

EMERSON CLIMATE TECHNOLOGIES-Industrial Solenoid Valves

Our Industrial Solenoid Valves are approved for use with the fluid utilized in secondary loops such as Ethylene and Propylene Glycol and Tyfoxit. The recommended seat material is Buna-N.

These valves referenced above are as follows:

202CB 211CA
 203CA 214CA
 204CD 222CB
 210CA 314UB

When ordering valves for the above stated application, be sure to mention the Elastomer Code "B" which designates Buna-N.

In addition to air, water and steam, the following is a listing of secondary loop fluids that are compatible with our valves:

Fluid Name	Manufacturer
Ethylene & Propylene Glycol	Various
Tyfoxit	Spaschus Associates (Distributor)
Siltherm XLT	DOW
HFE	3M
Dowfrost	Dow
Pekasol	Unknown
Dynalene	Dynalene

Nomenclature example: 222CB 1/2 B 1/2 B

2	22	C	B	1/2	B	1/2	B
Valve Type 2 = 2 Way 3 = 3 Way	Product Group Two digits to Define Group	Form of Flow C = Normally Closed O = Normally Open U = Universal	Design Series Letter will be advanced to identify product changes	Pipe N.P.T. 1/8" thru 2" GS indicates non-standard	Body Material B = Brass S = Stainless Steel T = Stainless Steel with Silver Shading Band	Body Orifice 3/65" thru 2"	Elastomer Code B = Buna-N

Compressors,
Chillers, Condensers

Motors

Electrical

Heating
Components

Indoor Air
Quality

Thermostats

Oils &
Chemicals

Accessories, Supplies
& Commodities

Tools &
Instruments

Refrigeration

EMERSON CLIMATE TECHNOLOGIES-Industrial Solenoid Valves 202CB

The 202CB is a direct-acting, normally closed valve for control of air, water, and steam applications.



Features

- Superior life with stainless steel enclosing tube
- Repair kits available

Options

- Brass or stainless steel bodies
- Optional Voltages: 12 or 24 VDC & 120-240,480 & 240-480/50-60 Hz

Specifications

- 1/8" NPT Solenoid Valve
- Watts: 12 A.C., 15 D.C.
- VA Inrush: 28
- VA Holding: 19
- Maximum working pressure: 500 psi (1000 psi - 3/64' orifice only)
- Weight: 1 lb
- Standard Voltages: 24, 120, 208-240/50-60Hz
- UL/CUL file number: MP604

Ordering Information*

Brass General Purpose

Recommended Coils											
Pipe Size	Orifice Size	AC	DC	Cv		Size	Insulation	Enclosure	PCN	Elastomer	Description
1/8	3/64	500	500	0.05	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box		BUNA-N	202CB1/8B3/64B
1/8	1/16	500	500	0.12	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box		BUNA-N	202CB1/8B1/16B
1/8	3/32	300	125	0.22	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box		BUNA-N	202CB1/8B3/32B
1/8	1/8	150	75	0.34	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box	030113	BUNA-N	202CB1/8B1/8B
1/8	5/32	100	40	0.48	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box	030114	BUNA-N	202CB1/8B5/32B

Stainless Steel General Purpose

Recommended Coils											
Pipe Size	Orifice Size	AC	DC	Cv		Size	Insulation	Enclosure	PCN	Elastomer	Description
1/8	3/64	500	500	0.05	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box		BUNA-N	202CB1/8S3/64B
1/8	1/16	500	500	0.12	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box	064756	BUNA-N	202CB1/8S1/16B
1/8	3/32	300	125	0.22	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box		BUNA-N	202CB1/8S3/32B
1/8	1/8	150	75	0.34	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box		BUNA-N	202CB1/8S1/8B
1/8	5/32	100	40	0.48	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box		BUNA-N	202CB1/8S5/32B

Brass Steam

Recommended Coils											
Pipe Size	Orifice Size	AC	DC	Cv		Size	Insulation	Enclosure	PCN	Elastomer	Description
1/8	1/16	150	-	0.12	400°F	A 12 Watts	H Class H Molded	G Junction Box		PTFE w/Ethylene Propylene Gaskets	202CB1/8B1/16T
1/8	3/32	150	-	0.22	400°F	A 12 Watts	H Class H Molded	G Junction Box	030122	PTFE w/Ethylene Propylene Gaskets	202CB1/8B3/32T
1/8	1/8	150	-	0.34	400°F	A 12 Watts	H Class H Molded	G Junction Box	030123	PTFE w/Ethylene Propylene Gaskets	202CB1/8B1/8T
1/8	5/32	100	-	0.48	400°F	A 12 Watts	H Class H Molded	G Junction Box		PTFE w/Ethylene Propylene Gaskets	202CB1/8B5/32T

Recommended Coils											
Pipe Size	Orifice Size	AC	DC	Cv		Size	Insulation	Enclosure	PCN	Elastomer	Description
1/8	1/8	150	-	0.34	400°F	A 12 Watts	H Class H Molded	G Junction Box	030118	Ethylene Prop.	202CB1/8B1/8P

Refrigeration

EMERSON CLIMATE TECHNOLOGIES-Industrial Solenoid Valves 202CB

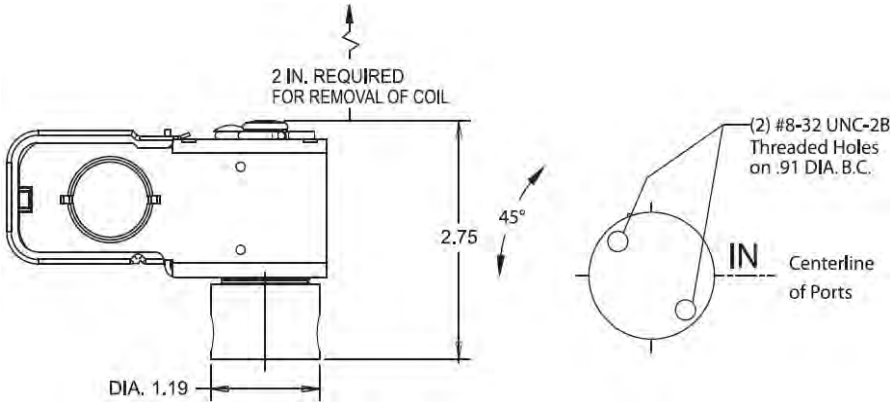
Pipe Size	Orifice Size	AC	DC	Cv	400°F	Recommended Coils				Description	
						Size	Insulation	Enclosure	PCN		Elastomer
1/8	5/32	100	-	0.48	400°F	A 12 Watts	H Class H Molded	G Junction Box	056954	Ethylene Prop.	202CB1/8B5/32V

¹ With an ambient temperature of 77°F.

² Maximum Operating Pressure Differential.

* VLC -See coil assemblies for availability.

Dimensional Data (in)



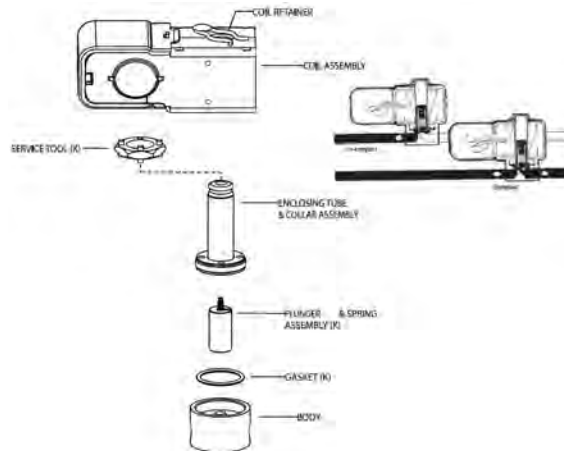
Valve Options

Options	To Order
Manual Override (not for steam) Minimum order qty. 100	Add suffix "M" to catalog number.
Adjustable Metering (not for steam) 500 psi SWP for All orifice sizes.	Add suffix "A" to catalog number.
Silver Shading Band (on stainless steel valves)	Change body material code. Example: Change standard 204CD1/4S to non-standard 204CD1/4T (silver shading band)

Valve Kit Repairs

Seat Material	Kit #	PCN
Buna-N	K-1063	021103
Viton	K-1065	032955
Rulon	K-1068	032396
Ethylene Propylene	K-1064	021104

Exploded View



Valve Repair Kit

"K" indicates part is supplied in valve repair kit.

Coil Assembly

See coil assemblies for availability..

EMERSON CLIMATE TECHNOLOGIES-Industrial Solenoid Valves 203CA

The 203CA is a direct-acting, 2-way normally closed valve for air, water and steam applications.

Features

- Superior life with stainless steel enclosing tubes
- Forged brass body with large wrench flats
- Repair kits available

Options

- Optional Voltages: 120-240, 480 & 240-480/50-60 Hz

Specifications

- 3/8" NPT Solenoid Valve
- Watts: 12 A.C.
- VA Inrush: 37 for 5/32 & 1/8 orifices 47 for 1/4 + orifices
- VA Holding: 19
- Maximum working pressure: 500 psi
- Weight: 1 lb. 4 oz.
- Standard Voltages: 24, 120, 208-240/50-60 Hz
- UL/CUL file number: MP604

Ordering Information*

Brass General Purpose

Recommended Coils										
Pipe Size	Orifice Size		Cv		Size	Insulation	Enclosure	PCN	Elastomer	Description
3/8	1/8	125	0.3	180°F	A 12 Watts AC	M Class F Molded	G Junction Box		BUNA-N	203CA3/8B1/8B
3/8	5/32	75	0.5	180°F	A 12 Watts AC	M Class F Molded	G Junction Box		BUNA-N	203CA3/8B5/32B
3/8	1/4	25	1.0	180°F	A 12 Watts AC	M Class F Molded	G Junction Box	030603	BUNA-N	203CA3/8B1/4B
3/8	5/16	15	1.5	180°F	A 12 Watts AC	M Class F Molded	G Junction Box		BUNA-N	203CA3/8B5/16B
3/8	3/8	10	1.7	180°F	A 12 Watts AC	M Class F Molded	G Junction Box	030605	BUNA-N	203CA3/8B3/8B

Stainless Steel General Purpose

Recommended Coils										
Pipe Size	Orifice Size		Cv		Size	Insulation	Enclosure	PCN	Elastomer	Description
3/8	1/4	15	1.0	250°F	A 12 Watts AC	M Class F Molded	G Junction Box		Ethylene Propylene Gaskets	203CA3/8B1/4P
3/8	5/16	15	1.5	250°F	A 12 Watts AC	M Class F Molded	G Junction Box		Ethylene Propylene Gaskets	203CA3/8B5/16P
3/8	3/8	10	1.7	250°F	A 12 Watts AC	M Class F Molded	G Junction Box	030614	Ethylene Propylene Gaskets	203CA3/8B3/8P

¹With an ambient temperature of 77°F.

²Maximum Operating Pressure Differential.

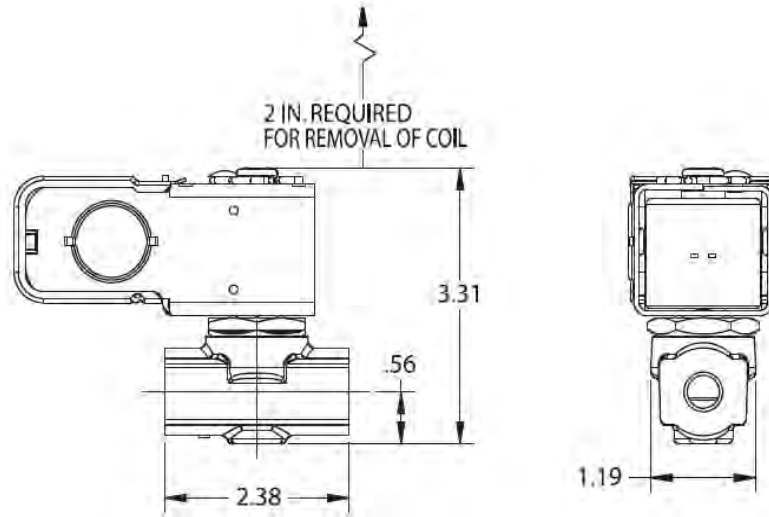
*VLC - See coil assemblies for availability.



Refrigeration

EMERSON CLIMATE TECHNOLOGIES-Industrial Solenoid Valves 203CA

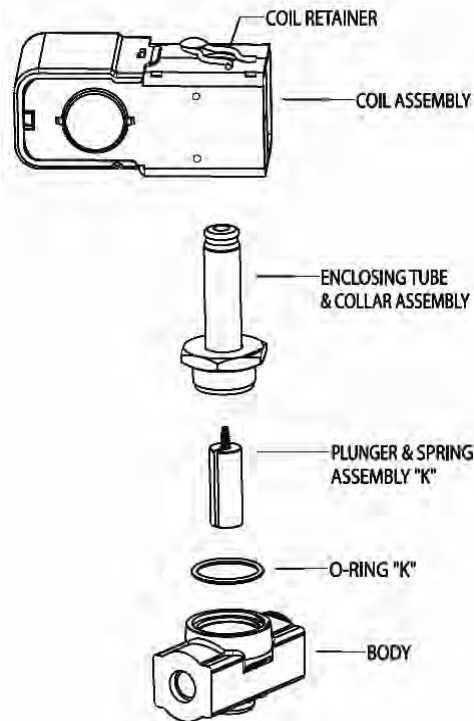
Dimensional Data (in)



Valve Repair Kits

Orifice Size	Seat Material	Kit #	PCN
1/4, 5/16, 3/8	Buna-N	K-1104	021108
1/4, 5/16, 3/8	Ethylene Propylene	K-1106	040598

Exploded View



Valve Repair Kit
 "K" indicates part is supplied in valve repair kit.
Coil Assembly
 See coil assemblies for availability.

Compressors,
Chillers, Condensers

Motors

Electrical

Heating
Components

Indoor Air
Quality

Thermostats

Oils &
Chemicals

Accessories, Supplies
& Commodities

Tools &
Instruments

Refrigeration

EMERSON CLIMATE TECHNOLOGIES-Industrial Solenoid Valves 204CD

The 204CD is a direct-acting unidirectional, normally closed valve for air, water and steam applications.

Features

- Superior life with stainless steel enclosing tubes
- Repair kits available

Options

- Brass or stainless steel bodies
- Optional Voltages: 12 or 24 VDC & 120-240, 480 & 240-480/50-60 Hz

Specifications

- 1/4" NPT Solenoid Valve
- Watts: 12 A.C., 15 D.C.
- VA Inrush: 31
- VA Holding: 19
- Maximum working pressure: 500 psi
- Weight: 1 lb. 3 oz.
- Standard Voltages: 24, 120, 208-240/50-60 Hz
- UL/CUL file number: MP604



Ordering Information*

Brass General Purpose

Pipe Size	Orifice Size	AC	DC	Cv		Recommended Coils				PCN	Elastomer	Description
						Size	Insulation	Enclosure				
1/4	3/64	500	500	0.05	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box		030731	BUNA-N	204CD1/4B3/64B
1/4	1/16	500	500	0.12	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box			BUNA-N	204CD1/4B1/16B
1/4	3/32	300	125	0.22	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box	030733		BUNA-N	204CD1/4B3/32B
1/4	1/8	150	75	0.34	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box	056110		BUNA-N	204CD1/4B1/8B
1/4	5/32	100	40	0.48	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box	030735		BUNA-N	204CD1/4B5/32B
1/4	3/16	60	30	0.56	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box	030736		BUNA-N	204CD1/4B3/16B
1/4	1/4	20	10	0.70	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box	030737		BUNA-N	204CD1/4B1/4B

Stainless Steel General Purpose

Pipe Size	Orifice Size	AC	DC	Cv		Recommended Coils				PCN	Elastomer	Description
						Size	Insulation	Enclosure				
1/4	3/64	500	500	0.05	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box			BUNA-N	204CD1/4S3/64B
1/4	1/16	500	500	0.12	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box			BUNA-N	204CD1/4S1/16B
1/4	3/32	300	125	0.22	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box	030870		BUNA-N	204CD1/4S3/32B
1/4	1/8	150	75	0.34	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box	030871		BUNA-N	204CD1/4S1/8B
1/4	5/32	100	40	0.48	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box			BUNA-N	204CD1/4S5/32B
1/4	3/16	60	30	0.56	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box			BUNA-N	204CD1/4S3/16B
1/4	1/4	20	10	0.70	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box	030874		BUNA-N	204CD1/4S1/4B

EMERSON CLIMATE TECHNOLOGIES-Industrial Solenoid Valves 204CD

Brass Steam

Pipe Size	Orifice Size	AC	DC	Cv		Recommended Coils			PCN	Elastomer	Description
						Size	Insulation	Enclosure			
1/4	3/64	150	-	0.05	400°F	A 12 Watts AC A	H Class H Molded M	G Junction Box G		PTFE w/Ethylene Propylene Gaskets	204CD1/4B3/64T
1/4	1/16	150	-	0.12	400°F	A 12 Watts AC A	H Class H Molded M	G Junction Box G		PTFE w/Ethylene Propylene Gaskets	204CD1/4B1/16T
1/4	3/32	150	-	0.22	400°F	A 12 Watts AC A	H Class H Molded M	G Junction Box G	030748	PTFE w/Ethylene Propylene Gaskets	204CD1/4B3/32T
1/4	1/8	150	-	0.34	400°F	A 12 Watts AC A	H Class H Molded M	G Junction Box G	030749	PTFE w/Ethylene Propylene Gaskets	204CD1/4B1/8T
1/4	5/32	100	-	0.48	400°F	A 12 Watts AC A	H Class H Molded M	G Junction Box G	030750	PTFE w/Ethylene Propylene Gaskets	204CD1/4B5/32T
1/4	3/16	60	-	0.56	400°F	A 12 Watts AC A	H Class H Molded M	G Junction Box G		PTFE w/Ethylene Propylene Gaskets	204CD1/4B3/16T
1/4	1/4	20	-	0.70	250°F	A 12 Watts AC A	H Class H Molded M	G Junction Box G		E.P. Seat	204CD1/4B1/4P

Stainless Steel Steam

Pipe Size	Orifice Size	AC	DC	Cv		Recommended Coils			PCN	Elastomer	Description
						Size	Insulation	Enclosure			
1/4	3/64	150	-	0.05	400°F	A 12 Watts AC A	H Class H Molded M	G Junction Box G	030883	PTFE w/Ethylene Propylene Gaskets	204CD1/4S3/64T
1/4	1/16	150	-	0.12	400°F	A 12 Watts AC A	H Class H Molded M	G Junction Box G		PTFE w/Ethylene Propylene Gaskets	204CD1/4S1/16T
1/4	3/32	150	-	0.22	400°F	A 12 Watts AC A	H Class H Molded M	G Junction Box G		PTFE w/Ethylene Propylene Gaskets	204CD1/4S3/32T
1/4	1/8	150	-	0.34	400°F	A 12 Watts AC A	H Class H Molded M	G Junction Box G	030886	PTFE w/Ethylene Propylene Gaskets	204CD1/4S1/8T
1/4	5/32	100	-	0.48	400°F	A 12 Watts AC A	H Class H Molded M	G Junction Box G		PTFE w/Ethylene Propylene Gaskets	204CD1/4S5/32T
1/4	3/16	60	-	0.56	400°F	A 12 Watts AC A	H Class H Molded M	G Junction Box G	030888	PTFE w/Ethylene Propylene Gaskets	204CD1/4S3/16T
1/4	1/4	20	-	0.70	250°F	A 12 Watts AC A	H Class H Molded M	G Junction Box G		E.P. Seat	204CD1/4S1/4P

Stainless Steel Steam

Pipe Size	Orifice Size	AC	DC	Cv		Recommended Coils			PCN	Elastomer	Description
						Size	Insulation	Enclosure			
1/4	5/32	100	-	0.48	400°F	A 12 Watts	H Class H Molded	G Junction Box	053492	E.P. Seat	204CD1/4S5/3P

Brass Steam

Pipe Size	Orifice Size	AC	DC	Cv		Recommended Coils			PCN	Elastomer	Description
						Size	Insulation	Enclosure			
1/4	5/32	100	-	0.48	400°F	A 12 Watts	H Class H Molded	G Junction Box	064682	E.P. Seat	204CD 1/4 B 5/32 P

¹With an ambient temperature of 77°F.

²Maximum Operating Pressure Differential.

*VLC -See coil assemblies for availability.

Compressors,
Chillers, Condensers

Motors

Electrical

Heating
Components

Indoor Air
Quality

Thermostats

Oils &
Chemicals

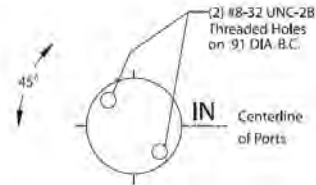
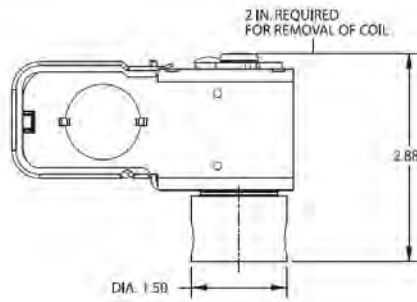
Accessories, Supplies
& Commodities

Tools &
Instruments

Refrigeration

EMERSON CLIMATE TECHNOLOGIES-Industrial Solenoid Valves 204CD

Dimensional Data (in)



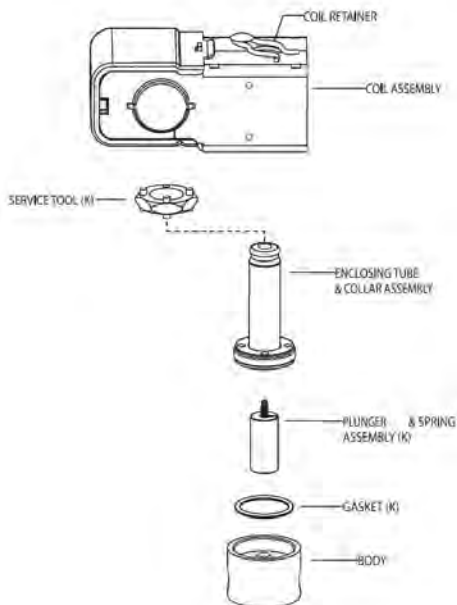
Valve Options

Options	To Order
Manual Override (not for steam) Minimum order qty. 100	Add suffix "M" to catalog number.
Adjustable Metering (not for steam) 500 psi SWP for All orifice sizes.	Add suffix "A" to catalog number.
Silver Shading Band (on stainless steel valves)	Change body material code. Example: Change standard 204CD1/4S to non-standard 204CD1/4T (silver shading band)

Valve Kit Repairs

Seat Material	Kit #
Buna-N	K-1072
Viton	K-1074
Rulon	K-1077
Ethylene Propylene	K-1076
Buna-N (1/4 orifice only)	K-1162

Exploded View



Valve Repair Kit
 "K" indicates part is supplied in valve repair kit.
Coil Assembly
 For available coil assemblies, see page 126.

Refrigeration

EMERSON CLIMATE TECHNOLOGIES-Industrial Solenoid Valves 210CA/211CA

The 210CA/211CA is a 2-way normally closed valve used in air, water and steam applications.

The 210CA valve is pilot-operated and the 211CA valve is direct-acting.

Features

- Unique captive diaphragm and seal
- Superior life with stainless steel enclosing tube
- Repair kits available

Options

- Optional Voltages: 12 or 24 VDC & 120-240, 480 & 240-480/50-60 Hz

Specifications

- Watts: 12 A.C.
- VA Inrush: 31
- VA Holding: 19
- Maximum working pressure: 300 psi (250 psi on 1" 210C only)
- Weight: 1 lb. 3 oz.
- Standard Voltages: 24, 120, 208-240/50-60 Hz
- Diaphragm Operated Solenoid Valve:
 - 210CA - from 5 to 150 psi. 3/8" to 1" NPT
 - 211CA - from 0 to 100 psi. 3/8" to 3/4" NPT
- UL/CUL file number: MP604



210CA

Ordering Information*

Brass General Purpose

M.O.P.D				Recommended Coils						
Pipe Size	Orifice Size	AC	Cv		Size	Insulation	Enclosure	PCN	Elastomer	Description
3/8	5/8	150	2.8	180°F	A 12 Watts AC	M Class F Molded	G Junction Box	030619	BUNA-N	210CA3/8B5/8B
1/2	5/8	150	3.6	180°F	A 12 Watts AC	M Class F Molded	G Junction Box	030620	BUNA-N	210CA1/2B5/8B
3/4	3/4	125	5.5	180°F	A 12 Watts AC	M Class F Molded	G Junction Box	030621	BUNA-N	210CA3/4B3/4B
1	1	125	13	180°F	A 12 Watts AC	M Class F Molded	G Junction Box	038629	BUNA-N	210CA1B1B

Brass-Hot Water (210°F) or Steam (TO 250°)

M.O.P.D				Recommended Coils						
Pipe Size	Orifice Size	AC	Cv		Size	Insulation	Enclosure	PCN	Elastomer	Description
3/8	5/8		2.8	250°F	A 12 Watts AC	M Class F Molded	G Junction Box		Ethylene Propylene	210CA3/8B5/8P
1/2	5/8		3.6	250°F	A 12 Watts AC	M Class F Molded	G Junction Box	030623	Ethylene Propylene	210CA1/2B5/8P
3/4	3/4		5.5	250°F	A 12 Watts AC	M Class F Molded	G Junction Box	030624	Ethylene Propylene	210CA3/4B3/4P

211CA

Ordering Information*

Brass General Purpose

M.O.P.D				Recommended Coils						
Pipe Size	Orifice Size	AC	Cv		Size	Insulation	Enclosure	PCN	Elastomer	Description
3/8	3/8	100	2.8	180°F	A 12 Watts AC	M Class F Molded	G Junction Box	030625	BUNA-N	211CA3/8B5/8B
1/2	1/2	100	3.6	180°F	A 12 Watts AC	M Class F Molded	G Junction Box	030626	BUNA-N	211CA1/2B5/8B
3/4	3/4	100	5.5	180°F	A 12 Watts AC	M Class F Molded	G Junction Box	030627	BUNA-N	211CA3/4B3/4B

Brass-Hot Water (210°F) or Steam (TO 250°).

M.O.P.D				Recommended Coils						
Pipe Size	Orifice Size	AC	Cv		Size	Insulation	Enclosure	PCN	Elastomer	Description
3/8	5/8		2.8	250°F	A 12 Watts AC	M Class F Molded	G Junction Box	032303	Ethylene Propylene	211CA3/8B5/8P
1/2	5/8		3.6	250°F	A 12 Watts AC	M Class F Molded	G Junction Box	032304	Ethylene Propylene	211CA1/2B5/8P
3/4	3/4		5.5	250°F	A 12 Watts AC	M Class F Molded	G Junction Box	032305	Ethylene Propylene	211CA3/4B3/4P

¹With an ambient temperature of 77°F.

²MOPD-Hot Water

³MOPD
⁴VLC

Compressors,
Chillers, Condensers

Motors

Electrical

Heating
Components

Indoor Air
Quality

Thermostats

Oils &
Chemicals

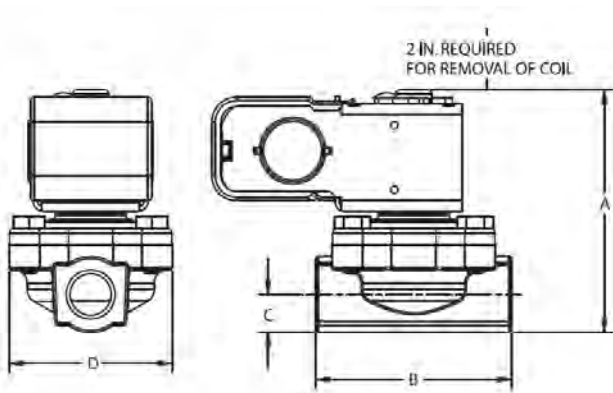
Accessories, Supplies
& Commodities

Tools &
Instruments

Refrigeration

EMERSON CLIMATE TECHNOLOGIES-Industrial Solenoid Valves 210CA/211CA

Dimensional Data (in)



Pipe Size	A	B	C	D
3/8	3.56	2.75	0.53	2.29
1/2				
3/4	3.83	2.81	0.66	4.31
1*	4.55	4.16	0.84	

* 1" Pipe available on 210C valve only.

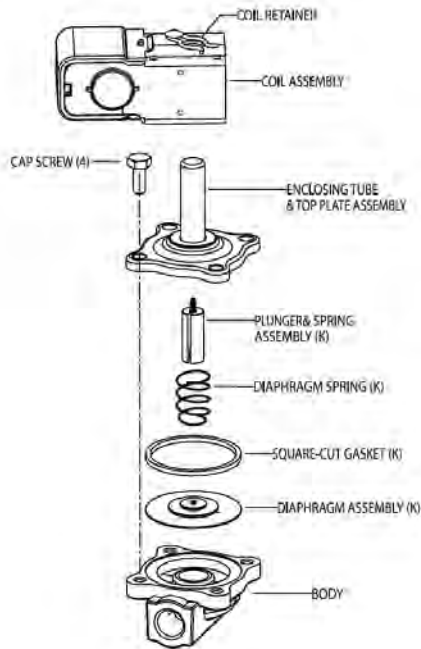
210CA Valve Repair Kits

Seat Material	PCN	Connection Size		
		3/8 & 1/2	3/4	1
Buna-N	028964	K-1155		
Ethylene Propylene	029856	K-1156		
Buna-N	045072		K-1231	
Ethylene Propylene	045083		K-1232	
Buna-N	038934			K-1177

211CA Valve Repair Kits

Seat Material	Kit #
Buna-N	K-1157
Ethylene Propylene	K-1158

Exploded View



Valve Repair Kit

"K" indicates part is supplied in valve repair kit.

Coil Assembly

See coil assemblies for availability.

EMERSON CLIMATE TECHNOLOGIES-Industrial Solenoid Valves 214CB

The 214CB is a 2-way normally closed valve for air, water, and steam applications.

Features

- Superior life with stainless steel enclosing tube
- Forged brass body with large wrench flats
- PTFE O-ring for superior external leakage
- Repair kits available

Options

- Optional Voltages: 480, 120-240 & 240-480/50-60 Hz

Specifications

- 1/4" & 3/8" NPT Solenoids
- Watts: 12 @ 60Hz
- VA Inrush: 44
- VA Holding: 2
- Maximum working pressure: 350 psi
- Weight: 1 lb. 4 oz.
- Standard Voltages: 24, 120, 208-240/50-60 Hz
- Pilot Operated: 2 to 200 P.S.I.
- UL/CUL file number: MP604



Ordering Information*

Brass General Purpose

Pipe Size	Orifice Size	AC	Cv	Recommended Coils						Description
				Size	Insulation	Enclosure	PCN	Elastomer		
1/4	1/4	200	1.2	180°F	A 12 Watts @ 60 Hz	M Class F Molded	G Junction Box	030540	BUNA-N	214CB1/4B1/4B
1/4	5/16	200	1.6	180°F	A 12 Watts @ 60 Hz	M Class F Molded	G Junction Box	030541	BUNA-N	214CB1/4B5/16B
1/4	3/8	200	2.2	180°F	A 12 Watts @ 60 Hz	M Class F Molded	G Junction Box		BUNA-N	214CB1/4B3/8B
3/8	1/4	200	1.2	180°F	A 12 Watts @ 60 Hz	M Class F Molded	G Junction Box		BUNA-N	214CB3/8B1/4B
3/8	5/16	200	1.6	180°F	A 12 Watts @ 60 Hz	M Class F Molded	G Junction Box		BUNA-N	214CB3/8B5/16B
3/8	3/8	200	2.2	180°F	A 12 Watts @ 60 Hz	M Class F Molded	G Junction Box	030545	BUNA-N	214CB3/8B3/8B
3/8	3/8	200	2.2	400°F	A 12 Watts @ 60 Hz	M Class F Molded	G Junction Box	030557	EP Seat	214CB 3/8B3/8P

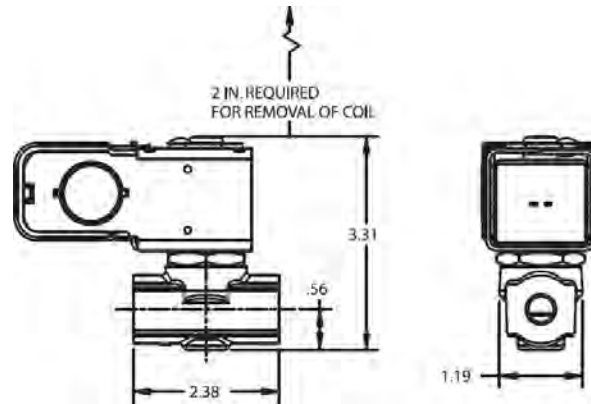
¹With an ambient temperature of 77°F.

²Maximum Operating Pressure Differential.

*VLC - See coil assemblies for availability.

EMERSON CLIMATE TECHNOLOGIES-Industrial Solenoid Valves 214CB

Dimensional Data (in)



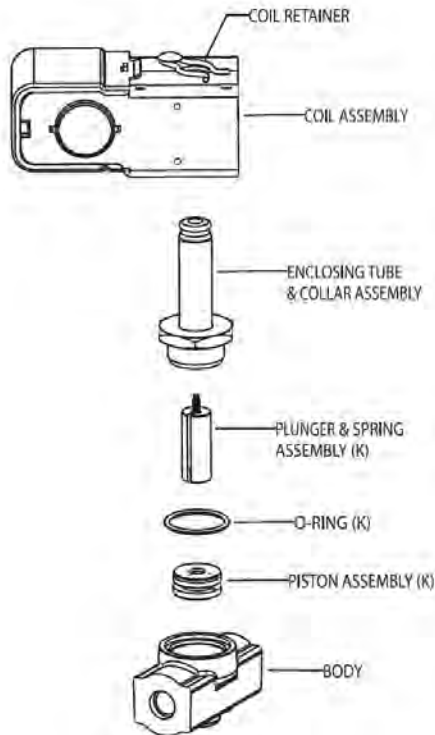
Valve Options

Options	To Order
Manual Override	Add suffix "M" to catalog number.

Valve Repair Kits

Seat Material	Kit #
Buna-N	K-1112
Ethylene Propylene	K-1113

Exploded View



Valve Repair Kit

Valve Repair "K" indicates part is supplied in valve repair kit.

Coil Assemblies

See coil assemblies for availability.

EMERSON CLIMATE TECHNOLOGIES-Industrial Solenoid Valves 222CB

The 222CB is a 2-way normally closed valve for air, water, and steam applications.

Features

- Forged brass body with large wrench flats
- Repair kits available

Options

- Optional Voltages: 480, 120-240 & 240-480/50-60 Hz

Specifications

- 3/8" & 1 1/2" NPT Solenoids
- Rulon Seat Material
- Watts: 12 @ 60Hz
- VA Inrush: 38
- VA Holding: 19
- Maximum working pressure: 300 psi
- Minimum Operating Pressure Differential : 5 psi
- Standard Voltages: 24, 120, 208-240/50-60 Hz
- UL/CUL file number: MP604
- Weights:

Pipe Size	
3/8, 1/2	1 lb. 8 oz.
3/4	3 lbs.
1	4 lbs. 4 oz.
1-1/4	6 lbs. 2 oz.
1-1/2	8 lbs. 6 oz.



Ordering Information*

Brass General Purpose

Pipe Size	Orifice Size	AC	Cv		Recommended Coils					
					Size	Insulation	Enclosure	PCN	Elastomer	Description
3/8	1/2	250	3.5	180°F	A 12 Watts @ 60 Hz	M Class F Molded	G Junction Box		BUNA-N	222CB3/8B1/2B
1/2	1/2	250	3.5	180°F	A 12 Watts @ 60 Hz	M Class F Molded	G Junction Box	039917	BUNA-N	222CB1/2B1/2B
3/4	3/4	250	7.0	180°F	A 12 Watts @ 60 Hz	M Class F Molded	G Junction Box	028192	BUNA-N	222CB3/4B3/4B
1	1	250	13.0	180°F	A 12 Watts @ 60 Hz	M Class F Molded	G Junction Box	039931	BUNA-N	222CB1B1B
1-1/4	1-1/4	250	16.0	180°F	A 12 Watts @ 60 Hz	M Class F Molded	G Junction Box	039918	BUNA-N	222CB1-1/4B1-1/4B
1-1/2	1-1/2	250	25.0	180°F	A 12 Watts @ 60 Hz	M Class F Molded	G Junction Box	038879	BUNA-N	222CB1-1/2B1-1/2B

Brass Steam

Pipe Size	Orifice Size	AC	Cv		Recommended Coils					
					Size	Insulation	Enclosure	PCN	Elastomer	Description
3/8	1/2	150	3.5	400°F	A 12 Watts @ 60 Hz	H Class F Molded	G Junction Box	041518	Rulon with Ethylene Propylene Gaskets	222CB3/8B1/2T
1/2	1/2	150	3.5	400°F	A 12 Watts @ 60 Hz	H Class F Molded	G Junction Box	037958	Rulon with Ethylene Propylene Gaskets	222CB1/2B1/2T
3/4	3/4	150	7.0	400°F	A 12 Watts @ 60 Hz	H Class F Molded	G Junction Box	039930	Rulon with Ethylene Propylene Gaskets	222CB3/4B3/4T
1	1	150	13.0	400°F	A 12 Watts @ 60 Hz	H Class F Molded	G Junction Box	039834	Rulon with Ethylene Propylene Gaskets	222CB1B1T
1-1/4	1-1/4	150	16.0	400°F	A 12 Watts @ 60 Hz	H Class F Molded	G Junction Box	040532	Rulon with Ethylene Propylene Gaskets	222CB1-1/4B1-1/4T
1-1/2	1-1/2	150	25.0	400°F	A 12 Watts @ 60 Hz	H Class F Molded	G Junction Box	040582	Rulon with Ethylene Propylene Gaskets	222CB1-1/2B1-1/2T

Brass Steam

Pipe Size	Orifice Size	AC	Cv		Recommended Coils					
					Size	Insulation	Enclosure	PCN	Elastomer	Description
3/4	3/4	150	7.0	400°F	A 12 Watts @ 60 Hz	H Class F Molded	G Junction Box	041314	Ethylene Prop.	222CB- 3/4 B-3/4 P

¹With an ambient temperature of 77°F.

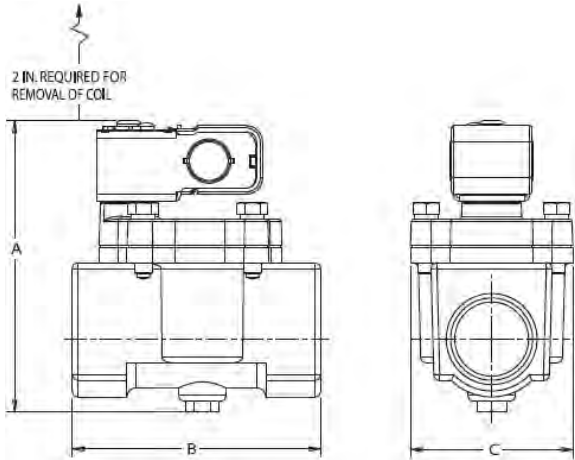
*VLC - See coil assemblies for availability.

²Maximum Operating Pressure Differential.

Compressors, Chillers, Condensers
 Motors
 Electrical
 Heating Components
 Indoor Air Quality
 Thermostats
 Oils & Chemicals
 Accessories, Supplies & Commodities
 Tools & Instruments
 Refrigeration

EMERSON CLIMATE TECHNOLOGIES-Industrial Exploded View Solenoid Valves 222CB

222CB Dimensional Data (in)



Orifice Size	A*	B	C
1/2	4.59	2.47	1.63
3/4	4.91	3.25	2.06
1	5.38	4.06	2.63
1 1/4	5.66	4.56	3.00
1 1/2	6.16	5.25	3.44

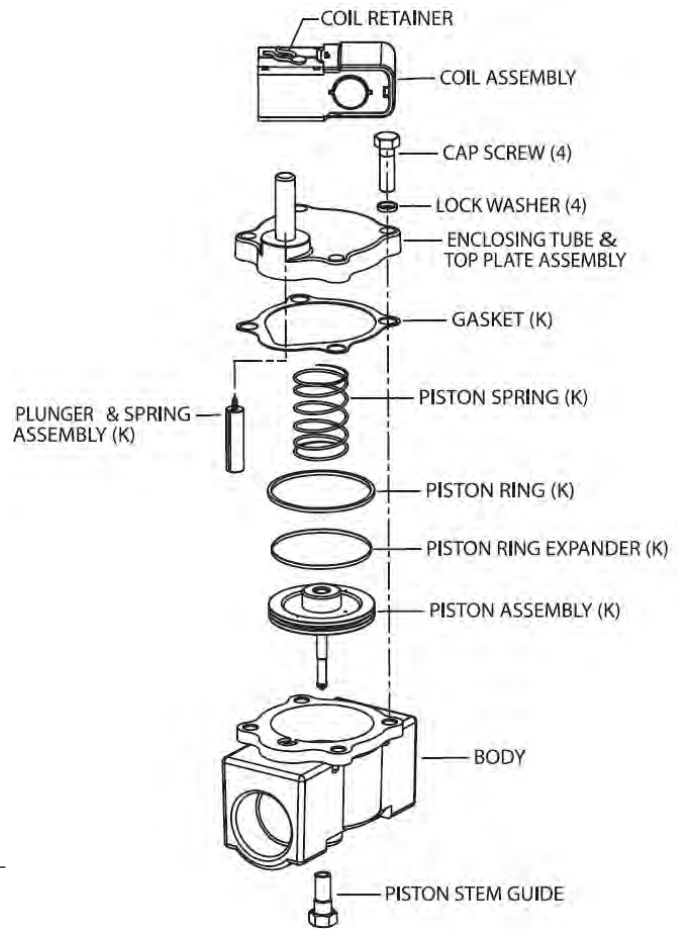
* Add 0.97 for Manual Override

Valve Options

Options	To Order
Manual Override (not for steam) Field Installed	Add suffix "M" to catalog number

222CB Valve Repair Kits

Seat Material	PCN	Orifice Size - NPT				
		3/8 & 1/2	3/4	1	1-1/4	1-1/2
Buna-N	030765	K-1116				
Rulon	029235	K-1118				
Buna-N	037558		K-1120			
Rulon	021109		K-1122			
Ethylene Propylene	040680		K-1121			
Buna-N	028955			K-1124		
Rulon	034178			K-1126		
Buna-N	031349				K-1128	
Rulon	034047				K-1130	
Buna-N	028956					K-1132
Rulon	032334					K-1134



Valve Repair Kit

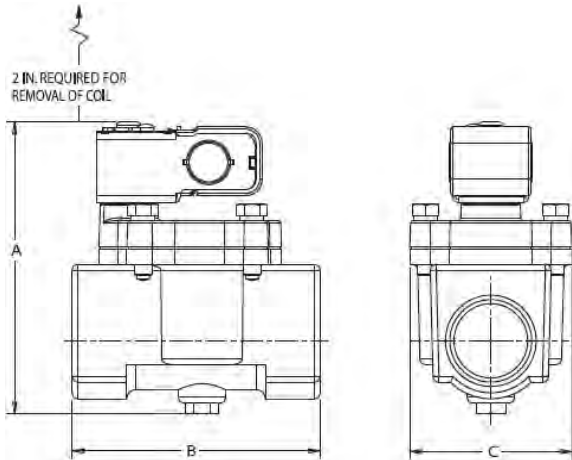
"K" indicates part is supplied in valve repair kit.

Coil Assembly

See coil assemblies for availability.

EMERSON CLIMATE TECHNOLOGIES-Industrial Solenoid Valves 222CB Exploded View

222CB Dimensional Data (in)



Orifice Size	A*	B	C
1/2	4.59	2.47	1.63
3/4	4.91	3.25	2.06
1	5.38	4.06	2.63
1 1/4	5.66	4.56	3.00
1 1/2	6.16	5.25	3.44

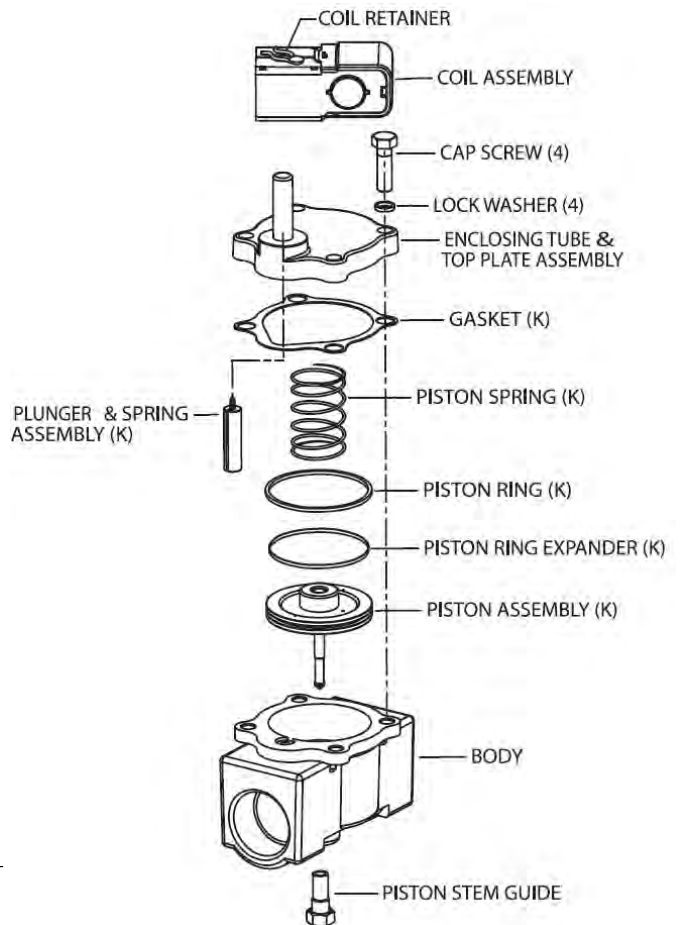
* Add 0.97 for Manual Override

Valve Options

Options	To Order
Manual Override (not for steam) Field Installed	Add suffix "M" to catalog number

222CB Valve Repair Kits

Seat Material	PCN	Orifice Size - NPT				
		3/8 & 1/2	3/4	1	1-1/4	1-1/2
Buna-N	030765	K-1116				
Rulon	029235	K-1118				
Buna-N	037558		K-1120			
Rulon	021109		K-1122			
Ethylene Propylene	040680		K-1121			
Buna-N	028955			K-1124		
Rulon	034178			K-1126		
Buna-N	031349				K-1128	
Rulon	034047				K-1130	
Buna-N	028956					K-1132
Rulon	032334					K-1134



Valve Repair Kit

"K" indicates part is supplied in valve repair kit.

Coil Assembly

See coil assemblies for availability.

Compressors,
Chillers, Condensers

Motors

Electrical

Heating
Components

Indoor Air
Quality

Thermostats

Oils &
Chemicals

Tools &
Instruments
Accessories, Supplies
& Commodities

Refrigeration

EMERSON CLIMATE TECHNOLOGIES-Industrial Solenoid Valves 314UB

The 314UB is a direct-acting, 3-way universal valve for air and water applications.

Features

- Rugged industrial construction
- Both seat discs are spring loaded
- Superior life with stainless steel enclosing tube

Options

- Brass or stainless steel bodies
- Optional Voltages: 480, 120-240 & 240-480/50-60 Hz

Specifications

- 1/4" NPT Solenoids
- Watts: 12 @ 60Hz
- VA Inrush: 36
- VA Holding: 24
- Maximum working pressure: 500 psi
- Weight: 1 lb.
- Standard Voltages: 24, 120, 208-240/50-60 Hz
- UL/CUL file number: MP604



NOTE: 314U valves require an AMGN, EM or ASC-Type coil.

Ordering Information*

Brass General Purpose

PCN	Pipe Size	Orifice Size	AC	Cv			Recommended Coils				
				Port 2	Port 3		Size	Insulation	Enclosure	Elastomer	Description
030722	1/4	3/64	125	.05	.06	180°F	A 12 Watts @ 60 Hz	M Class F Molded	GN Junction Box	BUNA-N	314UB1/4B3/64B3/64B
030719	1/4	3/32	40	.22	.17	180°F	A 12 Watts @ 60 Hz	M Class F Molded	GN Junction Box	BUNA-N	314UB1/4B3/32B3/32B

Stainless Steel General Purpose

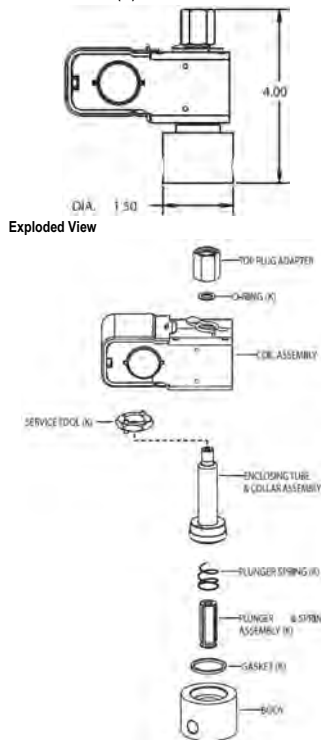
PCN	Pipe Size	Orifice Size	AC	Cv			Recommended Coils				
				Port 2	Port 3		Size	Insulation	Enclosure	Elastomer	Description
030725	1/4	3/64	125	.05	.06	180°F	A 12 Watts @ 60 Hz	M Class F Molded	GN Junction Box	BUNA-N	314UB1/4S3/64B3/64B

¹With an ambient temperature of 77°F.

²Maximum Operating Pressure Differential.

*VLC - See coil assemblies for availability.

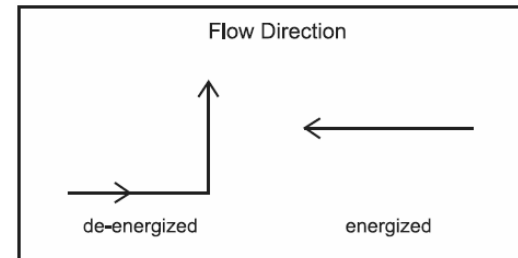
EMERSON CLIMATE TECHNOLOGIES-Industrial Solenoid Valves 314UB
Dimensional Data (in)



Valve Repair Kit
*K indicates part is supplied in valve repair kit.
Coil Assembly
See coil assemblies for availability.

Valve Options

Options	To Order
Silver Shading Band (on stainless steel valves)	Change body material code. Example: Change standard 314UB1/8S to nonstandard 314UB1/bT (silver shading band)



Valve Repair Kit

Seat Material	Kit #	PCN
Buna-N	K-1093	037054

EMERSON CLIMATE TECHNOLOGIES-Industrial Solenoid Valves Old to New Cross Reference

Old Model	Old PCN	New Model	New PCN
121WB5CP02	030038	204CD 1/4B 5/32 B VLC	030735
121WB03P02	040412	204CD 1/4B 3/16 B VLC	030736
121WB04P02	040337	204CD 1/4B 1/4 B VLC	030737
121SB5CP02	040300	204CD 1/4B 5/32 T VLC	030750
201WB04P02	091876	214CB 1/4B 1/4 B VLC	030540
201WB05P02	040758	214CB 3/8B 5/16 B VLC	064854
201WB06P02	065610	214CB 3/8B 3/8 B VLC	030545
231WB08P04	030051	222CB 1/2 B 1/2 B VLC	039917
231WB12P06	039987	222CB 3/4 B 3/4 B VLC	028192
231WB16P08	034211	222CB 1 B 1 B VLC	039931
231WB20P10	040283	222CB 1-1/4 B 1-1/4 B VLC	039918
231WB24P12	040021	222CB 1-1/2 B 1-1/2 B VLC	038879
231SB08P04	034171	222CB 1/2 B 1/2 T VLC	037958
231SB12P06	040069	222CB 3/4 B 3/4 T VLC	039930
231SB16P08	030048	222CB 1 B 1 T VLC	039834
231SB20P10	040365	222CB 1-1/4 B 1-1/4 T VLC	040532
231SB24P12	040366	222CB 1-1/2 B 1-1/2 T VLC	040582
241WA10P03	035073	210CA 3/8 B 5/8 B VLC	030619
241WA10P04	035023	210CA 1/2 B 5/8 B VLC	030620
241WA12P06	035022	210CA 3/4 B 3/4 B VLC	030621
241WA16P08	038857	210CA 1 B 1 B VLC	038629

EMERSON CLIMATE TECHNOLOGIES-System Protectors Quick Select Guide

Hermetic Filter Driers

Type	Filter Drier	Recommended Use	Function
Liquid	EK	CFC, HCFC, HFC	Premium Universal Replacement
Liquid	ADK	CFC, HCFC, HFC	High Acid and Water Removal
Liquid	BOK-HH	CFC, HCFC, HFC	Burnout Cleanup with Charcoal
Liquid	BFK	CFC, HCFC, HFC	Bi-Flow Heat Pump
Suction	SFD	CFC, HCFC, HFC	Suction Line Filter Drier
Suction	CSFD	CFC, HCFC, HFC	Compact Suction Line Filter Drier
Suction	ASD	CFC, HCFC, HFC	Premium Suction Line Filter Drier
Suction	ASK-HH	CFC, HCFC, HFC	Burnout Cleanup with Charcoal
Suction	ASF	CFC, HCFC, HFC	Filter Only

Take-Apart Filter Driers

Type	Filter Drier	Liquid	Suction
Take-Apart	STAS	X	X
Take-Apart	ADKS	X	X
Take-Apart	BTAS		X

Replaceable Cores/Filters for Take-Apart Shells

Type	Core/Filter	Recommended use	Function
Core	D-42/48	CFC, HCFC	High Acid Removal
Core	H-42/48/100	CFC, HCFC	High Acid and Water Removal
Core	W-42/48/100HH	CFC, HCFC, HFC	Burnout Cleanup w/Charcoal
Core	UK-48/100	CFC, HCFC, HFC	Premium Universal Replacement
Filter	F-48/100	CFC, HCFC, HFC	Filter Only
Core	RH-48	Reclaim Use Only	High Acid and Water Removal
Core	RW-48	Reclaim Use Only	Burnout Cleanup

Compressors,
Chillers, Condensers

Motors

Electrical

Heating
Components

Indoor Air
Quality

Thermostats

Oils &
Chemicals

Accessories, Supplies
& Commodities

Tools &
Instruments

Refrigeration