

200RB Solenoid Valves

The 200RB is a pilot-operated, 2-way, normally closed valve. 200RB valves are used for liquid, discharge, or suction gas refrigerant service.

Features

- One coil fits all valve sizes
- Extended ends for easy installation (standard)
- Long-life molded coils
- PTFE O-ring for superior external sealing

Options

- Can be converted for bi-flow applications
- Available in 8 orifice sizes
- Manual stem or mounting stud
- Bi-Flow operation-conversion either factory assembled or with kit

Nomenclature

 example: 200RB 4T3M VLC

200R	B	4	T	3	M	VLC
Valve Series	Design Series	Port Size (in 1/16")	Connection Type F = SAE S = ODF P = NPTF T = Copper Extended Ends	Connection Size (in 1/8")	M = manual stem T = mounting stud (optional)	Coil*

*NOTE: Valves are shipped without the solenoid coils (VLC = Valve Less Coil). For available coil assemblies, see page 114.

Ordering Information and Nominal* Liquid Capacity Table – Tons (kW)

PCN			Description	Connection Size	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502
Standard Valve	Mounting Stud ¹	Manual Stem ²								
053104	--	N/A	200RB 2 F 2	1/4 SAE	2.4 (8.7)	2.9 (10.4)	3.1 (11.0)	2.9 (10.3)	2.1 (7.4)	2.0 (7.1)
062611	--	N/A	200RB 2 F 3	3/8 SAE						
053105	053236	N/A	200RB 2 T 2	1/4 ODF						
053106	054170	N/A	200RB 2 T 3	3/8 ODF	3.7 (13.0)	4.4 (15.6)	4.8 (17.0)	4.5 (16.0)	3.2 (11.3)	3.1 (11.0)
052725	--	--	200RB 3 F 2	1/4 SAE						
052726	056438	--	200RB 3 F 3	3/8 SAE						
052727	055855	--	200RB 3 F 4	1/2 SAE						
049608	--	--	200RB 3 T 2	1/4 ODF						
049609	049585	065620	200RB 3 T 3	3/8 ODF	4.4 (15.6)	5.3 (18.6)	5.6 (19.8)	5.3 (18.8)	3.7 (13.1)	3.6 (10.6)
049692	--	065621	200RB 3 T 4	1/2 ODF						
047506	047508	047507	200RB 4 F 3	3/8 SAE						
059728	047510	047509	200RB 4 P 3	3/8 NPTF						
047511	047513	047512	200RB 4 S 3	3/8 ODF X 1/2 ODM						
047516	047515	047514	200RB 4 S 4	1/2 ODF X 5/8 ODM						
047517	049162	049186	200RB 4 T 3	3/8 ODF						
047518	049163	049187	200RB 4 T 4	1/2 ODF	6.5 (23.0)	6.4 (22.7)	8.2 (29.0)	7.8 (27.6)	5.4 (19.1)	5.3 (18.8)
058950	058045	056518	200RB 4 T 5	5/8 ODF						
047519	047521	047520	200RB 5 F 4	1/2 SAE						
059729	047523	047522	200RB 5 F 5	5/8 ODF						
047524	047526	047525	200RB 5 S 4	1/2 ODF X 5/8 ODM						
049201	047528	047527	200RB 5 S 5	5/8 ODF						
061227	054323	--	200RB 5 T 3	3/8 ODF						
057206	049164	049188	200RB 5 T 4	1/2 ODF	6.4 (22.7)	7.8 (27.7)	10.0 (35.4)	9.5 (33.6)	6.5 (23.0)	6.5 (23.0)
059730	049165	049189	200RB 5 T 5	5/8 ODF						
059731	047531	047530	200RB 6 F 4	1/2 SAE						
059732	047534	047533	200RB 6 F 5	5/8 SAE						
059733	047536	047535	200RB 6 P 3	3/8 NPTF						
047537	047539	047538	200RB 6 S 4	1/2 ODF X 5/8 ODM						
047540	047542	047541	200RB 6 S 5	5/8 ODF						
047544	047546	047545	200RB 6 T 4	1/2 ODF	12.2 (43.4)	14.8 (52.5)	15.6 (55.2)	14.8 (52.4)	10.3 (36.5)	10.1 (35.8)
056766	047548	047547	200RB 6 T 5	5/8 ODF						
064037	--	--	200RB 7 S 5	5/8 ODF X 7/8 ODM						
064062	--	--	200RB 7 T 4	1/2 ODF	18.2 (65.6)	22.0 (78.0)	23.3 (92.5)	22.2 (78.6)	15.3 (54.2)	15.1 (53.0)
064063	064562	064267	200RB 7 T 5	5/8 ODF						
064282	064284	064283	200RB 7 T 7	7/8 ODF						
064762	064764	064763	200RB 9 T 5	5/8 ODF	24.0 (85.0)	28.9 (102.3)	30.5 (108.0)	29.0 (103.0)	20.1 (71.1)	19.8 (70.1)
064645	064766	064765	200RB 9 T 7	7/8 ODF						
064767	064769	064768	200RB 9 T 9	1 1/8 ODF						
064818	064820	064819	200RB 12 T 7	7/8 ODF	27.6 (97.6)	33.2 (117.5)	34.9 (124.0)	33.2 (128.0)	23.0 (81.4)	22.7 (80.4)
064821	064823	064822	200RB 12 T 9	1 1/8 ODF						

¹ Add "T" to the end of description for Mounting Stud

² Add "M" to the end of the description for Manual Stem

*Capacities based on 100°F liquid and 40°F saturated evaporator per ARI standard 760-87.

*See Extended Capacity Tables for ratings at a wide range of conditions.



Specifications

- Maximum fluid temperature: 250°F
- Maximum working pressure: 500 psig
- MOPD: 300 psig
- UL/CUL file number: MP604

NOTE: Mounting enclosing tube more than 90° off vertical up position is not recommended.

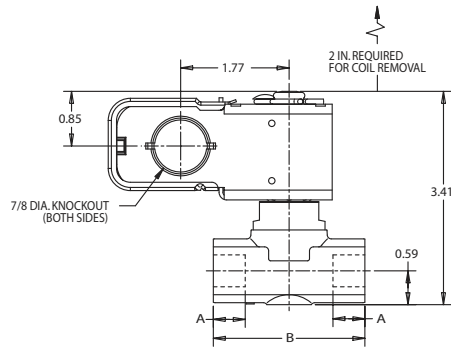
Ordering Information and Nominal Liquid Capacity Table for 200RB Bi-Flow Solenoids - Tons (kW)

PCN			Description	Connection Size	R-12	R-134a	R-22	R-407C	R-404A/R-507	R-502
Standard Valve	Mbunting Stud	Manual Stem								
009689	--	--	200RB GS-1925 3 T 3	3/8 ODF	3.7 (13.0)	4.4 (15.6)	4.8 (17.0)	4.5 (16.0)	3.2 (11.3)	3.1 (11.0)
009690	--	--	200RB GS-1926 4 T 3	3/8 ODF	4.4 (15.6)	5.3 (18.6)	5.6 (19.8)	5.3 (18.8)	3.7 (13.1)	3.6 (12.7)
009692	--	--	200RB GS-1928 5 T 4	1/2 ODF	6.5 (23.0)	7.8 (27.7)	8.2 (29.0)	7.8 (27.6)	54. (19.1)	5.3 (18.8)
009693	--	--	200RB GS-1929 5 T 5	5/8 ODF	7.8 (27.7)	9.4 (33.4)	10.0 (35.4)	9.5 (33.6)	6.5 (23.0)	6.5 (23.0)
009694	--	--	200RB GS-1930 6 T 5	5/8 ODF	7.8 (27.7)	9.4 (33.4)	10.0 (35.4)	9.5 (33.6)	6.5 (23.0)	6.5 (23.0)

200RB Without Extended Ends

Valve	Port Size	Conn. Size & Style	A	B
200RB 4P2	1/4	1/4 NPTF	-	2.37
200RB 4P3		3/8 NPTF		
200RB 4S3		3/8 ODF x 1/2 ODM	0.50	
200RB 4S4		1/2 ODF x 5/8 ODM	0.56	
200RB 4F3	5/16	3/8 SAE (male flare)	-	3.12
200RB 5P3		3/8 NPTF		
200RB 5S4		1/2 ODF x 5/8 ODM	0.56	2.37
200RB 5S5		5/8 ODF		
200RB 5F4	3/8	1/2 SAE (male flare)	-	3.50
200RB 5F5		5/8 SAE (male flare)		
200RB 6P3		3/8 NPTF	0.56	2.37
200RB 6S4		1/2 ODF x 5/8 ODM		
200RB 6S5	3/8	5/8 ODF	-	3.50
200RB 6F4		1/2 SAE (male flare)		
200RB 6F5	3/8	5/8 SAE (male flare)	-	3.75
200RB 6F5		5/8 SAE (male flare)		

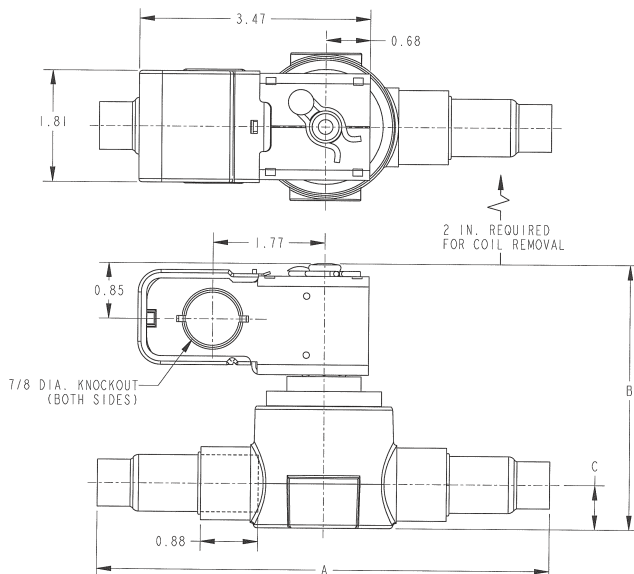
200RB2-6 Dimensional Data (in)



200RB With Extended Ends

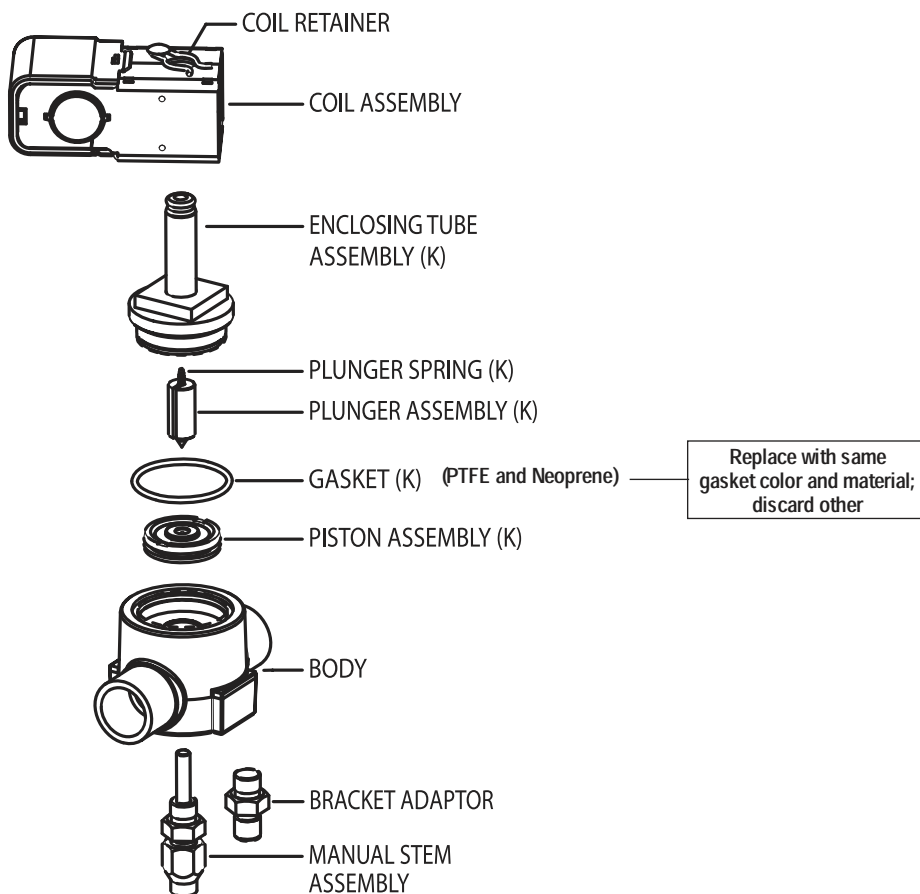
Valve	Port Size	Conn. Size & Style	A	B	C
200RB 2T2	1/8	1/4 ODF	2.42	4.62	0.25
200RB 2T3		3/8 ODF			0.31
200RB 3T2	3/16	1/4 ODF			0.25
200RB 3T3		3/8 ODF			0.31
200RB 3T4	1/4	1/2 ODF	2.50	5.00	0.38
200RB 4T4		5/8 ODF			0.50
200RB 4T5	5/16	3/8 ODF	2.31	4.62	0.31
200RB 5T4		1/2 ODF			0.38
200RB 5T5	3/8	5/8 ODF	3.25	6.50	0.50
200RB 6T3		3/8 ODF			0.31
200RB 6T4	3/8	1/2 ODF	2.50	5.00	0.38
200RB 6T5		5/8 ODF			0.50

200RB7, 9 and 12 Dimensional Data (in)



VALVE	Port Size	Conn. Size & Style	A	B	C
200RB7S5	7/16	5/8 ODF x 7/8 ODM	2.98	3.69	0.53
200RB7T5		5/8 ODF x 5/8 ODF	6.88		
200RB7T7		7/8 ODF x 7/8 ODF	7.13		
200RB9T5	9/16	5/8 ODF x 5/8 ODF	6.88	4.05	0.68
200RB9T6		3/4 ODF x 3/4 ODF	7.38		
200RB9T7		7/8 ODF x 7/8 ODF	7.13		
200RB9T9	3/4	1 1/8 ODF x 1 1/8 ODF	8.50	4.05	0.68
200RB12T7		7/8 ODF x 7/8 ODF	7.50		
200RB12T9		1 1/8 ODF x 1 1/8 ODF	8.50		

200RB Exploded View & Parts Kit Data



Valve Repair Kit

"K" indicates part is supplied in valve repair kit
KS30115(PCN 049194)

Gasket Kit

Gasket Kit KG10025(PCN 049190)
(contains 12 pieces - each of
PTFE and neoprene O-rings)

Coil Assembly

For available coil assemblies, see page 114.

200RB Valve Kits

Valve	Complete Kit	PCN	Manual Opening Kit	PCN	Bi-Flow Kit	PCN	Gasket Kit	PCN
200RB2	KS30115	049194	N/A	N/A	KS30293	056431	KG10025	049190
200RB3	KS30115	049194	KS30377	065695	KS30293	056431	KG10025	049190
200RB4	KS30115	049194	KS30117	053959	KS30293	056431	KG10025	049190
200RB5	KS30115	049194	KS30117	053959	KS30293	056431	KG10025	049190
200RB6	KS30115	049194	KS30117	053959	KS30293	056431	KG10025	049190
200RB7	KS30354	064263	KS30361	064831	N/A	N/A	KG00002	064262
200RB9	KS30362	064825	KS30364	064832	N/A	N/A	KG00003	064930
200RB12	KS30365	064826	KS30364	064832	N/A	N/A	KG00004	064833

200RB Bi-Flow Conversion

Standard 200RB uni-directional valves can be converted to Bi-Flow operation by replacing the internal parts with the components in kit KS30293 (PCN 056431). Unlike the standard valve which permits flow in one direction only when energized, the Bi-Flow version allows the valve to flow in either direction, depending on differential pressures, when energized. If the valve is not energized when flowing in the reverse direction, valve "flutter" will occur. Also, with the valve de-energized, a higher downstream pressure than upstream (back-flow) will force the valve open.

NOTE: A 200RB7, 200RB9 and 200RB12 cannot be converted to a Bi-Flow valve.