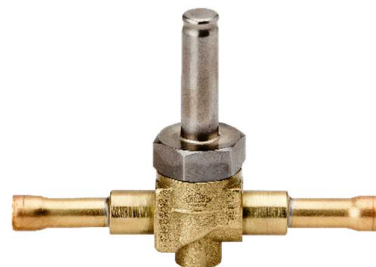


Solenoid Valves Series 110RB/200RB...-FLR

110RB/200RB...-FLR are normally closed solenoid valves for various application duties.

Features

- Normally closed
- Pilot operated requires minimum operating pressure differential
- Compact size
- Extended fittings: No disassembly necessary for brazing
- ATEX compliance coils



200RB...-FLR

Selection Table Valves

Type	Part No.	Kv-Value (m ³ /h)	Capacity (kW) Liquid line duty		Connections Solder / ODF	
			R290	R1270	(mm)	(inch)
110RB 2T2-FLR	801465	0.2	4.2	4.3	6	
110RB 2T2-FLR	801466					1/4"
110RB 2T3-FLR	801467				10	
200RB 3T3-FLR (mm)	801323	0.4	7.9	8.1	10	
200RB 3T3-FLR	801445					3/8"
200RB 4T10-FLR	801446				10	
200RB 4T4-FLR	801447	0.9	18.7	19.2		1/2"
200RB 4T3-FLR	801448					3/8"
200RB 4T12-FLR	801449				12	
200RB 6T4-FLR	801450	1.6	32.8	33.8		1/2"
200RB 6T12-FLR	801451				12	
200RB 6T5-FLR	801452				16	5/8"

Note1: Nominal capacity at +38°C condensing temperature +4°C evaporating temperature. 1 K subcooling and 0.15 bar pressure drop.
For selection of other operating condition, please use quick selection tables in the next pages.

Note2: When selecting also observe the information in the operating instructions. Available on EMERSON website www.climate.emerson.com/en-gb.

Selection Table Coils and Accessory

Type Coils	Part No.	Supply voltage	Power Input	Description	Ambient temperature	Picture
ESC-EX24VAC	801035	24 VAC ±10% 50 Hz	17VA	IP65 acc. EN 60529 test conditions. incl. screw cap with 2x O-ring & fixing retainer	-40...+60°C	
ESC-EX230VAC	801036	230 VAC ±10% 50 Hz	17VA			
ESC-K01	801034	Screw cap (incl. 2x O-ring & fixing retainer)				

Note1: When selecting also observe the information in the operating instructions. Available on EMERSON website www.climate.emerson.com/en-gb.

Solenoid Valves Series 110RB/200RB...-FLR

SOL...-FLR: Quick Selection (0.15 bar pressure drop)

Condensing temperature (°C)	R290				Capacity (kW)								R290		Valve type
	Evaporating temperature (°C)														
	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40			
65	2.9	2.9	2.8	2.7	2.6	2.6	2.5	2.4	2.3	2.2	2.2	2.1	110RB2...FLR		
	5.5	5.4	5.2	5.1	4.9	4.8	4.6	4.5	4.3	4.2	4.0	3.9	200RB3...FLR		
	13.0	12.7	12.4	12.0	11.7	11.3	11.0	10.6	10.2	9.9	9.5	9.2	200RB4...FLR		
	22.9	22.3	21.7	21.1	20.5	19.9	19.3	18.6	18.0	17.4	16.7	16.1	200RB6...FLR		
60	3.2	3.2	3.1	3.0	2.9	2.8	2.8	2.7	2.6	2.5	2.4	2.3	110RB2...FLR		
	6.0	5.9	5.7	5.6	5.4	5.3	5.1	5.0	4.8	4.7	4.5	4.4	200RB3...FLR		
	14.3	13.9	13.6	13.2	12.9	12.5	12.2	11.8	11.4	11.1	10.7	10.3	200RB4...FLR		
	25.0	24.5	23.9	23.3	22.6	22.0	21.4	20.7	20.1	19.5	18.8	18.1	200RB6...FLR		
55	3.5	3.4	3.3	3.3	3.2	3.1	3.0	2.9	2.9	2.8	2.7	2.6	110RB2...FLR		
	6.5	6.4	6.3	6.1	6.0	5.8	5.6	5.5	5.3	5.2	5.0	4.9	200RB3...FLR		
	15.5	15.1	14.8	14.4	14.1	13.7	13.4	13.0	12.6	12.2	11.9	11.5	200RB4...FLR		
	27.2	26.6	26.0	25.4	24.7	24.1	23.5	22.8	22.2	21.5	20.8	20.2	200RB6...FLR		
50	3.8	3.7	3.6	3.5	3.5	3.4	3.3	3.2	3.1	3.0	2.9	2.9	110RB2...FLR		
	7.0	6.9	6.7	6.6	6.4	6.3	6.1	6.0	5.8	5.7	5.5	5.3	200RB3...FLR		
	16.7	16.3	16.0	15.6	15.3	14.9	14.5	14.2	13.8	13.4	13.0	12.6	200RB4...FLR		
	29.3	28.7	28.0	27.4	26.8	26.1	25.5	24.8	24.2	23.5	22.9	22.2	200RB6...FLR		
45	4.0	4.0	3.9	3.8	3.7	3.6	3.5	3.5	3.4	3.3	3.2	3.1	110RB2...FLR		
	7.5	7.4	7.2	7.1	6.9	6.8	6.6	6.5	6.3	6.1	6.0	5.8	200RB3...FLR		
	17.8	17.5	17.1	16.8	16.4	16.0	15.7	15.3	14.9	14.5	14.1	13.8	200RB4...FLR		
	31.3	30.7	30.1	29.5	28.8	28.2	27.5	26.9	26.2	25.5	24.8	24.2	200RB6...FLR		
40	4.3	4.2	4.1	4.1	4.0	3.9	3.8	3.7	3.6	3.5	3.5	3.4	110RB2...FLR		
	8.0	7.9	7.7	7.6	7.4	7.3	7.1	6.9	6.8	6.6	6.4	6.3	200RB3...FLR		
	19.0	18.6	18.3	17.9	17.5	17.2	16.8	16.4	16.0	15.6	15.3	14.9	200RB4...FLR		
	33.3	32.7	32.1	31.5	30.8	30.2	29.5	28.8	28.2	27.5	26.8	26.1	200RB6...FLR		
35	4.6	4.5	4.4	4.3	4.2	4.1	4.1	4.0	3.9	3.8	3.7	3.6	110RB2...FLR		
	8.5	8.4	8.2	8.0	7.9	7.7	7.6	7.4	7.2	7.1	6.9	6.7	200RB3...FLR		
	20.1	19.8	19.4	19.0	18.7	18.3	17.9	17.5	17.1	16.8	16.4	16.0	200RB4...FLR		
	35.3	34.7	34.1	33.4	32.8	32.1	31.5	30.8	30.1	29.4	28.7	28.0	200RB6...FLR		
30	4.8	4.7	4.6	4.6	4.5	4.4	4.3	4.2	4.1	4.0	3.9	3.9	110RB2...FLR		
	9.0	8.8	8.7	8.5	8.4	8.2	8.0	7.9	7.7	7.5	7.4	7.2	200RB3...FLR		
	21.2	20.9	20.5	20.2	19.8	19.4	19.0	18.6	18.2	17.8	17.5	17.1	200RB4...FLR		
	37.3	36.7	36.0	35.4	34.7	34.1	33.4	32.7	32.0	31.3	30.6	29.9	200RB6...FLR		

Note: Select the valve type from tables for capacity value corresponding to system (evaporator) cooling capacity. For other pressure drop than 0.15, please use the below correction factors.

Correction factors $K_{\Delta P}$														
ΔP , bar	0.05	0.1	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70
$K_{\Delta P}$	1.73	1.22	1.0	0.87	0.77	0.71	0.65	0.61	0.58	0.55	0.52	0.50	0.48	0.46

Solenoid Valves Series 110RB/200RB...-FLR

SOL...-FLR: Quick Selection (0.15 bar pressure drop)

Condensing temperature (°C)	R1270			Capacity (kW)									R1270		Valve type
	Evaporating temperature (°C)														
	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40			
65	3.1	3.0	2.9	2.9	2.8	2.7	2.6	2.6	2.5	2.4	2.3	2.3	110RB2...FLR		
	5.7	5.6	5.5	5.3	5.2	5.1	4.9	4.8	4.7	4.5	4.4	4.2	200RB3...FLR		
	13.5	13.2	12.9	12.6	12.3	12.0	11.7	11.4	11.0	10.7	10.4	10.0	200RB4...FLR		
	23.7	23.2	22.7	22.2	21.7	21.1	20.6	20.0	19.4	18.8	18.2	17.6	200RB6...FLR		
60	3.3	3.3	3.2	3.2	3.1	3.0	2.9	2.9	2.8	2.7	2.6	2.5	110RB2...FLR		
	6.3	6.1	6.0	5.9	5.8	5.6	5.5	5.3	5.2	5.1	4.9	4.8	200RB3...FLR		
	14.8	14.5	14.2	13.9	13.6	13.3	13.0	12.7	12.3	12.0	11.6	11.3	200RB4...FLR		
	26.0	25.5	25.0	24.5	23.9	23.4	22.8	22.2	21.6	21.0	20.4	19.8	200RB6...FLR		
55	3.6	3.6	3.5	3.4	3.4	3.3	3.2	3.1	3.1	3.0	2.9	2.8	110RB2...FLR		
	6.8	6.7	6.5	6.4	6.3	6.1	6.0	5.9	5.7	5.6	5.4	5.3	200RB3...FLR		
	16.1	15.8	15.5	15.2	14.9	14.5	14.2	13.9	13.5	13.2	12.8	12.5	200RB4...FLR		
	28.2	27.7	27.2	26.7	26.1	25.5	25.0	24.4	23.8	23.2	22.6	21.9	200RB6...FLR		
50	3.9	3.8	3.8	3.7	3.6	3.6	3.5	3.4	3.3	3.3	3.2	3.1	110RB2...FLR		
	7.3	7.2	7.1	6.9	6.8	6.7	6.5	6.4	6.2	6.1	5.9	5.8	200RB3...FLR		
	17.3	17.0	16.7	16.4	16.1	15.8	15.4	15.1	14.7	14.4	14.0	13.7	200RB4...FLR		
	30.4	29.9	29.3	28.8	28.2	27.7	27.1	26.5	25.9	25.3	24.6	24.0	200RB6...FLR		
45	4.2	4.1	4.1	4.0	3.9	3.8	3.8	3.7	3.6	3.5	3.4	3.4	110RB2...FLR		
	7.8	7.7	7.6	7.4	7.3	7.2	7.0	6.9	6.7	6.6	6.4	6.3	200RB3...FLR		
	18.5	18.2	17.9	17.6	17.3	16.9	16.6	16.3	15.9	15.6	15.2	14.8	200RB4...FLR		
	32.5	32.0	31.4	30.9	30.3	29.8	29.2	28.6	27.9	27.3	26.7	26.0	200RB6...FLR		
40	4.5	4.4	4.3	4.2	4.2	4.1	4.0	3.9	3.9	3.8	3.7	3.6	110RB2...FLR		
	8.3	8.2	8.1	7.9	7.8	7.7	7.5	7.4	7.2	7.1	6.9	6.8	200RB3...FLR		
	19.7	19.4	19.1	18.8	18.4	18.1	17.8	17.4	17.1	16.7	16.3	16.0	200RB4...FLR		
	34.6	34.1	33.5	33.0	32.4	31.8	31.2	30.6	30.0	29.3	28.7	28.1	200RB6...FLR		
35	4.7	4.7	4.6	4.5	4.4	4.4	4.3	4.2	4.1	4.0	4.0	3.9	110RB2...FLR		
	8.8	8.7	8.6	8.4	8.3	8.1	8.0	7.8	7.7	7.5	7.4	7.2	200RB3...FLR		
	20.9	20.6	20.3	19.9	19.6	19.3	18.9	18.6	18.2	17.9	17.5	17.1	200RB4...FLR		
	36.6	36.1	35.6	35.0	34.4	33.8	33.2	32.6	32.0	31.3	30.7	30.0	200RB6...FLR		
30	5.0	4.9	4.8	4.8	4.7	4.6	4.5	4.5	4.4	4.3	4.2	4.1	110RB2...FLR		
	9.3	9.2	9.0	8.9	8.8	8.6	8.5	8.3	8.2	8.0	7.9	7.7	200RB3...FLR		
	22.0	21.7	21.4	21.1	20.8	20.4	20.1	19.7	19.3	19.0	18.6	18.2	200RB4...FLR		
	38.7	38.1	37.6	37.0	36.4	35.8	35.2	34.6	34.0	33.3	32.7	32.0	200RB6...FLR		

Note: Select the valve type from tables for capacity value corresponding to system (evaporator) cooling capacity. For other pressure drop than 0.15, please use the below correction factors.

Correction factors $K_{\Delta P}$														
ΔP , bar	0.05	0.1	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70
$K_{\Delta P}$	1.73	1.22	1.0	0.87	0.77	0.71	0.65	0.61	0.58	0.55	0.52	0.50	0.48	0.46

Solenoid Valves Series 110RB/200RB...-FLR

Technical Data Valve

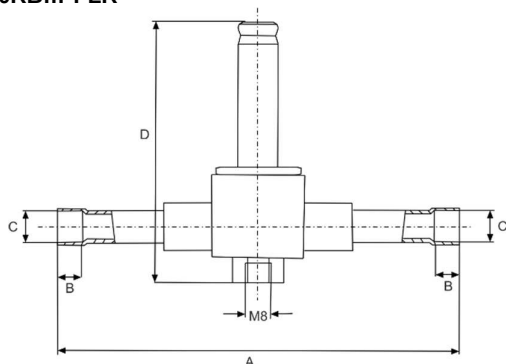
Max. allowable working pressure PS	31 bar	Max. ambient temperature:	-40...+50°C
Test pressure PT	34.1 bar	Operating Temperature Range TS	-40...+120°C

Technical Data ESC-EX... Coil

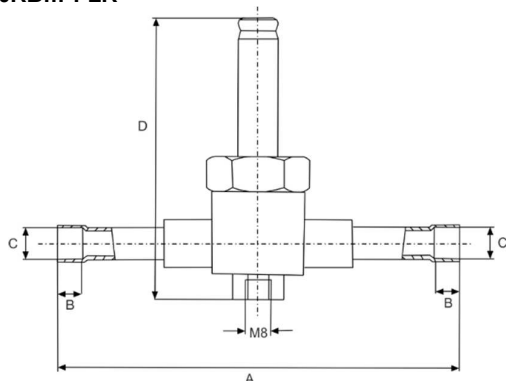
Supply voltage ESC EX24VAC ESC EX230VAC	24VAC ±10% 230VAC ±10%	Ambient temperature range	-40...+60°C
Frequency	50 Hz	Marking	 II 3G Ex nA IIA T3 Gc U 
Vibration resistance	0.7g 10 ... 200 Hz		
Protection Class	IP65		

Dimensions (mm)

110RB...-FLR



200RB...-FLR



Type	Part No.	(mm)			C	
		A	B	D	Connections Solder / ODF (mm)	(inch)
110RB 2T2-FLR	801465	126	8	77.3	6	
110RB 2T2-FLR	801466		8	77.3		14"
110RB 2T3-FLR	801467		8	77.3	10	
200RB 3T3-FLR (mm)	801323	126	8	88.3	10	
200RB 3T3-FLR	801445		8	88.3		3/8"
200RB 4T10-FLR	801446	126	8	88.3	10	
200RB 4T4-FLR	801447		10	88.3		1/2"
200RB 4T3-FLR	801448		8	88.3		3/8"
200RB 4T12-FLR	801449		10	88.3	12	
200RB 6T4-FLR	801450	126	10	88.3		1/2"
200RB 6T12-FLR	801451		10	88.3	12	
200RB 6T5-FLR	801452		13	88.3	16	5/8"

ESC-EX24VAC / ESC-EX230VAC-ATEX

