



DESICCANT BREATHERS

SPECIFICATION CHARTS



BREATHER SPECIFICATION CHARTS

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XR-Series – Extreme Environment Applications

Model	Check Valve PSI In/Out	Height inches (cm)	Diameter inches (cm)	Mounting Connection	Silica Gel lbs (kg)	Maximum Adsorption Capacity fl. ounces (mL)	Maximum Air Flow cfm	Maximum Reservoir Fluid Flow gpm	Type of Medium	Uses Replacement Cartridge
XR-101	0.1/2.0	8.5 (21.6)	5.2 (13.2)	1" MNPT	1.4 (0.6)	8.6 (254)	25	187	100% Silica Gel	A-351
XR-102	0.1/2.0	11.5 (29.2)	5.2 (13.2)	1" MNPT	2.7 (1.2)	16.56 (489)	25	187	100% Silica Gel	A-352
XR-108	0.1/2.0	14 (35.6)	5.2 (13.2)	2" MNPT	3.5 (1.6)	21.47 (634)	25	187	100% Silica Gel	A-358
XR-121	0.1/2.0	8.5 (21.6)	5.2 (13.2)	2" MNPT	1.4 (0.6)	8.6 (254)	25	187	100% Silica Gel	A-351
XR-122	0.1/2.0	11.5 (29.2)	5.2 (13.2)	2" MNPT	2.7 (1.2)	16.56 (489)	25	187	100% Silica Gel	A-352
XR-501	0.1/0.1	8.5 (21.6)	5.2 (13.2)	1" MNPT	1.4 (0.6)	8.6 (254)	25	187	100% Silica Gel	A-351
XR-502	0.1/0.1	11.5 (29.2)	5.2 (13.2)	1" MNPT	2.7 (1.2)	16.56 (489)	25	187	100% Silica Gel	A-352
XR-508	0.1/0.1	14 (35.6)	5.2 (13.2)	2" MNPT	3.5 (1.6)	21.47 (634)	25	187	100% Silica Gel	A-358
XR-521	0.1/0.1	8.5 (21.6)	5.2 (13.2)	2" MNPT	1.4 (0.6)	8.6 (254)	25	187	100% Silica Gel	A-351
XR-522	0.1/0.1	11.5 (29.2)	5.2 (13.2)	2" MNPT	2.7 (1.2)	16.56 (489)	25	187	100% Silica Gel	A-352



Guardian™ Series

****All Guardian™ models contain a 2-micron filter****

Model	Check Valve PSI In/Out	Height inches (cm)	Diameter inches (cm)	Mounting Connection –FEMALE–	Silica Gel lbs (kg)	Maximum Adsorption Capacity fl. ounces (mL)	Maximum Air Flow (cfm)	Maximum Reservoir Fluid Flow (gpm)	Type of Medium	Isolation Check Valve	Compound Indicating Gauge	Uses Replacement Cartridge
G5S1N	0.1/0.1	9" (22.3)	5.125"	1" NPT	1.5 (0.68)	9.2 (272)	25	187	Silica Gel	No	No	GRC5S
G5S1NC	0.1/0.1	9" (22.3)	5.125"	1" NPT	1.5 (0.68)	9.2 (272)	25	187	Silica Gel	Yes	No	GRC5SC
G5S1NG	0.1/0.1	9" (22.3)	5.125"	1" NPT	1.5 (0.68)	9.2 (272)	25	187	Silica Gel	No	Yes	GRC5S
G5S1NGC	0.1/0.1	9" (22.3)	5.125"	1" NPT	1.5 (0.68)	9.2 (272)	25	187	Silica Gel	Yes	Yes	GRC5SC
G5S2N	0.1/0.1	9" (22.3)	5.125"	2" NPT	1.5 (0.68)	9.2 (272)	25	187	Silica Gel	No	No	GRC5S
G5S2NC	0.1/0.1	9" (22.3)	5.125"	2" NPT	1.5 (0.68)	9.2 (272)	25	187	Silica Gel	Yes	No	GRC5SC
G5S2NG	0.1/0.1	9" (22.3)	5.125"	2" NPT	1.5 (0.68)	9.2 (272)	25	187	Silica Gel	No	Yes	GRC5S
G5S2NGC	0.1/0.1	9" (22.3)	5.125"	2" NPT	1.5 (0.68)	9.2 (272)	25	187	Silica Gel	Yes	Yes	GRC5SC
G5S1B	0.1/0.1	9" (22.3)	5.125"	1" BSP	1.5 (0.68)	9.2 (272)	25	187	Silica Gel	No	No	GRC5S
G5S1BC	0.1/0.1	9" (22.3)	5.125"	1" BSP	1.5 (0.68)	9.2 (272)	25	187	Silica Gel	Yes	No	GRC5SC
G5S1BG	0.1/0.1	9" (22.3)	5.125"	1" BSP	1.5 (0.68)	9.2 (272)	25	187	Silica Gel	No	Yes	GRC5S
G5S1BGC	0.1/0.1	9" (22.3)	5.125"	1" BSP	1.5 (0.68)	9.2 (272)	25	187	Silica Gel	Yes	Yes	GRC5SC
G8S1N	0.1/0.1	12" (30.5)	5.125"	1" NPT	2.8 (1.27)	17.2 (508.7)	25	187	Silica Gel	No	No	GRC8S

Note: Guardian™ Cartridges should only be used with Guardian™ top and bottom caps. When using cartridges with the Isolation Check Valve, always ensure the valve is at the bottom of the cartridge. When using the Modular Stack Ring™, do not stack multiple cartridges with Isolation Check Valves. Use the Isolation Check Valve on the bottom cartridge only.

Model	Check Valve PSI In/Out	Height inches (cm)	Diameter inches (cm)	Mounting Connection –FEMALE–	Silica Gel lbs (kg)	Maximum Adsorption Capacity fl. ounces (mL)	Maximum Air Flow (cfm)	Maximum Reservoir Fluid Flow (gpm)	Type of Medium	Isolation Check Valve	Compound Indicating Gauge	Uses Replacement Cartridge
G12S2NGC	0.1/0.1	16" (40.6)	5.125"	2" NPT	4.5 (2)	27.6 (816)	25	187	Silica Gel	Yes	Yes	GRC12SC
G12S1B	0.1/0.1	16" (40.6)	5.125"	1" BSP	4.5 (2)	27.6 (816)	25	187	Silica Gel	No	No	GRC12S
G12S1BC	0.1/0.1	16" (40.6)	5.125"	1" BSP	4.5 (2)	27.6 (816)	25	187	Silica Gel	Yes	No	GRC12SC
G12S1BG	0.1/0.1	16" (40.6)	5.125"	1" BSP	4.5 (2)	27.6 (816)	25	187	Silica Gel	No	Yes	GRC12S
G12S1BGC	0.1/0.1	16" (40.6)	5.125"	1" BSP	4.5 (2)	27.6 (816)	25	187	Silica Gel	Yes	Yes	GRC12SC

Replacement Cartridges												
Model	Check Valve PSI In/Out	Height inches (cm)	Diameter inches (cm)	Mounting Connection –FEMALE–	Adsorbant lbs (kg)	Maximum Adsorption Capacity fl. ounces (mL)	Maximum Air Flow (cfm)	Maximum Reservoir Fluid Flow (gpm)	Type of Medium	Isolation Check Valve	Compound Indicating Gauge	Uses Replacement Cartridge
GRC5AC	n/a	5"	5"	n/a	0.67 (0.3)	n/a	n/a	n/a	Activated Carbon for fume and odor removal	No	n/a	
GRC5ACC	n/a	5"	5"	n/a	0.67 (0.3)	n/a	n/a	n/a	Activated Carbon for fume and odor removal	Yes	n/a	
GRC5M	n/a	5"	5"	n/a	1.5 (0.68)	4.6 (136)	n/a	n/a	Molecular Sieve for low humidity	No	n/a	
GRC5MC	n/a	5"	5"	n/a	1.5 (0.68)	4.6 (136)	n/a	n/a	Molecular Sieve for low humidity	Yes	n/a	
GRC5S	n/a	5"	5"	n/a	1.5 (0.68)	9.2 (272)	n/a	n/a	Silica Gel	No	n/a	
GRC5SC	n/a	5"	5"	n/a	1.5 (0.68)	9.2 (272)	n/a	n/a	Silica Gel	Yes	n/a	

Note: Guardian™ Cartridges should only be used with Guardian™ top and bottom caps. When using cartridges with the Isolation Check Valve, always ensure the valve is at the bottom of the cartridge. When using the Modular Stack Ring™, do not stack multiple cartridges with Isolation Check Valves. Use the Isolation Check Valve on the bottom cartridge only.



X- Series - High Humidity/Dust Applications

Model	Check Valve PSI In/Out	Height inches (cm)	Diameter inches (cm)	Mounting Connection	Silica Gel lbs (kg)	Maximum Adsorption Capacity fl. ounces (mL)	Maximum Air Flow cfm	Maximum Reservoir Fluid Flow gpm	Type of Medium	Uses Replacement Cartridge
X-50	0.3 / 0.3	5 (12.7)	3 (7.6)	½" FNPT	0.6 (0.27)	3.68 (109)	10	75	100% Silica Gel	L-50
X-100	0.3 / 0.3	6.25 (15.9)	3.25 (8.3)	½" FNPT	0.8 (0.4)	4.91 (145)	10	75	100% Silica Gel	L-143
X-501	0.1/0.1	7 (17.8)	5 (12.7)	1" slip fit	1.4 (0.6)	8.6 (254)	20	150	100% Silica Gel	A-341
X-502	0.1/0.1	10 (25.4)	5 (12.7)	1" slip fit	2.7 (1.2)	16.56 (489)	20	150	100% Silica Gel	A-342
X-503	0.1/0.1	7 (17.8)	5 (12.7)	1" MNPT	1.4 (0.6)	8.6 (254)	20	150	100% Silica Gel	A-345
X-505	0.1/0.1	10 (25.4)	5 (12.7)	1" MNPT	2.7 (1.2)	16.56 (489)	20	150	100% Silica Gel	A-346
X-521	0.1/0.1	7 (17.8)	5 (12.7)	2" MNPT	1.4 (0.6)	8.6 (254)	20	150	100% Silica Gel	A-343
X-522	0.1/0.1	10 (25.4)	5 (12.7)	2" MNPT	2.7 (1.2)	16.56 (489)	20	150	100% Silica Gel	A-344



L-Series – In-line, Low Flow Applications

Model	Height inches (cm)	Diameter inches (cm)	Both Ends Connection	Silica Gel lbs (kg)	Carbon Weight lbs (kg)	Maximum Adsorption Capacity fl. ounces (mL)	Maximum Air Flow cfm	Maximum Reservoir Fluid Flow gpm	Type of Medium
L-50	3.25 (8.2)	3 (7.6)	½" FNPT	0.6 (0.27)	N/A	3.68 (109)	10	75	100% Silica Gel
L-143	5.5 (14.0)	3.25 (8.3)	½" FNPT	0.8 (0.4)	N/A	4.91 (145)	10	75	100% Silica Gel



M- Series – Heavy Duty Applications

Model	Height inches (cm)	Diameter inches (cm)	Mounting Connection	Silica Gel lbs (kg)	Maximum Adsorption Capacity fl. ounces (mL)	Maximum Air Flow cfm	Maximum Reservoir Fluid Flow gpm	Type of Medium	Replacement Silica Gel Bag No.	Replacement Polyester Pleated Filter No.	Filter Weight lbs (kg)
M-103	6.6 (16.8)	10 (25.4)	1" MNPT	2.1 (1.0)	12.88 (380)	35	262	100% Silica Gel	095A201	095A204	2.0 (0.9)
M-104	6.6 (16.8)	10 (25.4)	2" MNPT	2.1 (1.0)	12.88 (380)	120	900	100% Silica Gel	095A201	095A204	2.0 (0.9)
M-105	12 (30.5)	10 (25.4)	1" MNPT	4.5 (2.0)	27.6 (816)	35	262	100% Silica Gel	095A202	095A205	3.0 (1.4)
M-106	12 (30.5)	10 (25.4)	2" MNPT	4.5 (2.0)	27.6 (816)	120	900	100% Silica Gel	095A202	095A205	3.0 (1.4)
M-107	13.5 (34.3)	16 (40.6)	3" MNPT	22.0 (10)	134.96 (3991)	300	2250	100% Silica Gel	095A203	095A206	5.0 (2.3)



D-Series – Disposable Stationary Applications

Model	Height inches (cm)	Diameter inches (cm)	Mounting Connection	Silica Gel lbs (kg)	Maximum Adsorption Capacity fl. ounces (mL)	Maximum Air Flow cfm	Maximum Reservoir Fluid Flow gpm	Type of Medium	Uses Replacement Cartridge
D-100	3.5 (8.9)	5 (12.7)	1" slip fit	0.8 (0.4)	4.91 (145)	20	150	100% Silica Gel	
D-101	5 (12.7)	5 (12.7)	1" slip fit	1.4 (0.6)	8.6 (254)	20	150	100% Silica Gel	
D-102	8 (20.3)	5 (12.7)	1" slip fit	2.7 (1.2)	16.56 (489)	20	150	100% Silica Gel	
D-103	8 (20.3)	5 (12.7)	1" MNPT	2.7 (1.2)	16.56 (489)	20	150	100% Silica Gel	
D-104	8 (20.3)	5 (12.7)	2" MNPT	2.7 (1.2)	16.56 (489)	20	150	100% Silica Gel	
D-108	10 (25.4)	5 (12.7)	2" MNPT	3.5 (1.6)	21.47 (634)	20	150	100% Silica Gel	
D-2	10 (25.4)	5 (12.7)	2" FNPT	3.5 (1.6)	21.47 (634)	20	150	100% Silica Gel	

Model	Check Valve PSI In/Out	Height inches (cm)	Diameter inches (cm)	Mounting Connection –FEMALE–	Silica Gel lbs (kg)	Maximum Adsorption Capacity fl. ounces (mL)	Maximum Air Flow (cfm)	Maximum Reservoir Fluid Flow (gpm)	Type of Medium	Isolation Check Valve	Compound Indicating Gauge	Uses Replacement Cartridge
GRC8S	n/a	8"	5"	n/a	2.8 (1.27)	17.2 (508.7)	n/a	n/a	Silica Gel	No	n/a	
GRC8SC	n/a	8"	5"	n/a	2.8 (1.27)	17.2 (508.7)	n/a	n/a	Silica Gel	Yes	n/a	
GRC12S	n/a	12"	5"	n/a	4.5 (2)	27.6 (816)	n/a	n/a	Silica Gel	No	n/a	
GRC12SC	n/a	12"	5"	n/a	4.5 (2)	27.6 (816)	n/a	n/a	Silica Gel	Yes	n/a	

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Model	Check Valve PSI In/Out	Height inches (cm)	Diameter inches (cm)	Mounting Connection –FEMALE–	Silica Gel lbs (kg)	Maximum Adsorption Capacity fl. ounces (mL)	Maximum Air Flow (cfm)	Maximum Reservoir Fluid Flow (gpm)	Type of Medium	Isolation Check Valve	Compound Indicating Gauge	Uses Replacement Cartridge
G8S1NC	0.1/0.1	12" (30.5)	5.125"	1" NPT	2.8 (1.27)	17.2 (508.7)	25	187	Silica Gel	Yes	No	GRC8SC
G8S1NG	0.1/0.1	12" (30.5)	5.125"	1" NPT	2.8 (1.27)	17.2 (508.7)	25	187	Silica Gel	No	Yes	GRC8S
G8S1NGC	0.1/0.1	12" (30.5)	5.125"	1" NPT	2.8 (1.27)	17.2 (508.7)	25	187	Silica Gel	Yes	Yes	GRC8SC
G8S2N	0.1/0.1	12" (30.5)	5.125"	2" NPT	2.8 (1.27)	17.2 (508.7)	25	187	Silica Gel	No	No	GRC8S
G8S2NC	0.1/0.1	12" (30.5)	5.125"	2" NPT	2.8 (1.27)	17.2 (508.7)	25	187	Silica Gel	Yes	No	GRC8SC
G8S2NG	0.1/0.1	12" (30.5)	5.125"	2" NPT	2.8 (1.27)	17.2 (508.7)	25	187	Silica Gel	No	Yes	GRC8S
G8S2NGC	0.1/0.1	12" (30.5)	5.125"	2" NPT	2.8 (1.27)	17.2 (508.7)	25	187	Silica Gel	Yes	Yes	GRC8SC
G8S1B	0.1/0.1	12" (30.5)	5.125"	1" BSP	2.8 (1.27)	17.2 (508.7)	25	187	Silica Gel	No	No	GRC8S
G8S1BC	0.1/0.1	12" (30.5)	5.125"	1" BSP	2.8 (1.27)	17.2 (508.7)	25	187	Silica Gel	Yes	No	GRC8SC
G8S1BG	0.1/0.1	12" (30.5)	5.125"	1" BSP	2.8 (1.27)	17.2 (508.7)	25	187	Silica Gel	No	Yes	GRC8S
G8S1BGC	0.1/0.1	12" (30.5)	5.125"	1" BSP	2.8 (1.27)	17.2 (508.7)	25	187	Silica Gel	Yes	Yes	GRC8SC
G12S1N	0.1/0.1	16" (40.6)	5.125"	1" NPT	4.5 (2)	27.6 (816)	25	187	Silica Gel	No	No	GRC12S
G12S1NC	0.1/0.1	16" (40.6)	5.125"	1" NPT	4.5 (2)	27.6 (816)	25	187	Silica Gel	Yes	No	GRC12SC
G12S1NG	0.1/0.1	16" (40.6)	5.125"	1" NPT	4.5 (2)	27.6 (816)	25	187	Silica Gel	No	Yes	GRC12S
G12S1NGC	0.1/0.1	16" (40.6)	5.125"	1" NPT	4.5 (2)	27.6 (816)	25	187	Silica Gel	Yes	Yes	GRC12SC
G12S2N	0.1/0.1	16" (40.6)	5.125"	2" NPT	4.5 (2)	27.6 (816)	25	187	Silica Gel	No	No	GRC12S
G12S2NC	0.1/0.1	16" (40.6)	5.125"	2" NPT	4.5 (2)	27.6 (816)	25	187	Silica Gel	Yes	No	GRC12SC
G12S2NG	0.1/0.1	16" (40.6)	5.125"	2" NPT	4.5 (2)	27.6 (816)	25	187	Silica Gel	No	Yes	GRC12S

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Z-Series - Limited Space Applications

Model	Height inches (cm)	Diameter inches (cm)	Mounting Connection	Silica Gel lbs (kg)	Maximum Adsorption Capacity fl. ounces (mL)	Maximum Air Flow cfm	Maximum Reservoir Fluid Flow gpm	Type of Medium
Z-131	2 (5.1)	2 (5.1)	½" FNPT	0.08 (0.04)	0.49 (14)	5	37	100% Silica Gel
Z-132	3.25 (8.3)	2 (5.1)	½" FNPT	0.1 (0.05)	0.92 (27)	5	37	100% Silica Gel
Z-133	2 (5.1)	3.25 (8.3)	½" FNPT	0.3 (0.1)	1.84 (54)	5	37	100% Silica Gel
Z-134	3.25 (8.3)	3.25 (8.3)	½" FNPT	0.5 (0.2)	3.06 (90)	5	37	100% Silica Gel
Z-135	5.5 (14.0)	3.25 (8.3)	½" FNPT	0.8 (0.4)	4.91 (145)	5	37	100% Silica Gel



R-Series – High Vibration Applications

Model	Height inches (cm)	Diameter inches (cm)	Mounting Connection	Silica Gel lbs (kg)	Maximum Adsorption Capacity fl. ounces (mL)	Maximum Air Flow cfm	Maximum Reservoir Fluid Flow gpm	Type of Medium	Uses Replacement Cartridge	Use With
R-101	6.5 (16.5)	5.2 (13.2)	1" MNPT	1.4 (0.6)	8.6 (254)	25	187	100% Silica Gel	A-301	
R-102	9.5 (24.1)	5.2 (13.2)	1" MNPT	2.7 (1.2)	16.56 (489)	25	187	100% Silica Gel	A-302	
R-111	6 (15.2)	5.2 (13.2)	1.125" Female thread	1.4 (0.6)	8.6 (254)	25	187	100% Silica Gel	A-301	A-306
R-121	6.5 (16.5)	5.2 (13.2)	2" MNPT	1.4 (0.6)	8.6 (254)	25	187	100% Silica Gel	A-301	
R-122	9.5 (24.1)	5.2 (13.2)	2" MNPT	2.7 (1.2)	16.56 (489)	25	187	100% Silica Gel	A-302	
R-123	12 (30.5)	5.2 (13.2)	2" MNPT	3.5 (1.6)	21.47 (634)	25	187	100% Silica Gel	A-323	