

**Series 1207R
Back Pressure Regulating Valves
Direct Type
for ANSI 150-600
DIN/BS 4504 PN10-PN100
JIS 10K-40K**

Direct Type Back Pressure Regulating Valves

General

The KOMOTO PR-1207R back pressure regulators precisely control upstream pressure to a predetermined set-pressure. Thanks to the innovative design, they provide quick response to sudden pressure changes. The PR-1207R series regulators offer maximum capacity, quick response, and accurate pressure control. The optimized design for fast and easy maintenance will minimize the total cost of ownership.

Features

- Top-entry design for ease of maintenance
- Variable actuator sizes for all pressure control ranges
- Sufficient balanced diaphragm for increased sensitivity
- Full port design for high capacity
- Stable guiding piston design
- Tight shut-off with soft seat at all pressure differentials
- Excellent pressure control rangeability
- Light weight and compact design

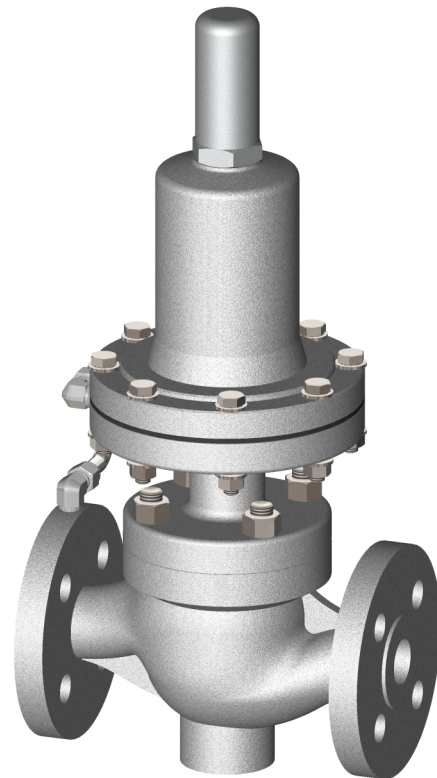


Figure 1. Series 1207R

Control range:

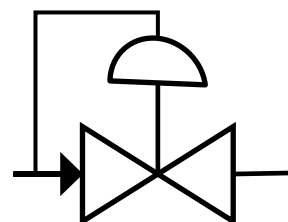
- 0.005 to 45 BarG

Temperature Range :

- -25 ~ 200 °c

Size :

- 1/2" ~ 2"



< Upstream Pressure Control >

Back Pressure Regulators

Back Pressure Regulators maintain a constant upstream pressure throughout the flow range.

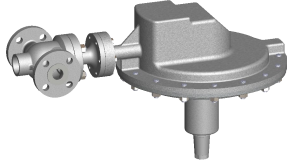
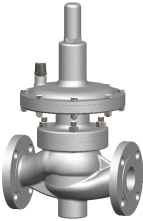
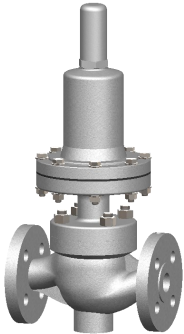
Direct-Operated Regulators are the simplest type of regulators. It senses upstream pressure and control it by the force of a spring in the actuator.

Series 1207R Specifications

Valve Type	Back Pressure Regulating Valve (Direct Type)					
Valve Model	Series 1207R					
Body Type	Globe					
Trim Type	Balanced					
Valve Size (Inch)	1/2	3/4	1	1-1/2	2	
(mm)	15	20	25	40	50	
Valve Cv	1.6	3.4	5.7	10.3	18.2	
Pressure Rating	ANSI 150Lb ~ 600Lb, JIS 10K ~ 40K, PN10 ~ PN100					
End Connection	RF, FF, SW, BW, RTJ, etc					
Body Materials	A216 WCB, A351CF8/CF8M, A351CF3/CF3M, A105 and etc.					
Trim Materials	Stainless steel, Monel [®] and Hastelloy [®] C					
Bonnet Type	Plain					
Diaphragm Materials	Nitrile (NBR), Fluorocarbon (FKM) and Ethylenepropylene (EPDM)					
Disk/Seat Material	Nitrile (NBR), Fluorocarbon (FKM) and PTFE					

* Other special materials are available upon request. Please consult with KOMOTO technical sales representatives.

Back Pressure Regulators Inlet Pressure Control Range

PRV Type		Outlet Pressure Range (BarG)		Spring Type
	EP	0.004	~ 0.0072	Silver Type 1
		0.0048	~ 0.018	Silver Type 2
		0.012	~ 0.036	Silver Type 3
		0.024	~ 0.06	Silver Type 4
	LP & LT	0.04	~ 0.12	Silver Type 5
		0.08	~ 0.3	Silver Type 6
		0.2	~ 0.6	Silver Type 7
	MP & HT	0.4	~ 1.8	Yellow Type 1
		1.2	~ 4.2	Yellow Type 2
		2.8	~ 7.2	Blue
		4.8	~ 10.8	Red
		7.2	~ 15.6	Green Type 1
	HP & HT	10.4	~ 20.4	Green Type 2
		17.6	~ 36	Green Type 3
		24	~ 44.4	Green Type 4
		29.6	54	Green Type 5

Model Selection Guide

Model	Code	Type	Set Pressure Range (BarG)
PR-1207R	EP	Very Low Pressure	0.005 ~ 0.05
	LP	Low Pressure	0.05 ~ 0.5
	MP	Medium Pressure	0.5 ~ 10
	HP	High Pressure	10 ~ 45
	LT	Low Pressure & High Temperature	0.05 ~ 0.5
	HT	High Pressure & High Temperature	0.5 ~ 45

1. PR-1207REP — Very Low Pressure (Tank Blanketing Valve)

PR-1207REP tank blanketing back pressure regulators are used for accurate pressure control on very low pressure of gas blanketing systems.

Tank blanketing back pressure regulators maintain positive pressure in a tank which is slightly higher than atmospheric pressure by relieving the pressure of gas. By maintaining the pressure, they reduce possibility of tank explosion while the liquid in the tank is being filled in.

Temperature Range

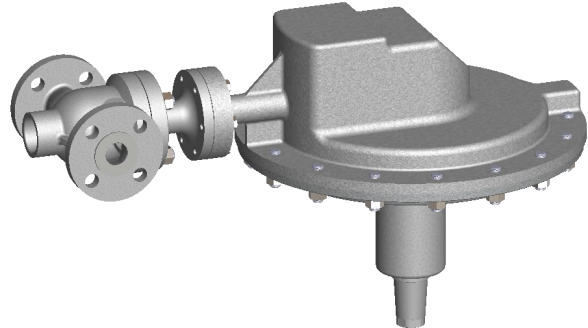
- -25 ~ 80 °C

Diaphragm Material

- Nitrile (NBR), Fluorocarbon (FKM)

Disk & Elastomer Seal Material

- Nitrile (NBR), Fluorocarbon (FKM)



Set Pressure Range (BarG) : 0.005 ~ 0.05

2. Diaphragm Type

PR-1207RLP — Low Pressure, PR-1207RMP — Medium Pressure

Introduction

PR-1207RLP/MP series direct-operated, spring-loaded, diaphragm type back pressure regulators provide precise upstream pressure control at low and medium set pressures. The large diaphragm area of PR-1207RLP provides more accurate control at low-pressure settings.

Temperature Range

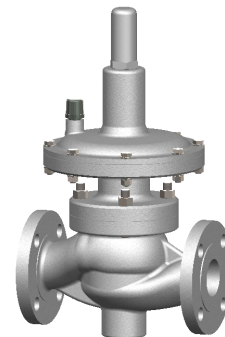
- -25 ~ 80 °C Nitrile (NBR)
- -25 ~ 120 °C Fluorocarbon (FKM)

Diaphragm Material

- Nitrile (NBR), Fluorocarbon (FKM)

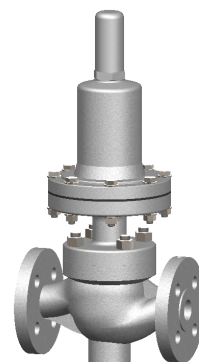
Disk & Elastomer Seal Material

- Nitrile (NBR), Fluorocarbon (FKM)



PR-1207RLP

Set Pressure Range (BarG) : 0.05 ~ 0.5



PR-1207RMP

Set Pressure Range (BarG) : 0.5 ~ 10

3. Piston Type

PR-1207RHP — High Pressure

Introduction

PR-1207RHP Series direct-operated, spring-loaded, piston type back pressure regulators provide precise upstream pressure control at high set pressures.

Temperature Range

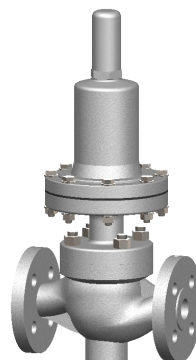
- -25 ~ 120 °c

Piston Elastomer Seal Material

- Nitrile (NBR), Fluorocarbon (FKM)

Disk & Elastomer Seal Material

- Nitrile (NBR), Fluorocarbon (FKM)



PR-1207RHP

Set Pressure Range (BarG) : 10 ~ 45

4. Piston Type

PR-1207RLT — Low Pressure & High Temperature, PR-1207RHT — High Pressure & High Temperature

Introduction

PR-1207RLT/HT Series direct-operated, spring-loaded, piston type back pressure regulators are designed for high temperature services. The large pressure sensing area of PR-1207RLT provides more accurate control at low-pressure settings.

Temperature Range

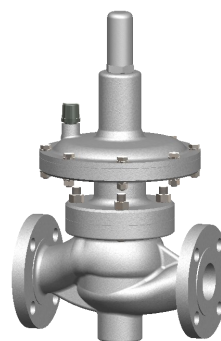
- -25 ~ 200 °c

Piston Elastomer Seal Material

- Fluorocarbon (FKM)

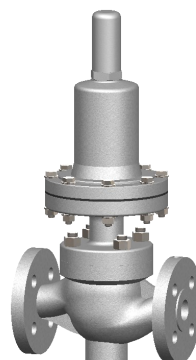
Disk & Elastomer Seal Material

- Fluorocarbon (FKM)



PR-1207RLT

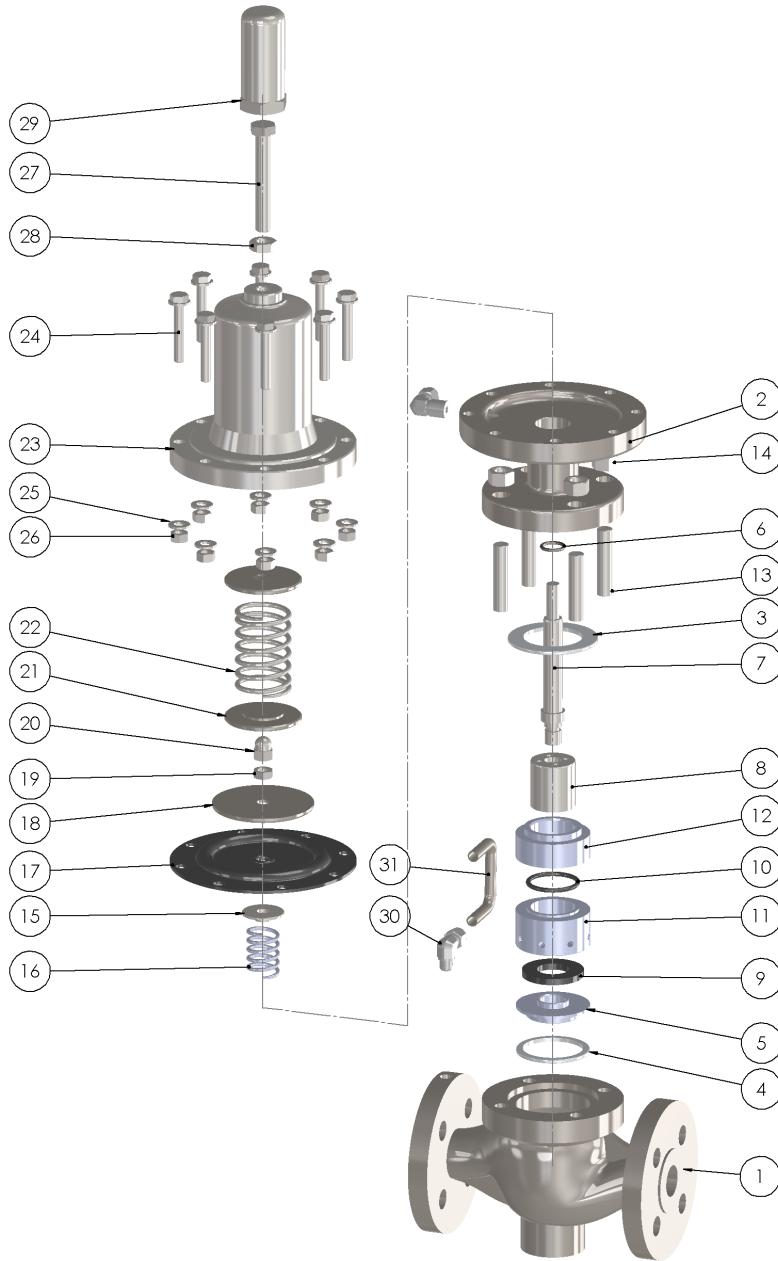
Set Pressure Range (BarG) : 0.05 ~ 0.5



PR-1207RHT

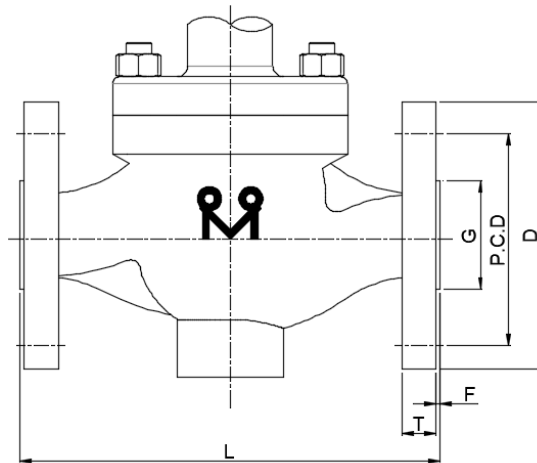
Set Pressure Range (BarG) : 0.5 ~ 45

General Parts List



No.	Parts
1	BODY
2	BONNET
3	BONNET GASKET
4	SEAT GASKET
5	SEAT
6	STEM O-RING
7	STEM
8	PORT
9	DISC
10	BALANCE SEAL
11	CAGE
12	CAGE CYLINDER
13	STUD BOLT
14	HEX. HEAVY NUT
15	BACK PLATE
16	BALANCE SPRING
17	DIAPHRAGM
18	DIAPHRAGM SEAT
19	STEM LOCK NUT
20	CAP NUT
21	SPRING SEAT
22	SPRING
23	SPRING CASE
24	HEX. HEAD BOLT
25	SPRING WASHER
26	NUT
27	SETTING BOLT
28	LOCK NUT
29	CAP
30	TUBE FITTING
31	SUS TUBE

Dimension List



ANSI 150

Valve Size	L*	T	F	I.D	G	P.C.D	D	Diameter of Bolt	Number of Bolts	Diameter of Bolts, in
3/4	184	11.2	2	19.1	42.9	69.9	100	5/8	4	1/2
1	184	12.7	2	25.4	50.8	79.4	110	5/8	4	1/2
1 1/2	222	15.9	2	38.1	73	98.4	125	5/8	4	1/2
2	254	17.5	2	50.8	92.1	120.7	150	3/4	4	5/8

ANSI 300

Valve Size	L*	T	F	I.D	G	P.C.D	D	Diameter of Bolt	Number of Bolts	Diameter of Bolts,
3/4	194	14.3	2	19.1	42.9	82.6	115	3/4	4	5/8
1	197	15.9	2	25.4	50.8	88.9	125	3/4	4	5/8
1 1/2	235	19.1	2	38.1	73	114.3	155	7/8	4	3/4
2	267	20.7	2	50.8	92.1	127	165	3/4	8	5/8

ANSI 600

Valve Size	L*	T	F	I.D	G	P.C.D	D	Diameter of Bolt	Number of Bolts	Diameter of Bolts, in
3/4	206	15.9	7	19.1	42.9	82.6	115	3/4	4	5/8
1	210	17.5	7	25.4	50.8	88.9	125	3/4	4	5/8
1 1/2	251	22.3	7	38.1	73	114.3	155	7/8	4	3/4
2	286	25.4	7	50.8	92.1	127	165	3/4	8	5/8

* Face to Face dimension is based on RF flange.

Warranty / Remedy

Korea Motoyama Inc. warrants goods of its manufacture as being free of defective materials and faulty workmanship for 12 months from the date of shipment, unless otherwise specified. In this period, all of our products claimed by original defects may be returned to our factory after notice and authorization by us. If warranted goods are returned to Korea Motoyama Inc. during the period of coverage, it will be repaired or replaced without charge for those items it finds defective. Such defects shall be exclusive of the effects of corrosion, erosion, normal wear or improper handling and storage. In case our engineers have field service, the user shall detach and install valves by his cost. Determination of the suitability of the Products for the use contemplated by the buyer or buyer's customer(s) is the sole responsibility of the buyer in connection therewith. The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.

Specifications are subject to change without notices.

 **KOMOTO**
VALVES & CONTROLS

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