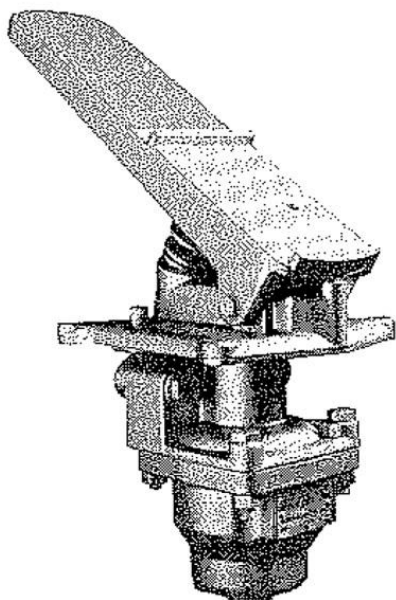


**Item # R431002613**  
**Rexroth H-1 Controlair® Pedal Actuated Valves**  
脚踏油门阀



老号 Old Part #	P-050208-00001 P 50208-1 P050208-1 P50208-1	
规格	H-1	
重量 Weight	8 1/2 lb 2.5KG	
方式 Type	标准 Standard	
压力范围 PressureRange	0-65 psi	

**Versatile Three - and Four-way pressure regulating valves or a combination of pressure regulating and non-regulating three-way valves.**

The REXROTH Type "H" CONTROLAIR Valves are a family of pneumatic pressure regulating, directional valves.

Hand, foot or mechanically operated, these valves control both pressure and flow of air.

Some control these

functions in one air circuit. Others selectively control these functions in two separate and independent air circuits or

in branches of the same circuit. Still others control these functions either selectively or simultaneously in three

separate and independent branches of an air circuit.

With each valve, the position of the operator-Sever, pedal, cam or knob-determines the air pressure delivered by the

valve. Changing operator positions changes delivery pressure. Once the operator's position is set, a CONTROLAIR

Valve maintains the delivery pressure for that position-automatically. It feeds more air into a circuit to compensate

for leakage and operations which reduce pressure, it vents air from a circuit to compensate for operations and other

conditions which would increase a circuit's pressure.

Foot Pedal operated for one pressure regulated circuit.

The H-1 CONTROLAIR Valve is a pedal actuated, 3-way pressure regulating valve, suitable for applications where the valve portion extends below the floor level. Depressing the pedal increases the outlet pressure. The pedal is self-returning. This valve is suitable for brake and clutch control or any use where foot operation pressure control is desired.

## PIPE CONNECTIONS

IN Port-Supply.

OUT Port-Delivers graduated pressure in direct proportion to pedal depression.

## Applications

Applications for "H" CONTROLAIR Valves are limitless. They operate:

Throttles - Rolling Mills - Marine Propulsion Engines

Clutches - Presses - Construction Equipment

Brakes - Shears - Oil Drilling Rigs

Clamps - Conveyors - Production Tools

Gates - Dredges - Cranes, Hoists & Draglines

and many other kinds of equipment and machines. In fact "H" CONTROLAIR

Valves are used wherever it is necessary, or preferable, to have

instant and convenient control of the flow of air into a pneumatic circuit

and of the pressure buildup of air in that circuit.

## Features

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## **Distributor to Industry, Inc.**

1017 East Murdock Street

Wichita, Kansas 67214

**Toll Free:** 800.835.2838

**Phone:** 316.263.9511

**Email:** sales@trydti.com • **Website:** www.trydti.com

Besides exceptional versatility, other CONTROLAIR Valve features are:

**EASE OF OPERATION** - as "H" CONTROLAIR Valves need only light operating forces, these valves increase both the efficiency and the output of operating personnel by decreasing operator fatigue and concentration required.

**SENSITIVITY** - the outlet pressure of "H" CONTROLAIR Valves having 60 lb. graduating springs can be changed in increments of approximately 1/4 psi. The outlet pressure of valves having 100 lb. graduating springs can be changed in increments of approximately 1/2 psi, other cataloged pressures are changed proportionately. After setting, "H" CONTROLAIR Valves maintain their outlet pressure within a range of approximately 1-1/2 psi.

**EASE OF MAINTENANCE** - all pipe connections are made to a pipe bracket from which the CONTROLAIR Valve can be removed without disturbing the circuit's piping.

**CORROSION RESISTANCE** - diaphragms and seals are made of oil-resistant synthetic rubber. All steel parts are plated. All other parts are made of anodized aluminum or bronze.

**SIMPLICITY**-CONTROLAIR Valves contain only a few wearing parts and these are easily replaced.

**PARTS INTERCHANGEABILITY** - all similar parts in the various types of

CONTROLAIR Valves are interchangeable.

RUGGED, RELIABLE AND PRECISION BUILT.

TEMPERATURE RANGE - -40°F to 160°F

MAXIMUM SUPPLY PRESSURE - 200 psi

OUTLET PRESSURE - According to model selected

The sensitive, precise pressure control of the "H" CONTROLAIR Valve and its ability to change delivery pressure in small increments are obtained through the use of a large responsive diaphragm. The ease with which an "H" CONTROLAIR Valve is operated is obtained by creating a differential between the counterbalanced air pressure and spring forces within the valve and by using this differential to open or to close valves.

When the CONTROLAIR Valve is in decreasing pressure position, the inlet valve is closed and the exhaust valve is open to vent the OUT pressure to atmosphere, inlet pressure is on top of the closed inlet valve.

Should leakage or a temperature variation occur that would change the outlet pressure called for by the CONTROLAIR Valve's operator position, this deviation in pressure opens either the CONTROLAIR Valve's supply valve or its exhaust valve to restore the correct pressure.

In addition to having a pressure graduating valve, the HC-2, HD-2 and HE-2 CONTROLAIR Valves have one or two normally closed, nongraduating,

three-way valves, When the lever of one of these CONTROLAIR Valves is moved 10° or more from its "Neutral" position, it opens one of the 3-way valves and holds it open. The exhaust valves in these three-way valves are closed by initial movement from "Neutral" of the CONTROLAIR Valve lever. Further movement of the lever operates the pressure regulating portion.

A complete description of the operation for each CONTROLAIR Valve is in the Service Information publication for that valve.

Starting from decreasing pressure position, to increase the OUT pressure of an "H" CONTROLAIR Valve, its operator moves the valve assembly in contact with the exhaust valve seat. Initial movement of the valve assembly closes the passage from the CONTROLAIR Valve's OUT line to atmosphere. Further movement of the assembly opens the passage between the CONTROLAIR Valve's IN and OUT lines allowing inlet air to flow into the OUT line and to the upper face of the diaphragm. As the flow of inlet air into the line raises the air pressure in the OUT line, it also increases the air pressure on top of the diaphragm. This pressure compresses the spring beneath the diaphragm and forces the diaphragm downward.

When the outlet pressure reaches the value called for by the amount of operator movement, the air pressure acting on the diaphragm has

moved it enough to let the inlet valve spring close the inlet valve and stop further increase in pressure.

Further movement of the CONTROLAIR Valve operator to increase pressure moves the valve assembly and again opens the inlet valve. This allows additional air to flow into the OUT line until air pressure acting on the diaphragm depresses it enough to allow inlet valve to close.

Movement of the CONTROLAIR Valve operator to decrease outlet pressure decreases the force on the valve assembly and lets the spring beneath the valve assembly move it upward. This action lifts the exhaust valve from its seat and allows air in the OUT line to vent to atmosphere, thus decreasing air pressure in that line.

## **Operation**

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The outlet pressure of a CONTROLAIR Valve for any of its operator positions can be changed by an external adjustment. Changing the pressure for one position, however, changes the pressure for all positions since the pressure differential is fixed for a given control spring.

With the operator in minimum pressure position, CONTROLAIR Valves used with brakes, clutches, etc. are adjusted to vent outlet pressure to atmosphere. This adjustment fully vents pressure from these devices.

With the operator in minimum pressure position, CONTROLAIR Valves used



with throttles and similar devices are adjusted to maintain a low pressure in the circuit. This adjustment gives instant response at the start of operator movement from that position.

威仕得（天津）机电设备有限公司