

R4000 Series (Steel)



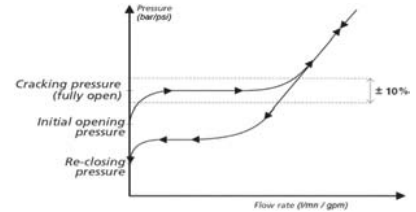
The Eaton R4000 Series steel check valves are designed for multipurpose hydraulic applications to either allow flow of fluid in one direction only or limit the line's internal pressure to the cracking pressure. Standard cracking pressures are 0.5 and 1 bar (7.25 and 14.5 psi). Alternatives can be offered upon request.

Product Features

- Standard body material: Zinc-plated steel
- Standard seal material: NBR, FKM, EPDM

Operating Guidelines

The Eaton R4000 series is designed to handle liquids. Should applications involving gases (but not unstable gases) be considered, the user should certify that sonic frequencies will not exceed 1 Hz (one cycle per second). For further information, please contact Eaton technical support.



European Pressure Equipment Directive

Check valves with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. Check valves with nominal diameters greater than 25 mm are designed and manufactured with the stipulations of Module A of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey unstable gases. Our series R4000 check valves must not be used as safety devices (as per PED 97/23 EC).

Physical Characteristics

Body Size (in)	Nominal Flow Diameter (mm)	Max. Operating Pressure**			Rated Flow*		
		Non hazardous liquids & gases in Group 2 (bar)	Hazardous liquids & gases in Group 1 (psi)	Hazardous liquids & gases in Group 1 (bar)	L/min	(gpm)	
1/8	3.8	700	10150	700	10150	4.5	1.19
1/4	5.7	700	10150	700	10150	14.2	3.75
3/8	7.6	700	10150	700	10150	22	5.81
1/2	10.3	500	7250	500	7250	32	8.45
3/4	14.2	500	7250	500	7250	72	19
1	16.5	500	7250	500	7250	117	30.9
1 1/4	20.5	300	4350	300	4350	188	49.66
1 1/2	25.8	300	4350	38	550	232	61.29
2	34.7	300	4350	28	405	393	103.81

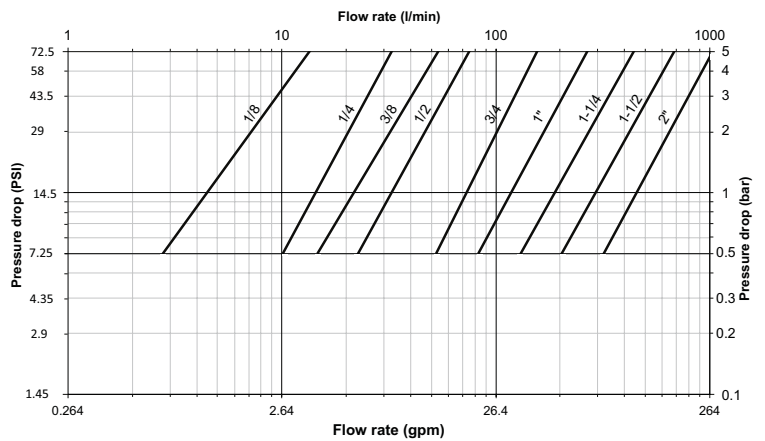
* Indicated values refer to a 1 bar/14.5 psi pressure drop.

** Group 1 = Hazardous media / Group 2 = Other media

Applications & Markets



- All industries
- Agriculture
- Construction
- Fluid transfer lines



Seal Elastomer Data*

Seal Elastomer	Max. Operation Temperature Range
NBR (Nitrile)	-20°C +100°C / -4°F +212°F
FKM (Fluorocarbon)	-20°C +200°C / -4°F +392°F
EPDM (Ethylene-Propylene)**	-40°C +150°C / -40°F +302°F

* For reference only, based on Eaton recommended temperatures.

** In accordance with NF L 17-241 or NAS 1613 rev. 5

Contact Eaton technical support for further information on fluid compatibility.

R4000 Series (Steel)

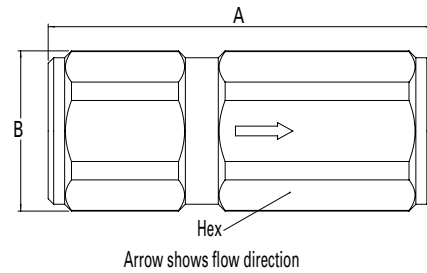


Fig. 1

Cracking Pressure 0.5 bar (7.25 psi)

Part Number		Body Size	Nominal Flow Diameter	Thread Size* (Female)	Fig.	Dimensions						Weight	
FKM	EPDM	(in)	(mm)	BSPP		A (in)	B (in)	Hex (in)	A (mm)	B (mm)	Hex (mm)	lbs	grams
RZ04000V0	RZ04000E0	1/8	3.8	1/8	1	1.46	0.69	0.63	37	17.5	16	0.10	45
RZ04010V0	RZ04010E0	1/4	5.7	1/4	1	1.97	0.83	0.75	50	21	19	0.18	80
RZ04020V0	RZ04020E0	3/8	7.6	3/8	1	2.36	0.98	0.90	60	25	23	0.29	130
RZ04030V0	RZ04030E0	1/2	10.3	1/2	1	2.75	1.15	1.06	70	29.2	27	0.44	200
RZ04040V0	RZ04040E0	3/4	14.2	3/4	1	3.38	1.50	1.38	86	38	35	0.93	420
RZ04050V0	RZ04050E0	1	16.5	1	1	3.94	1.77	1.61	100	45	41	1.41	640
RZ04060V0	RZ04060E0	1 1/4	20.5	1 1/4	1	5.12	2.40	2.16	130	61	55	3.46	1570
RZ04070V0	RZ04070E0	1 1/2	25.8	1 1/2	1	5.31	2.83	2.56	135	72	65	5.16	2340
RZ04090V0	RZ04090E0	2	34.7	2	1	5.90	3.30	2.95**	150	84	75**	6.57	2980

* Alternative end connections available upon request, depending on size (please contact Eaton technical support).

** Across flat dimension.

Cracking Pressure 1 bar (14.5 psi)

Part Number		Body Size	Nominal Flow Diameter	Thread Size* (Female)	Fig.	Dimensions						Weight	
FKM	EPDM	(in)	(mm)	BSPP		A (in)	B (in)	Hex (in)	A (mm)	B (mm)	Hex (mm)	lbs	grams
RZ04000VB	RZ04000EB	1/8	3.8	1/8	1	1.46	0.69	0.63	37	17.5	16	0.10	45
RZ04010VB	RZ04010EB	1/4	5.7	1/4	1	1.97	0.83	0.75	50	21	19	0.18	80
RZ04020VB	RZ04020EB	3/8	7.6	3/8	1	2.36	0.98	0.90	60	25	23	0.29	130
RZ04030VB	RZ04030EB	1/2	10.3	1/2	1	2.75	1.15	1.06	70	29.2	27	0.44	200
RZ04040VB	RZ04040EB	3/4	14.2	3/4	1	3.38	1.50	1.38	86	38	35	0.93	420
RZ04050VB	RZ04050EB	1	16.5	1	1	3.94	1.77	1.61	100	45	41	1.41	640
RZ04060VB	RZ04060EB	1 1/4	20.5	1 1/4	1	5.12	2.40	2.16	130	61	55	3.46	1570
RZ04070VB	RZ04070EB	1 1/2	25.8	1 1/2	1	5.31	2.83	2.56	135	72	65	5.16	2340
RZ04090VB	RZ04090EB	2	34.7	2	1	5.90	3.30	2.95**	150	84	75**	6.57	2980

* Alternative end connections available upon request, depending on size (please contact Eaton technical support).

** Across flat dimension.

R4000 Series (Brass)



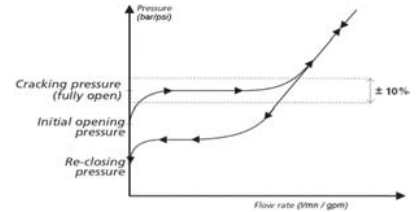
The Eaton R4000 Series brass check-valves are designed to either allow flow of fluid in one direction only or limit the line's internal pressure to the cracking pressure. Standard cracking pressures are 0.5 and 1 bar (7.25 and 14.5 psi). Alternatives can be offered upon request. It is designed to handle liquids in all industries and for fluid transfer lines.

Product Features

- Standard body material: Nickel-plated brass
- Standard seal material: NBR, FKM, EPDM

Operating Guidelines

The Eaton R4000 series is designed to handle liquids. Should applications involving gases (but not unstable gases) be considered, the user should certify that sonic frequencies will not exceed 1 Hz (one cycle per second). For further information, please contact Eaton technical support.



European Pressure Equipment Directive

Check valves with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. Check valves with nominal diameters greater than 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey gases in Group 1 (hazardous). Working pressures for liquids of Group 1 (hazardous) and gases of Group 2 (non-hazardous) are reduced. Please refer to "Physical Characteristics" table. Our series R4000 check valves must not be used as safety devices (as per PED 97/23 EC).

Physical Characteristics

Body Size (in)	Nominal Flow Diameter (mm)	Max. Operating Pressure**				Rated Flow*	
		Non hazardous liquids		Hazardous liquids & Non-Hazardous Gases		L/min	(gpm)
1/8	3.8	400	5800	400	5800	4.5	1.19
1/4	5.7	400	5800	400	5800	14.2	3.75
3/8	7.6	400	5800	400	5800	22	5.81
1/2	10.3	250	3625	250	3625	32	8.45
3/4	14.2	250	3625	250	3625	72	19
1	16.5	250	3625	250	3625	117	30.9
1 1/4	20.5	150	2175	150	2175	188	49.66
1 1/2	25.8	150	2175	75	1085	232	61.29
2	34.7	100	1450	25	360	393	103.81

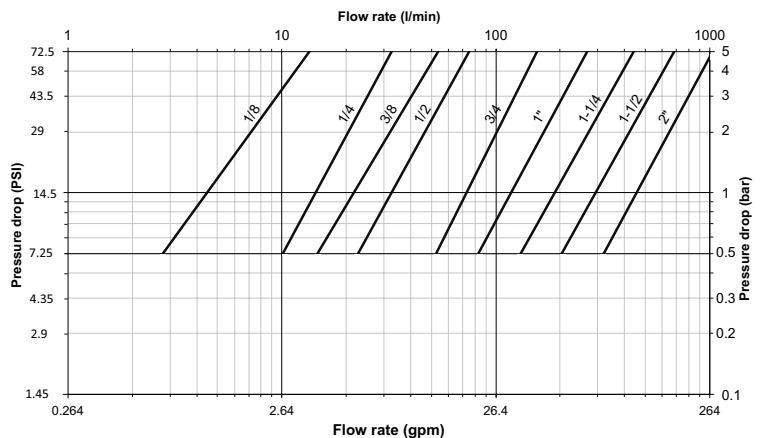
* Indicated values refer to a 1 bar/14.5 psi pressure drop.

** Group 1 = Hazardous media / Group 2 = Other media

Applications & Markets



- All industries
- Agriculture
- Construction
- Fluid transfer lines



Seal Elastomer Data*

Seal Elastomer	Max. Operation Temperature Range
NBR (Nitrile)	-20°C +100°C/-4°F +212°F
FKM (Fluorocarbon)	-20°C +200°C/-4°F +392°F
EPDM (Ethylene-Propylene)**	-40°C +150°C/-40°F +302°F

* For reference only, based on Eaton recommended temperatures.

** In accordance with NF L 17-241 or NAS 1613 rev. 5

Contact Eaton technical support for further information on fluid compatibility.

R4000 Series (Brass)

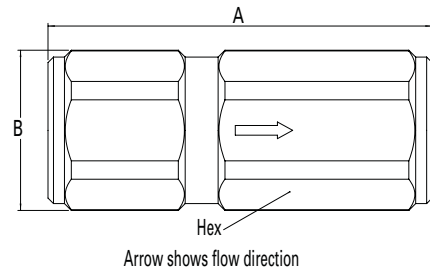


Fig. 1

Cracking Pressure 0.5 bar (7.25 psi)

Part Number			Body Size	Nominal Flow Diameter	Thread Size** (Female)	Fig.	Dimensions						Weight	
NBR*	FKM	EPDM					(in)	(mm)	A (in)	B (in)	Hex (in)	A (mm)	B (mm)	Hex (mm)
RL0400000	RL04000V0	RL04000E0	¼	3.8	¼	1	1.46	0.69	0.63	37	17.5	16	0.11	50
RL0401000	RL04010V0	RL04010E0	¼	5.7	¼	1	1.97	0.83	0.75	50	21	19	0.19	85
RL0402000	RL04020V0	RL04020E0	¾	7.6	¾	1	2.36	0.98	0.9	60	25	23	0.31	140
RL0403000	RL04030V0	RL04030E0	½	10.3	½	1	2.75	1.15	1.06	70	29.2	27	0.47	215
RL0404000	RL04040V0	RL04040E0	¾	14.2	¾	1	3.38	1.50	1.38	86	38	35	1.01	460
RL0405000	RL04050V0	RL04050E0	1	16.5	1	1	3.94	1.77	1.61	100	45	41	1.52	690
-	RL04060V0	RL04060E0	1¼	20.5	1¼	1	5.12	2.40	2.16	130	61	55	3.73	1690
-	RL04070V0	RL04070E0	1½	25.8	1½	1	5.31	2.83	2.56	135	72	65	5.71	2590
-	RL04090V0	RL04090E0	2	34.7	2	1	5.90	3.30	2.95***	150	84	75***	7.50	3400

* Body sizes 1¼, 1½ and 2 are supplied with FKM seals as a standard.

** Alternative end connections available upon request, depending on size (please contact Eaton technical support).

*** Across flat dimension.

Cracking Pressure 1 bar (14.5 psi)

Part Number			Body Size	Nominal Flow Diameter	Thread Size** (Female)	Fig.	Dimensions						Weight	
NBR*	FKM	EPDM					(in)	(mm)	A (in)	B (in)	Hex (in)	A (mm)	B (mm)	Hex (mm)
RL040000B	RL04000VB	RL04000EB	¼	3.8	¼	1	1.46	0.69	0.63	37	17.5	16	0.11	50
RL040100B	RL04010VB	RL04010EB	¼	5.7	¼	1	1.97	0.83	0.75	50	21	19	0.19	85
RL040200B	RL04020VB	RL04020EB	¾	7.6	¾	1	2.36	0.98	0.90	60	25	23	0.31	140
RL040300B	RL04030VB	RL04030EB	½	10.3	½	1	2.75	1.15	1.06	70	29.2	27	0.47	215
RL040400B	RL04040VB	RL04040EB	¾	14.2	¾	1	3.38	1.50	1.38	86	38	35	1.01	460
RL040500B	RL04050VB	RL04050EB	1	16.5	1	1	3.94	1.77	1.61	100	45	41	1.52	690
-	RL04060VB	RL04060EB	1¼	20.5	1¼	1	5.12	2.40	2.16	130	61	55	3.73	1690
-	RL04070VB	RL04070EB	1½	25.8	1½	1	5.31	2.83	2.56	135	72	65	5.71	2590
-	RL04090VB	RL04090EB	2	34.7	2	1	5.90	3.30	2.95***	150	84	75***	7.50	3400

* Body sizes 1¼, 1½ and 2 are supplied with FKM seals as a standard.

** Alternative end connections available upon request, depending on size (please contact Eaton technical support).

*** Across flat dimension.

R4000 Series (Stainless Steel)



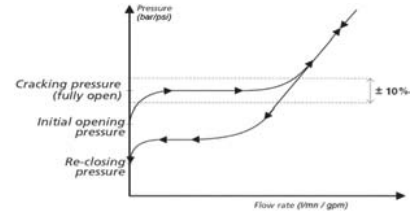
The Eaton R4000 Series stainless steel check-valves are designed to either allow flow of fluid in one direction only or limit the line's internal pressure to the cracking pressure. Standard cracking pressures are 0.5 and 1 bar (7.25 and 14.5 psi). Alternatives can be offered upon request. It is designed to handle liquids in all industries and for fluid transfer lines. The material used offers excellent corrosion resistance.

Product Features

- Standard body material: AISI 316L Stainless steel
- Standard seal material: FKM, EPDM

Operating Guidelines

The Eaton R4000 series is designed to handle liquids. Should applications involving gases (but not unstable gases) be considered, the user should certify that sonic frequencies will not exceed 1 Hz (one cycle per second). For further information, please contact Eaton technical support.



European Pressure Equipment Directive

Check valves with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. Check valves with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module D1 of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey unstable gases. Our series R4000 check valves must not be used as safety devices (as per PED 97/23 EC).

Physical Characteristics

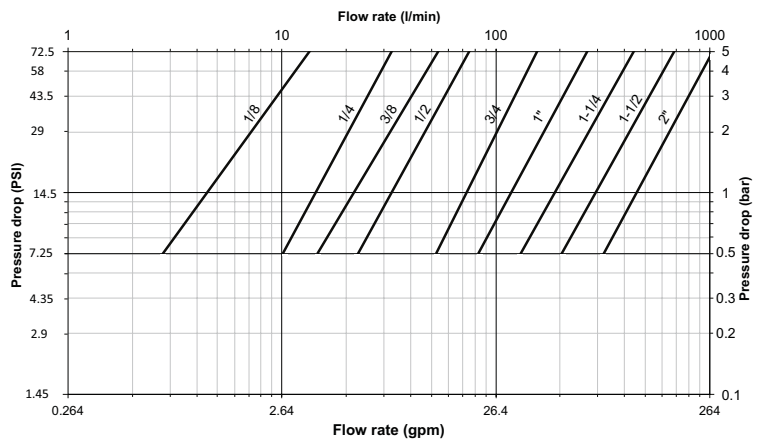
Body Size (in)	Nominal Flow Diameter (mm)	Max. Operating Pressure		Rated Flow*	
		bar	(psi)	L/min	(gpm)
1/8	3.8	400	5800	4.5	1.19
1/4	5.7	400	5800	14.2	3.75
3/8	7.6	400	5800	22	5.81
1/2	10.3	250	3625	32	8.45
3/4	14.2	250	3625	72	19.00
1	16.5	250	3625	117	30.90
1 1/4	20.5	150	2175	188	49.66
1 1/2	25.8	150	2175	232	61.29
2	34.7	150	2175	393	103.81

* Indicated values refer to a 1 bar / 14.5 psi pressure drop.

Applications & Markets



- All industries
- Agriculture
- Construction
- Fluid transfer lines



Applicable to valves with 0.5 bar (7.25 psi) cracking pressure

Seal Elastomer Data*

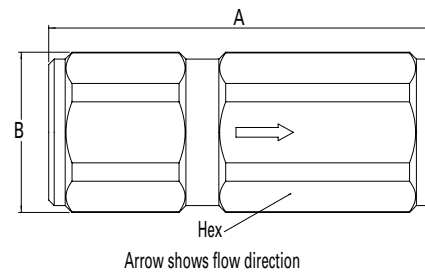
Seal Elastomer	Max. Operation Temperature Range
FKM (Fluorocarbon)*	-20°C +200°C/-4°F +392°F
EPDM (Ethylene-Propylene)**	-40°C +150°C/-40°F +302°F

* For reference only, based on Eaton recommended temperatures.

** In accordance with NF L 17-241 or NAS 1613 rev. 5

Contact Eaton technical support for further information on fluid compatibility.

R4000 Series (Stainless Steel)



Cracking Pressure 0.5 bar (7 psi)

Part Number		Body Size		Nominal Flow Diameter	Thread Size* (Female)	Dimensions						Weight	
FKM	EPDM	(in)	(mm)	BSP	Fig.	A (in)	B (in)	Hex (in)	A (mm)	B (mm)	Hex (mm)	lbs	grams
RZ04000V0	RZ04000E0	1/8	3.8	1/8	1	1.46	0.69	0.63	37	17.5	16	0.10	45
RZ04010V0	RZ04010E0	1/4	5.7	1/4	1	1.97	0.83	0.75	50	21	19	0.18	80
RZ04020V0	RZ04020E0	3/8	7.6	3/8	1	2.36	0.98	0.90	60	25	23	0.29	130
RZ04030V0	RZ04030E0	1/2	10.3	1/2	1	2.75	1.15	1.06	70	29.2	27	0.44	200
RZ04040V0	RZ04040E0	3/4	14.2	3/4	1	3.38	1.50	1.38	86	38	35	0.93	420
RZ04050V0	RZ04050E0	1	16.5	1	1	3.94	1.77	1.61	100	45	41	1.41	640
RZ04060V0	RZ04060E0	1 1/4	20.5	1 1/4	1	5.12	2.40	2.16	130	61	55	3.46	1570
RZ04070V0	RZ04070E0	1 1/2	25.8	1 1/2	1	5.31	2.83	2.56	135	72	65	5.16	2340
RZ04090V0	RZ04090E0	2	34.7	2	1	5.90	3.30	2.95**	150	84	75**	6.57	2980

* Alternative end connections available upon request, depending on size (please contact Eaton technical support).

** Across flat dimension.

Cracking Pressure 1 bar (14.5 psi)

Part Number		Body Size		Nominal Flow Diameter	Thread Size* (Female)	Dimensions						Weight	
FKM	EPDM	(in)	(mm)	BSP	Fig.	A (in)	B (in)	Hex (in)	A (mm)	B (mm)	Hex (mm)	lbs	grams
RZ04000VB	RZ04000EB	1/8	3.8	1/8	1	1.46	0.69	0.63	37	17.5	16	0.10	45
RZ04010VB	RZ04010EB	1/4	5.7	1/4	1	1.97	0.83	0.75	50	21	19	0.18	80
RZ04020VB	RZ04020EB	3/8	7.6	3/8	1	2.36	0.98	0.90	60	25	23	0.29	130
RZ04030VB	RZ04030EB	1/2	10.3	1/2	1	2.75	1.15	1.06	70	29.2	27	0.44	200
RZ04040VB	RZ04040EB	3/4	14.2	3/4	1	3.38	1.50	1.38	86	38	35	0.93	420
RZ04050VB	RZ04050EB	1	16.5	1	1	3.94	1.77	1.61	100	45	41	1.41	640
RZ04060VB	RZ04060EB	1 1/4	20.5	1 1/4	1	5.12	2.40	2.16	130	61	55	3.46	1570
RZ04070VB	RZ04070EB	1 1/2	25.8	1 1/2	1	5.31	2.83	2.56	135	72	65	5.16	2340
RZ04090VB	RZ04090EB	2	34.7	2	1	5.90	3.30	2.95**	150	84	75**	6.57	2980

* Alternative end connections available upon request, depending on size (please contact Eaton technical support).

** Across flat dimension.

Eaton Quick Disconnect Couplings快速接头代理商：

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