

Valves, Controls and System Protectors  
Supplement - Industrial Solenoid Valves

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

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

These valves referenced above are as follows:

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

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

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

### 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

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, 208-240/50-60 Hz
- UL/CUL file number: MP604

## Ordering Information\*

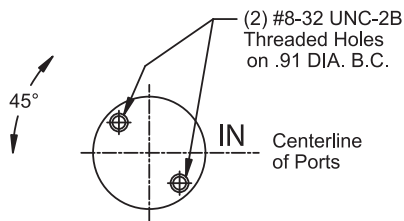
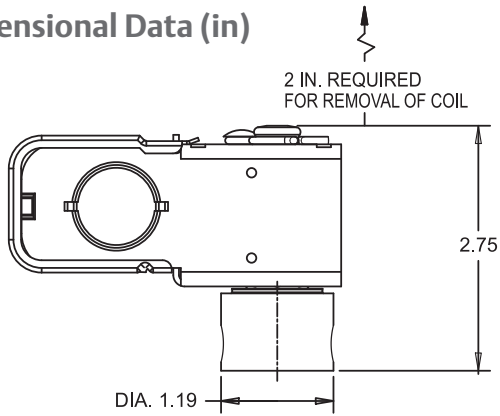
Pipe Size	Orifice Size	M.O.P.D. <sup>2</sup>		Cv	Max. AC Fluid Temp. <sup>1</sup>	Recommended Coils			Description	PCN	Elastomer
		AC	DC			Size	Insulation	Enclosure			
Brass General Purpose											
1/8	3/64	500	500	0.05	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box	202CB1/8B3/64B		BUNA-N
	1/16	500	500	0.12					202CB1/8B1/16B		
	3/32	300	125	0.22					202CB1/8B3/32B		
	1/8	150	75	0.34					202CB1/8B1/8B	030113	
	5/32	100	40	0.48					202CB1/8B5/32B	030114	
Stainless Steel General Purpose											
1/8	3/64	500	500	0.05	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box	202CB1/8S3/64B		BUNA-N
	1/16	500	500	0.12					202CB1/8S1/16B	064756	
	3/32	300	125	0.22					202CB1/8S3/32B		
	1/8	150	75	0.34					202CB1/8S1/8B		
	5/32	100	40	0.48					202CB1/8S5/32B		
Brass Steam											
1/8	1/16	150	-	0.12	400°F	A 12 Watts	H Class H Molded	G Junction Box	202CB1/8B1/16T		PTFE w/Ethylene Propylene Gaskets
	3/32	150	-	0.22					202CB1/8B3/32T		
	1/8	150	-	0.34					202CB1/8B1/8T	030123	
	5/32	100	-	0.48					202CB1/8B5/32T		
1/8	1/8	150	-	0.34	400°F	A 12 Watts	H Class H Molded	G Junction Box	202CB1/8B1/8P	030118	Ethylene Prop.
1/8	5/32	100	-	0.48	400°F	A 12 Watts	H Class H Molded	G Junction Box	202CB1/8B5/32V	056954	Viton w/ Ethylene Propylene Gaskets

<sup>1</sup> With an ambient temperature of 77°F.

<sup>2</sup> Maximum Operating Pressure Differential.

\*VLC - See coil assemblies for availability.

## Dimensional Data (in)



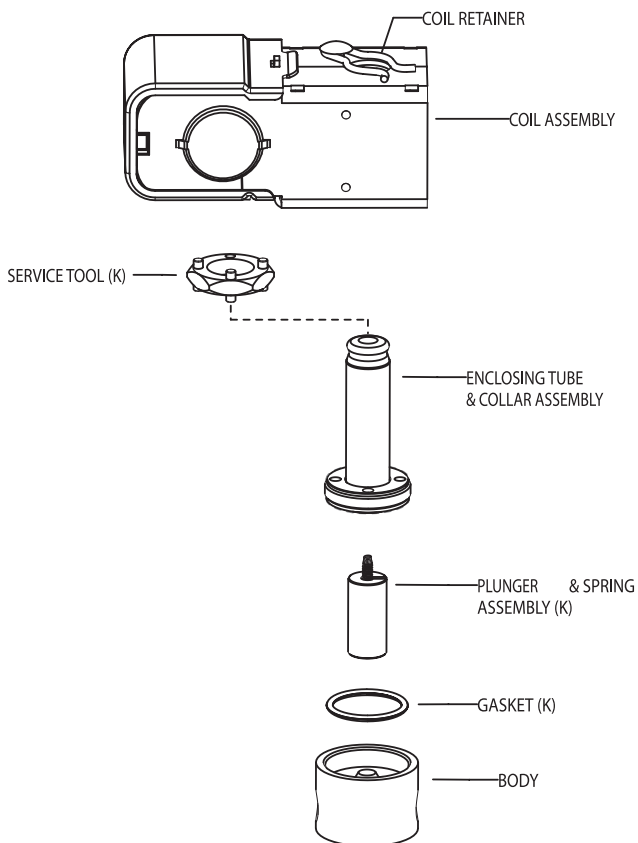
## Valve Options

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 202CB1/8S to non-standard 202CB1/8T (silver shading band)

## Valve Repair Kits

Seat Material	Kit #	PCN
Buna-N	K-1063	066046
Viton	K-1065	066043
Rulon	K-1068	032396
Ethylene Propylene	K-1064	021104

## Exploded View

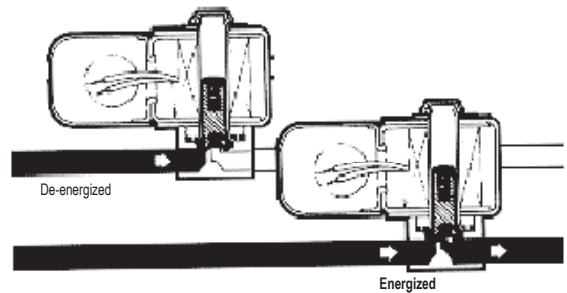


### Valve Repair Kit

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

### Coil Assembly

See coil assemblies for availability..



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\*

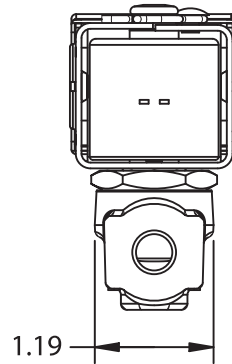
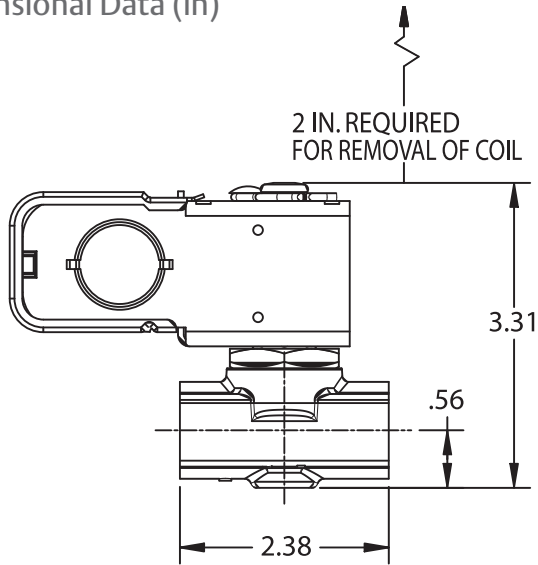
Pipe Size	Orifice Size	M.O.P.D <sup>2</sup>	Cv	Max. AC Fluid Temp. <sup>1</sup>	Recommended Coils			Description	PCN	Elastomer
		AC			Size	Insulation	Enclosure			
<b>Brass General Purpose</b>										
3/8	1/8	125	0.3	180°F	A 12 Watts AC	M Class F Molded	G Junction Box	203CA3/8B1/8B		BUNA-N
	5/32	75	0.5					203CA3/8B5/32B		
	1/4	25	1.0					203CA3/8B1/4B	030603	
	5/16	15	1.5					203CA3/8B5/16B		
	3/8	10	1.7					203CA3/8B3/8B	030605	
<b>Stainless Steel General Purpose</b>										
3/8	1/4	15	1.0	250°F	A 12 Watts AC	M Class F Molded	G Junction Box	203CA3/8B1/4P		Ethylene Propylene Gaskets
	5/16	15	1.5					203CA3/8B5/16P		
	3/8	10	1.7					203CA3/8B3/8P	030614	

<sup>1</sup>With an ambient temperature of 77°F.

<sup>2</sup>Maximum Operating Pressure Differential.

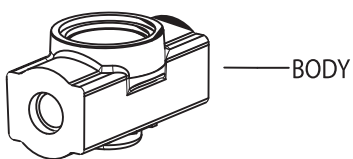
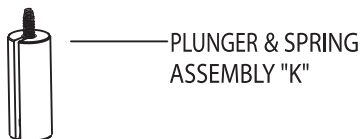
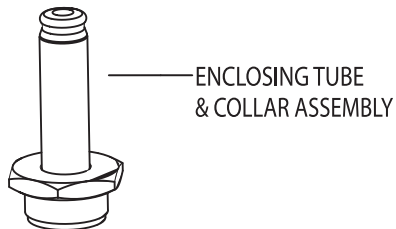
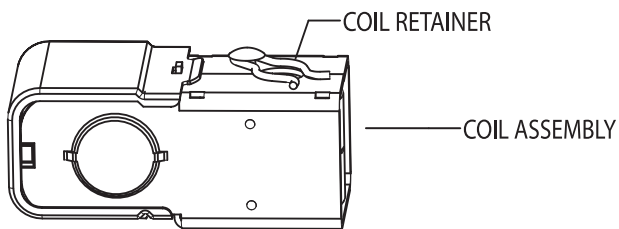
\*VLC - See coil assemblies for availability.

## Dimensional Data (in)



Orifice Size

## Exploded View



## Valve Repair Kits

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

### Valve Repair Kit

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

### Coil Assembly

See coil assemblies for availability.

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\*

Pipe Size	Orifice Size	M.O.P.D <sup>2</sup>		Cv	Max. AC Fluid Temp <sup>1</sup>	Recommended Coils			Description	PCN	Elastomer
		AC	DC			Size	Insulation	Enclosure			
Brass General Purpose											
1/4	3/64	500	500	0.05	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box	204CD1/4B3/64B	030731	BUNA-N
	1/16	500	500	0.12					204CD1/4B1/16B		
	3/32	300	125	0.22					204CD1/4B3/32B	030733	
	1/8	150	75	0.34					204CD1/4B1/8B	056110	
	5/32	100	40	0.48					204CD1/4B5/32B	030735	
	3/16	60	30	0.56					204CD1/4B3/16B	030736	
	1/4	20	10	0.70					204CD1/4B1/4B	030737	
Stainless Steel General Purpose											
1/4	3/64	500	500	0.05	180°F	A 12 Watts AC 15 Watts DC	M Class F Molded	G Junction Box	204CD1/4S3/64B		BUNA-N
	1/16	500	500	0.12					204CD1/4S1/16B		
	3/32	300	125	0.22					204CD1/4S3/32B	030870	
	1/8	150	75	0.34					204CD1/4S1/8B	030871	
	5/32	100	40	0.48					204CD1/4S5/32B		
	3/16	60	30	0.56					204CD1/4S3/16B		
	1/4	20	10	0.70					204CD1/4S1/4B	030874	
Brass Steam											
1/4	3/64	150	-	0.05	400°F	A 12 Watts AC A	H Class H Molded M	G Junction Box G	204CD1/4B3/64T		PTFE w/Ethylene Propylene Gaskets
	1/16	150	-	0.12					204CD1/4B1/16T		
	3/32	150	-	0.22					204CD1/4B3/32T	030748	
	1/8	150	-	0.34					204CD1/4B1/8T	030749	
	5/32	100	-	0.48					204CD1/4B5/32T	030750	
	3/16	60	-	0.56					204CD1/4B3/16T		
	1/4	20	-	0.70	250°F				204CD1/4B1/4P		
Stainless Steel Steam											
1/4	3/64	150	-	0.05	400°F	A 12 Watts AC A	H Class H Molded M	G Junction Box G	204CD1/4S3/64T	030883	PTFE w/Ethylene Propylene Gaskets
	1/16	150	-	0.12					204CD1/4S1/16T		
	3/32	150	-	0.22					204CD1/4S3/32T		
	1/8	150	-	0.34					204CD1/4S1/8T	030886	
	5/32	100	-	0.48					204CD1/4S5/32T		
	3/16	60	-	0.56					204CD1/4S3/16T	030888	
	1/4	20	-	0.70	250°F				204CD1/4S1/4P		
Stainless Steel Steam											
1/4	5/32	100	-	0.48	400°F	A 12 Watts	H Class H Molded	G Junction Box	204CD1/4S5/3P	053492	E.P. Seat
Brass Steam											
1/4	5/32	100	-	0.48	400°F	A 12 Watts	H Class H Molded	G Junction Box	204CD 1/4 B 5/32 P	064682	E.P. Seat

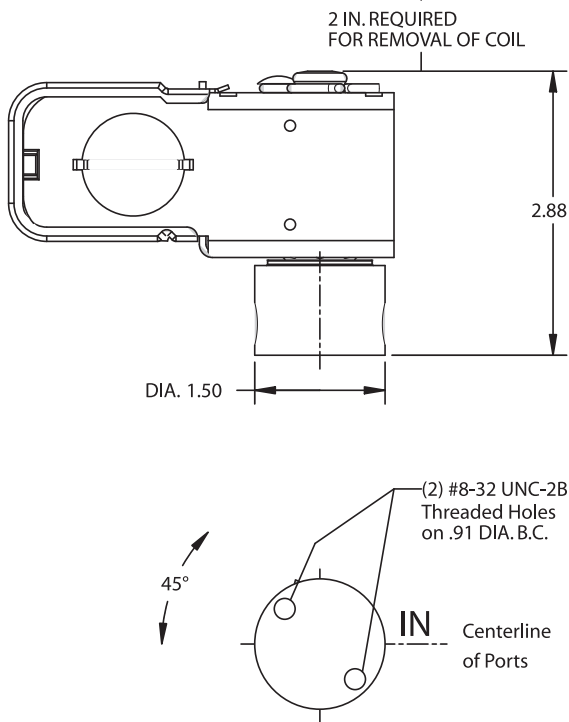
<sup>1</sup> With an ambient temperature of 77°F.

<sup>2</sup> Maximum Operating Pressure Differential.

\*VLC - See coil assemblies for availability.



## Dimensional Data (in)



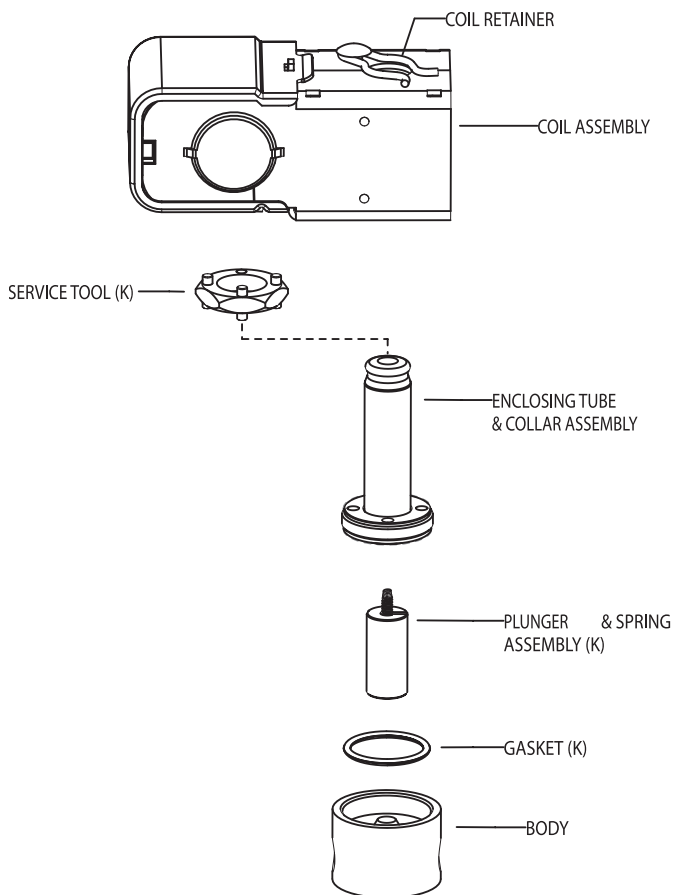
## Valve Options

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-1072	021105
Viton	K-1074	021106
Rulon	K-1077	021107
Ethylene Propylene	K-1076	032154
Buna-N (1/4 orifice only)	K-1162	039145

## Exploded View



### Valve Repair Kit

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

### Coil Assembly

For available coil assemblies, see page 126.

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\*

Pipe Size	Orifice Size	M.O.P.D		Cv	Max. AC Fluid Temp!	Recommended Coils			Description	PCN	Elastomer
		AC				Size	Insulation	Enclosure			
Brass General Purpose											
3/8	5/8	150		2.8	180°F	A 12 Watts AC	M Class F Molded	G Junction Box	210CA3/8B5/8B	030619	BUNA-N
1/2	5/8	150		3.6					210CA1/2B5/8B	030620	
3/4	3/4	125		5.5					210CA3/4B3/4B	030621	
1	1	125		13					210CA3/4B3/4P	038629	
Brass-Hot Water (210°F) or Steam (TO 250°)											
3/8	5/8	100 <sup>2</sup>	15 <sup>3</sup>	2.8	250°F	A 12 Watts AC	M Class F Molded	G Junction Box	210CA3/8B5/8P		Ethylene Propylene
1/2	5/8	100 <sup>2</sup>	15 <sup>3</sup>	3.6					210CA1/2B5/8P	030623	
3/4	3/4	100 <sup>2</sup>	15 <sup>3</sup>	5.5					210CA3/4B3/4P	030624	

### 211CA Ordering Information\*

Pipe Size	Orifice Size	M.O.P.D		Cv	Max. AC Fluid Temp!	Recommended Coils			Description	PCN	Elastomer
		AC				Size	Insulation	Enclosure			
Brass General Purpose											
3/8	5/8	100		2.8	180°F	A 12 Watts AC	M Class F Molded	G Junction Box	211CA3/8B5/8B	030625	BUNA-N
1/2	5/8	100		3.6					211CA1/2B5/8B	030626	
3/4	3/4	100		5.5					211CA3/4B3/4B	030627	
Brass-Hot Water (210°F) or Steam (TO 250°)											
3/8	5/8	100 <sup>2</sup>	15 <sup>3</sup>	2.8	250°F	A 12 Watts AC	M Class F Molded	G Junction Box	211CA3/8B5/8P	032303	Ethylene Propylene
1/2	5/8	100 <sup>2</sup>	15 <sup>3</sup>	3.6					211CA1/2B5/8P	032304	
3/4	3/4	100 <sup>2</sup>	15 <sup>3</sup>	5.5					211CA3/4B3/4P	032305	

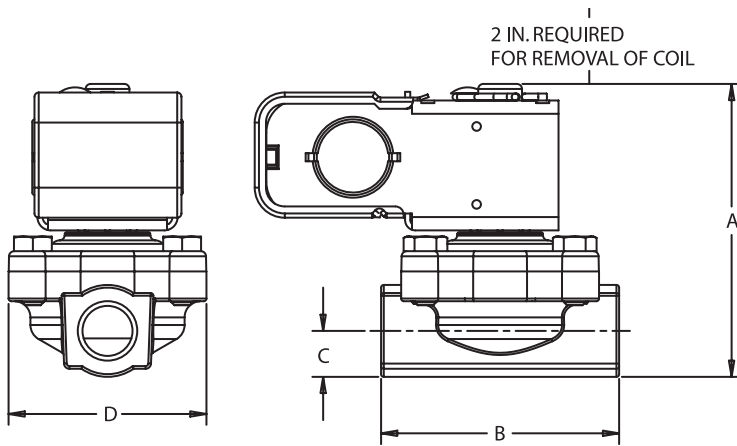
<sup>1</sup> With an ambient temperature of 77°F.

<sup>2</sup> MOPD-Hot Water

<sup>3</sup> MOPD-Steam

\*VLC - See coil assemblies for availability.

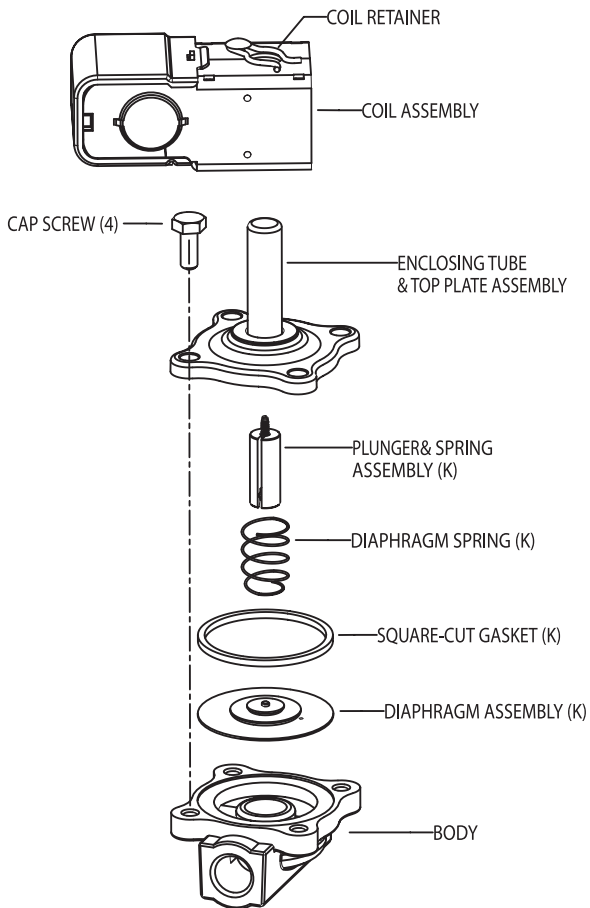
## Dimensional Data (in)



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.

## Exploded View



## 210CA Valve Repair Kits

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

## 211CA Valve Repair Kits

Seat Material	Kit #	PCN
Buna-N	K-1157	034357
Ethylene Propylene	K-1158	039879

### Valve Repair Kit

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

### Coil Assembly

See coil assemblies for availability.

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: 22
- 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\*

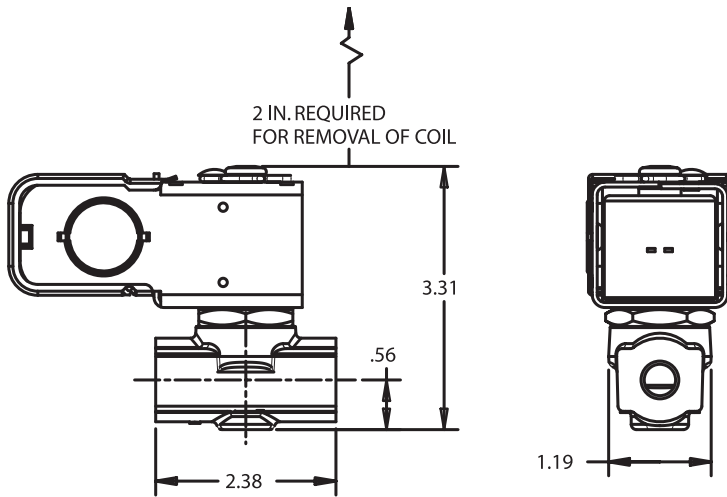
Pipe Size	Orifice Size	M.O.P.D. <sup>2</sup>	Cv	Max. AC Fluid Temp. <sup>1</sup>	Recommended Coils			Description	PCN	Elastomer
		AC			Size	Insulation	Enclosure			
<b>Brass General Purpose</b>										
1/4	1/4	200	1.2	180°F	A 12 Watts @ 60 Hz	M Class F Molded	G Junction Box	214CB1/4B1/4B	030540	BUNA-N
	5/16	200	1.6					214CB1/4B5/16B	030541	
	3/8	200	2.2					214CB1/4B3/8B		
3/8	1/4	200	1.2					214CB3/8B1/4B		
	5/16	200	1.6					214CB3/8B5/16B		
	3/8	200	2.2					214CB3/8B3/8B	030545	
3/8	3/8	200	2.2	400°F		Same As Above		214CB 3/8B3/8P	030557	EP Seat

<sup>1</sup> With an ambient temperature of 77°F.

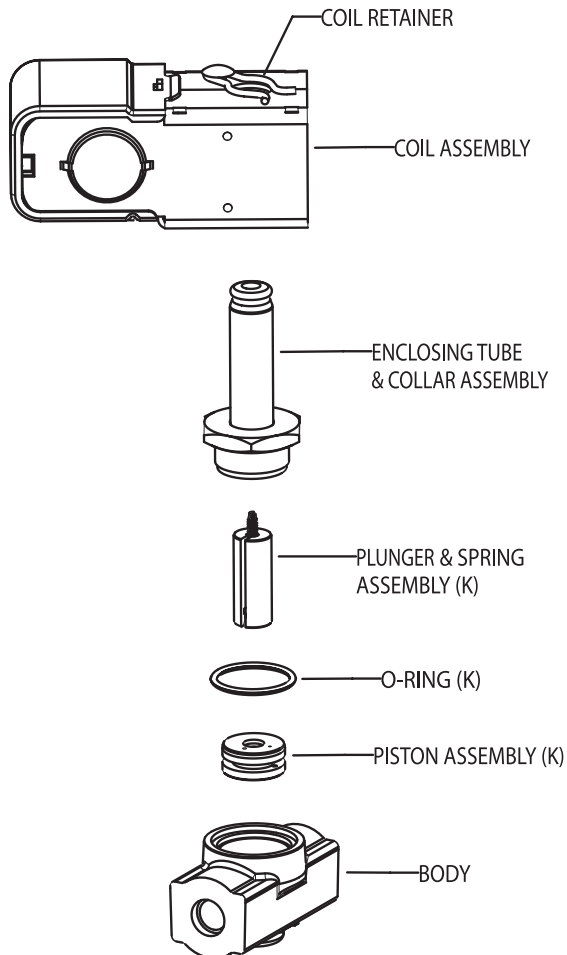
<sup>2</sup> Maximum Operating Pressure Differential.

\*VLC - See coil assemblies for availability.

## Dimensional Data (in)



## Exploded View



## Valve Options

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

## Valve Repair Kits

Seat Material	Kit #	PCN
Buna-N	K-1112	035074
Ethylene Propylene	K-1113	041334

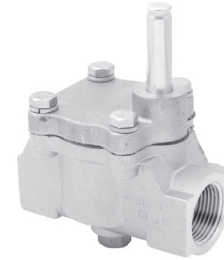
### Valve Repair Kit

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

### Coil Assemblies

See coil assemblies for availability.

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:	<u>Pipe Size</u>	
	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 \*

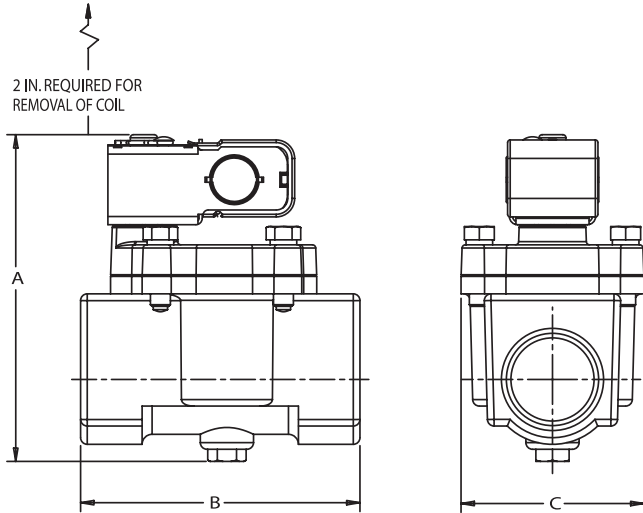
Pipe Size	Orifice Size	M.O.P.D <sup>2</sup>	Cv	Max. AC Fluid Temp <sup>1</sup>	Recommended Coils			Description	PCN	Elastomer
		AC			Size	Insulation	Enclosure			
<b>Brass General Purpose</b>										
3/8	1/2	250	3.5	180°F	A 12 Watts @ 60 Hz	M Class F Molded	G Junction Box	222CB3/8B1/2B		BUNA-N
1/2	1/2		3.5					222CB1/2B1/2B	039917	
3/4	3/4		7.0					222CB3/4B3/4B	028192	
1	1		13.0					222CB1B1B	039931	
1-1/4	1-1/4		16.0					222CB1-1/4B1-1/4B	039918	
1-1/2	1-1/2		25.0					222CB1-1/2B1-1/2B	038879	
<b>Brass Steam</b>										
1/2	1/2	150	3.5	400°F	A 12 Watts @ 60 Hz	H Class F Molded	G Junction Box	222CB1/2B1/2T	037958	Rulon with Ethylene Propylene Gaskets
3/4	3/4		7.0					222CB3/4B3/4T	039930	
1	1		13.0					222CB1B1T	039834	
1-1/4	1-1/4		16.0					222CB1-1/4B1-1/4T	040532	
1-1/2	1-1/2		25.0					222CB1-1/2B1-1/2T	040582	
<b>Brass Steam</b>										
3/4	3/4	150	7.0	400°F	Same As Above			222CB-3/4 B-3/4 P	041314	Ethylene Prop.

<sup>1</sup> With an ambient temperature of 77°F.

<sup>2</sup> Maximum Operating Pressure Differential.

\*VLC - See coil assemblies for availability.

## 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

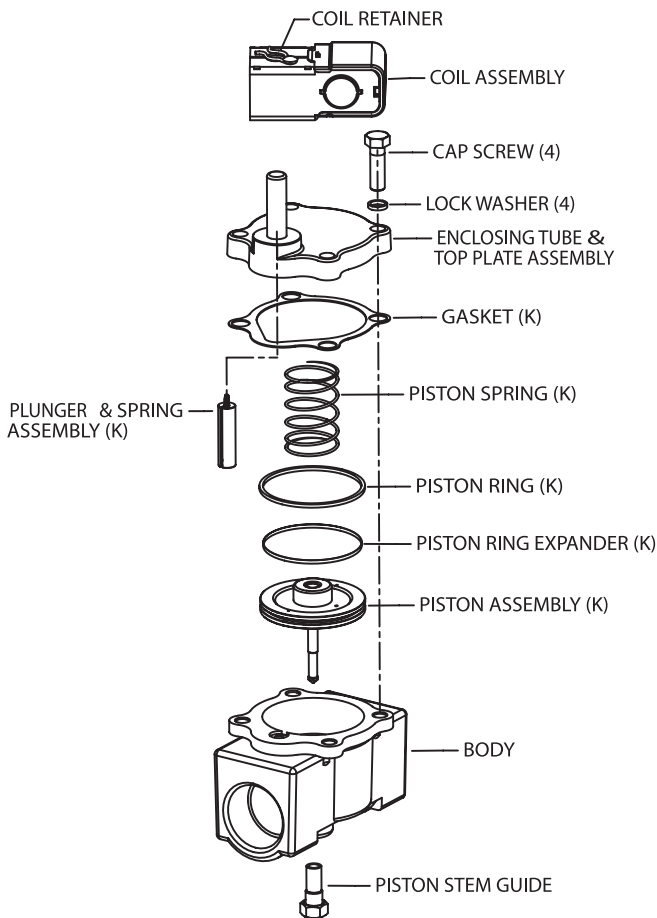
## Valve Options

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

## 222CB Valve Repair Kits

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

## Exploded View



### Valve Repair Kit

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

### Coil Assembly

See coil assemblies for availability.

# 314UB

## Industrial Solenoid Valves

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

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



### 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

### Ordering Information\*

Pipe Size	Orifice Size	M.O.P.D <sup>2</sup>		Cv	Max. AC Fluid Temp <sup>1</sup>	Recommended Coils			Description	PCN	Elastomer
		AC	Port 2			Port 3	Size	Insulation			
Brass General Purpose											
1/4	3/64	125	0.05	0.06	180°F	A	M	GN	314UB1/4B3/64B3/64B	030722	BUNA-N
	3/32	40	0.22	0.17		12 Watts @ 60 Hz	Class F Molded	Junction Box	314UB1/4B3/32B3/32B	030719	
Stainless Steel General Purpose											
1/4	3/64	125	0.05	0.06	180°F	A	M	GN	314UB1/4S3/64B3/64B	030725	BUNA-N
						12 Watts @ 60 Hz	Class F Molded	Junction Box			

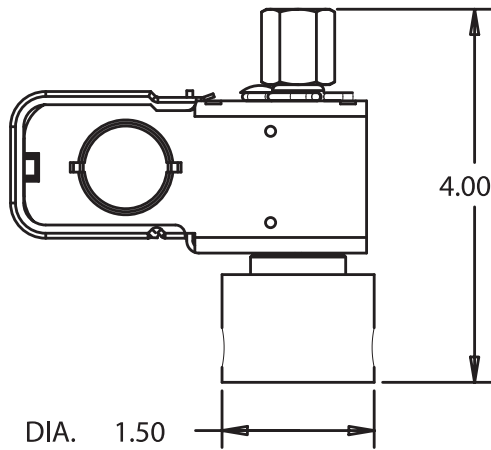
<sup>1</sup> With an ambient temperature of 77°F.

<sup>2</sup> Maximum Operating Pressure Differential.

\*VLC - See coil assemblies for availability.

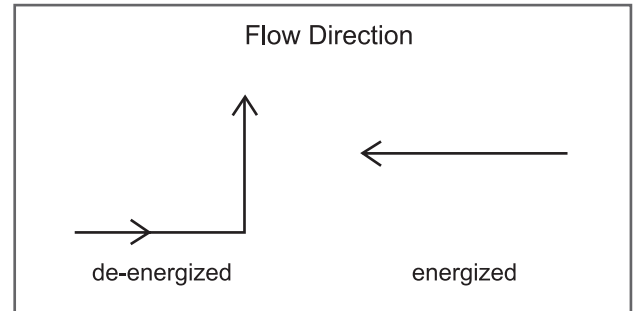


## Dimensional Data (in)

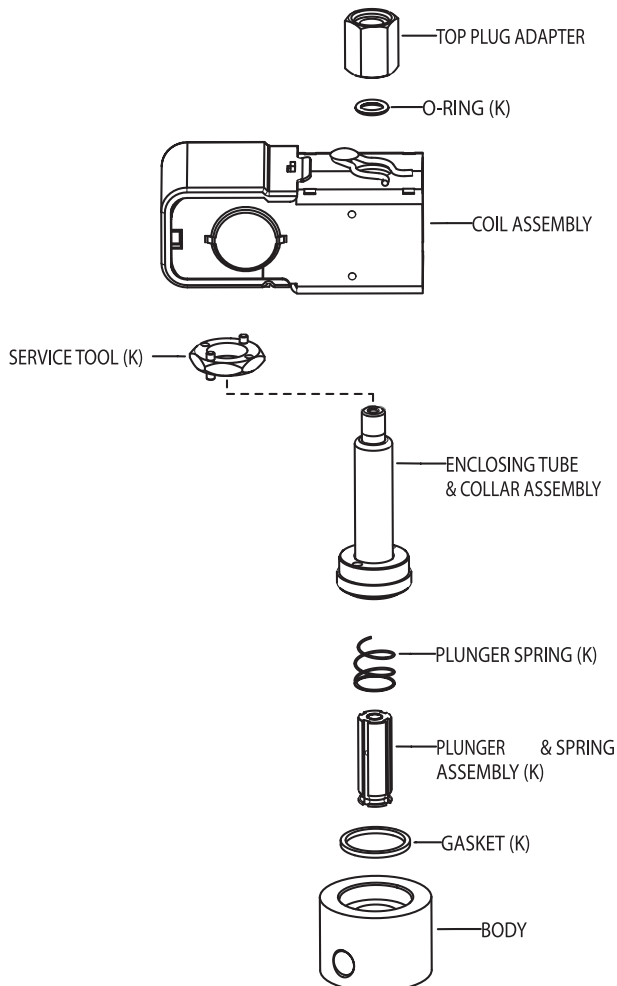


## Valve Options

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



## Exploded View



## Valve Repair Kit

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

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

Coil Assembly  
See coil assemblies for availability.

### Features

- Compact designs
- Coil windings are insulated to provide shock and vibration protection
- ASC2 is designed to provide weather protection
- Interchangeable housings

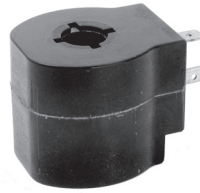
### Voltage Options

- 24V 50/60 Hz
- 120V 50/60 Hz (standard)
- 208-220/208-240V 50/60 Hz
- 480V 50/60 Hz
- 120-240V 50/60 Hz
- 12V D.C. (MM Series recommended)
- 24V D.C. (MM Series recommended)

### Nomenclature

Coil Code		
A	M	G
Series	Insulation	Enclosure
A = 12 Watt B = 15 Watt C = 18 Watt D = 7 Watt M = 4 Watt	B or G = Class B M = Class F H = Class H	C = Conduit Connection F = Open Frame Leads G = Junction Box L = Grommet 18" Leads S = Spade Connection

ASC2 – DIN



Requires ASC2 female connector (PCN 059261).

MMG – Special DC



AMC - 1/2" Conduit



AMG - Junction Box



AMS - Open Frame



MAGMAX Coil (Type MM): For Use On DC Applications Only

Voltage	Amperes Holding	Watts Holding
12VDC	0.4	4
24VDC	0.4	4

### Solenoid Coil Prefix Selection Table

1) Select Prefix 2) Select Voltage 3) Select PCN

Valve Type	J-Box	Conduit	Leads	Spades	Molded-DIN With Connector
50RB	-	-	SML*	-	-
100RB	AMG	AMC	AMF	AMS	ASC2
200RB / 200RD	AMG	AMC	AMF	AMS	ASC2
222CB (Steam)	AHG	AHC	-	-	-
500RB	DMG	-	DMF	DMS	-
540RA	-	-	-	DMS	ASC2
222CB (Water)	AMG	AMC	AMF	AMS	ASC2
Special DC Application	MMG	-	MMF	-	-

\* SML is OEM - RMF is Wholesale replacement

Note - All coils NEMA1 except ASC2 NEMA2

### AM/EM Coil:

204CD  
214CB  
211CA  
222CB  
210CA

Nominal Voltage and Frequency	Applied Voltage and Frequency	204CD		214C		211CA		222CB		210CA	
		Inrush	Holding	Inrush	Holding	Inrush	Holding	Inrush	Holding	Inrush	Holding
24/60	24/60	1.23	0.61	1.17	0.61	0.92	0.61	1.00	0.74	0.92	0.61
120/60	120/60	0.23	0.14	0.22	0.14	0.17	0.14	0.19	0.16	0.17	0.14
240/60	240/60	0.13	0.08	0.12	0.08	0.10	0.08	0.11	0.08	0.10	0.08
480/60	480/60	0.06	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04

See the MM (MAGMAX) Series Coil for DC Applications

**AM Coil:  
702RA**

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	1.70	1.00	24	17/12	Class F Molded
24-50/60	24/60	1.41	0.64	15		
120-50/60	120/50	0.38	0.24	29		
120-50/60	120/60	0.32	0.16	19		
208-220/50 208-240/60	208/50	0.17	0.10	21		
208-220/50 208-240/60	208/60	0.15	0.06	13		
208-220/50 208-240/60	220/50	0.20	0.14	33		
208-220/50 208-240/60	240/60	0.22	0.09	22		
480-50/60	480/50	0.10	0.07	33		
480-50/60	480/60	0.09	0.04	22		

See the MM (MAGMAX) Series Coil for DC Applications

**AM Coil:  
100RB  
240RA  
710/713RA**

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA	Watts Max.	Coil Insulation
		Inrush	Holding	Holding		
24-50/60	24/50	1.20	.96	23	17/12	Class F Molded
24-50/60	24/60	1.0	.74	18		
120-50/60	120/50	.25	.21	25		
120-50/60	120/60	.19	.16	19		
208-220/50 208-240/60	208/50	.14	.08	17		
208-220/50 208-240/60	208/60	.12	.06	12		
208-220/50 208-240/60	220/50	.16	.10	24		
208-220/50 208-240/60	240/60	.13	.08	19		
480-50/60	480/50	.06	.05	24		
480-50/60	480/60	.05	.04	19		

See the MM (MAGMAX) Series Coil for DC Applications

**AM Coil:  
200RB/200RD**

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	2.00	.96	23	17/12	Class F Molded
24-50/60	24/60	1.6	.74	18		
120-50/60	120/50	.45	.21	25		
120-50/60	120/60	.36	.16	19		
208-220/50 208-240/60	208/50	.19	.08	17		
208-220/50 208-240/60	208/60	.15	.06	12		
208-220/50 208-240/60	220/50	.24	.10	24		
208-220/50 208-240/60	240/60	.19	.08	19		
480-50/60	480/50	.11	.05	24		
480-50/60	480/60	.09	.04	19		

See the MM (MAGMAX) Series Coil for DC Applications

# Coils for Solenoid Valves

## Solenoid Valves & Coils

### ASC2 Coil: 200RB/200RD 540RA

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	2.18	1.07	26	15/12	Class H Molded
24-50/60	24/60	1.90	.81	19		
120-50/60	120/50	.43	.21	25		
120-50/60	120/60	.38	.16	19		
240-50/60	240/50	.24	.12	30		
240-50/60	240/60	.21	.09	22		

### DM Coil: 500RB

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	1.80	.71	17	17/12	Class F Molded
24-50/60	24/60	1.56	.52	12		
120-50/60	120/50	.36	.14	17		
120-50/60	120/60	.31	.10	12		
240-50/60	240/50	.19	.08	19		
240-50/60	240/60	.17	.06	14		

### ASC2 Coil: 100RB 240RA 710/713RA

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	1.67	1.10	26	15/12	Class H Molded
24-50/60	24/60	1.41	.83	20		
120-50/60	120/50	.31	.22	26		
120-50/60	120/60	.26	.16	20		
240-50/60	240/50	.17	.13	31		
240-50/60	240/60	.15	.10	23		

### DM Coil: 100RB 240RA 710/713RA

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	1.21	.72	17	17/12	Class F Molded
24-50/60	24/60	1.02	.52	13		
120-50/60	120/50	.24	.14	17		
120-50/60	120/60	.20	.10	12		
240-50/60	240/50	.13	.08	20		
240-50/60	240/60	.11	.06	14		

### RMS/RMF Coil: 50RB

Nominal Voltage and Frequency	Applied Voltage and Frequency	Amperes		VA Holding	Watts Max.	Coil Insulation
		Inrush	Holding			
24-50/60	24/50	.87	.50	12	RMF/7 RMS/10	Class F Molded
24-50/60	24/60	.90	.40	10		
120-50/60	120/50	.19	.19	22		
120-50/60	120/60	.17	.09	10		
208-50/60	208/60	.08	.03	7		
220-50/60	220/50	.10	.05	11		
240-50/60	240/50	.11	.06	14		
240-50/60	240/60	.10	.04	11		

### Ordering Information

AMG Junction Box



6" Leads

AMC - 1/2" Conduit



18" Leads

AMS - Open Frame



18" Leads or  
1.4" Spades

Voltage / Frequency	Description	PCN	Description	PCN	Description	PCN
24V 50/60 Hz	AHG 24V 50/60 Hz	057669	AMC 24V 50/60 Hz	057631	AMF 24V 50/60 Hz	057539
	AMG 24V 50/60 Hz	057341	AHC 24V 50/60 Hz	057736	AMF 24V 50/60 Hz	057538
	--	--	--	--	DMS 24V 50/60 Hz	062013
	DMG 24V 50/60 Hz	055129	--	--	RMF 24V 50/60 Hz	065677
	--	--	--	--	AMS 24V 50/60 Hz	057603
120V 50/60 Hz	AHG 120V 50/60 Hz	057673	AMC 120V 50/60 Hz	057598	RMF 120V 50/60 Hz	065678
	AMG 120V 50/60 Hz	057331	AHC 120V 50/60 Hz	057743	AMS 120V 50/60 Hz	057349
	DMG 120V 50-60 Hz	054762	--	--	RMS 120V 50/60 Hz	065204
208-220/208-240 50/60 Hz	AHG 208-220/208-240 50/60 Hz	057671	--	--	AMF 208-220/208-240 50/60 Hz	057540
	AMG 208-220/208-240 50/60 Hz	<b>057342</b>	AMC 208-220/208-240 50/60 Hz	057594	RMF 208-220/208-240 50/60 Hz	065679
	DMG 208-220/208-240 50/60 Hz	054764	--	--	AMS 208-220/208-240 50/60 Hz	057531
	--	--	--	--	RMS 208-220/208-240 50/60 Hz	065681
480V 50/60 Hz	AMG 480V 50/60 Hz	057527	--	--	AMF 480V 50/60 Hz	057534
120-240V 50/60 Hz	AMG 120-240V 50/60 Hz	057343	AMC 120-240V 50/60 Hz	057730	AMF 120-240V 50/60 Hz	062410
277V 60 Hz	AMG 277V 60 Hz	057528	--	--	AMF 277V 50/60 Hz	057533
	--	--	--	--	AMS 277V 50/60 Hz	057714
12V DC	AMG 12V DC	057521	AMC 12V DC	057596	--	--
24V DC	AMG 24V DC	057523	AMC 24V DC	057633	--	--

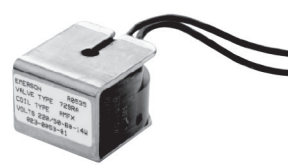
ASC2 - DIN



MMG

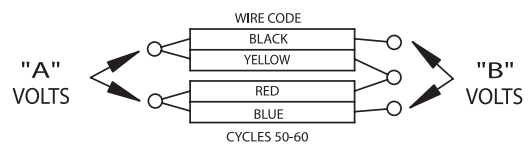


RMF



Voltage/Frequency	Description	PCN	Description	PCN
24V 50/60 Hz	ASC2 24/50-60	062792	--	--
24V 50/60 Hz	ASC2L 24/50-60	063542	--	--
120V 50/60 Hz	ASC2 120/50-60	062462	--	--
120V 50/60 Hz	ASC2 GS-2562-1	015384	--	--
208-220/208-240 50-60 Hz	ASC2 208-240/50-60	062463	--	--
208-220/208-240 50-60 Hz	ASC2 GS-2562-2	015383	--	--
12V DC	--	--	MMG 12V DC	063524
12V DC	--	--	MMF 12V DC	062972
24V DC	ASC2 24V DC	064375	MMG 24V DC	063526

### Dual Voltage Wiring Diagram



AM and ASC 2 style DC coils should not be used for direct replacements on OEM equipment. The use of this coil on new applications may result in the valve not opening. New applications should use the MM coil because of the significant increase in opening power of the MM Coil over the standard AM and ASC 2 style DC coil.

### Coil Enclosure Options

Options	Code
Junction Box	G
Conduit - 18" Leads	C
Open Frame - 18" Leads	F
Open Frame - Spades	S

A	B
120	240
240	480

# 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

## General information

Technical data are correct at the time of printing. Updates may occur, and should you need confirmation of a specific value, please contact Emerson clearly stating the information required.

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The suitability for this has to be assured from the plant manufacturer, which may include making appropriate tests.

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