

Accessory Valves - Quick Exhaust

Quick exhaust valve, inline Quick Release
Inch porting, aluminum or polymer body



Quick Release Valves

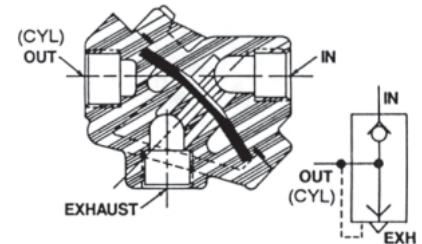
The Quick Release Valve speeds the exhausting of air cylinders, clutches or other pneumatic devices.

It vents air pressure close to the operated device instead of back through the control valve. Equipment cycling or release times are reduced for increased output.

Features:

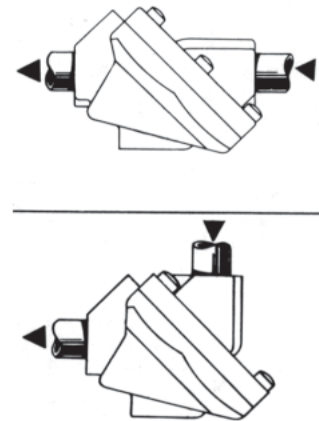
- Sensitivity: A few psi pressure differential across the diaphragm opens the exhaust.
- Large capacity: Large internal air passages exhaust air quickly for top speed of your operation.
- Quiet operation: Special diaphragm design eliminates chattering associated with exhaust valves.
- Long operating life: Corrosion resistant body has only one wearing part - a rugged, oil-resistant diaphragm.
- Reduced weight: Built of aluminum or polymer, they are light enough to be supported by piping alone (mounting brackets are optional on smaller sizes).

► For instant response in Air Circuits



Mounting Flexibility - For in-line or right-angle piping

A desirable feature is that the inlet port may be assembled on the valve in one of two positions. This allows both ports to be mounted on the same center line, or at right angles to each other. The added flexibility simplifies many mounting problems. Field changeout is made by rotating the cover 180°.

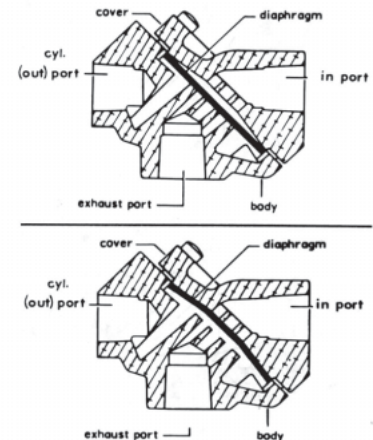


Operating Characteristics

Air pressure entering the inlet port forces the diaphragm against the exhaust port, closing it. Air pressure also deflects against the rim of the diaphragm to open a direct passage around the diaphragm to the outlet port.

When air pressure at the inlet port is reduced, a differential in the pressure acting on the diaphragm is created. This differential in pressure lifts the diaphragm from the exhaust port and seats it on the inlet port. This opens the exhaust port, allows air to flow freely from the outlet port to atmosphere, and closes the inlet port.

Should outlet air pressure drop below inlet pressure, the differential in pressure seats the diaphragm on the exhaust port, stopping further exhaust.



MOUNTING

The 1/4" and 3/8" models are normally mounted directly in the piping. A mounting bracket is available as an accessory, if required.

The 1/2", 3/4" and 1" models have an integral mounting bracket.

Accessory Valves - Quick Exhaust

Quick exhaust valve, inline Quick Release
Aluminum body, 1/4" to 1" NPTF



Technical Data

Type	Aluminum Body, for inline or right-angle piping
Working Pressure	200 psi (13.8 bar) max. on 1/4" and 3/8"
	150 psi (10.3 bar) max. on 1/2" thru 1" sizes
Temperature Range	-40°F to 160°F, 200°F intermittent (-40° to 71°C, 93°C intermittent)
Media	Air or inert gas
Port Size	1/4" to 1" NPTF



Port (NPT)	Piping	Valve Part No.	Old Part No.	Weight lbs. (kg)	C _v in to out	C _v out to exh.	Repair Kit	Old Repair Kit
1/4"	Inline	R431003038	P -052935-00002	0.64 (0.29)	1.77	2.50	R431005410	P -060213-00002
1/4"	Right angle	R431003043	P -052935-00021	0.64 (0.29)	1.77	2.50	R431005410	P -060213-00002
3/8"	Inline	R431003039	P -052935-00003	0.64 (0.29)	2.73	3.08	R431005410	P -060213-00002
3/8"	Right angle	R431003044	P -052935-00031	0.64 (0.29)	2.73	3.08	R431005410	P -060213-00002
1/2"	Inline	R431003040	P -052935-00004	1.44 (0.46)	5.00	5.50	R431005412	P -060214-00002
3/4"	Inline	R431003041	P -052935-00006	2.88 (1.31)	9.70	10.55	R431005414	P -060215-00001
1"	Inline	R431003042	P -052935-00008	3.32 (1.51)	11.95	13.45	R431005414	P -060215-00001

Mounting bracket for 1/4" and 3/8" models: Part no. R431003093 (old part no. P -053067-00000).

Sizes 1/2" through 1" have integral mounting brackets.

Repair kits include diaphragm and gasket.

Inch dimensions: QRV-Aluminum (in-line configuration shown)

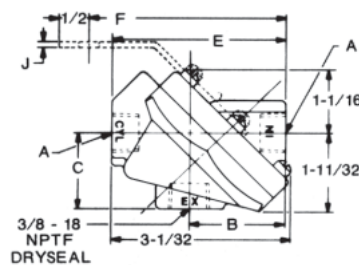
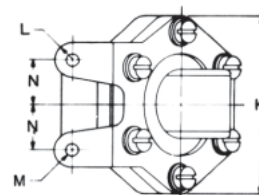
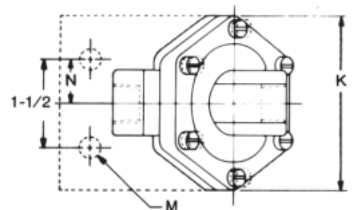


FIGURE 1

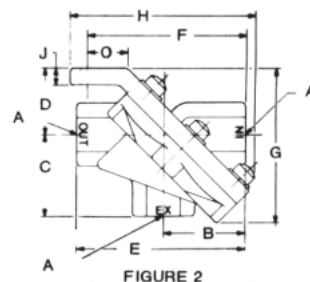


FIGURE 2

Inch dimensions: QRV-Aluminum

Fig. No.	A NPTF Dryseal	B	C	D	E	F	G	H	J	K	L	M (2 Holes)	N	O
Fig. 1	1/4-18	1 3/4	1 11/32	—	3	3 3/8	—	—	1/16	3	—	11/32 Ø	3/4	—
Fig. 1	3/8-14	1 3/4	1 11/32	—	3	3 3/8	—	—	1/16	3	—	11/32 Ø	3/4	—
Fig. 2	1/2-14	1 3/4	1 11/32	1 1/2	3 11/16	3 7/16	3 15/32	4 1/8	3/8	3 15/16	3/8 R.	9/32 Ø	1	7/8
Fig. 2	3/4-14	2 11/16	2 21/32	2 1/16	5 1/4	5	4 13/16	5 1/2	7/16	6 1/2	1/2 R.	13/32 Ø	1 1/2	1 1/8
Fig. 2	1"-11 1/2	2 11/16	2 21/32	2 1/16	5 1/4	5	4 13/16	5 1/2	7/16	6 1/2	1/2 R.	13/32 Ø	1 1/2	1 1/8

Accessory Valves - Quick Exhaust

Quick exhaust valve, inline Quick Release
 Polymer body, 1/4" to 3/8" NPT



Technical Data

Type	Polymer Body, for inline or right angle piping
Working Pressure	150 psi (10.3 bar) maximum
Temperature Range	-20°F to 160°F, 200°F intermittent (-29°C to 71°C, 93°C inter.)
Media	Air
Port Size	1/4" and 3/8" NPT
Material-Body	Glass filled, acetal co-polymer



Note - Torque Values:

Maximum Pipe Thread Torque: 120 in.-lbs.
 Maximum Body Screw Torque: 18 in.-lbs.

Features:

- High exhaust flow capacity
- Light weight for mounting in piping system
- Polymer body for corrosion resistance
- Ideal for industrial and mobile/oilfield applications
- Special corrosion resistant version with stainless steel hardware available

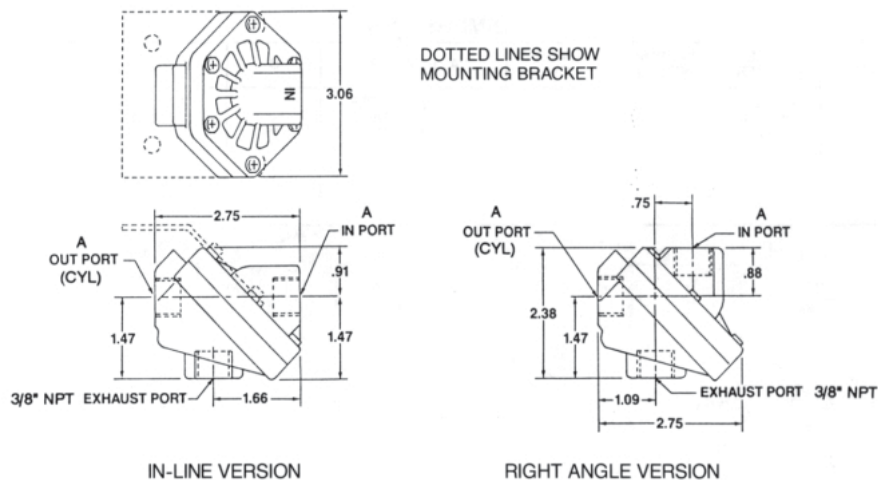
Port (NPT)	Piping	Valve Part No.	Old Part No.	Weight oz. (kg)	C _v in to out	C _v out to exh.	Repair Kit	Mounting Bracket ¹
1/4"	Inline	R431007444	P -069324-00002	7 (0.20)	1.54	1.84	R431005410	R431003093
1/4"	Right angle	R431007446	P -069324-00021	7 (0.20)	1.54	1.84	R431005410	R431003093
1/4"	Inline ²	R434001677	P -031961-00002	7 (0.20)	2.30	2.76	R431005410	R431003093
3/8"	Inline	R431007445	P -069324-00003	7 (0.20)	2.30	2.76	R431005410	R431003093
3/8"	Right angle	R431007447	P -069324-00031	7 (0.20)	2.30	2.76	R431005410	R431003093

1) The polymer Quick Exhaust Valve is normally mounted directly in the piping. A mounting bracket (part no. R431003093) is as an accessory if required.

2) R434001677 is an extra corrosion resistant version due to stainless steel hardware.

Repair kit includes diaphragm and gasket.

Inch dimensions: QRV-Polymer



If needed, a mounting bracket may be ordered separately.

Accessory Valves - Quick Exhaust

Quick exhaust valve, metric Series 573
M5 to G1 threads

Rexroth
Bosch Group



5735-041

Version
Working pressure min./max.
Ambient temperature min./max.
Medium temperature
Medium

Poppet valve
0.3 bar / 10 bar
-18°C / +70°C
-18°C / +70°C
Compressed air

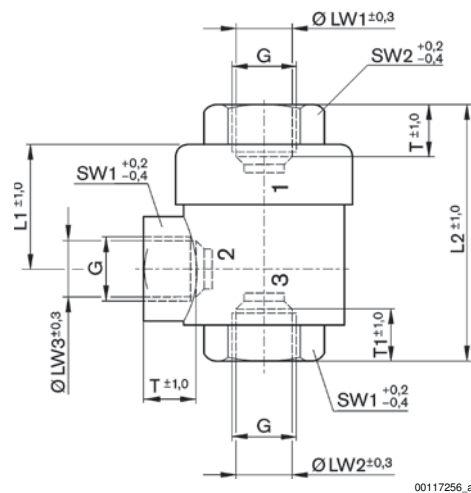
Materials:
Housing

Brass, nickel-plated

	Port 1	Port 2	Port 3 (Exhaust)	Qn	Qn	Weight	Fig.	Note	Part No.
				1►2	2►3				
				[l/min]	[l/min]	[kg]			
	M5	M5	M5	220	300	0.03	Fig. 2	1)	5735040900
	G 1/8	G 1/8	G 1/8	680	1100	0.08	Fig. 1	2)	5735040000
	G 1/4	G 1/4	G 1/4	1200	2100	0.15	Fig. 1	2)	5735040100
	G 3/8	G 3/8	G 3/8	2300	4900	0.21	Fig. 1	1)	5735040200
	G 1/2	G 1/2	G 1/2	3400	6100	0.32	Fig. 1	2)	5735040300
	G 3/4	G 3/4	G 3/4	4000	13900	0.45	Fig. 1	1)	5735040400
	G 1	G 1	G 1	6800	15600	1.65	Fig. 1	1)	5735030010

1) Seal: Acrylonitrile Butadiene Rubber
2) Seal: Polyurethane
Port 2: internal thread
Port 3 (Exhaust): internal thread
Nominal flow Qn at 6 bar and $\Delta p = 1$ bar

Fig. 1



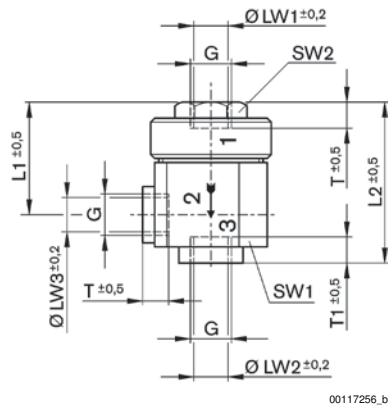
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Part No.	G	T	T1	LW1	LW2	LW3	L1	L2	SW1	SW2		
5735040000	G 1/8	8	8	6	6	6	28	43	14	14		
5735040100	G 1/4	11	11	8.5	8.5	8.5	35	53	19	19		
5735040200	G 3/8	12.5	12.5	11.2	8.5	11.2	35	54.5	21	20		
5735040300	G 1/2	14	15	14	14	14	44	72	26	26		
5735040400	G 3/4	18.5	18.5	18.5	18.5	24.5	37	88	32	32		
5735030010	G 1	19	19	20	24	24	70	118	46	46		

Accessory Valves - Quick Exhaust

Quick exhaust valve, metric Series 573
M5 to G1 threads

Fig. 2



Part No.	G	T	T1	LW1	LW2	LW3	L1	L2	SW1	SW2		
5735040900	M5	3	4	4.2	4.2	4.2	16	25	17	10		