

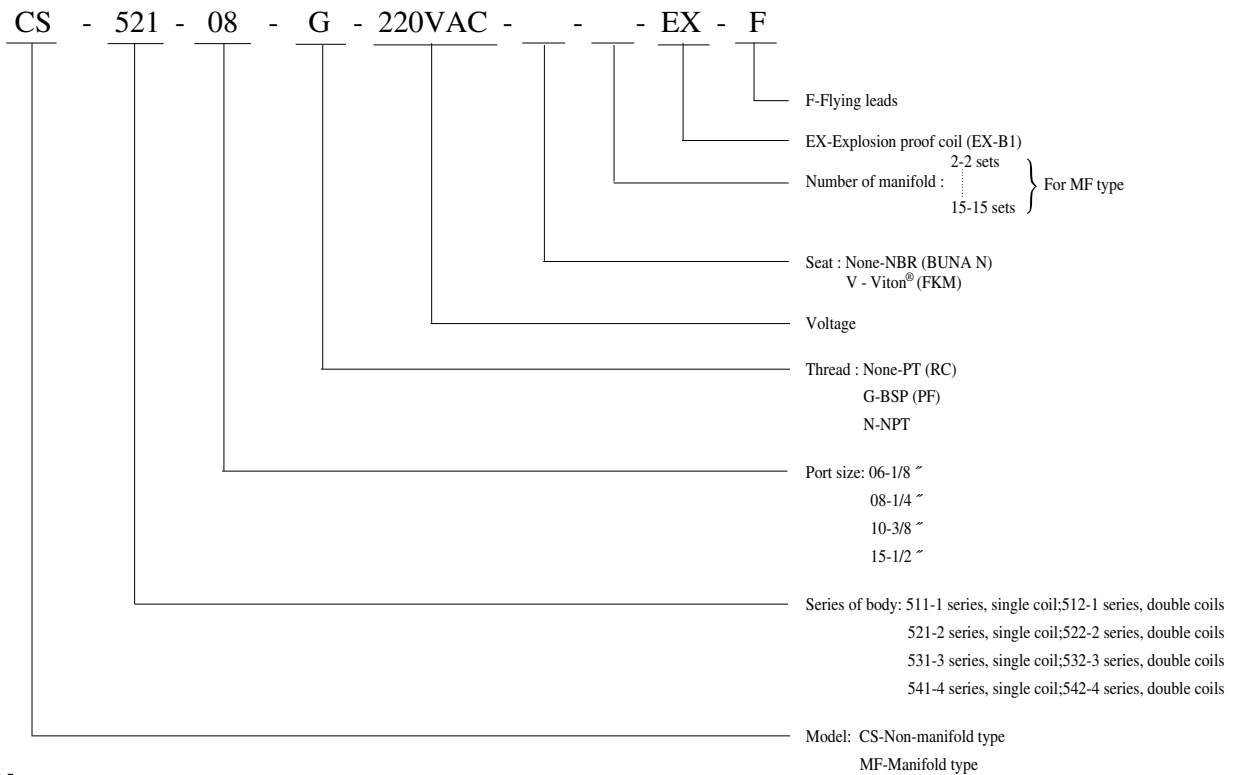


5/2-way solenoid valve of aluminum alloy body for pipe connection

Single & Double Coil / Spool Design

Model	Port size	Effective Area (mm ²)	CV value	Fluid temp. (°C)	Seat disc	Differential pressure	Wt. (kg)
						kg/cm ² (bar)	
CS-511-06	1/8 "	12	0.67	-10	NBR	Air	0.15
CS-521-08	1/4 "	16	0.89			1.5-9.9	
CS-531-08	1/4 "	36	2			1.5-9.9	
CS-531-10	3/8 "	36	2			1.5-9.9	
CS-541-15	1/2 "	50	2.8			1.5-9.9	
CS-512-06	1/8 "	12	0.67			1.5-9.9	
CS-522-08	1/4 "	16	0.89			1.5-9.9	
CS-532-08	1/4 "	36	2			1.5-9.9	
CS-532-10	3/8 "	36	2	60	Viton®	1.5-9.9	0.45
CS-542-15	1/2 "	50	2.8			1.5-9.9	

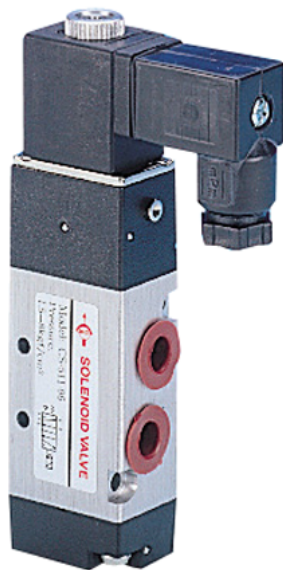
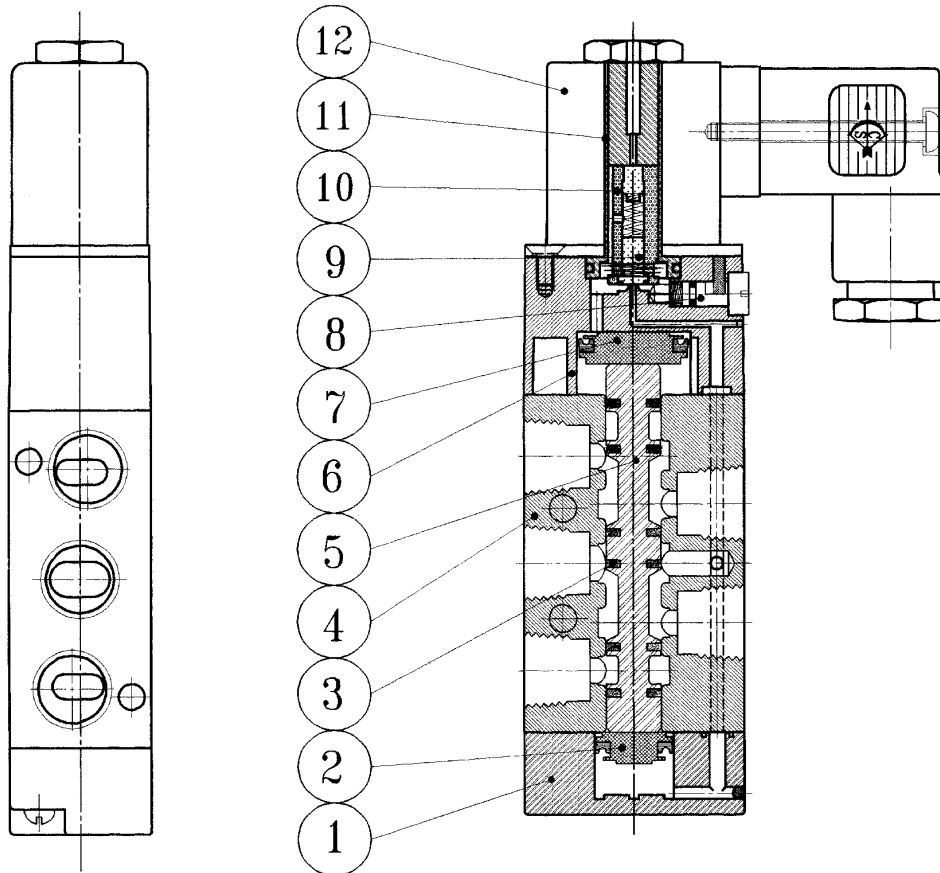
How to order



Notes:

1. Voltage drop range is within $\pm 10\%$.
2. Exhaust of 521 series is 1/8" and 531 series is 1/4".
3. Installation position: free.
4. Standard cylinder range: 511~532 series for $\phi 20 \sim \phi 80$ mm, 531~542 series for $\phi 80 \sim \phi 125$ mm.
5. Response: 15~20ms.
6. Standard coil is DIN 43650B with LED connector, but 511 series is two wires. DIN coil for 511 series is custom-made (DIN 43650 C).
7. Manual override push and lock (CS-511-06 push type only).
8. Viton® seat is custom-made.

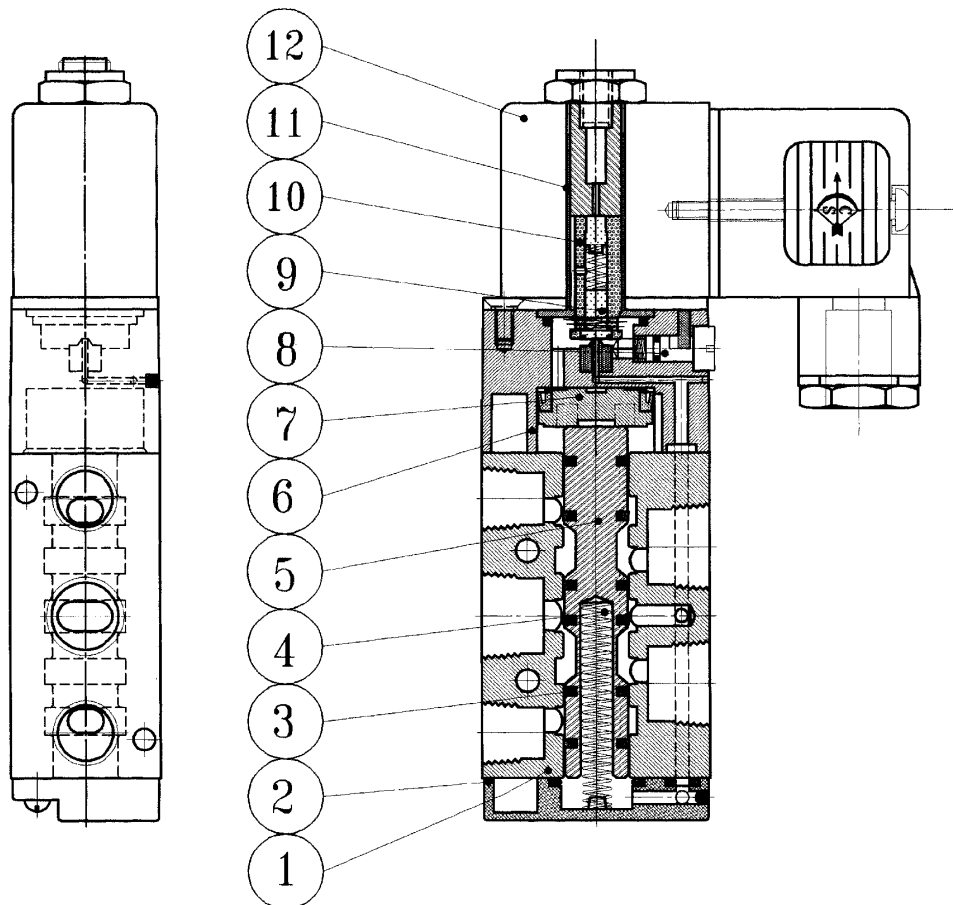
- Air Return: CS-511-06
- CS-5V06-S
- CS-5V08-S
- CS-5210-S



● Material Table

Item	Article	Material
1	Bottom Cover	Plastic
2	Piston	Plastic
3	Spool Seal	NBR. Viton®
4	Valve Body	Aluminum Alloy
5	Spool	Aluminum Alloy
6	Pilot Kit	Plastic
7	Piston	Plastic
8	Manual Override	Plastic
9	Seat	NBR. Viton®
10	Armature Core	Stainless Steel
11	Solenoid Tube	SUS+Copper
12	Coil	Brass Wire

- Spring Return : CS - 521- 08
- CS - 531- 08
- CS - 531- 10
- CS - 541- 15

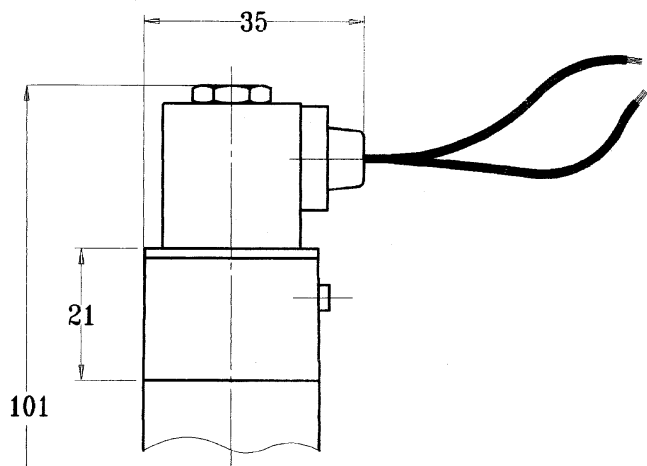
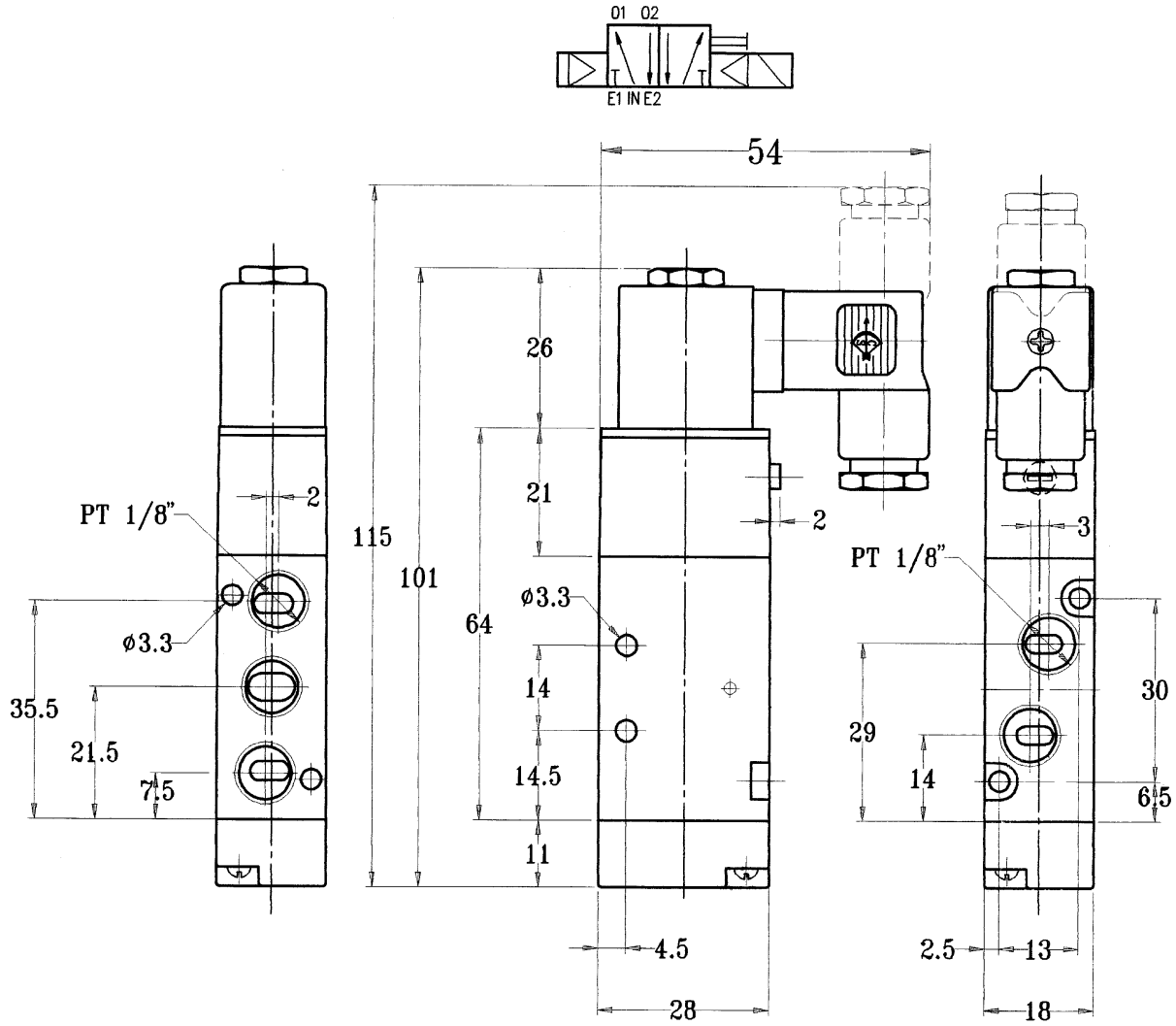


● Material Table

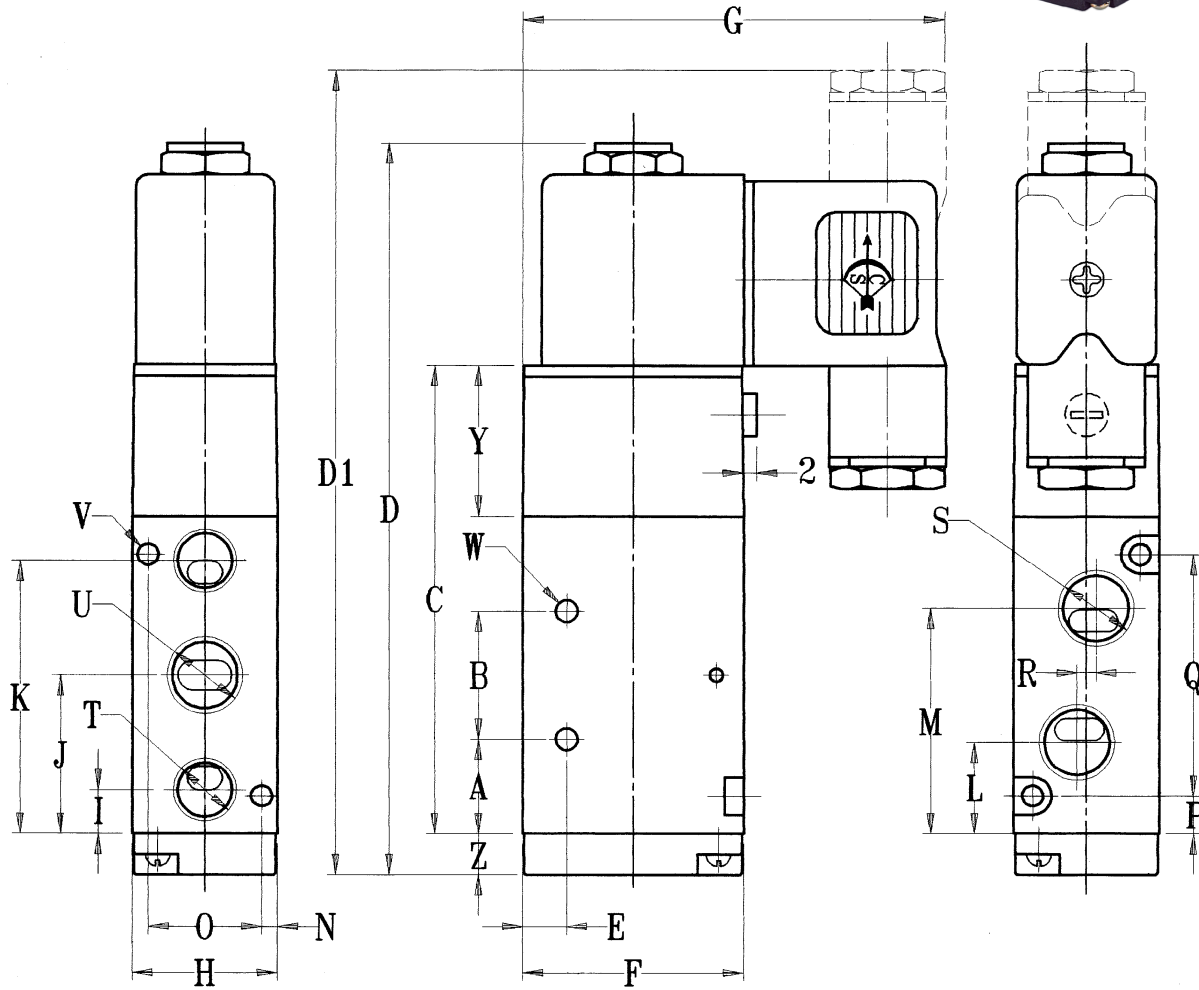
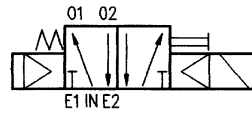
Item	Article	Material
1	Valve Body	Aluminum Alloy
2	Bottom Cover	Plastic
3	Spool Seal	NBR. Viton®
4	Spring	Stainless Steel
5	Spool	Aluminum Alloy
6	Pilot Kit	Plastic
7	Piston	Plastic
8	Manual Override	Plastic
9	Seat	NBR. Viton®
10	Armature Core	Stainless Steel
11	Solenoid Tube	SUS+Copper
12	Coil	Brass Wire

● CS-511-06

Unit:mm



- Spring Return: CS-521- **
- CS-531- **
- CS-541- **



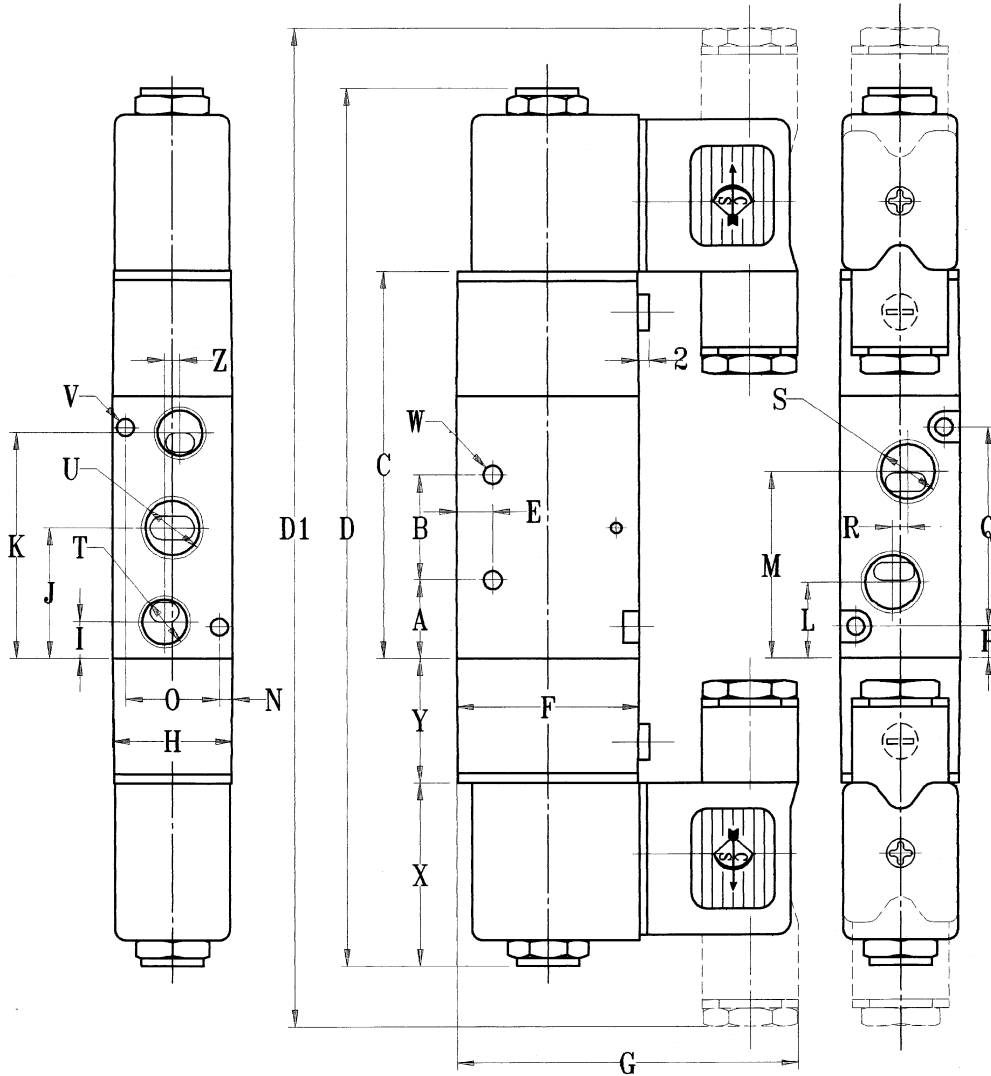
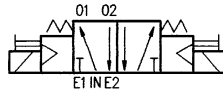
● Specifications of 5/2-way Single Coil

Unit:mm

Model \ Item	A	B	C	D	D1	E	F	G	H	I	J	K	L	M	N
CS-521-08	15	20	74	115.5	127	7	35	67	23	7	25	43	14.5	35.5	3
CS-531-08	20.5	24	89	132	143.5	6	40	70	27	10	32.5	55	20.5	44.5	3.5
CS-531-10	20.5	24	89	132	143.5	6	40	70	27	10	32.5	55	20.5	44.5	3.5
CS-541-15	33	28	121	164	175.5	8	50	75	34	15.5	47	78.5	29	66	3.5

Model \ Item	O	P	Q	R	S	T	U	V	W	Y	Z
CS-521-08	17	6	38	3	PT 1/4"	PT 1/8"	PT 1/4"	3.3	4.33	24	6.5
CS-531-08	20	7.5	50	4	PT 1/4"	PT 1/4"	PT 1/4"	4.5	4.5	24	8
CS-531-10	20	7.5	50	4	PT 3/8"	PT 1/4"	PT 3/8"	4.5	4.5	24	8
CS-541-15	27	11	72	4	PT 1/2"	PT 1/2"	PT 1/2"	4.5	5.5	27	8

- Spring Return: CS-522- **
- CS-532- **
- CS-542- **
- CS-543- **



● Specifications of 5/2-way Double Coil

Unit:mm

Model \ Item	A	B	C	D	D1	E	F	G	H	I	J	K	L	M	N
CS-512-06	14.5	14	64	138	166	4.5	27	54	18	7.5	21.5	35.5	14	29	2.5
CS-522-08	15	20	74	168	191	7	35	67	23	7	25	43	14.5	35.5	3
CS-532-10	20.5	24	89	183	206	6	40	70	27	10	32.5	55	20.5	44.5	3.5
CS-542-15	33	28	121	217	240	8	50	75	34	15.5	47	78.5	29	66	3.5

Model \ Item	O	P	Q	R	S	T	U	V	W	X	Y	Z
CS-512-06	13	6.5	30	3	PT 1/8"	PT 1/8"	PT 1/8"	3.3	3.3	26.5	21	2
CS-522-08	17	6	38	3	PT 1/4"	PT 1/8"	PT 1/4"	3.3	4.3	35	24	0
CS-532-10	20	7.5	50	4	PT 3/8"	PT 1/4"	PT 3/8"	4.5	4.5	35	24	0
CS-542-15	27	11	72	4	PT 1/2"	PT 1/2"	PT 1/2"	4.5	5.5	35	27	0

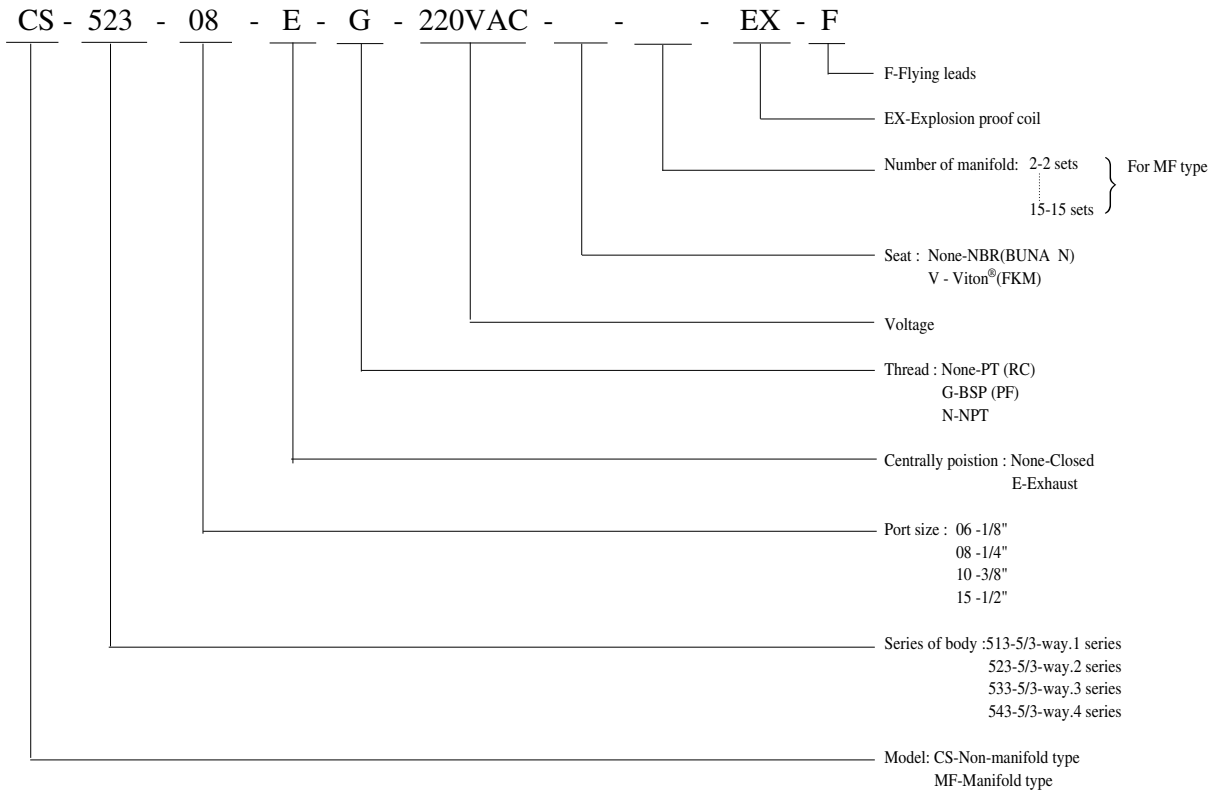


5/3-way solenoid valve of aluminum alloy body for pipe connection

Double coil / Centrally Closed & Exhaust

Model	Port size	Effective Area (mm ²)	CV value	Fluid temp. (°C)	Seat disc	Differential pressure kg/cm ² (bar)	Wt. (kg)
						Air	
CS-513-06	1/8 "	9	0.50	-10	NBR	1.5-9.9	0.22
CS-523-08	1/4 "	12	0.67			1.5-9.9	0.42
CS-533-08	1/4 "	32	1.79			1.5-9.9	0.55
CS-533-10	3/8 "	32	1.79			1.5-9.9	0.55
CS-543-15	1/2 "	35	1.96			1.5-9.9	0.85
CS-513-06-E	1/8 "	9	0.50	60	Viton®	1.5-9.9	0.22
CS-523-08-E	1/4 "	12	0.67			1.5-9.9	0.42
CS-533-08-E	1/4 "	32	1.79			1.5-9.9	0.55
CS-533-10-E	3/8 "	32	1.79			1.5-9.9	0.55
CS-543-15-E	1/2 "	35	1.96			1.5-9.9	0.85

How to order

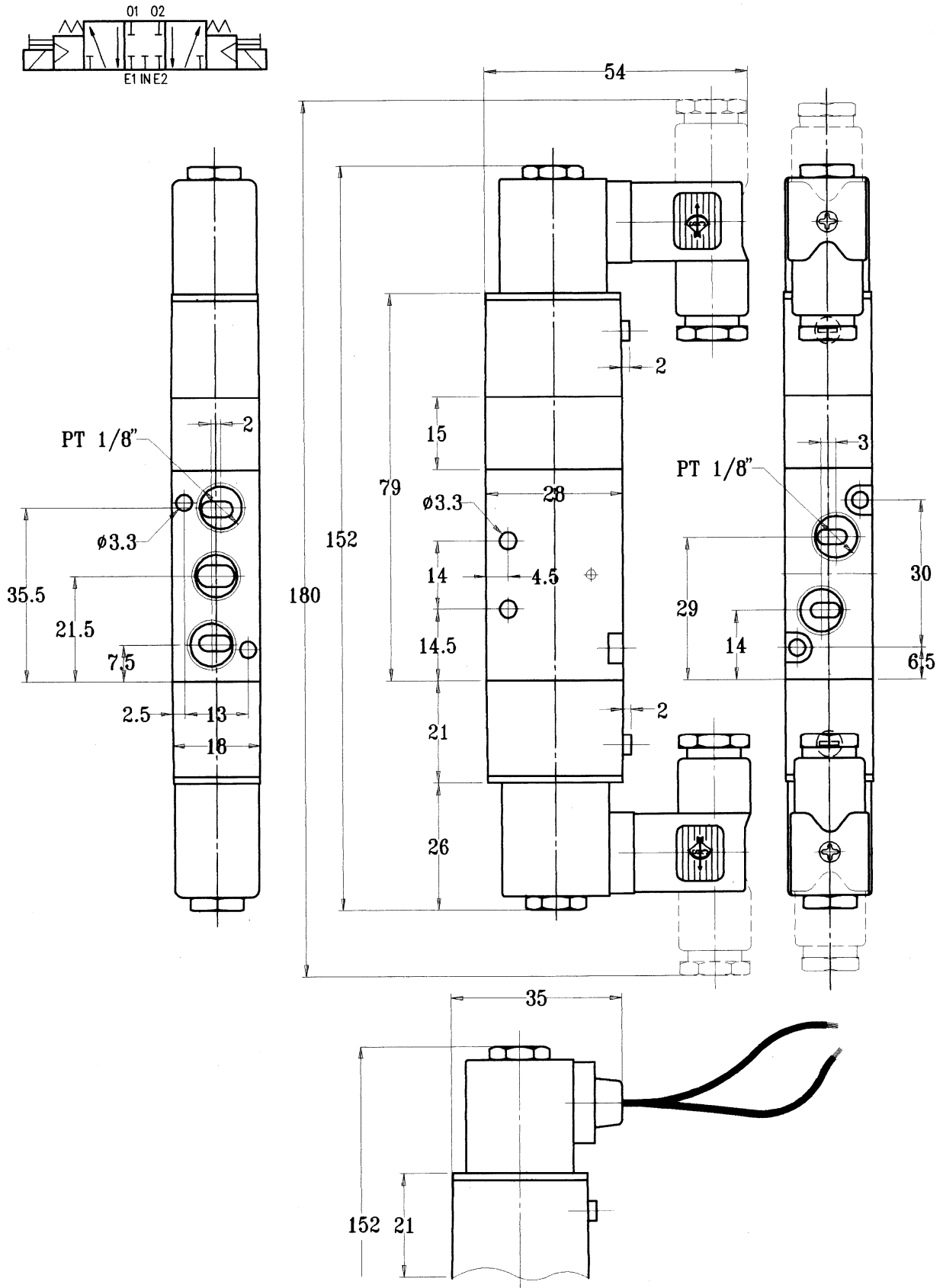


Notes:

1. Voltage drop range is within ±10%.
2. Exhaust of 523 series is 1/8" and 532 series is 1/4".
3. Installation position : free.
4. Cylinder range:513~523 series for ø20~ø80mm,
533~543 series for ø80~ø125mm.
5. Response:15~20ms.
6. Coil is DIN 43650B with LED connector, but 513 series is two wires. DIN type can be custom-made (DIN43650C)
7. Manual override:push and lock.
(CS-513-06 Push type only)
(CS-513-06-E Push type only)
8. Viton® seat is custom-made.

● Specifications Chart
CS-513-06

Unit:mm

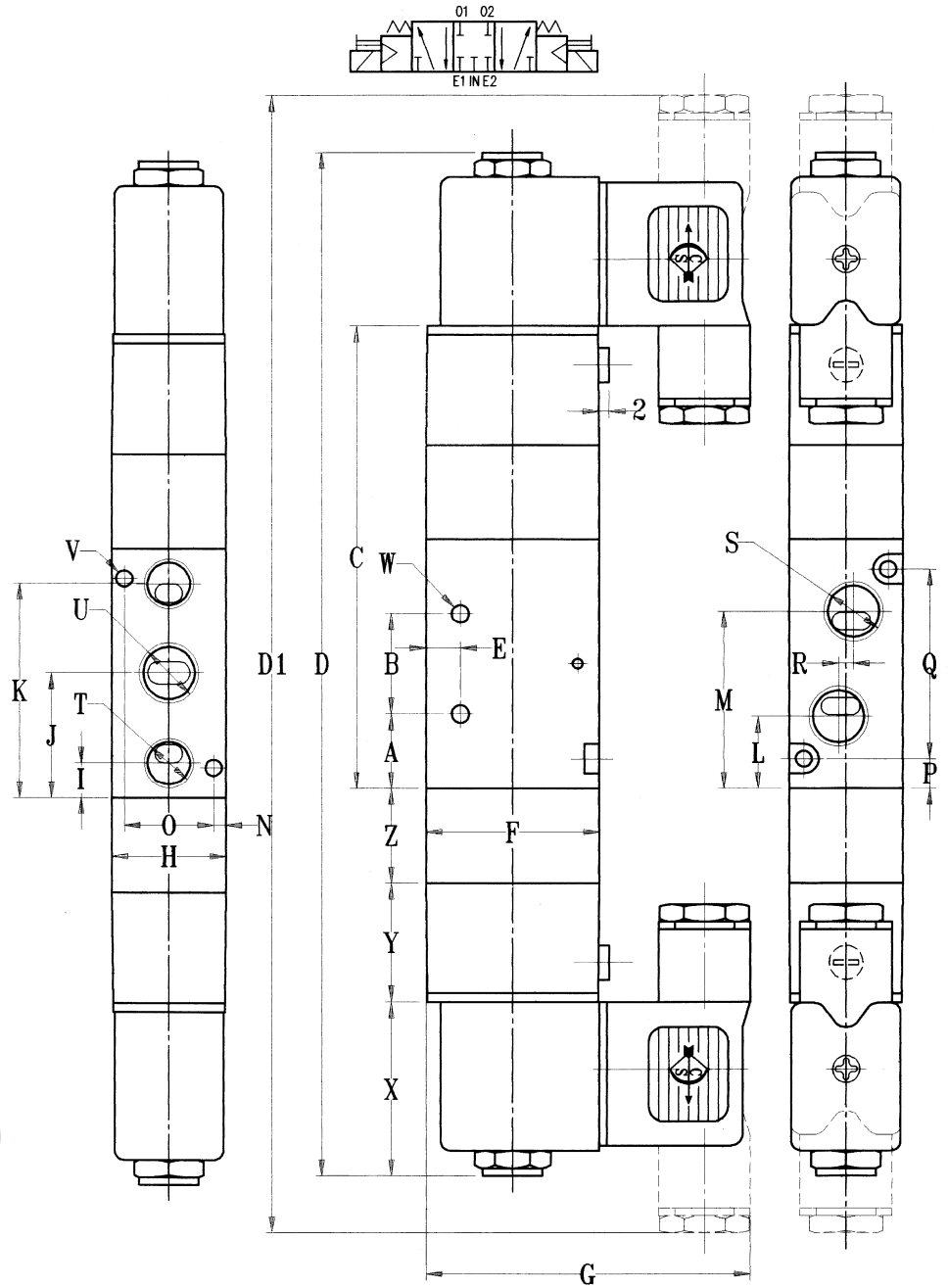


● Specifications Chart

CS-523-*

CS-533-*

CS-543-*

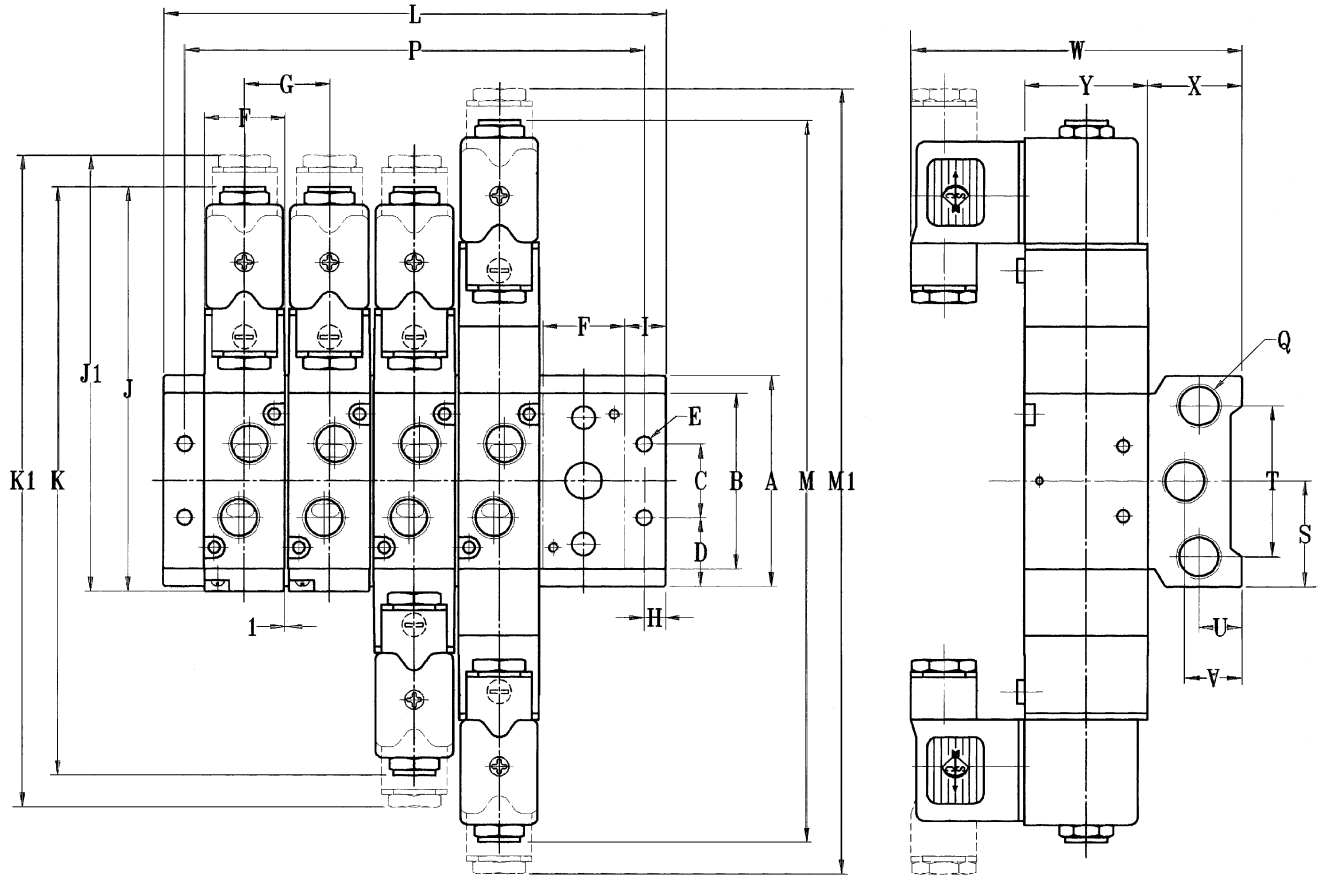
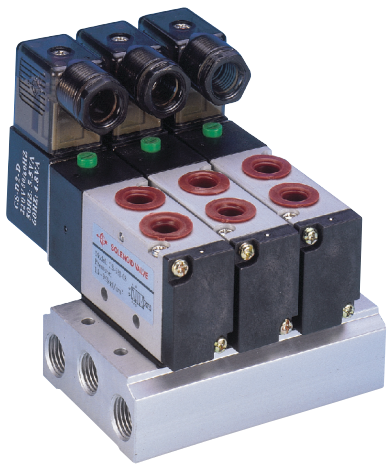


● Specifications of 5/3-way Double Coil

Unit:mm

Model \ Item	A	B	C	D	D1	E	F	G	H	I	J	K	L	M	N
CS-523-08	15	20	93	206	229	7	35	67	23	7	25	43	14.5	35.5	3
CS-533-10	20.5	24	104	213	236	6	40	70	27	10	32.5	55	20.5	44.5	3.5
CS-543-15	33	28	121	217	240	8	50	75	34	15.5	47	78.5	29	66	3.5

Model \ Item	O	P	Q	R	S	T	U	V	W	X	Y	Z
CS-523-08	17	6	38	3	PT 1/4"	PT 1/8"	PT 1/4"	3.3	4.3	35	24	19
CS-533-10	20	7.5	50	4	PT 3/8"	PT 1/4"	PT 3/8"	4.5	4.5	35	24	15
CS-543-15	27	11	72	4	PT 1/2"	PT 1/2"	PT 1/2"	4.5	5.5	35	27	



● Specifications of Manifold Type

Unit:mm

Model	Item	A	B	C	D	E	F	G	H	I	J	J1	K	K1	L											
															1F	2F	3F	4F	5F	6F	7F	F8	F9	10F	11F	12F
MF-51*-06		58	43	20	19	4.3	18	19	5	10	101	115	138	166	38	57	76	95	114	133	152	171	190	209	228	247
MF-52*-08		60	50	21	19.5	4.3	23	24	6	11.5	115	127	168	191	46	70	94	118	142	166	190	214	238	262	286	310
MF-53*-10		74	63	25	24.5	7	27	28	6	14	132	144	183	206	56	84	112	140	168	196	224	252	280	308	336	364
MF-54*-15		100	95	32	31.5	7	34	35	7	18	164	176	217	240	63	98	133	168	203	238	273	308	343	378	413	448

Model	Item	M	M1	P												Q	S	T	U	V	W	X	Y				
				1F	2F	3F	4F	5F	6F	7F	F8	F9	10F	11F	12F												
MF-51*-06		152	180	28	47	66	85	104	123	142	161	180	199	218	237	PT1/4"	29	41	12	16	79	25	28				
MF-52*-08		206	229	34	58	82	106	130	154	178	202	226	250	274	298	PT1/4"	30	43	11	15	92	25	35				
MF-53*-10		213	236	44	72	100	128	156	184	212	240	268	296	324	352	PT3/8"	37	52	13	19	99.5	29.5	40				
MF-54*-15		217	240	49	84	119	154	189	224	259	294	329	364	399	434	PT1/2"	50	62	19	19	125	42	50				