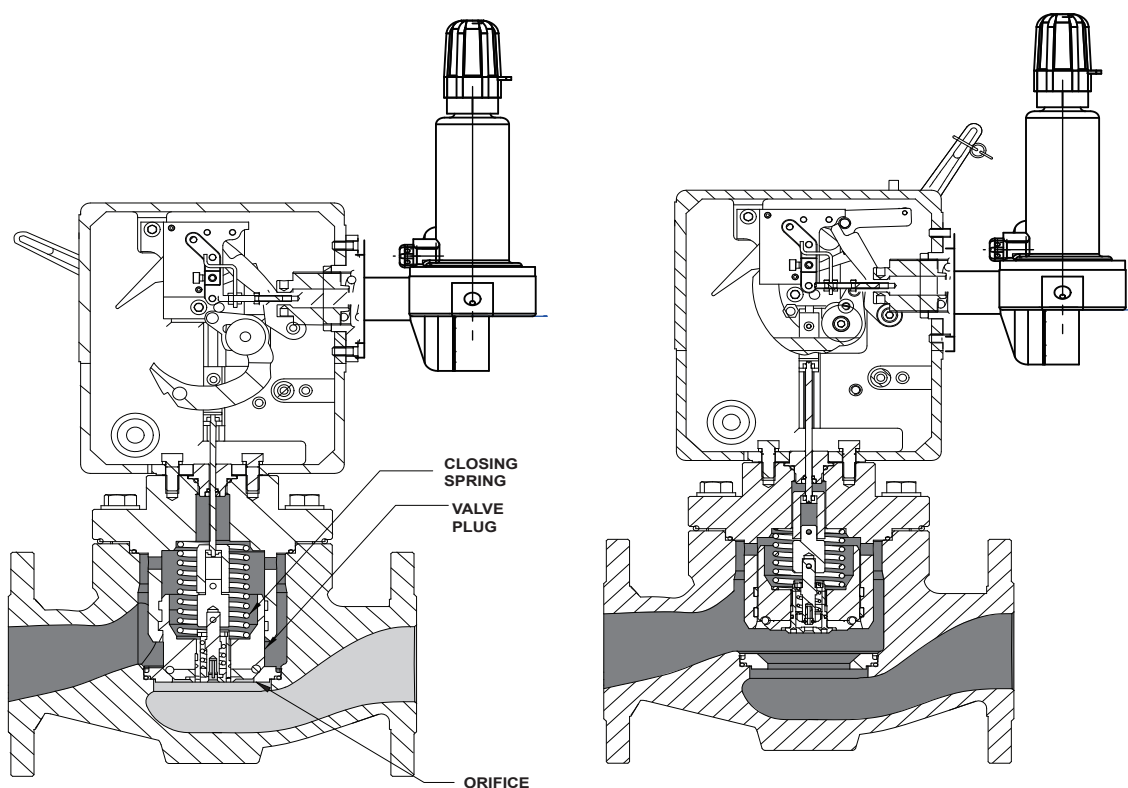
- **Tight shut off capability:** Special trim design eliminates wear and erosion of seating, providing excellent tight Shut off over long working life.
- **Easy to Maintain:** Easy replacement of internal parts without dismantling the main valve body from Pipeline.
- **Manual re-setting** possible with the assistance of lever mechanism.
Built in Pressure Equalization
- **Local position indication:**Open/Close position indicator indicates slam shut off valve position.
- **Remote Signal devices option:** Slam shut off can be provided with remote signal devices (like contact switches or proximity switches)

PILOT FOR RSV

PILOT Modles	SSV-Code	SSV Pressure setting Range
BP161M (For Mid pressure)	BP16M1	0.5~1.5 Bar
	BP16M2	1.5~5.0 Bar
	BP16M3	5.0~10.0 Bar
	BP16M4	10.0~20.0 Bar
	BP16M5	20.0~30.0 Bar
BP161H (For High pressure)	BP16H1	20~40 Bar
	BP16H2	40~60 Bar
	BP16H3	50~75 Bar

SSV Modles	SSV-Code	SSV Pressure setting Range
SXL (For Low pressure)	SXL01	3.5~8.0 Kpa
	SXL02	8.0~15 Kpa
	SXL03	15~30 Kpa
SXH (For Low pressure)	SXH01	30~60 Kpa
	SXH02	50~120 Kpa
	SXH03	100~200 Kpa
	SXH04	200~420 Kpa

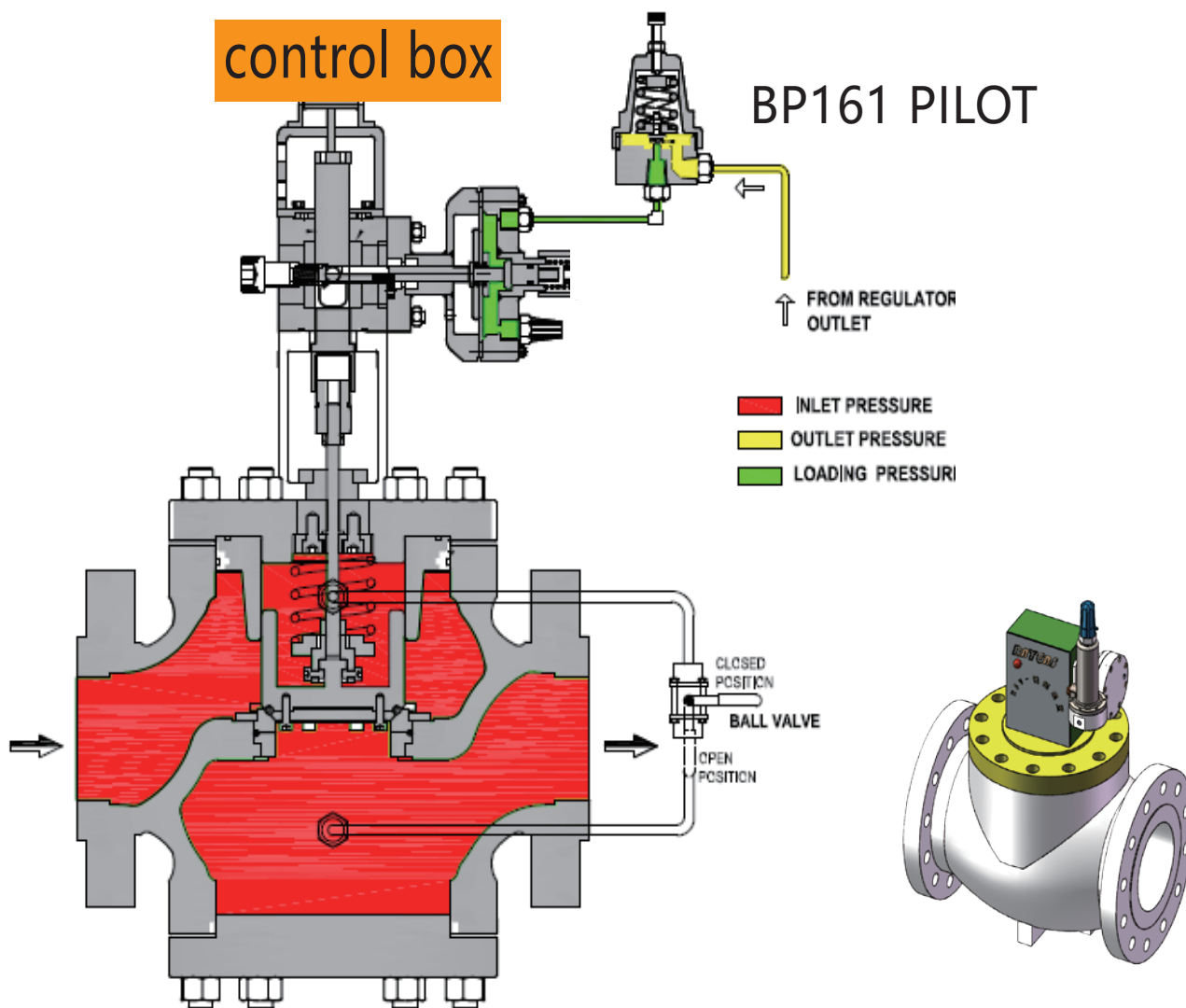
STANDARD MATERIAL OF CONSTRUCTION



Valve close

Valve open

OPERATING PRINCIPLE



FLOW CAPACITY

VALVE SIZE	1"	2"	3"	4"	6"	8"
	DN25	DN50	DN80	DN100	DN150	DN200
Cg Value	550	2200	4700	7800	16400	26000

CAPACITY INFORMATION

To determine the flow capacity of gases through the valve, use equation (a)

$$(a) \quad Q = \frac{13.57}{\sqrt{d(tu+273)}} \times C_g \sqrt{P_d \times \Delta P}$$

To find out the pressure drop across the valve at known flow, use equation (b)

$$(b) \quad \Delta P = \left[\frac{Q}{13.57 \times C_g} \right]^2 \times \frac{d(tu + 273)}{P_d}$$

Where;

Q = Flow in Normal M³/Hr

P_d = Inlet Pressure in Bar Abs.

P = Pressure drop in Bar

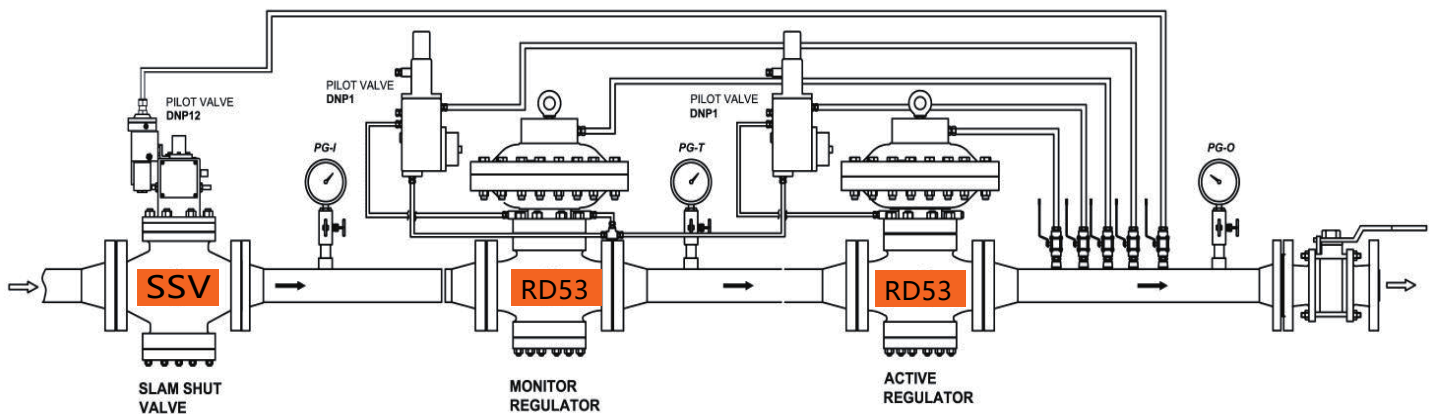
d = Specific Gravity of Gas w.r.t. Air

tu = Temperature at the inlet in °C

C_g = Flow co-efficient of valve available in Table 1



TYPICAL INSTALLATION OF SSV



SERIES RSV MODEL CONFIGURATION

RSV.OE...050EZ63...BP16M1

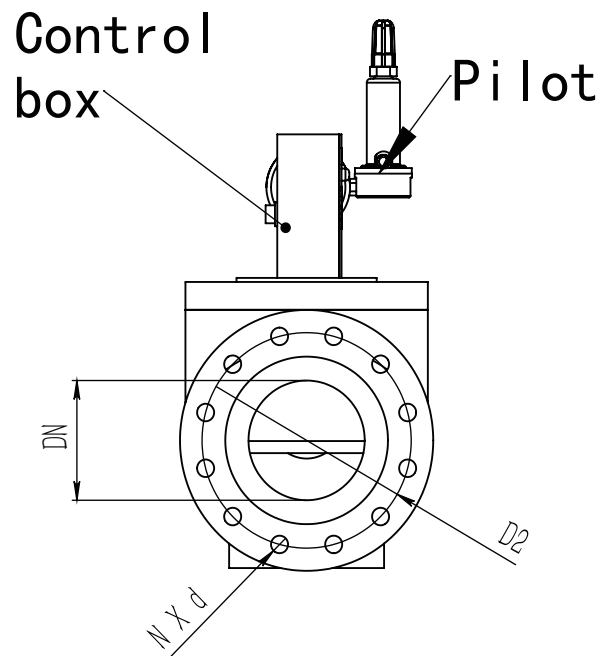
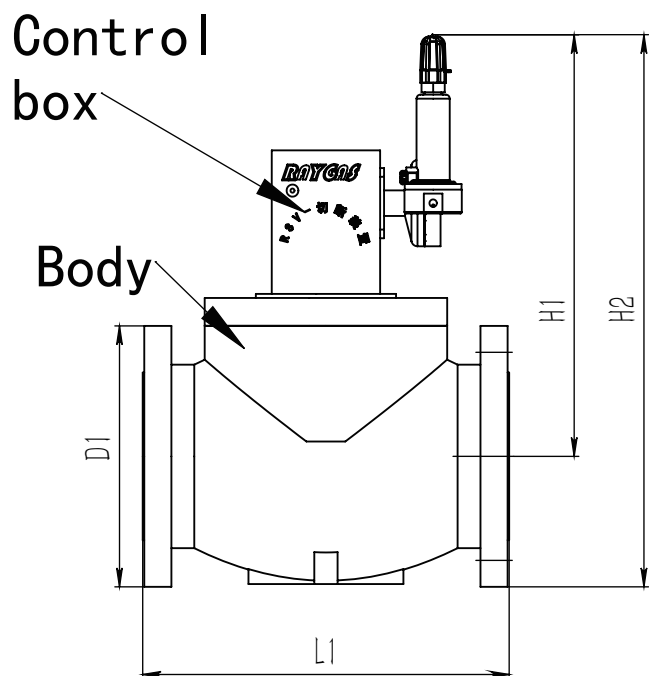
Model	Code
PRV-O : Over Pressure shut off Only	RSV.O
RRV-OU : Over & Under Pressure shut off	RSV.OU
PRV-OE : With remote Signal Device With OPSO	RSV.OE

SSV body size	Code
DN25 EZ/FF Body	025EZ/FF
DN50 EZ/FF Body	050EZ/FF
DN80 EZ/FF Body	080EZ/FF
DN100 EZ/FF Body	100EZ/FF
DN150 EZ/FF Body	150EZ/FF
DN200 EZ Body	200EZ
Others	000

Body MOC	Code	Ratings	Code
QT400	4	Flanged End ANSI B16.5 150#	1
WCB	6	Flanged End ANSI B16.5 300#	3
SS304	8	Flanged End ANSI B16.5 600#	6

Setting Range (BP161-Pilot)	Code	Setting Range (SX-Pilot)	Code
0.5~1.5 Barg (BP161M)	BP16M1	3.5~8.0 KPa (SX)	SXL01
1.5~5.0 Barg (BP161 M)	BP16M2	8.0~15 KPa (SX)	SXL02
5.0~10 Barg (BP161M)	BP16M3	15 ~30 KPa (SX)	SXL03
10~ 20 Barg (BP161 M)	BP16M4		
20~ 30 Barg (BP161M)	BP16M5	30 ~60 KPa (SX)	SXH01
20~ 40 Barg (BP161H)	BP16H1	50 ~120 KPa (SX)	SXH02
40~ 60 Barg (BP161H)	BP16H2	100~200 KPa (SX)	SXH03
50~ 75 Barg (BP161H)	BP16H3	200~420 KPa (SX)	SXH03

SERIES RSV INSTALLATION



Dimensions 150# Rating

SIZE	DN	D1	D2	d	N	L1	H1	H2
1"	25	108	79.5	15	4	157	290	400
2"	50	152	120.5	19	4	254	310	420
3"	80	190	152.5	19	4	302	340	450
4"	100	229	190.5	19	8	350	500	650
6"	150	279	241.5	23	8	450	530	692
8"	200	343	298.5	23	8	543	600	762



Series RSV-Slam Shut Off Valve

Dimensions300# Rating

SIZE	DN	D1	D2	d	N	L1	H1	H2
1"	25	124	89	19	4	197	290	400
2"	50	165	127	19	8	267	310	420
3"	80	210	168	23	8	317	340	450
4"	100	254	200	23	8	368	500	650
6"	150	318	270	23	12	473	530	692
8"	200	381	330	25	12	568	600	762

Dimensions600# Rating

SIZE	DN	D1	D2	d	N	L1	H1	H2
1"	25	124	89	19	4	210	290	400
2"	50	165	127	19	8	286	310	420
3"	80	210	168	23	8	337	340	450
4"	100	273	216	25	8	394	500	650
6"	150	356	292	33	12	508	530	692
8"	200	419	349	36	12	610	600	762

Note:
above instalation size based on EZ body ;
for other body size pls. contact Raygas sale office.



Series RSV-Slam Shut Off Valve

ENQUIRY SPECIFICATION

- Line pressure
- Service fluid
- Flow Min./Max.
- Set pressure
- Line size & Rating
- Maximum temperature
- Specific gravity
- Permissible pressure drop



SERVICE NETWORK

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<http://www.raygas.cn/>

