

Pressure Regulating Valves

Evaporator Pressure
Crankcase Pressure
Head Pressure
Discharge Bypass



Proper refrigeration and air conditioning system design requires a balance in the capacities of each and every system component. There are several approaches to accomplish this control, but the most common is by means of pressure regulating valves.

Parker has engineered a full line of pressure regulating valves to control evaporator pressure, crankcase pressure, head pressure, and discharge bypass.

For sizes and configurations not listed in this brochure, contact Parker Air Conditioning and Refrigeration Aftermarket.



Contact Information:

Parker Hannifin Corporation
Climate and Industrial Controls
**Air Conditioning and Refrigeration
Aftermarket Division**
2445 South 25th Avenue
Broadview, IL 60155

phone 800 742 2681
fax 800 241 2872
cicaftermarket@parker.com

www.parker.com

Product Features:

- Highest quality components
- Durable and reliable
- Precision engineering
- Adjustable settings
- Practical and economical
- Easy to install
- Tested for accuracy



ENGINEERING YOUR SUCCESS.

ORIT Series Evaporator Pressure Regulators

A consistent evaporating temperature is maintained at the valve setting as evaporator loads decrease. When the evaporator load increases, the **ORIT** valve **Opens** on a **Rise** of **Inlet** pressure above its setting.

Model	Range	Connections	Part Number
ORIT-6	0/50	5/8" ODF	901096P
ORIT-6	0/50	7/8" ODF	901103P
ORIT-6	30/100	5/8" ODF	901173P
ORIT-6	30/100	7/8" ODF	901180P
ORIT-10	0/50	7/8" ODF	901131P
ORIT-10	0/50	1-1/8" ODF	901138P
ORIT-10	0/50	1-3/8" ODF	901166P
ORIT-10	30/100	7/8" ODF	901208P
ORIT-10	30/100	1-1/8" ODF	901229P
ORIT-10	30/100	1-3/8" ODF	901250P



SORIT Series Evaporator Pressure Regulators

The **SORIT** pilot operated evaporator pressure regulator provides more capacity at lower pressure drops, and offers additional features including solenoid shut off for defrost applications.

Model	Range	Connections	Part Number
SORIT-12	0/100	1-1/8" ODF	901611P
SORIT-15	0/100	1-3/8" ODF	901618P
SORIT-20	0/100	1-5/8" ODF	901625P

Note: PKC solenoid coil sold separately.



CROT Series Crankcase Pressure Regulators

The **CRO(T)** valve, **Close** on **Rise** of **Outlet**, protects the compressor motor against overloading due to high suction pressure. It is important to arrive at the correct pressure setting to offer this protection. The CRO(T) valve is normally installed downstream of any other suction line controls.

Model	Range	Connections	Part Number
CRO-4	0/75	3/8" ODF	900005P
CRO-4	0/75	1/2" ODF	900006P
CROT-6	0/60	5/8" ODF	900556P
CROT-6	0/60	7/8" ODF	900570P
CROT-6	30/100	5/8" ODF	900360P
CROT-6	30/100	7/8" ODF	900365P
CROT-10	0/60	7/8" ODF	900598P
CROT-10	0/60	1-1/8" ODF	900605P
CROT-10	0/60	1-3/8" ODF	900612P
CROT-10	30/100	7/8" ODF	900380P
CROT-10	30/100	1-1/8" ODF	900385P
CROT-10	30/100	1-3/8" ODF	900390P



Note: Standard connections shown. Flare and non-standard connection sizes are also available. Please contact Parker Aftermarket, Broadview, IL, with inquiries.

LAC Series Head Pressure Controls

The valve designation **LAC** stands for **Low Ambient Control**. The LAC is a three way modulating valve that responds to discharge pressure. When the outdoor ambient falls, the condensing pressure falls as well. The typical method of maintaining normal head pressure is to restrict liquid flow from the condenser to receiver, and at the same time divert hot gas to the inlet of the receiver. This backs liquid refrigerant up into the condenser reducing its capacity which in turn increases the condensing pressure. At the same time the hot gas raises liquid pressure in the receiver, allowing the system to operate normally.



Model	Pressure Settings	Connections	Part Number
LAC-4-100	100 PSI	3/8" x 3/8" x 3/8" ODF	903017P
LAC-4-180	180 PSI	3/8" x 3/8" x 3/8" ODF	903024P
LAC-4-210*	210 PSI	3/8" x 3/8" x 3/8" ODF	903005P
LAC-4-295HP	295 PSI	1/2" x 1/2" x 1/2" ODF	903111P
LAC-5-100	100 PSI	7/8" x 7/8" x 7/8" ODF	903069P
LAC-5-180	180 PSI	5/8" x 5/8" x 5/8" ODF	903029P
LAC-5-210*	210 PSI	5/8" x 5/8" x 5/8" ODF	903072P
LAC-5-295HP	295 PSI	5/8" x 5/8" x 5/8" ODF	903107P
LAC-10-100	100 PSI	1-3/8" x 7/8" x 7/8" ODF	903075P
LAC-10-180	180 PSI	1-3/8" x 7/8" x 7/8" ODF	903076P
LAC-10-180	180 PSI	1-3/8" x 1-1/8" x 1-1/8" ODF	903066P
LAC-10-210*	210 PSI	1-3/8" x 7/8" x 7/8" ODF	903077P
LAC-10-295HP	295 PSI	1-3/8" x 1-1/8" x 1-1/8" ODF	903109P

* Sold less strainer.

OROA Series Head Pressure Controls

The **OROA, Open on Rise of Outlet**, is a non-adjustable head pressure control valve which performs the function of limiting the flow of liquid refrigerant from the condenser and at the same time regulates the flow of hot gas around the condenser to the receiver.



Model	Pressure Settings	Connections	Part Number
OROA-5 100 5/8	100 PSI	5/8" x 5/8" x 5/8" ODF	902905P
OROA-5 100 7/8	100 PSI	7/8" x 7/8" x 7/8" ODF	902912P
OROA-5 180 5/8	180 PSI	5/8" x 5/8" x 5/8" ODF	902919P
OROA-5 180 7/8	180 PSI	7/8" x 7/8" x 7/8" ODF	902926P
OROA-5 210 5/8	210 PSI	5/8" x 5/8" x 5/8" ODF	902903P
OROA-5 210 7/8	210 PSI	7/8" x 7/8" x 7/8" ODF	902929P

ADRE Series Discharge Bypass Valves

The ADRE Series, **Automatic Discharge Regulators**, are designed to provide an economical method of compressor capacity control in place of cylinder unloaders or to handle unloading requirements below the last step of cylinder unloading. These modulating control valves automatically bypass the required amount of discharge gas to the low side to maintain the desired minimum evaporator pressure. The valves are applicable on any refrigeration or air conditioning system that operates during periods of low load, which can result in coil icing or short cycling. These valves respond to downstream pressure changes and open when the evaporator pressure falls below the valve setting. At normal loads and evaporator conditions, the valve remains closed and the system operates in a normal conventional manner.



Model	Range	Connections	Part Number
ADRSE-2	0/80	1/2" ODF	903406P
ADRSE-2	0/80	5/8" ODF	903413P
ADRPE-3	0/80	1/2" ODF	903525P
ADRPE-3	0/80	5/8" ODF	903532P
ADRHE-6	0/80	5/8" ODF	903574P
ADRHE-6	0/80	7/8" ODF	903581P
ADRHE-6	0/80	1-1/8" ODF	903588P

HGBE Series Discharge Bypass Valves

The HGBE Series, **Hot Gas Bypass Regulators**, should always be installed at the condensing unit rather than at the evaporator section. Not only will this ensure the rated bypass capacity of the valve but it will eliminate the possibility of hot gas condensing in the bypass line (especially on remote systems). In all cases it is important that some precautions be taken in mounting the valves. It is suggested that they be adequately supported to prevent excessive stress.



Model	Range	Connections	Part Number
HGBE-5-95/115	95/115	1/2" ODF	904068P
HGBE-5-95/115	95/115	5/8" ODF	904067P
HGBE-8-75/150	75/150	7/8" ODF	904062P

Note: Standard connections shown. Flare and non-standard connection sizes are also available. Please contact Parker Aftermarket, Broadview, IL, with inquiries.

⚠ WARNING – USER RESPONSIBILITY

Failure or improper selection or improper use of the products described herein or related items can cause death, personal injury and property damage.

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.

The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.

To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

OFFER OF SALE

The items described in this document are hereby offered for sale by Parker Hannifin Corporation, its subsidiaries or its authorized distributors. This offer and its acceptance are governed by the provisions stated in the detailed "Offer of Sale" available at www.parker.com.

