

2/2-Way Midget Type, Direct Acting Solenoid Valves.

DATA SHEET
9210 B
9220 B

Normally Closed, Energised To Open,
Normally Open, Energised To Close.

SPECIFICATIONS

Sizes	: 6mm (1/4") to 15mm (1/2").
End Connections	: Standard-G-ISO-228 (BSP-F), Optional-NPT.
Construction -Body	: Brass forged IS 6912, SS ASTM A351 Gr. CF8. SS ASTM A351 Gr.CF8M.
-Seat	: Standard-Nitrile (Buna 'N'), Optional-Neoprene, Viton, PTFE and others.
Differential Pressure	: 0 to 40 bar.
Temperature of Fluid	: -5°C to 80°C.
Coil Voltage	: Standard-230-volts,50Hz. AC. Optional - 24, 110, 240 V DC & AC 50Hz or 60Hz.
Coil Insulation and Temperature.	: Ambient upto 42°C. Class 'H' insulated upto155°C.
Coil Rating	: Continuously rated.
Enclosure	: Standard-General purpose SQ. moulded coil upto IP-20, Optional-Weatherproof SQ. moulded coil upto IP-67, Flameproof coil upto FLP IIC.
Fluids	: Air, water, gas, vacuum, light and heavy oil,mild corrosive fluid, etc.
Optional Features	: Manual override.



Sales Point	: Most versatile and reliable valve for millions of trouble free operations
Application	: Furnaces, boilers, textile machinery water treatment plant, ash handling, sugar machinery and others.
Note	: USE OF FILTER IN THE INLET SIDE IS HIGHLY RECOMMENDED.

SPECIFICATION TABLE

2/2 WAY NORMALLY CLOSED

Catalogue Number	Pipe Size Inch	Orifice Size mm	Flow Factor M ³ /hr. KV	Minimum Pressure bar	Maximum Operating Pressure (bar)						BTP bar	Material		Constr. Ref.	VA Rating		Watt Rating	Coil Type	Housing
					AC			DC				Body	Seat		AC	DC			
					Air/Gas	Water	Light Oil	Air/Gas	Water	Light Oil									
9210B15	1/4	1.5	0.07	0	30	18	11	40	28	24	40	BR	BN	2.1	18	12	M45.1	SQ	
9210B20	1/4	2.0	0.09	0	22	16	9	30	20	16	40	BR	BN	2.1	18	12	M45.1	SQ	
9210B25	1/4	2.5	0.11	0	17	9	4.5	20	15	12	40	BR	BN	2.1	18	12	M45.1	SQ	
9210B30	1/4	3.0	0.13	0	12	6	3	12	10	7	40	BR	BN	2.1	18	12	M45.1	SQ	
9210B31	1/4	3.0	0.15	0	15	12	9	25	22	20	40	BR	BN	157	36	22	M50	SQ	
9210B40	1/4	4.0	0.40	0	5	3.5	1.5	5	4.5	3.5	40	BR	BN	2.1	18	12	M45.1	SQ	
9210B41	1/4	4.0	0.43	0	10	8	8	20	18	18	40	BR	BN	157	36	22	M50	SQ	
9210B45	1/4	4.5	0.60	0	3.5	2.5	1	4.5	4	3	40	BR	BN	2.1	18	12	M45.1	SQ	
9210B46	1/4	4.5	0.62	0	8	6	4	18	16	16	40	BR	BN	157	36	22	M50	SQ	
9210B60	1/4	6.0	0.78	0	2.5	2	0.6	3.5	3	2	40	BR	BN	2.1	18	12	M45.1	SQ	
9210B61	1/4	6.0	0.80	0	5	4.5	3.5	11	11	11	40	BR	BN	157	36	22	M50	SQ	

2/2 WAY NORMALLY OPEN

9220B15	1/4	1.5	0.07	0	22	21	17	25	22	18	20	BR	BN	2.1	18	12	M45.1	SQ
9220B25	1/4	2.5	0.11	0	10	9	8	12	10	8	20	BR	BN	2.1	18	12	M45.1	SQ
9220B30	1/4	3.0	0.13	0	7	5	3.5	8	6	4	20	BR	BN	2.1	18	12	M45.1	SQ

2/2 WAY NORMALLY CLOSED

9210B2510	3/8	2.5	0.11	0	17	9	4.5	20	15	12	40	CF8	BN	172	18	12	M45.1	SQ
9210B3010	3/8	3.0	0.13	0	12	6	3	12	10	7	40	CF8	BN	172	18	12	M45.1	SQ
9210B3110	3/8	3.0	0.15	0	15	12	9	25	22	20	40	CF8	BN	164	36	22	M50	SQ
9210B4010	3/8	4.0	0.40	0	5	3.5	1.5	5	4.5	3.5	40	CF8	BN	172	18	12	M45.1	SQ
9210B4110	3/8	4.0	0.43	0	10	8	8	20	18	18	40	CF8	BN	164	36	22	M50	SQ
9210B4510	3/8	4.5	0.60	0	3.5	2.5	1	4.5	4	3	40	CF8	BN	172	18	12	M45.1	SQ
9210B4610	3/8	4.5	0.62	0	8	6	4	18	16	16	40	CF8	BN	164	36	22	M50	SQ
9210B6010	3/8	6.0	0.78	0	2.5	2	0.6	3.5	3	2	40	CF8	BN	172	18	12	M45.1	SQ
9210B6110	3/8	6.0	0.80	0	5	4.5	3.5	11	11	11	40	CF8	BN	164	36	22	M50	SQ
9210B8110	3/8	8.0	1.10	0	2	1.8	1	3	2.7	2.5	40	CF8	BN	164	36	22	M50	SQ

2/2 WAY NORMALLY OPEN

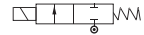
9220B2610	3/8	2.5	0.11	0	10	9	7	12	10	8	20	CF8	BN	164	36	22	M50	SQ
9220B3110	3/8	3.0	0.13	0	7	5	3.5	8	6	4	20	CF8	BN	164	36	22	M50	SQ

* For Higher port sizes in normally open design use different construction only.

ELECTRICAL REFERENCE

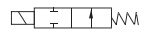
Coil Type	Power Consumption & Watt Rating			Class of Insulation	Protection
	AC		DC		
	VA Inrush	VA Holding	Watts		
M 45.1 SQ	25	18	12	H	GP/WP IP-67
M 50 SQ	50	36	22	H	GP/WP IP-67
M 45.1 RD	25	18	12	H	GP/WP IP-67
M 50 RD	50	36	22	H	GP/WP IP-67
M 45.1 FLP IIC	25	18	12	H	IS 2148-2004 Group IIA, IIB, IIC. IS 12063-1987 IP-67.
M 50 FLP IIC	50	36	22	H	IS 4012-1967 Dustproof / IS 4013-1967 Dusttight. IS/IEC 60079-1:2007, Group IIC. IS 12063-1987 IP-67 (IEC 60529:1989).

2/2 WAY NORMALLY CLOSED



Catalogue Number	Pipe Size Inch	Orifice Size mm	Flow Factor Kv M ³ /hr.	Minimum Pressure bar	Maximum Operating Pressure (bar)						BTP bar	Material		Constr. Ref.	VA Rating		Coil Type	Housing
					AC			DC				Body	Seat		AC	DC		
					Air/Gas	Water	Light Oil	Air/Gas	Water	Light Oil								
9210B4115	1/2	4.0	0.43	0	10	8	8	20	18	18	40	CF8	BN	164	36	22	M50	SQ
9210B6115	1/2	6.0	0.80	0	5	4.5	3.5	11	11	11	40	CF8	BN	164	36	22	M50	SQ
9210B8115	1/2	8.0	1.30	0	2	1.8	1	3	2.7	2.5	40	CF8	BN	164	36	22	M50	SQ
9210B9115	1/2	9.0	1.50	0	1.8	1	0.5	2.5	2	1	40	CF8	BN	164	36	22	M50	SQ
9210B1115	1/2	11.0	2.00	0	1	0.6	0.3	1	1	0.5	40	CF8	BN	164	36	22	M50	SQ

2/2 WAY NORMALLY OPEN



9220B3115	1/2	3.0	0.13	0	7	5	3.5	8	6	4	20	CF8	BN	172	18	12	M50	SQ
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DIMENSIONS (IN MM)

<p>CONSTRUCTION REF. NO. :2.1</p> <p>BRASS BODY</p>		<p>CONSTRUCTION REF. NO. :157</p> <p>BRASS BODY</p>		<p>CONSTRUCTION REF. NO. :2.2</p> <p>SS BODY</p>		<p>CONSTRUCTION REF. NO. :165</p> <p>SS BODY</p>																																																																																																																																																																																																										
<p>CONSTRUCTION REF. NO. :172</p> <p>SS BODY With MO</p>		<p>CONSTRUCTION REF. NO. :164</p> <p>SS BODY Without MO</p>		<p>Valve fitted with M45 / M50 RD GP coil - General purpose enclosure as per IP-20</p>		<p>Valve fitted with M45 / M50 FLP IIC coil Flameproof metallic enclosure as per IS/IEC 60079-1:2007, IS 2148-2004 Group IIA,IIB,IIC.</p>																																																																																																																																																																																																										
<p>☐ Valve fitted with M45 SQ. coil.</p>		<p>☒ Valve fitted with M50 SQ. coil.</p>		<table border="1"> <thead> <tr> <th rowspan="2">Catalogue Number</th> <th rowspan="2">Pipe Size Inch</th> <th rowspan="2">Constr. Ref.</th> <th rowspan="2">A</th> <th rowspan="2">B</th> <th rowspan="2">C</th> <th rowspan="2">Weight (Approx.) Kgs. ⚡</th> <th colspan="3">E (RADIALLY)</th> <th colspan="3">F</th> <th colspan="3">G (APPROX.)</th> </tr> <tr> <th>RD GP</th> <th>RD WP</th> <th>FLP</th> <th>RD GP</th> <th>RD WP</th> <th>FLP</th> <th>RD GP</th> <th>RD WP</th> <th>FLP</th> </tr> </thead> <tbody> <tr> <td>9210B15-30/40/45/60</td> <td>1/4</td> <td>2.1</td> <td>39.5</td> <td>10.5</td> <td>85</td> <td>0.518</td> <td>60</td> <td>96</td> <td>96</td> <td>48</td> <td>62</td> <td>80</td> <td>72</td> <td>80</td> <td>150</td> </tr> <tr> <td>9210B31/41/46/61</td> <td>1/4</td> <td>157</td> <td>39.5</td> <td>10.5</td> <td>95</td> <td>0.615</td> <td>66</td> <td>96</td> <td>96</td> <td>57</td> <td>68</td> <td>80</td> <td>86</td> <td>91</td> <td>156</td> </tr> <tr> <td>9220B15-30</td> <td>1/4</td> <td>2.1</td> <td>39.5</td> <td>10.5</td> <td>85</td> <td>0.518</td> <td>60</td> <td>96</td> <td>96</td> <td>48</td> <td>62</td> <td>80</td> <td>72</td> <td>80</td> <td>150</td> </tr> <tr> <td>9210B15-30/40/45/60</td> <td>1/4</td> <td>2.2</td> <td>51</td> <td>12.6</td> <td>78</td> <td>0.503</td> <td>60</td> <td>96</td> <td>96</td> <td>48</td> <td>62</td> <td>80</td> <td>65</td> <td>73</td> <td>143</td> </tr> <tr> <td>9210B31/41/46/61</td> <td>1/4</td> <td>165</td> <td>51</td> <td>12.6</td> <td>108</td> <td>0.605</td> <td>66</td> <td>96</td> <td>96</td> <td>57</td> <td>68</td> <td>80</td> <td>79</td> <td>104</td> <td>163</td> </tr> <tr> <td>9220B15-30</td> <td>1/4</td> <td>2.2</td> <td>51</td> <td>12.6</td> <td>78</td> <td>0.503</td> <td>60</td> <td>96</td> <td>96</td> <td>48</td> <td>62</td> <td>80</td> <td>65</td> <td>73</td> <td>143</td> </tr> <tr> <td>9210B2510-6010</td> <td>3/8</td> <td>172</td> <td>68</td> <td>16</td> <td>93</td> <td>0.583</td> <td>60</td> <td>96</td> <td>96</td> <td>48</td> <td>62</td> <td>80</td> <td>80</td> <td>88</td> <td>158</td> </tr> <tr> <td>9210B3110-8110</td> <td>3/8</td> <td>164</td> <td>54</td> <td>16</td> <td>103</td> <td>0.680</td> <td>66</td> <td>96</td> <td>96</td> <td>57</td> <td>68</td> <td>80</td> <td>94</td> <td>99</td> <td>164</td> </tr> <tr> <td>9220B 2610-3110</td> <td>3/8</td> <td>172</td> <td>68</td> <td>16</td> <td>103</td> <td>0.744</td> <td>66</td> <td>96</td> <td>96</td> <td>57</td> <td>62</td> <td>80</td> <td>94</td> <td>99</td> <td>164</td> </tr> <tr> <td>9210B4115-1115</td> <td>1/2</td> <td>164</td> <td>54</td> <td>16</td> <td>103</td> <td>0.690</td> <td>66</td> <td>96</td> <td>96</td> <td>57</td> <td>68</td> <td>80</td> <td>94</td> <td>99</td> <td>164</td> </tr> <tr> <td>9220B3115</td> <td>1/2</td> <td>172</td> <td>54</td> <td>16</td> <td>93</td> <td>0.593</td> <td>60</td> <td>96</td> <td>96</td> <td>48</td> <td>62</td> <td>80</td> <td>80</td> <td>88</td> <td>158</td> </tr> </tbody> </table>				Catalogue Number	Pipe Size Inch	Constr. Ref.	A	B	C	Weight (Approx.) Kgs. ⚡	E (RADIALLY)			F			G (APPROX.)			RD GP	RD WP	FLP	RD GP	RD WP	FLP	RD GP	RD WP	FLP	9210B15-30/40/45/60	1/4	2.1	39.5	10.5	85	0.518	60	96	96	48	62	80	72	80	150	9210B31/41/46/61	1/4	157	39.5	10.5	95	0.615	66	96	96	57	68	80	86	91	156	9220B15-30	1/4	2.1	39.5	10.5	85	0.518	60	96	96	48	62	80	72	80	150	9210B15-30/40/45/60	1/4	2.2	51	12.6	78	0.503	60	96	96	48	62	80	65	73	143	9210B31/41/46/61	1/4	165	51	12.6	108	0.605	66	96	96	57	68	80	79	104	163	9220B15-30	1/4	2.2	51	12.6	78	0.503	60	96	96	48	62	80	65	73	143	9210B2510-6010	3/8	172	68	16	93	0.583	60	96	96	48	62	80	80	88	158	9210B3110-8110	3/8	164	54	16	103	0.680	66	96	96	57	68	80	94	99	164	9220B 2610-3110	3/8	172	68	16	103	0.744	66	96	96	57	62	80	94	99	164	9210B4115-1115	1/2	164	54	16	103	0.690	66	96	96	57	68	80	94	99	164	9220B3115	1/2	172	54	16	93	0.593	60	96	96	48	62	80	80	88	158
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⚡ Weight with SQ enclosure only, ask AVCON for other weights.

Note:

Technical specifications, details & dimensions are subject to change without prior notice. Dimensions in the table are approximate subject to final confirmation by AVCON.