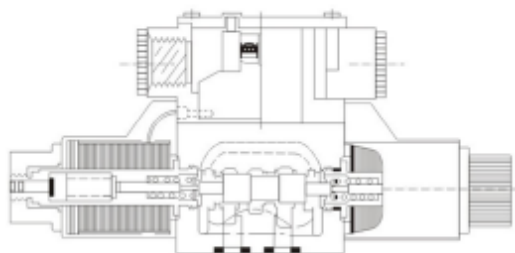


VALVES

G

DIRECTIONAL CONTROLS	G1
INTRODUCTION SOLENOID OPERATED VALVE	G1
SOLENOID OPERATED VALVE (SHD-G02/03)	G2
SOLENOID OPERATED VALVE (SWDH-G04/06/10)	G6
SOLENOID OPERATED VALVE (RWD 4/6/10)	G9
MANUALLY OPERATED VALVE (DMT-03/04/06/10, DMG-02/03)	G11
MECHANICALLY OPERATED VALVE (DCG-02)	G12
PRE-FILL VALVE (SVF-32/50/63/80/100/125/160/200)	G13
MODULES	G16
INTRODUCTION MODULAR VALVE	G16
MODULAR VALVE (MRV, MBV, MG, MSV, MCB-02/03)	G17
MODULAR VALVE (MTV, MTC, MCV, MPC-02/03)	G18
MODULAR VALVE (MRV, MG, MTV, MTC, MPC, MCV-06)	G19
FLOW CONTROL	G20
INTRODUCTION DECELERATION VALVE	G20
DECELERATION VALVE (FNC, FK, FYC, FSC-G02/03)	G21
DECELERATION VALVE (MFS-G02/03-[modular], SF-06/10).....	G23
THROTTLE & CHECK VALVE (TL-02/03/04/06).....	G23
LIFT VALVE (LVS-03T, KVS-04TL, V2064)	G24
CARTRIDGE SOLENOID CHECK VALVE (V2068, V2070, KVS-202/203/403/404)	G26
DIVIDING & COMBINING VALVE (VDFR 38-12/38-24/12-40/34-90/100-150)	G28
PRESSURE SWITCH (JCS, DNA, DNB, DNF)	G29
MODULAR PRESSURE SWITCH (DMB)	G30
PRESSURE GAUGE & IN-LINE FILTER (PGF, OF)	G31



FEATURES :

1. High pressure high flow rating provides low pressure drop performance.
2. All spools and bodies are interchangeable.
3. Wet armature solenoid provides low noise, leakage free and longer life.
4. Plug-in solenoid for easy maintenance.
5. Moulded coil construction is weather proof and impervious to dirt environment.
6. Indicating lamp is standard.
7. A momentary signal of only 0.1 second is required for shifting action.

● SPOOL TYPE

Double solenoid				Single solenoid					
Three position spring centered		Two position detent		Two position spring offset					
3C2 (E)		2D2		2B2 (D)		2B2B (EA)		2B2A	
3C3 (H)		2D3		2B3 (C)		2B3B (HA)		2B3A	
3C4 (J)				2B2S (Y)		2B4B		2B4A	
3C40 (W)				2B3S		2B40B		2B40A	
3C5 (F)						2B5B		2B5A	
3C60 (G)						2B60B		2B60A	
3C6									
3C7						2B7B		2B7A	
3C8		2D8		2B8 (A)		2B8B		2B8A	
3C9 (M)				2B8S (B)		2B9B		2B9A	
3C10 (U)						2B10B		2B10A	
3C11						2B11B		2B11A	
3C12 (L)						2B12B		2B12A	

● SHD-02G SERIES



Terminal box



DIN plug-in connector

ORDERING CODE

SHD — 02G — 3C⁺ — A22 + — +

Series number Valve size Spool type Wiring Design number

02: 6
03: 10

Coil voltage

A20: AC200V/50Hz, 220V/60Hz
A22: AC220V/50Hz, 240V/60Hz
A24: AC240V/50Hz
A10: AC100V/50Hz, 110V/60Hz
A11: AC110V/50Hz, 120V/60Hz
D12: DC12V
D24: DC24V

R11: AC110V Rectifier inside

R22: AC220V Rectifier inside

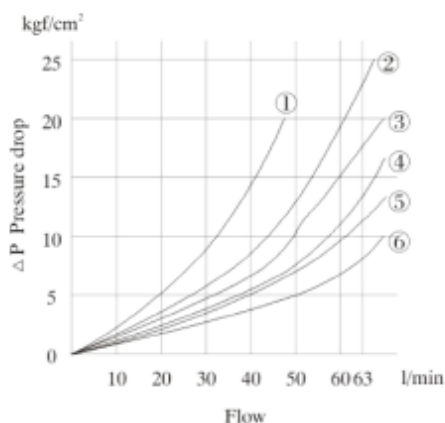
omit: Terminal box

D: DIN plug-in connector

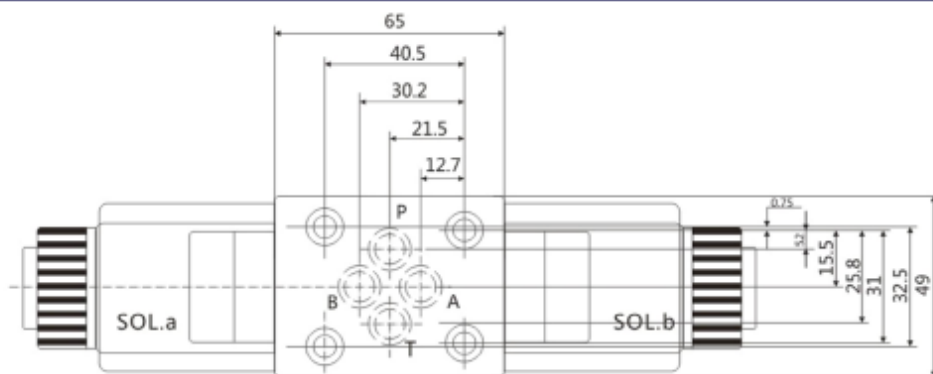
SHOCKLESS TYPE
(충격방지)

● PERFORMANCE CHART

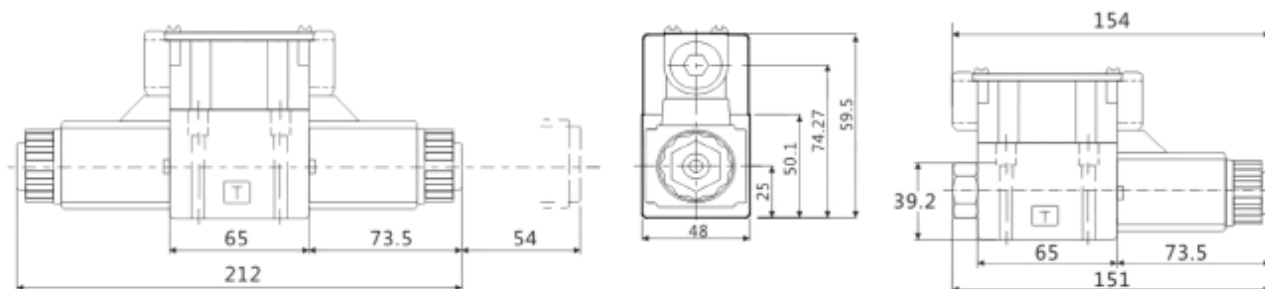
SHD-02G	
Terminal box	DIN plug-in connector
SPECIFICATIONS	
Maximum operating pressure:	31.5 Mpa (spool 6 type 25Mpa only)
Rated flow capacity:	63 l/min
Maximum T line back pressure:	14 Mpa
Maximum frequency of operation:	160 cycle/min
Filtration required:	25μm
Mounting bolt:	M5*45L 4pcs
Weight:	Double solenoid AC 2 kg / DC 2.2kg Single solenoid AC 1.6kg / DC 1.6kg



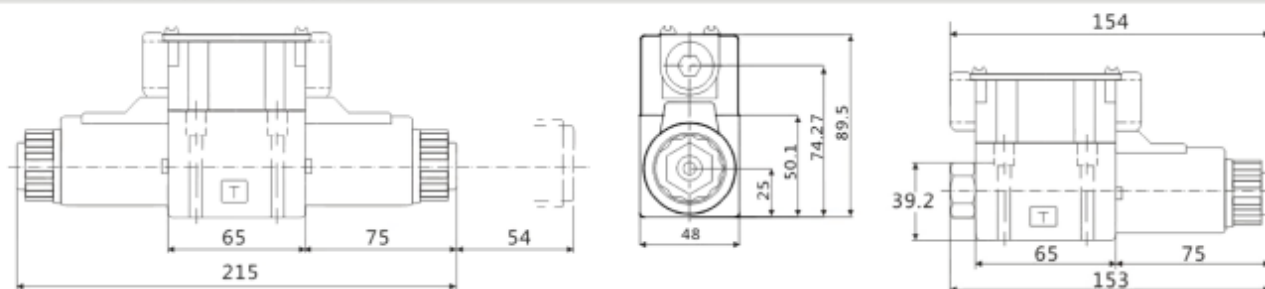
SPOOL TYPE	C2	C3	C4	C40	C5	C60	C7	C8	C9	C10	C11	C12	D2	D3	B2	B3
P→A	5	6	5	5	1	1	6	5	6	5	6	5	5	6	2	3
B→T	5	6	6	5	1	1	5	5	5	6	5	5	2	3	2	3
P→B	5	6	5	5	1	1	6	5	6	5	5	5	5	5	5	5
A→T	5	6	6	5	1	1	5	6	5	5	5	6	2	3	5	5
P→T	—	4	—	—	4	4	—	—	—	—	—	—	—	—	—	—



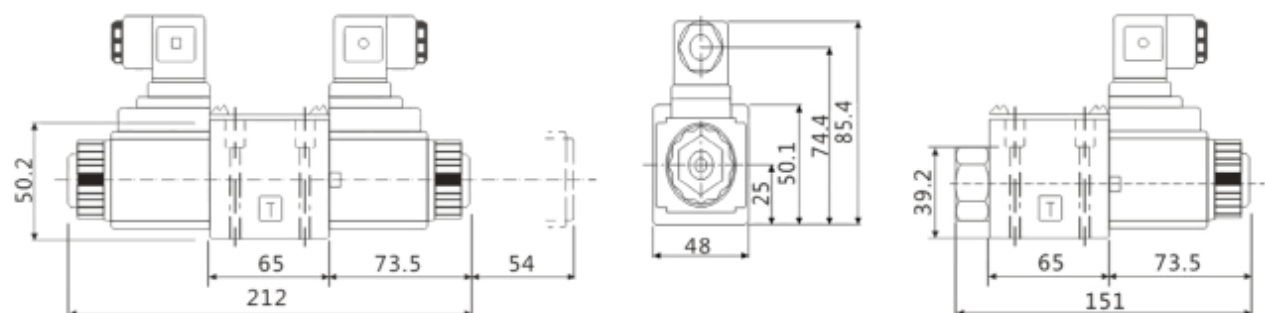
● SHD-02 TERMINAL BOX(AC)



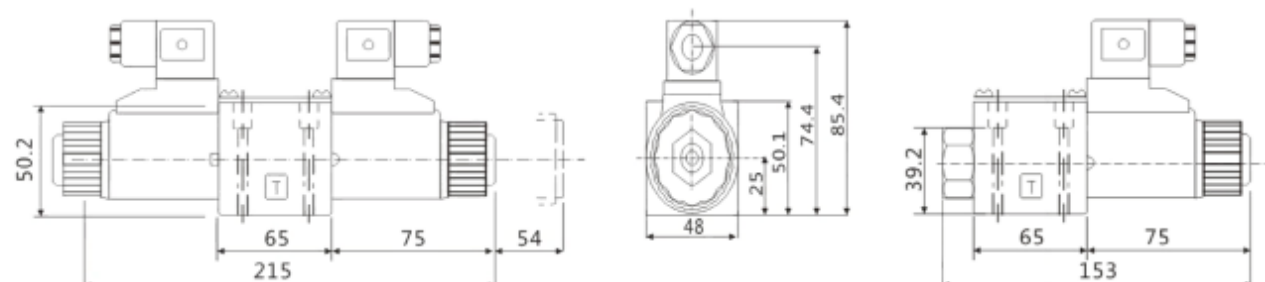
● SHD-02 TERMINAL BOX(DC)



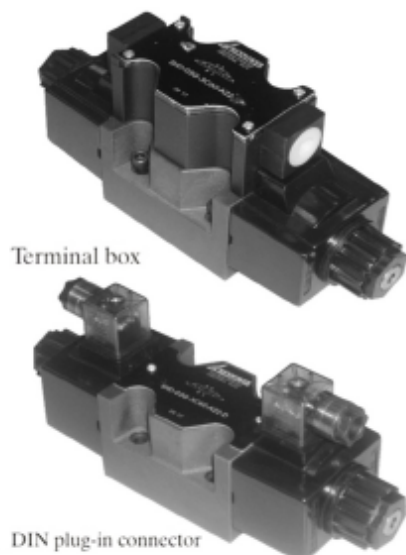
● SHD-02 DIN PLUG-IN CONNECTOR(AC)



● SHD-02 DIN PLUG-IN CONNECTOR(DC)



● SHD-03G SERIES

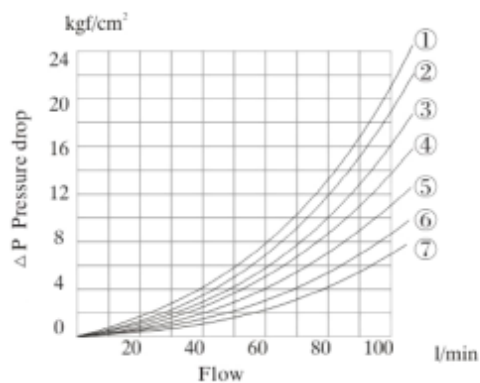


ORDERING CODE

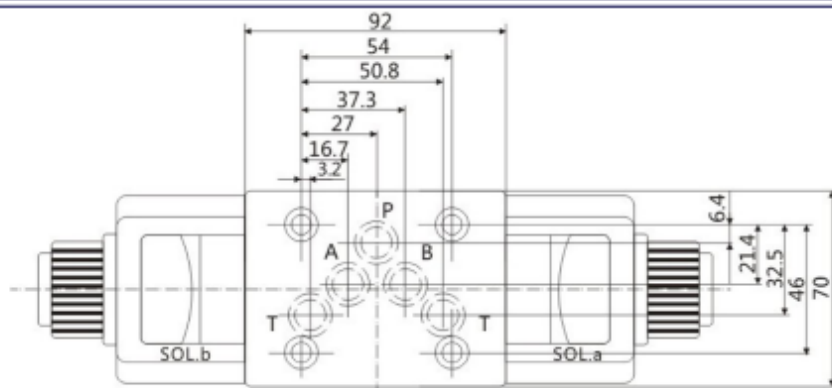
Series number	Valve size	Spool type	Wiring	Design number
SHD	03G	3C⁺	A22	+
	02: 6 03: 10		omit: Terminal box D: DIN plug-in connector	
Coil voltage				
A20: AC200V/50Hz, 220V/60Hz				
A22: AC220V/50Hz, 240V/60Hz				
A24: AC240V/50Hz				
A10: AC100V/50Hz, 110V/60Hz				
A11: AC110V/50Hz, 120V/60Hz				
D12: DC12V				
D24: DC24V				
R11: AC110V Rectifier inside				
R22: AC220V Rectifier inside				
SHOCKLESS TYPE (충격방지)				

● PERFORMANCE CHART

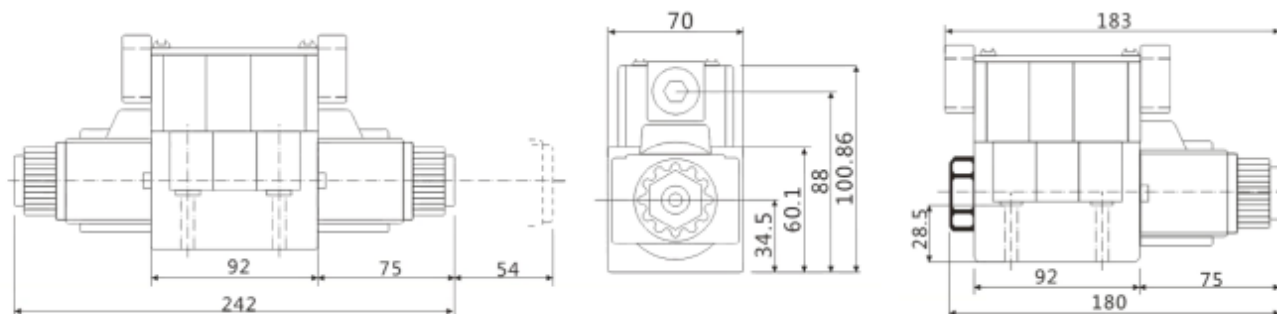
SHD-03G	
Terminal box	DIN plug-in connector
SPECIFICATIONS	
Maximum operating pressure:	31.5 Mpa (spool 6 type 25Mpa only)
Rated flow capacity:	100 l/min
Maximum T line back pressure:	14 Mpa
Maximum frequency of operation:	160 cycle/min
Filtration required:	25μm
Mounting bolt:	M6*35L 4pcs
Weight:	Double solenoid AC 4 kg / DC 5.2kg Single solenoid AC 3kg / DC 3.6kg



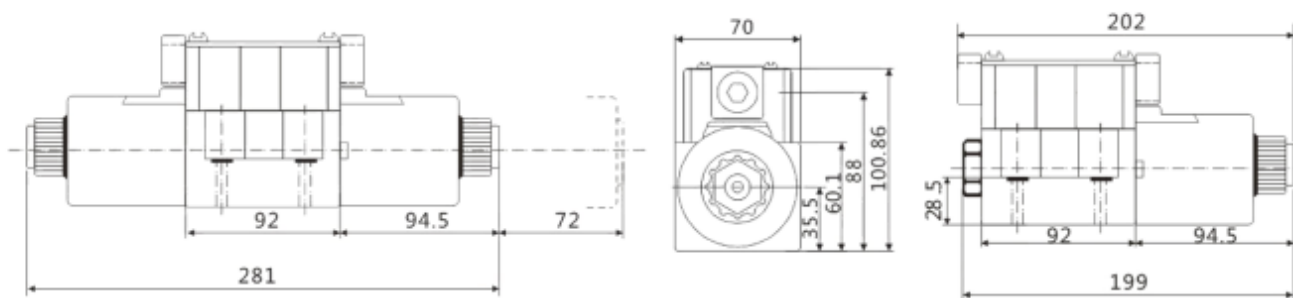
SPOOL TYPE	C2	C3	C4	C40	C5	C60	C7	C8	C9	C10	C11	C12	D2	D3	B2	B3
P→A	4	6	4	4	6	5	6	4	6	5	6	4	3	3	2	2
B→T	5	6	7	5	5	5	5	5	5	6	5	5	3	3	2	2
P→B	4	6	4	4	4	5	6	4	4	4	4	4	4	5	4	5
A→T	5	6	7	5	6	5	5	7	5	5	5	7	5	5	5	6
P→T	—	6	—	—	2	1	—	—	—	—	—	—	—	—	—	—



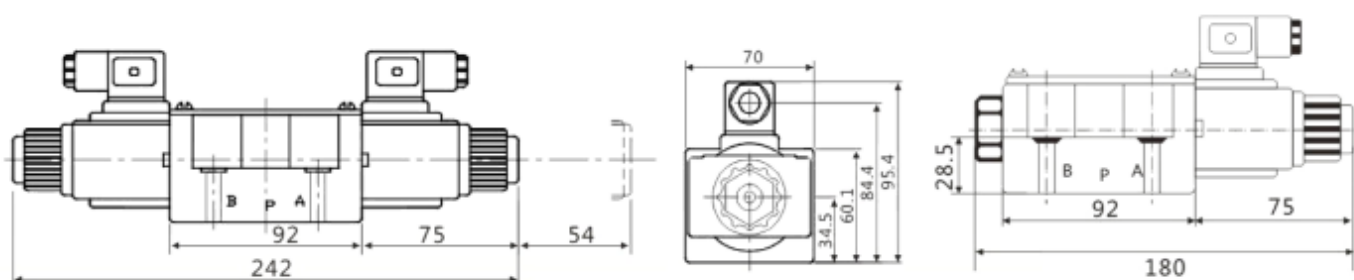
● SHD-03 TERMINAL BOX(AC)



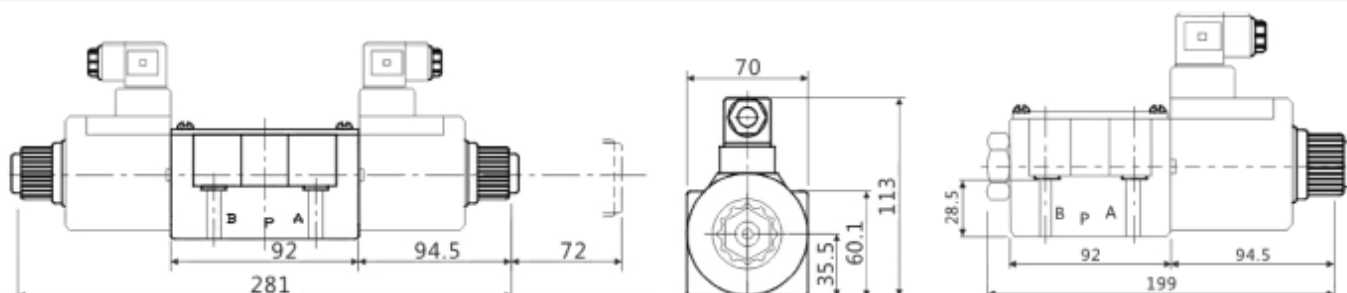
● SHD-03 TERMINAL BOX(DC)



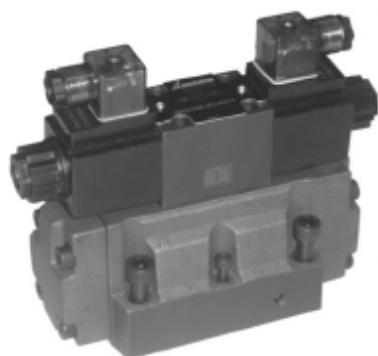
● SHD-03 DIN PLUG-IN CONNECTOR(AC)



● SHD-03 DIN PLUG-IN CONNECTOR(DC)



● SWDH-04 SERIES



ORDERING CODE

SWDH — 04G — 3C* — A22 * — * — * — *

Series number

SWDH:
Solenoid operated
directional valve

DP:

Hydraulic pilot directional valve

Valve size

04, 06, 10

Spool type

Coil voltage

Wiring

Omit: Terminal box

D: DIN plug-in

Design number

Drain

Omit: Internal drain

D: External drain

Pilot

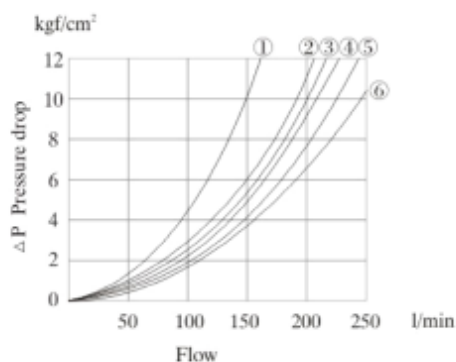
Omit: Internal pilot

P: External pilot

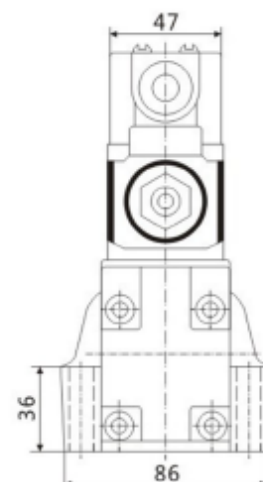
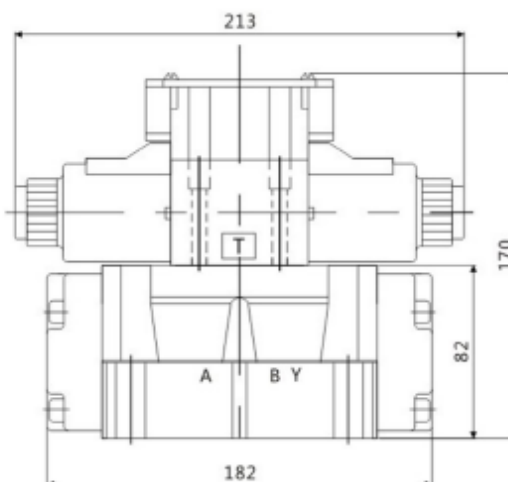
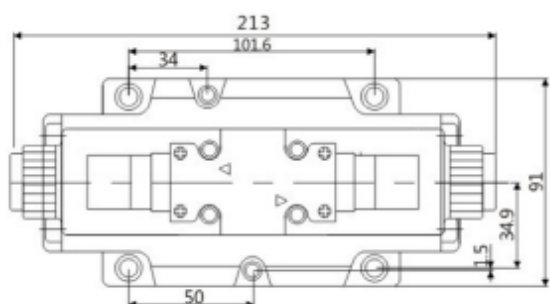
● PERFORMANCE CHART

SPECIFICATIONS

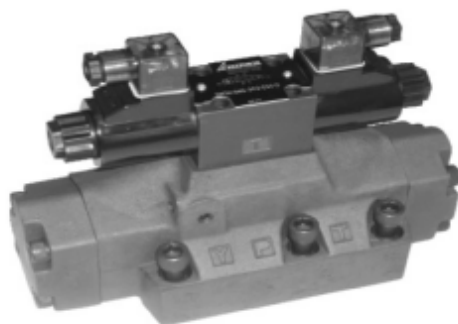
Maximum operating pressure	25 Mpa (Spool 6 and 60 type 21Mpa only)
Rated flow capacity	150 l/min
Max. flow capacity	250 l/min
Maximum T line back pressure	14 Mpa
Maximum frequency of operation	120 cycle/min
Filtration	25 μ m
Mounting bolt	M6×45L 2 pcs, M10×50L 4 pcs
weight(without sol. valve)	6.2kgs(DP-04 only)



SPOOL TYPE		2	3	4	40	5	6	7	9	10	11	12
Pressure decrease curve number	P→A	5	6	5	5	5	2	5	6	5	5	5
	B→T	2	3	4	4	2	3	2	2	4	4	3
	P→B	5	6	5	5	4	4	5	6	5	5	5
	A→T	4	5	5	5	5	2	5	5	5	5	5
	P→T	—	3	—	—	1	1	—	—	—	—	—



● SWDH-06 SERIES



ORDERING CODE

SWDH — 06G — 3C* — A22 + — + + — +

Series number

SWDH:

Solenoid operated
directional valve

DP:

Hydraulic pilot directional valve

Valve size

04, 06, 10

Spool type

Coil voltage

Wiring

Omit: Terminal box

D: DIN plug-in

Design number

Drain

Omit: Internal drain

D: External drain

Pilot

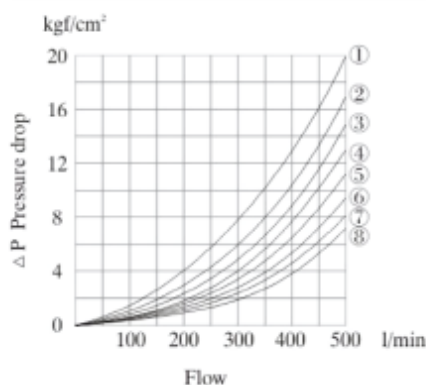
Omit: Internal pilot

P: External pilot

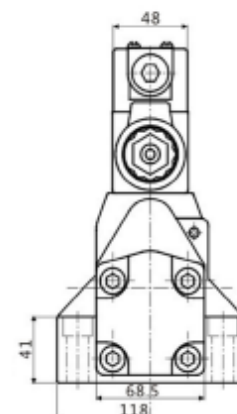
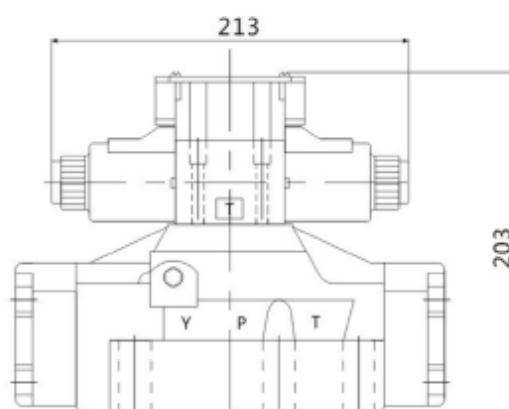
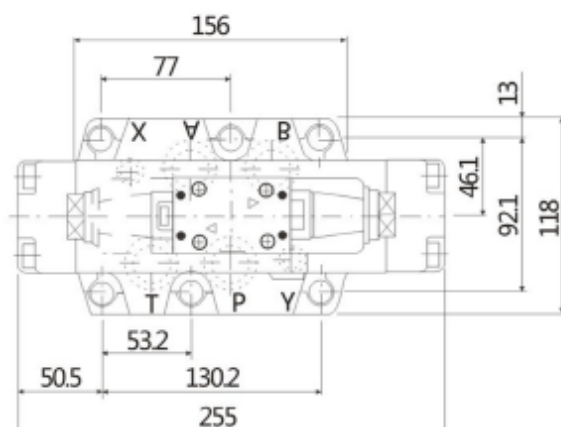
● PERFORMANCE CHART

SPECIFICATIONS

Maximum operating pressure	25 Mpa (Spool 6 and 60 type 21Mpa only)
Rated flow capacity	300 l/min
Max. flow capacity	500 l/min
Maximum T line back pressure	14 Mpa
Maximum frequency of operation	120 cycle/min
Filtration	25 μ m
Mounting bolt	M12×60L 6 pcs
weight(without sol. valve)	12kgs(DP-06 only)



SPOOL TYPE		2	3	4	40	5	6	7	9	10	11	12
Pressure decrease curve number	P→A	8	6	8	8	8	5	6	6	8	8	8
	B→T	5	4	5	5	4	1	4	5	5	4	5
	P→B	8	6	8	8	5	5	6	6	8	5	8
	A→T	7	7	7	7	7	4	7	7	7	7	7
	P→T	—	6	—	—	2	3	—	—	—	—	—



● SWDH-10 SERIES



ORDERING CODE

SWDH — 10G — 3C* — A22 + — + + — +

Series number

SWDH:

Solenoid operated
directional valve

DP:

Hydraulic pilot directional valve

Valve size

04, 06, 10

Spool type

Coil voltage

Wiring

Omit: Terminal box

D: DIN plug-in

Design number

Drain

Omit: Internal drain

D: External drain

Pilot

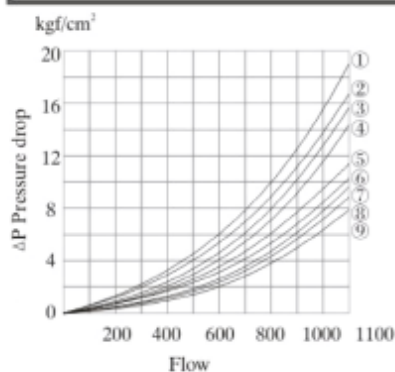
Omit: Internal pilot

P: External pilot

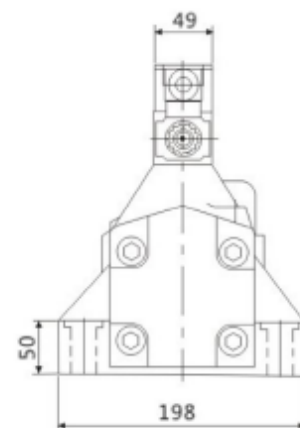
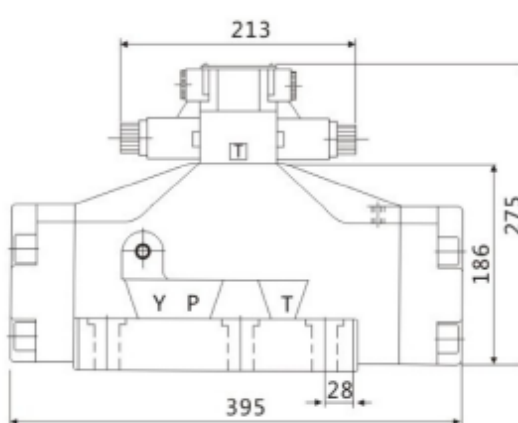
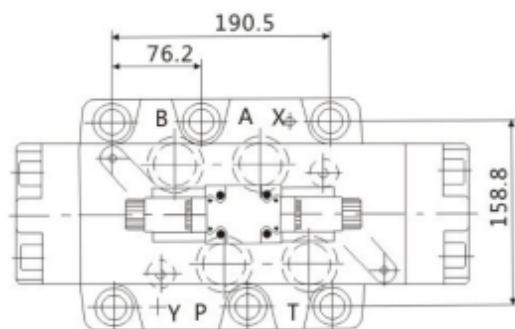
● PERFORMANCE CHART

SPECIFICATIONS

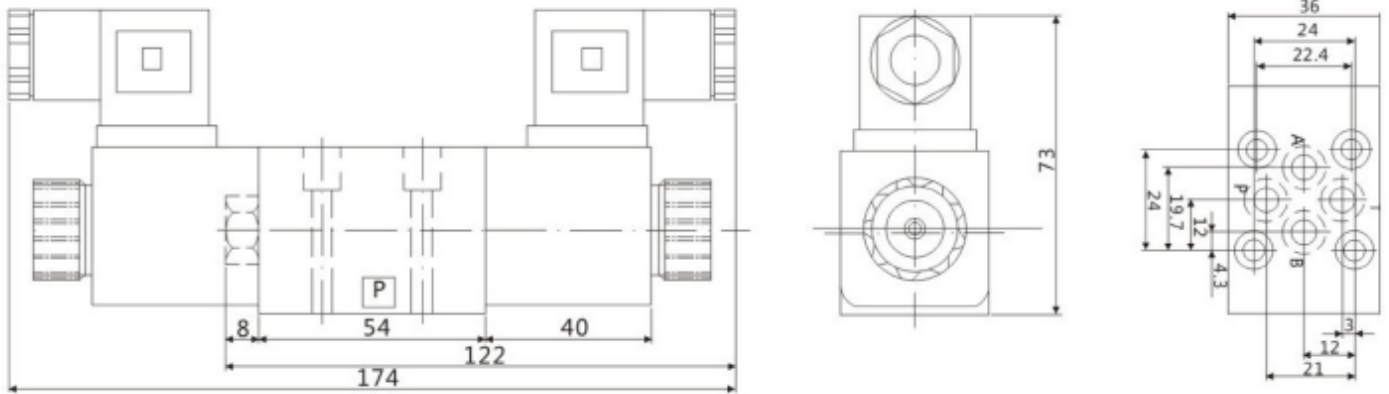
Maximum operating pressure	25 Mpa (Spool 6 and 60 type 21Mpa only)
Rated flow capacity	800 l/min
Max. flow capacity	1100 l/min
Maximum T line back pressure	14 Mpa
Maximum frequency of operation	120 cycle/min
Filtration	25 μ m
Mounting bolt	M20×60L 6 pcs
weight(without sol. valve)	43kgs(DP-10 only)



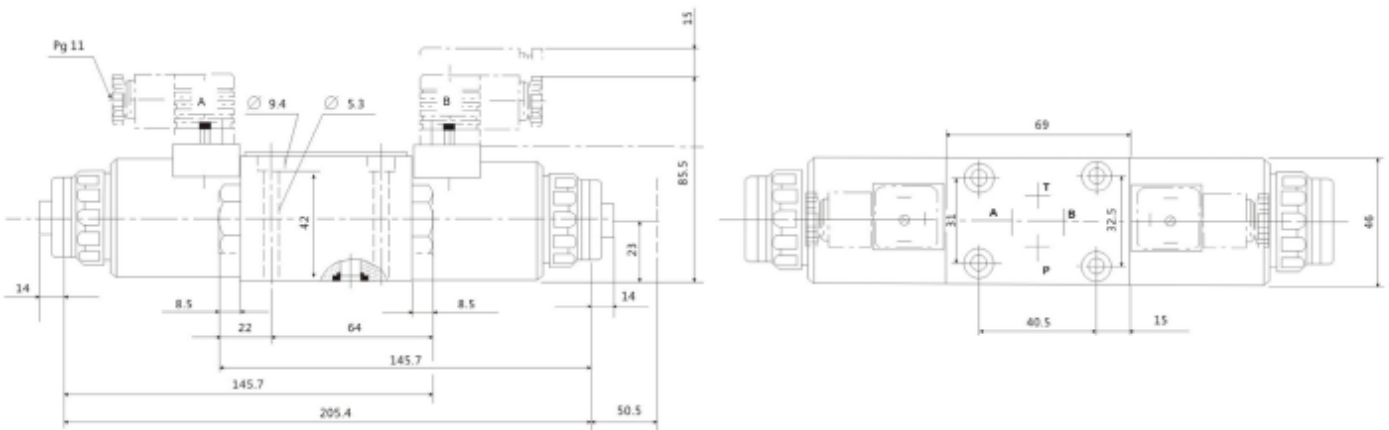
SPOOL TYPE		2	3	4	40	5	6	7	9	10	11	12
Pressure decrease curve number	P→A	9	7	9	9	9	5	7	7	9	9	9
	B→T	6	6	6	6	6	3	6	6	5	6	7
	P→B	9	7	9	9	8	5	7	7	9	8	9
	A→T	8	7	6	8	6	4	7	8	8	7	6
	P→T	—	5	—	—	1	2	—	—	—	—	—



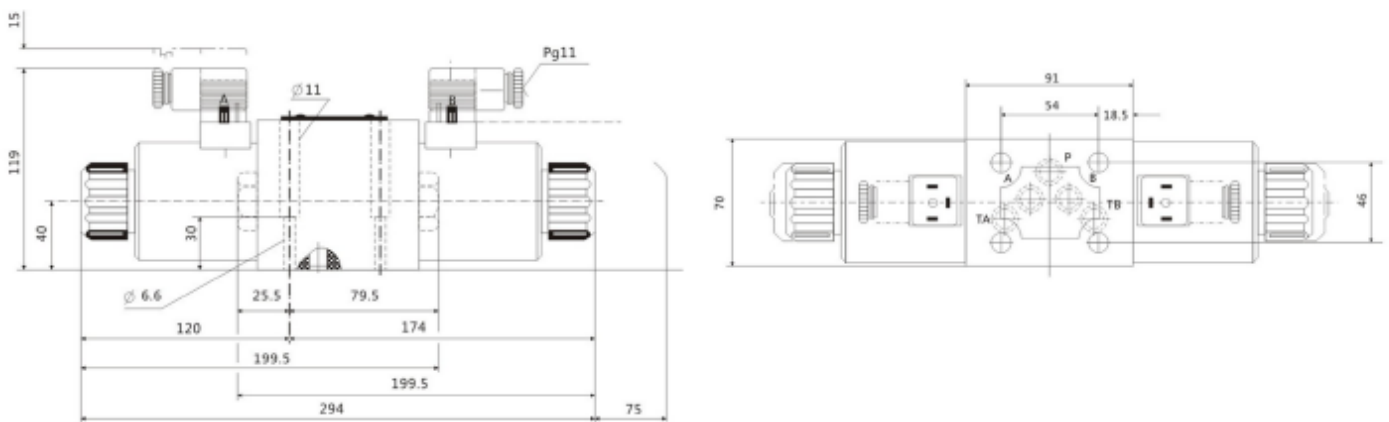
● RWD 4 SERIES

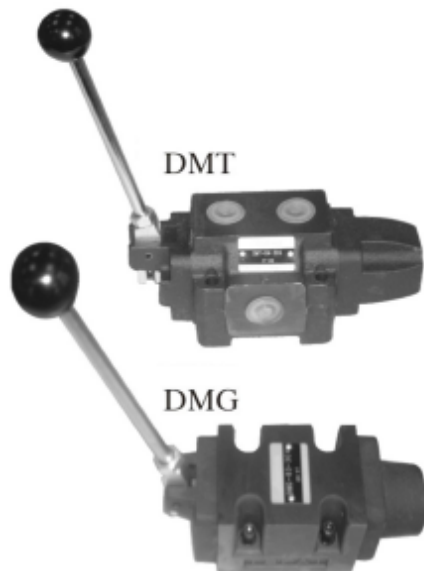


● RWD 6 SERIES



● RWD 10 SERIES





ORDERING CODE

DMT

—

03

—

3**C****+**

Series number

Valve size

Three position

C: Spring centered

Spool type

Thread connection : DMT

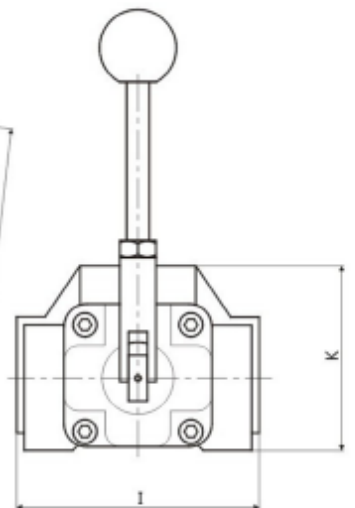
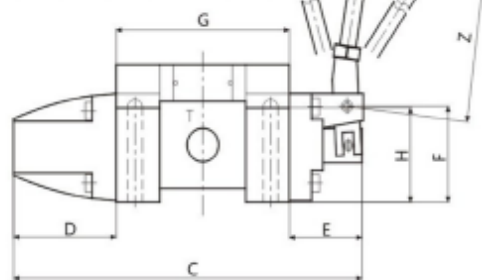
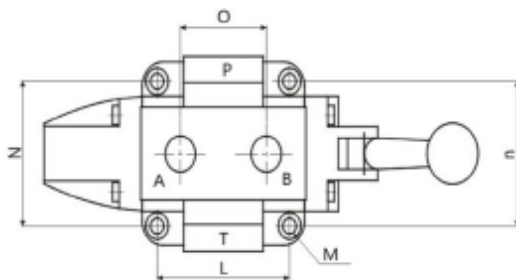
Subplate connection : DMG

D: Detent

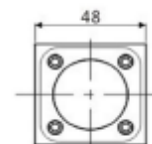
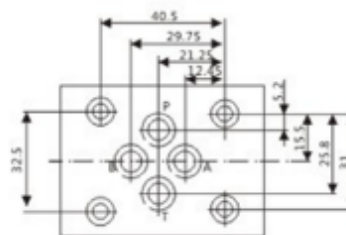
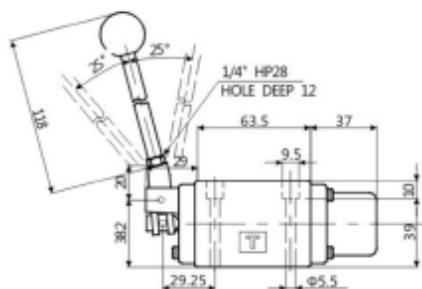
Series	Model	Max. flow l/min	Max. pressure Mpa	Spool	Weight(kg)
Thread connection	DMT-03-**	100	25	3C2, 3C3 3C4, 3C60 3D2, 3D3	5.0
	DMT-04-**	200			7.6
	DMT-06-**	300			11.1
	DMT-10-**	500			23.1
Subplate connection	DMG-02-**	60	25	3D4, 3D60	1.6
	DMG-03-**	100			4.0

● DMT SERIES

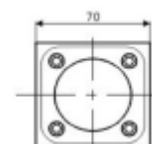
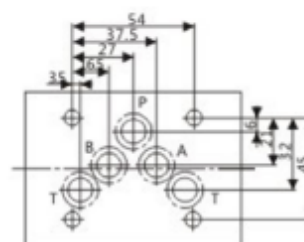
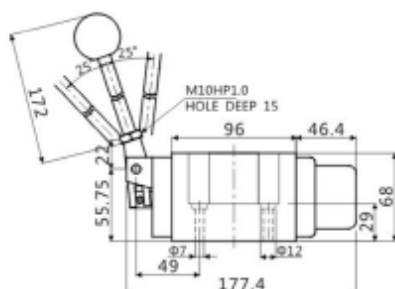
Model	A PT	B PT	C mm	D mm	E mm	F mm	G mm	H mm	I mm	K mm	L mm	M mm	N mm	n mm	O mm	P PT	T PT	Z
DMT-03	3/8"		175	47	36	62	92	75	78	87	56.2	E7H4	49	—	45.5	3/8"		203
DMT-04	1/2"		226.5	66	46	61	102	60	106.5	91	81	E9H4	82.5	—	59	1/2"		220
DMT-06	3/4"		259	76.5	54	67	129	66	128	97	103	E11H4	95	94.25	67	3/4"		249



● DMG-02



● DMG-03





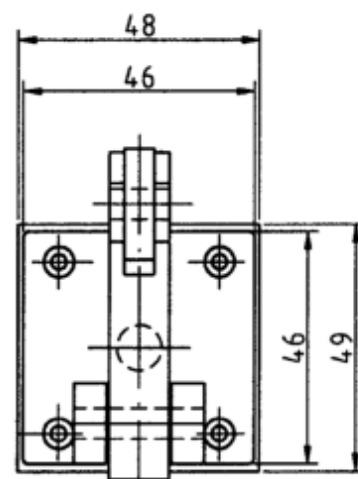
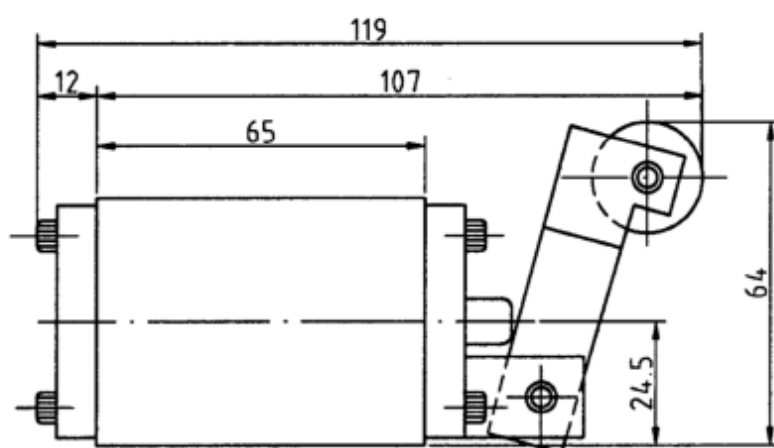
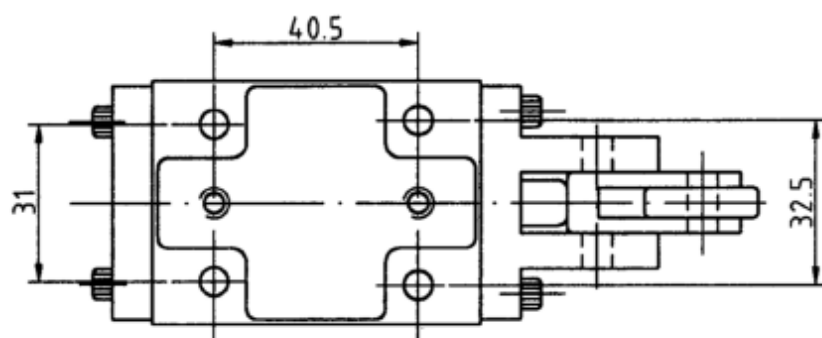
ORDERING CODE

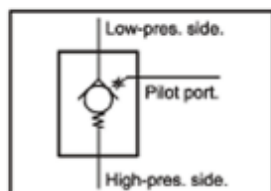
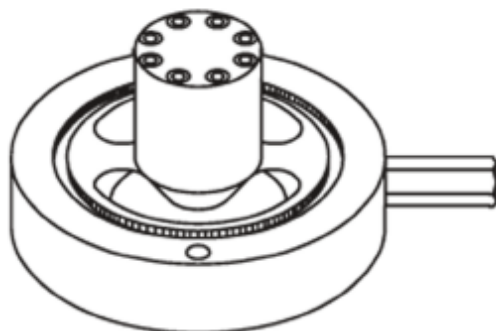
DCG-02-2B*

This valve spool Mechanically moved by cams,
to change flow direction.

● SPECIFICATIONS

Subplate type	Spool type	Max. flow rate l/min	Max. pressure kg/cm ²	Max. back pressure kg/cm ²	Weight kg
DCG-02-2B*	2B2 2B3 2B8	30	250	100	1.1





SYMBOL

ORDERING CODE

SVF - 100 - 21C

Series	Size	Design Number
SVF-Steel body	SVF- 32~200	SVF- 21C

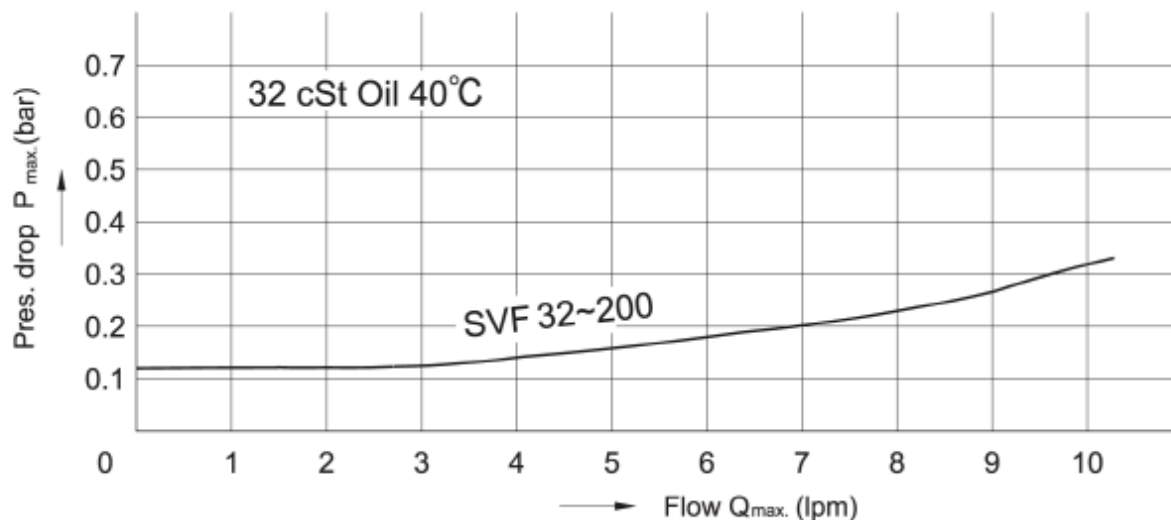
Features:

- Small size , and easy to install.
- Low pressure loss with high flow capacity.
- Compact and robust.
- Steel body with steel components.
available with 8 models for selection options.
- Ductile iron body with steel Components.
available with 6 models for selection options.
- Good for directly intergrated onto the cylinder cap side.

● SPECIFICATIONS

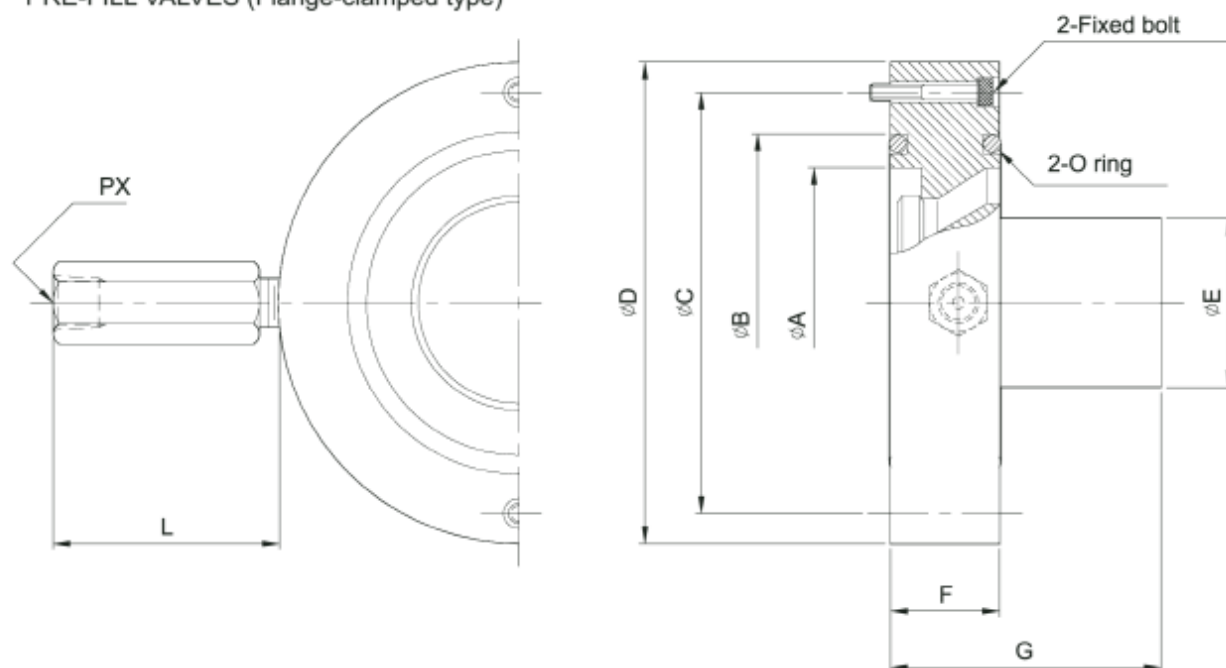
Model	Flow Q _{max}	Pres. P _{max}	Pilot Ratio	Flange bolts		Pipe Size	Weight
	lpm (USgpm)	bar (PSI)	P control /P cyl.	Number	Nor. Dia.		kg(lb)
SVF- 32-21C	160(42.27)	400 (5,800)	3.6	4	M16	2B	1.3(2.86)
SVF- 50-21C	400(105.98)		3.8	6	M16/M24*	3B	2.9(6.39)
SVF- 63-21C	630(166.44)		4.2	8	M16/M24*	3.5B/4B	4.5(9.91)
SVF- 80-21C	1,000(264.19)		4.3	8	M16/M24*	4B	6.2(13.66)
SVF-100-21C	1,600(422.70)		4.3	8	M22/M30*	5B	12.3(27.09)
SVF-125-21C	2,500(660.48)		4.3	12	M24/M30*	8B	23.0(50.66)
SVF-160-21C	4,000 (1,056.76)	250 (3,600)	4.2	16	M30	10B	50.0(110.13)
SVF-200-21C	7,000 (1,849.33)		4.1	20	M30	12B	130.0(286.34)

● FLOW CURVE



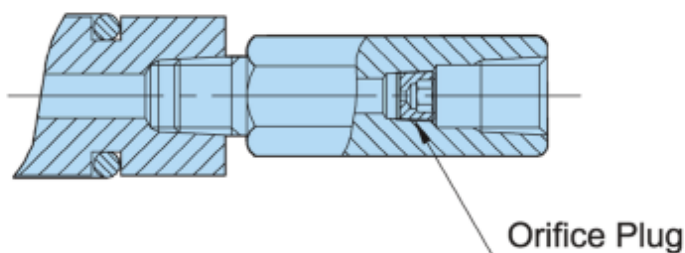
● DIMENSIONS

PRE-FILL VALVES (Flange-clamped type)



Model	ϕA	ϕB	ϕC	ϕD	ϕE	ϕF	ϕG	L	PX	Fixed Bolt	O-ring
SVF-32	48 (1.89)	63 (2.48)	—	82 (3.23)	32 (1.26)	28 (1.10)	55 (2.17)	62 (2.44)	PT1/4"	—	1517-6
SVF-50	72 (2.83)	90 (3.54)	112 (4.41)	128 (5.04)	45 (1.77)	29 (1.14)	72 (2.83)			M 4X30	G 85
SVF-63	87 (3.43)	105 (4.13)	125 (4.92)	143 (5.63)	50 (1.97)	33.5 (1.32)	84 (3.31)			M 5X35	G 95
SVF-80	108 (4.25)	130.5 (5.14)	150 (5.91)	169 (6.65)	57 (2.24)	38.5 (1.52)	100 (3.94)			M 5X40	G120
SVF-100	130 (5.12)	155 (6.10)	185 (7.28)	212 (8.35)	70 (2.76)	44 (1.73)	122 (4.80)			M 6X45	G145
SVF-125	170 (6.69)	200 (7.87)	226 (8.90)	248 (9.76)	89 (3.50)	51 (2.01)	155 (6.10)			M 6X60	G185
SVF-160	218 (8.58)	250 (9.84)	284 (11.18)	310 (12.20)	120 (4.72)	70 (2.76)	233 (9.17)	70 (2.76)	PT3/8"	M 8X70	G235
SVF-200	272 (10.71)	310 (12.20)	355 (13.98)	390 (15.35)	145 (5.71)	95 (3.74)	268 (10.55)	85 (3.35)	PT1/2"	M10X95	G295

Pre-fill Valves Pilot Port adaptor

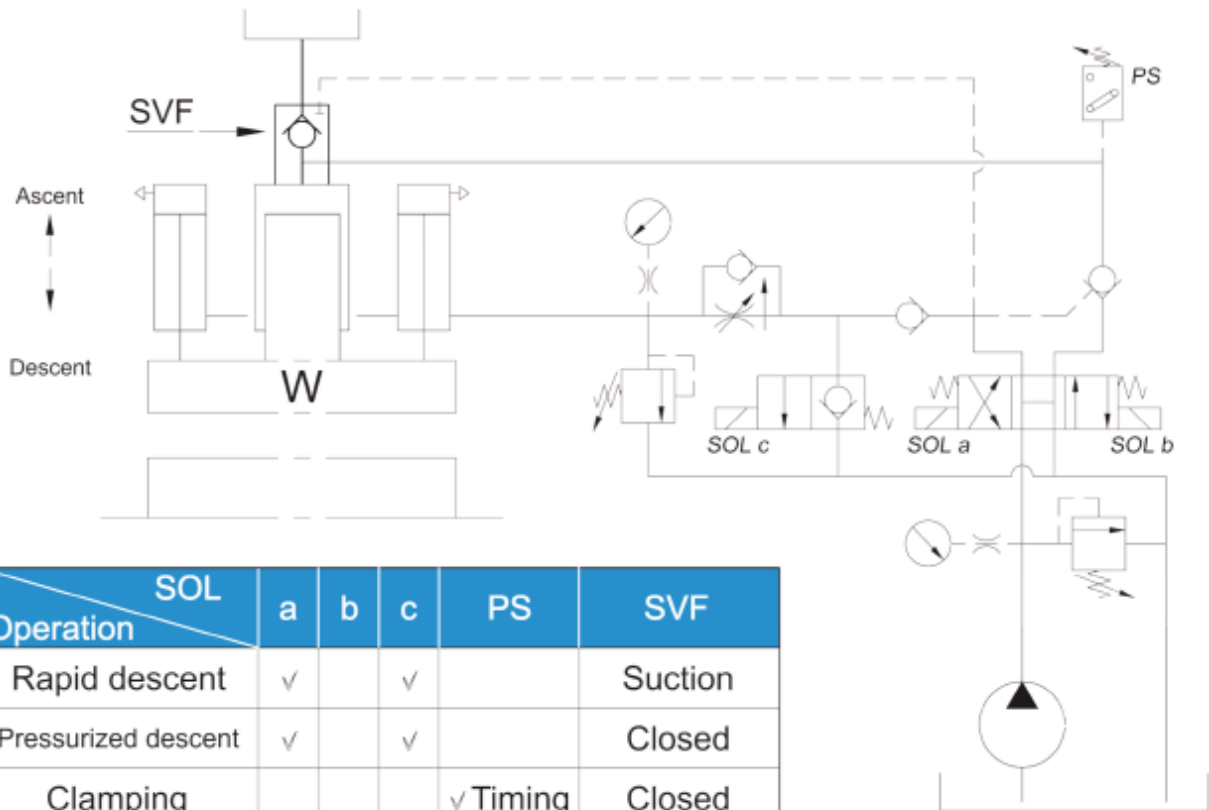


Model	Orifice	Plug
SVF - 32,50	$\phi 0.7(.03)$	PT1/8"
SVF - 63	$\phi 0.8(.03)$	
SVF - 80	$\phi 1.0(.04)$	
SVF - 100	$\phi 1.2(.05)$	
SVF - 125,160	$\phi 1.5(.06)$	
SVF - 200	$\phi 1.8(.07)$	PT1/8"

● SVF – EXAMPLE FOR INSTALL

PRE-FILL VALVES (Flange-clamped type)

For reference:



Operation \ SOL	a	b	c	PS	SVF
Rapid descent	✓		✓		Suction
Pressurized descent	✓		✓		Closed
Clamping				✓ Timing	Closed
Ascent		✓			Piloted open

Example for model selection:

Given

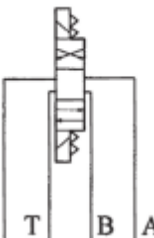
1. Main cylinder dia.: 350mm.
2. Ascending cylinder: 2-B $\phi 63 \times R \phi 35$ (mm).
3. Weight of platen: 1500kg.
4. Pump capacity: 25 lpm (6 USgpm).

Analysis

Area of main cylinder: 961.625 cm^2
 Two ascending cylinder area: 43.081 cm^2
 Ascent speed: 580 cm/min (96.6 mm/sec).
 Flow thru pre-fill valve to tank : 558 lpm (135 USgpm).
 Selectable model: SVF-63-21C

The induced pressure in ascending cylinder is 36 bar (520 PSI).
 For a free descending operation, the flow capacity.
 630 lpm (152 USgpm) for SVF(SCF)-63, will allow a descending speed at 650 cm/min (108 mm/sec).

● MODULAR VALVES

solenoid directional control valve	SHD - * G - *				
		P	T	B	A
relief valve (balance type)	MRV - * - P - *				
	MRV - * - W - *				
	MRV - * - A - *				
	MRV - * - B - *				
brake valve (direct type)	MBV - * - W - *				
	MBV - * - A - *				
	MBV - * - B - *				
pressure reducing valve	MGV - * - P - *				
	MGV - * - A - *				
	MGV - * - B - *				
sequence valve	MSV - * - P - *				
counterbalance valve	MCB - * - A - *				
	MCB - * - B - *				
flow regulator valve	MTV - * - P				
	MTV - * - T				
meter-out flow regulator valve	MTC - * - W - 0				
	MTC - * - A - 0				
	MTC - * - B - 0				
meter-in flow regulator valve	MTC - * - W - I				
	MTC - * - A - I				
	MTC - * - B - I				
check valve	MCV - * - P - *				
	MCV - * - T - *				
	MCV - * - A - *				
	MCV - * - B - *				
pilot check valve	MPC - * - W - *				
	MPC - * - A - *				
	MPC - * - B - *				
	MPC - * - B - *				
manifold block	MSP - * - *				

● MRV-02/03 SERIES (RELIEF VALVE)

Model	Valve size	Max. pressure kg/cm ²	Flow rated l/min	Pressure adjusting kg/cm ²	Weight kgs
MRV-02-P-*	02	250	40	1 : 8 ~ 70 2 : 7 ~ 160 3 : 35 ~ 250	1.5
MRV-02-A/ B-*					1.6
MRV-02-W-*					2.3
MRV-03-P-*	03	250	50	3 : 35 ~ 250	3.1
MRV-03-A/ B-*					

● MBV-02/03 SERIES (BRAKE VALVE)

Model	Valve size	Max. pressure kg/cm ²	Flow rated l/min	Pressure adjusting kg/cm ²	Weight kgs
MBV-02- W -*	02	250	40	1 : 8 ~ 70 3 : 35 ~ 210	1.5
MBV-02- A/ B -*					1.4
MBV-03- W -*	03		50		4.8
MBV-03- A/ B -*					4.0

● MG-02/03 SERIES (PRESSURE REDUCING VALVE)

Model	Valve size	Max. pressure kg/cm ²	Flow rated l/min	Pressure adjusting kg/cm ²	Weight kgs
MGV-02- P --	02	250	40	0 : 1.5 ~ 35 1 : 8 ~ 70 2 : 35 ~ 160	1.3
MGV-02- A/ B --					
MGV-03- P --	03		50		3.8
MGV-03- A/ B --					

● MSV-02/03 SERIES (SEQUENCE VALVE)

Model	Valve size	Max. pressure kg/cm ²	Max. flow l/min	Pressure adjusting kg/cm ²	Weight kgs
MSV-02-P-*	02	320	50	1 : 8 ~ 70 2 : 35 ~ 140	1.3
MSV-03-P-*	03		80	3 : 35 ~ 210	3.5

● MCB-02/03 SERIES (COUNTERBLANCE VALVE)

Model	Valve size	Max. pressure kg/cm ²	Flow rated l/min	Pressure adjusting kg/cm ²	Weight kgs
MCB-02- A -*	02	250	40	1: 8 ~ 70	1.1
MCB-02- B -*					
MCB-03- A -*	03		50	2:35 ~ 140	3.5
MCB-03- B -*					

● MTV-02/03 SERIES (FLOW CONTROL VALVE)

Model	Valve size	Max. pressure kg/cm ²	Max. flow l/min	Weight kgs
MTV-02-P -*	02	250	40	0.99
MTV-02-T -*				0.99
MTV-03-P -*	03		50	2.8
MTV-03-T -*				2.8

● MTC-02/03 SERIES (FLOW CONTROL VALVE)

Model	Valve size	Max. pressure kg/cm ²	Max. Flow l/min	Cracking pressure kg/cm ²	Remark	Weight kgs
MTC-02-W -*	02	250	40	0.8	* O: Meter-out I : Meter-in	1.3
MTC-02-A/ B -*						1.2
MTC-03-W -*	03		50			3.1
MTC-03-A/ B -*						3.0

● MCV-02/03 SERIES (CHECK VALVE)

Model	Valve size	Max. pressure kg/cm ²	Flow rated l/min	Cracking pressure kg/cm ²	Weight kgs
MCV-02- P -*	02	250	40	* 1 : 0.4 2 : 3.5 3 : 5.0	0.97
MCV-02- A/B -*					1.2
MCV-02- T -*					0.97
MCV-03- P -*	03		50		2.8
MCV-03 A/B -*					3.6
MCV-03- T -*					2.8

● MPC-02/03 SERIES (PILOT CHECK VALVE)

Model	Valve size	Max. pressure kg/cm ²	Flow rated l/min	Cracking pressure kg/cm ²	Weight kgs
MPC-02- W -*	02	250	40	1 : 2	1.2
MPC-02- A/B - *					
MPC-03- W -*	03		50	2 : 5	3.6
MPC-03- A/B - *					

● MRV-06 SERIES (RELIEF VALVE)

Model	Valve size	Max. pressure kg/cm ²	Flow rated l/min	Pressure adjusting kg/cm ²	Weight kgs
MRV-06- P-*	06	210	160	* 1 : 70	11.1
MRV-06- A / B-*				2 : 140 3 : 210	

● MGV-06 SERIES (PRESSURE REDUCING VALVE)

Model	Valve size	Max. pressure kg/cm ²	Flow rated l/min	Pressure adjusting kg/cm ²	Weight kgs
MGV-06- P-*	06	210	160	* 1 : 70	11.1
MGV-06- A-*				2 : 140 3 : 210	

● MTV, MTC-06 SERIES (FLOW CONTROL VALVE)

Model	Valve size	Max. pressure kg/cm ²	Max. flow l/min	Remark	Weight kgs
MTV-06- P-*	06	210	160	* O : Meter-out	12.4
MTC-06- W-*				I : Meter-in	12.3
MTC-06- A/ B-*					

● MPC-06 SERIES (PILOT CHECK VALVE)

Model	Valve size	Max. pressure kg/cm ²	Flow rated l/min	Cracking pressure kg/cm ²	Weight kgs
MPC-06- W-*	06	210	160	0.5	12.5
MPC-06- A\ B-*					

● MCV-06 SERIES (CHECK VALVE)

Model	Valve size	Max. pressure kg/cm ²	Flow rated l/min	Cracking pressure kg/cm ²	Weight kgs
MCV-06- P-*	06	210	160	* OMIT : 0.5	11.6
MCV-06- T-*				5 : 4.5	

This deceleration valve consist of mechanically or solenoid operated two-way valve and a adjustable orifice with chech valve. This valve allows to a cylinder to be slowed down in mid-stroke where cylinder cushions are not effect.

● ORDERING CODE

FNC

G 0 2

*** * ***

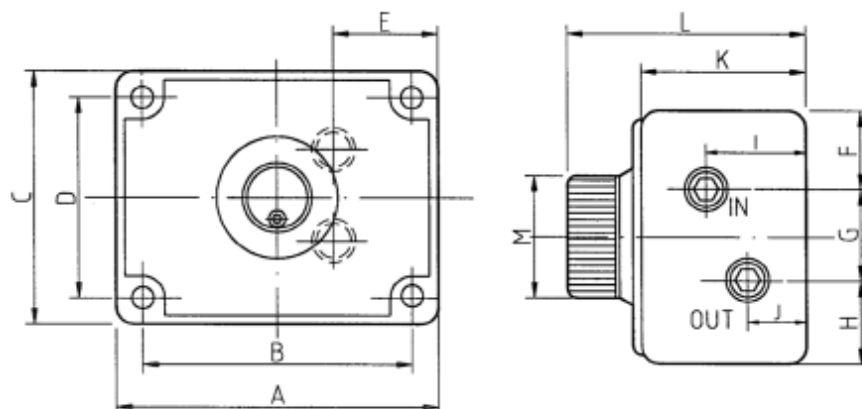
One-way controlled	FNC	Valve size	Voltage for coil
Cam operated	FKC		or
Roller operated	FYC		Controller type of FKC
Solenoid controlled	FSC, SF		
Solenoid modular	MFS		

● SPECIFICATIONS

		Model No.	Free flow l/min	Max. working pressure kg /cm ²	Adjusting flow l/min	Weight kg
One-way controlled		FNC-G02	20	70	0.01~8	1.2
		FNC-G03	30		0.01~15	2.0
Mechanically	Cam	FKC-G02	20	70	0.01~8	1.3
		FKC-G03	30		0.01~15	2.0
	Roller	FYC-G02	20		0.01~8	1.3
		FYC-G03	30		0.01~15	2.0
Solenoid operated		FSC-G02	20	70	0.01~8	1.6
		FSC-G03	30		0.01~15	2.6
		SF-G06	120	70	0~120	6.4
		SF-G10	240		0~240	9.9
Solenoid modular		MFS-02	30	70	0.01~4	2.3
		MFS-03	50		0.01~8	3.3

– Pressure–Temperature Compensated

● FNC-G02/G03 SERIES (ONE-WAY CONTROLLED)

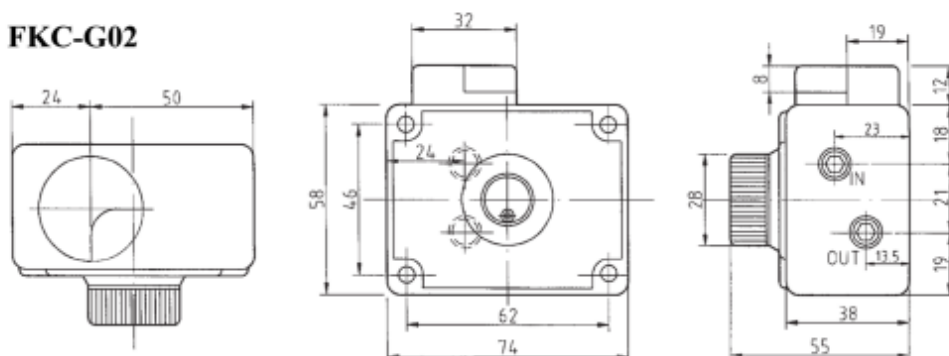


Model	A	B	C	D	E	F	G	H	I	J	K	L	M
FNC-G02	74	62	58	46	24	18	21	19	23	13.5	38	55	28
FNC-G03	90	74	70	54	26	22	26	22	20	17	42	59	36

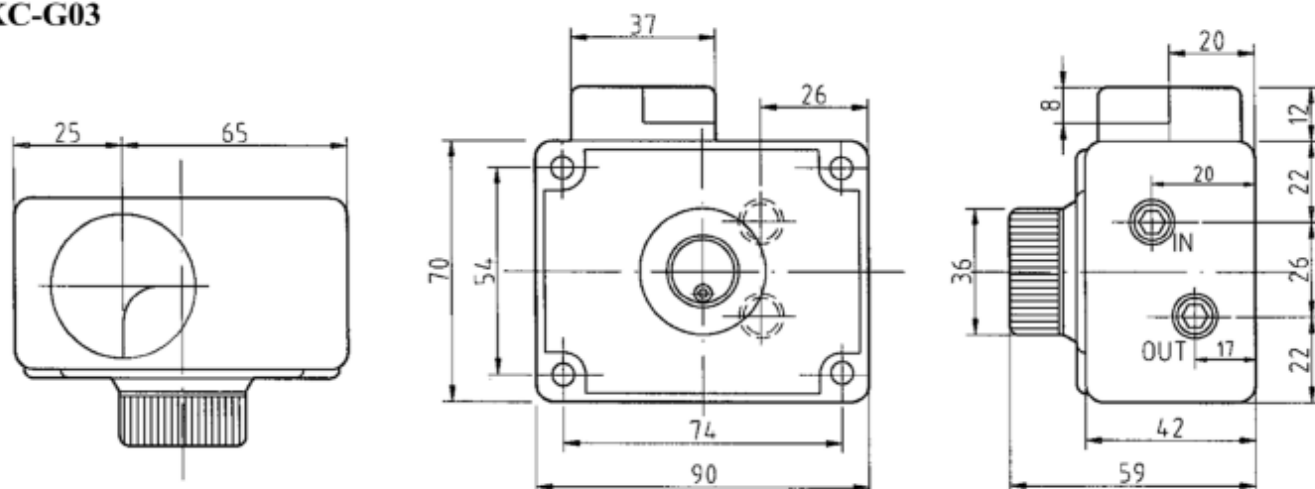
● FKC-G02/G03 SERIES (CAM OPERATED)



FKC-G02



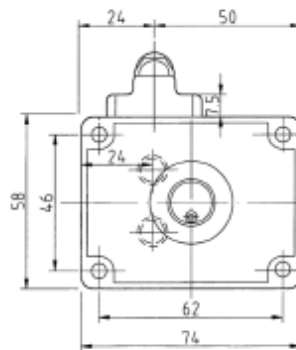
FKC-G03



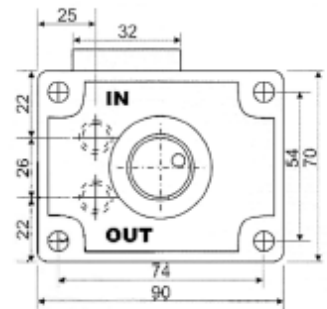
● FYC-G02/G03 SERIES (ROLLER OPERATED)



FYC-G02



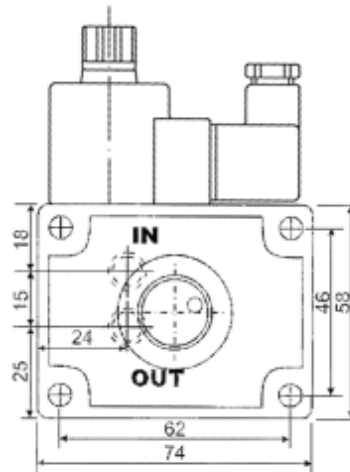
FYC-G03



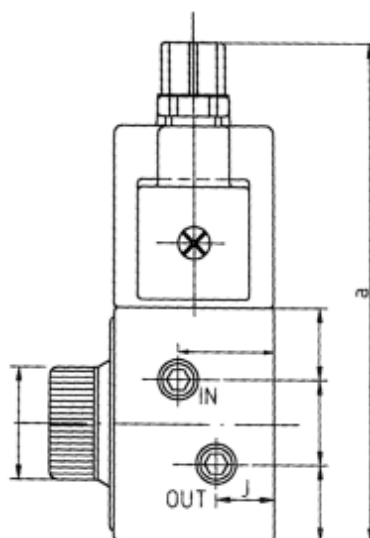
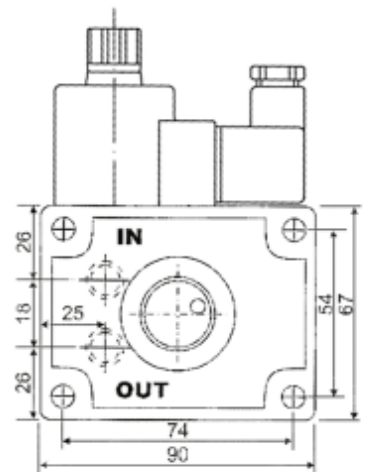
● FSC-G02/G03 SERIES (SOLENOID OPERATED)



FSC-G02



FSC-G03

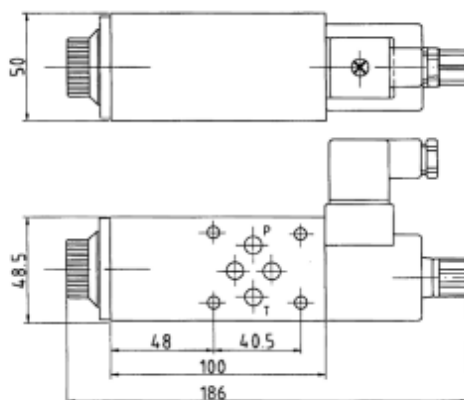


	a	
	AC	DC
FSC-02	128	135.5
FSC-03	140	147.5

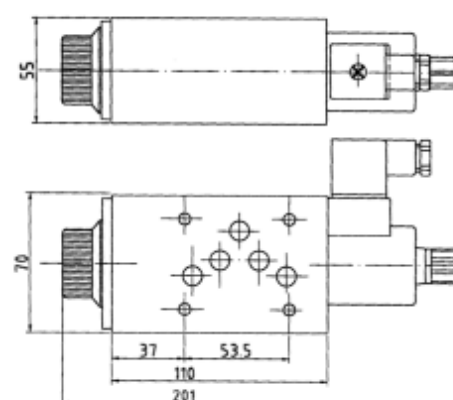
● MFS-G02/G03 SERIES (SOLENOID OPERATED MODULAR TYPE)



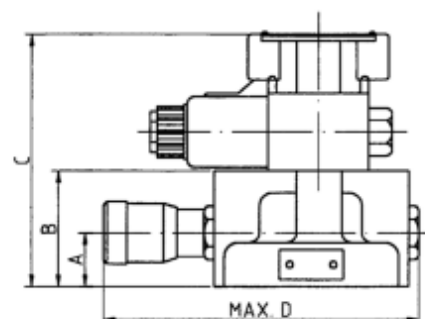
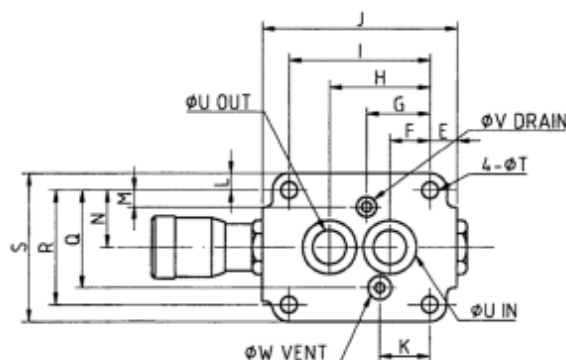
MFS-G02



MFS-G03

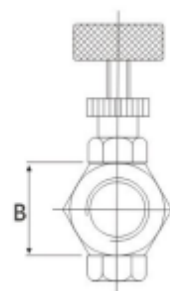
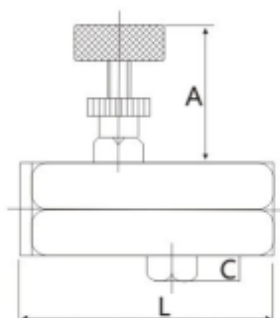


● SF-G06/G10 SERIES (SOLENOID OPERATED)



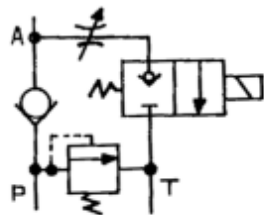
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Q	R	S	T	U	V	W
SF-06	35.2	75	167	221.5	17	26	40.5	64	90	125	31.7	11	10	37	64	74	96.5	11	24	6.5	16
SF-10	39.5	85	177	246.5	19	34	46.5	79	112	150	37.7	15	11	43	75	86	115.5	13.5	29	6	16

● TL-02/03/04/06 SERIES | THROTTLE & CHECK VALVE

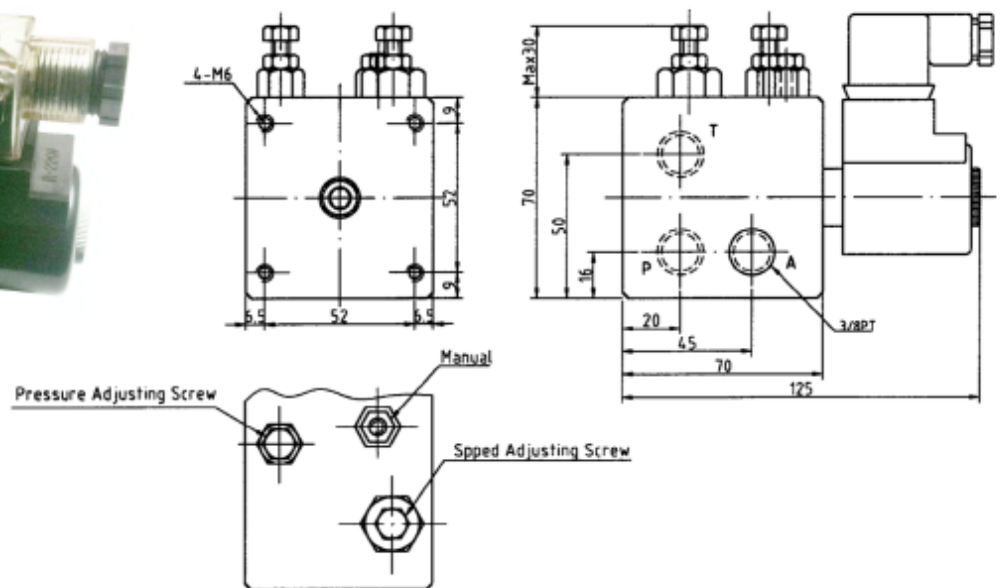


Model	PT	A(mm)	B(mm)	C(mm)	L(mm)	Flow l/min	Material	Max. Pressure Kg/cm ²	Weight
TL-02	1/4"	40	23	7	62	12	Iron	350	0.24
TL-03	3/8"	38	26		70	20			0.30
TL-04	1/2"	43	32	10	81	30			0.50
TL-06	3/4"	47	41	12	92	48			0.93

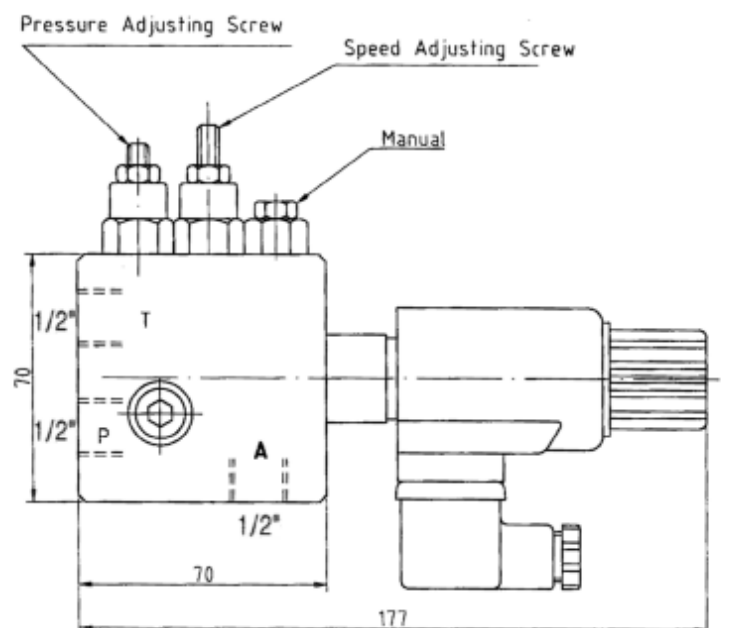
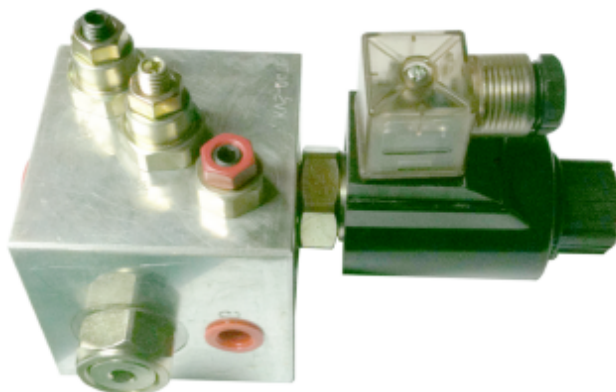
This is a combination valve suitable for the lifters. This valve include relief valve, check valve, throttle valve and two ways no-leakage solenoid valve.

Model	Max. Pressure kg/cm ²	Max. flow rate l/min		Weight kgs	
LVS-03T	210	20 (PT 3/8)	Thread type. Cast iron body	2.8	
KVS-04TL		40 (PT 1/2)	Thread type. Aluminum body	1.6	

● LVS-03T

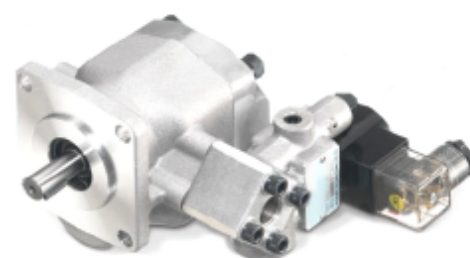
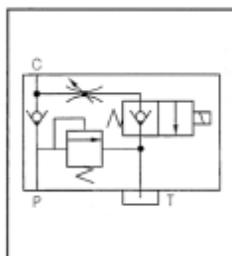


● KVS-04TL





Graphic Symbol



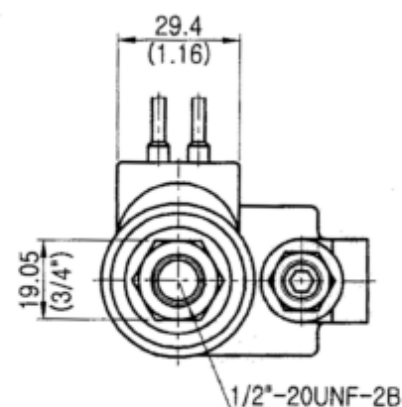
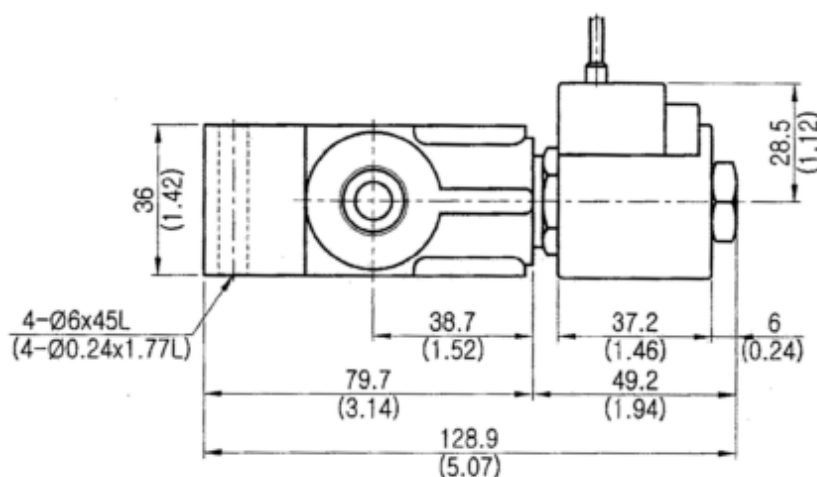
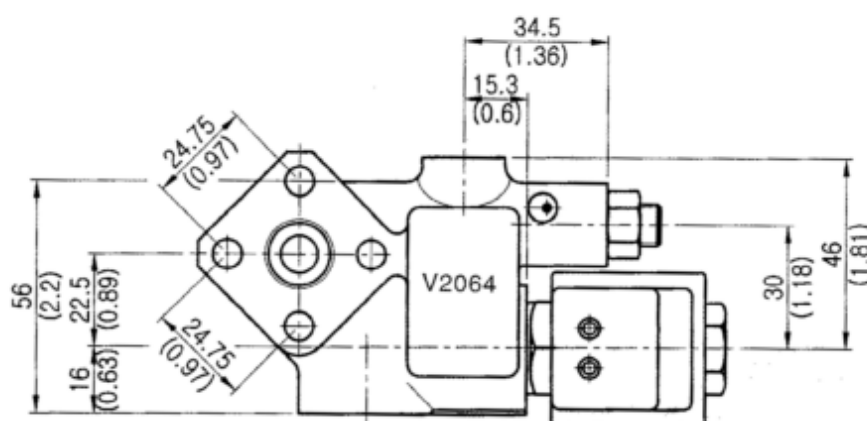
WITH GEAR PUMP

● DIMENSIONS

V2064

Normally closed-NC Normally open-NO				Max. flow Litres/min	Rated flow	Max. pressure kgf/cm ² (psi)	Operating temperature range	kg(lbs)	Terminations
NC	20	NO	21	20 l/min (5.3 G.P.M)	15 l/min (4 G.P.M)	250(3500)	-20 °C ~ 120 °C	0.6(1.3) including coil	DG:DIN 43650 DL:lead wires(2)
	22		23						

mm(inches)

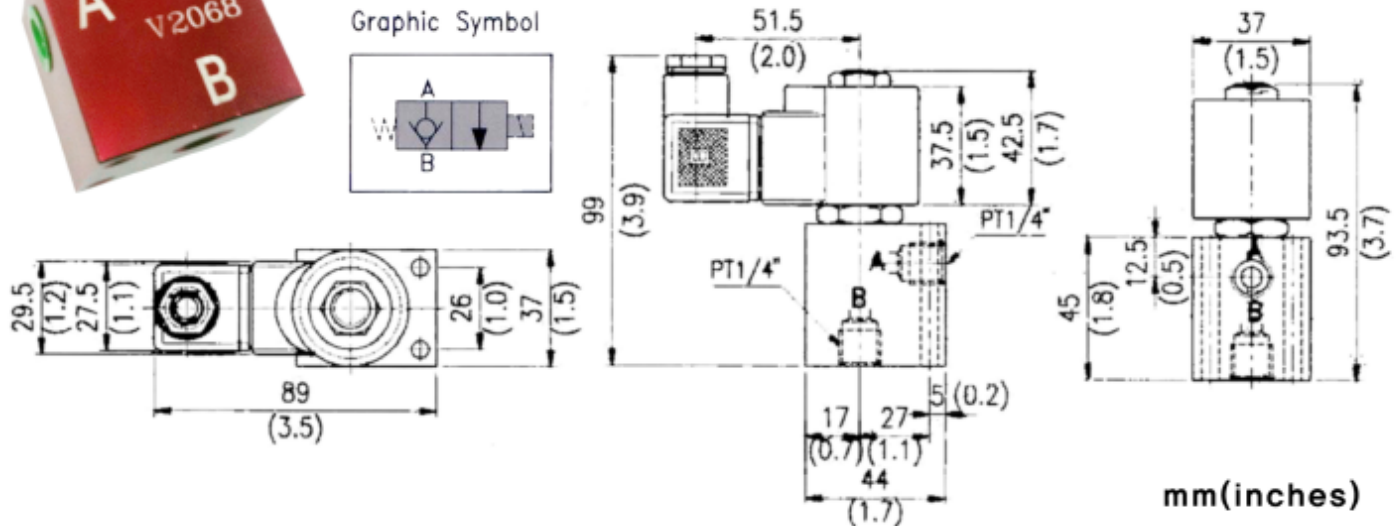
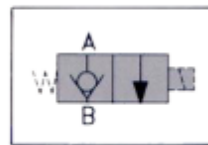


● V2068



V2068					
Normally Closed-NC Normally Open-NO		Max Flow Litres/min	Max Pressure kgf/cm ² (pis)	Operating Temperature Range	Mass kg (lbs)
NC	NO	20 ^l /min (5.3 g.p.m)	210 (3000)	-20°C~120°C	0.5 (1.1) including coil
					Terminations DG.DIN 43650 DL: lead wires (2)

Graphic Symbol

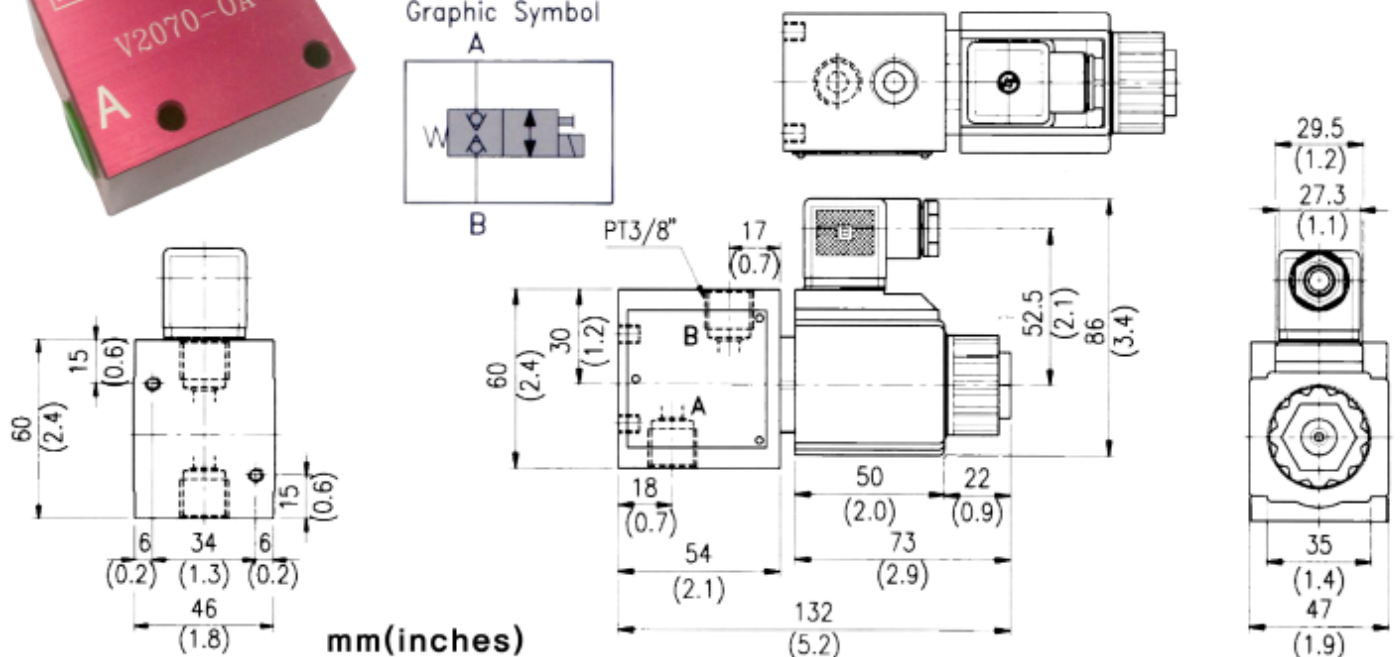
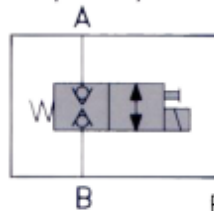


● V2070



V2070				
Normally Closed-NC Normally Open-NO		Max Flow Litres/min	Max Pressure kgf/cm ² (pis)	Operating Temperature Range
NC	—	25 ^l /min (6.6 g.p.m)	210 (3000)	-20°C~120°C
				Mass kg (lbs) 1.5 (3.3) including coil

Graphic Symbol





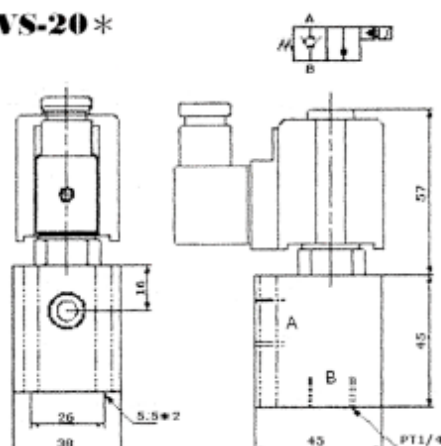
ORDERING CODE

KVS - * **
 Model Valve Size Piping Size

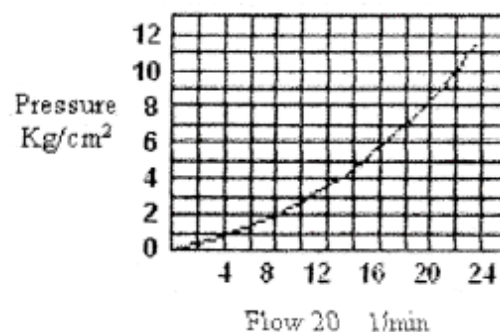
DIMENSIONS

Model	Coil	Max. pressure kg/cm ²	Max. flow l/min	Specification	Remark	Piping size	Weight kg
KVS-202	A11:AC110V	210	20	Thread type	OMIT: Standard M: With Manual NC: DIN NO: Normally open	1/4"(02)	1.00
KVS-203	A22:AC220V					3/8"(03)	1.00
KVS-403	A38:AC380V		40			3/8"(03)	1.60
KVS-404	D12:DC12V					1/2"(04)	1.60
	D24:DC24V						

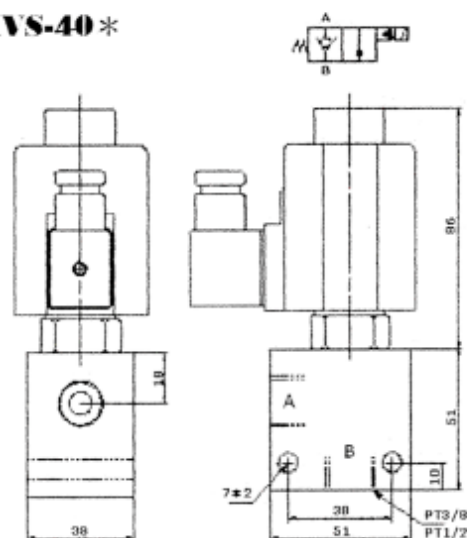
KVS-20*



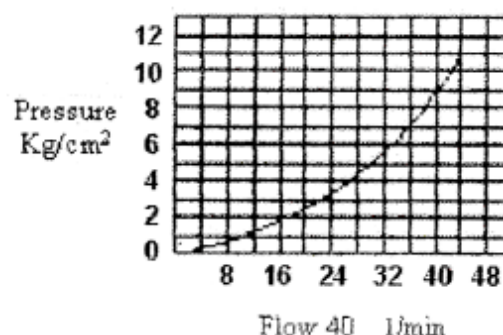
Working Pressure 210 /kg/cm²

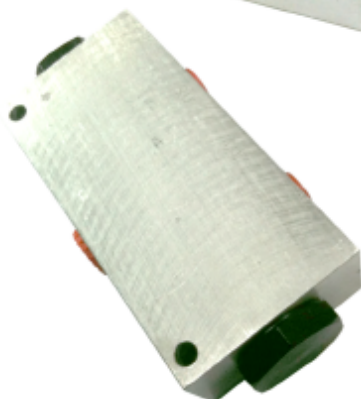
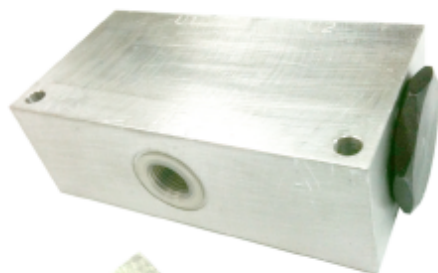


KVS-40*



Working Pressure 210 /kg/cm²





Dividing and combining valve

Modifications:

ORDERING CODE

VDJR - *** - ***

G3/8"-38

G1/2"-12

G3/4"-34

G1"-100

Flow rate range: modification - size A

4...12 l/min - 12

12...24 l/min - 24

24...40 l/min - 40

modification - size B

40... 90 l/min - 90

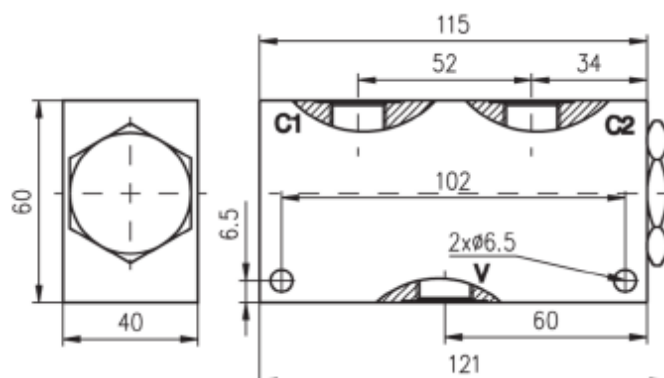
80...150 l/min - 150

● TECHNICAL DATA

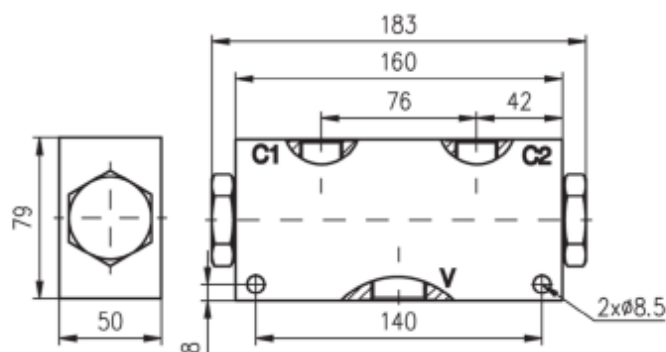
✓ The dividing and combining valves are designed to separate the flow in the hydraulic system on two equal passages which pass equally in the return line. In that way synchronized movement is obtained for operating the actuator in both directions.

Max. Pressure		210 bar
Input flow	VDJR 38-12	4...12 l/min
	VDJR 38-24	12...24 l/min
	VDJR 12-40	24...40 l/min
	VDJR 34-90	40... 90 l/min
	VDJR 100-150	80...150 l/min
Accuracy at pressure diff. 12 MPa between C1 and C2 - ΔQ		$\pm 5\%$
Working liquid-hydraulic oils with characteristics:		
-viscosity		10...400 cSt
-degree of filtration		0.025 mm
-temperature		-20...+80°C

● DIMENSIONS

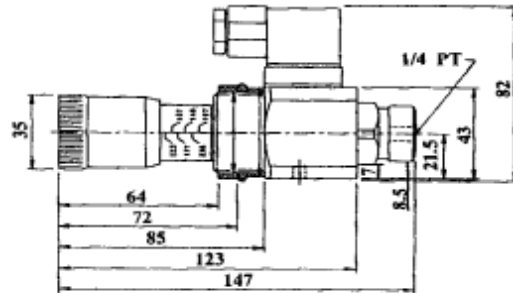


size A	V	C1	C2
VDJR 38-12	G3/8"	G3/8"	G3/8"
VDJR 38-24	G3/8"	G3/8"	G3/8"
VDJR 12-40	G1/2"	G3/8"	G3/8"



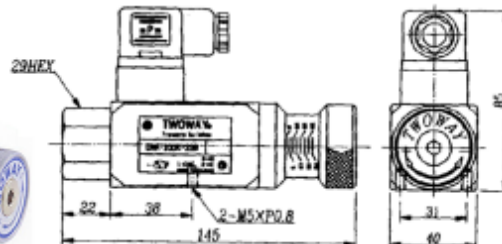
size B	V	C1	C2
VDJR 34-90	G3/4"	G1/2"	G1/2"
VDJR 100-150	G1"	G3/4"	G3/4"

● JCS-02 (PANEL MOUNTING)



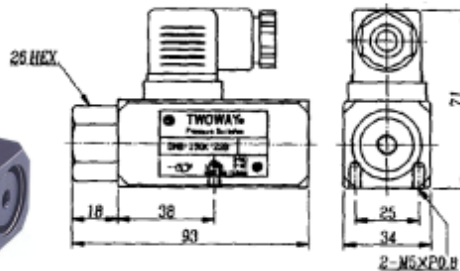
Model	Working pressure kg/cm ²	Max. pressure kg/cm ²	Weight kg	Current:AC250V,3A Differential pressure:within 5% of Max. pressure
JCS-02N	30~210	210	1	
JCS-02NL	15~60			
JCS-02NLL	5~60	70		

● DNA (STANDARD THREAD TYPE)



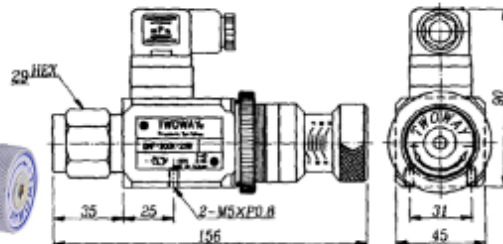
Model	Pressure Adj. Range kg/cm ²	Max. working Pressure kg/cm ²	Weight kg
DNA-040K	6~40	150	1.0
DNA-100K	15~100	250	1.0
DNA-250K	40~250	300	1.0
DNA-360K	50~360	400	1.0

● DNB (COMPACTR THREAD TYPE)



Model	Pressure Adj. Range kg/cm ²	Max. working Pressure kg/cm ²	Weight kg
DNB-040K	6~40	150	0.6
DNB-070K	5~70	200	0.6
DNB-150K	30~150	300	0.6
DNB-250K	40~250	300	0.6

● DNF (PANEL MOUNTING)



Model	Pressure Adj. Range kg/cm ²	Max. working Pressure kg/cm ²	Weight kg
DNF-040K	6~40	200	1.2
DNF-100K	15~100	350	1.2
DNF-250K	40~250	350	1.2
DNF-360K	50~360	400	1.2



ORDERING CODE

DMB- 2P250A-PB

1

2 3

4

5

6

7

1 Model

DMB
DMB-Sandwich Type

2 For use with solenoid valves

02-ISO 03 / CETOP 3/NFPA D03
03-ISO 05 / CETOP 5/NFPA D05

A:A port

B:B port

P:P port

3 Pressure Transforms Line — W:A&B port

4 Pressure Adj. Range

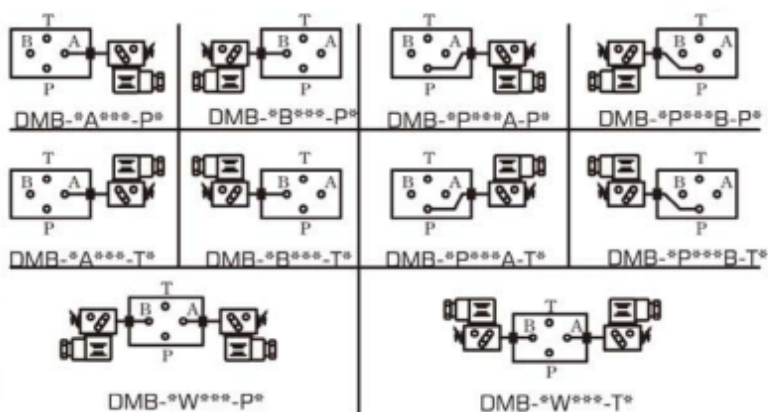
Model	Press Adj. Range bar	Set Pres.bar
40K	6~40	20
70K	8~70	30
150K	15~150	70
250K	40~250	100

5 Position of the pressure adj.

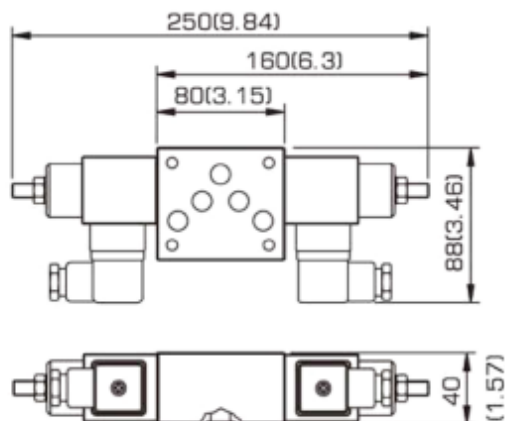
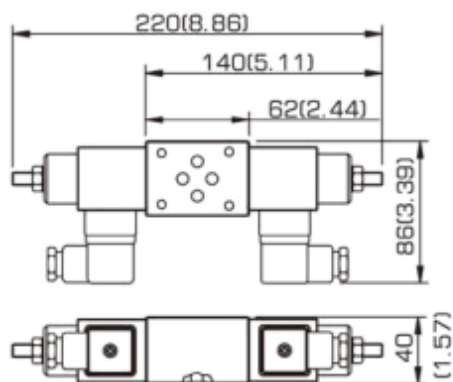
6 Position of the electrical connection

7 B: Without indicator LED

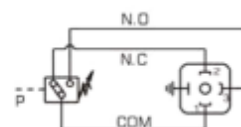
i: With indicator LED



● Demension / mm(inches)



Graphic Symbol



N.O=Normally open
N.C=Normally close

Switching capacity

22B:250VAC:3A 30VDC:2A
06i:24~250V(DC/AC)0.6A

Model	Weight
DMB-02P(A,B)	0.55 kgs
DMB-02W	0.8 kgs

For use with ISO 03/CETOP 3/NFPA D03
Standard Solenoid Valves

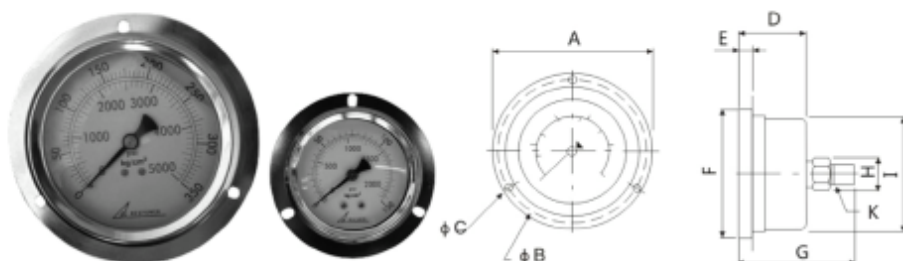
Model	Weight
DMB-03P(A,B)	0.9 kgs
DMB-03W	1.5 kgs

For use ISO 05/CETOP 5/NFPA D05
Standard Solenoid Valves

● PGF (A type, BD type, PF type)

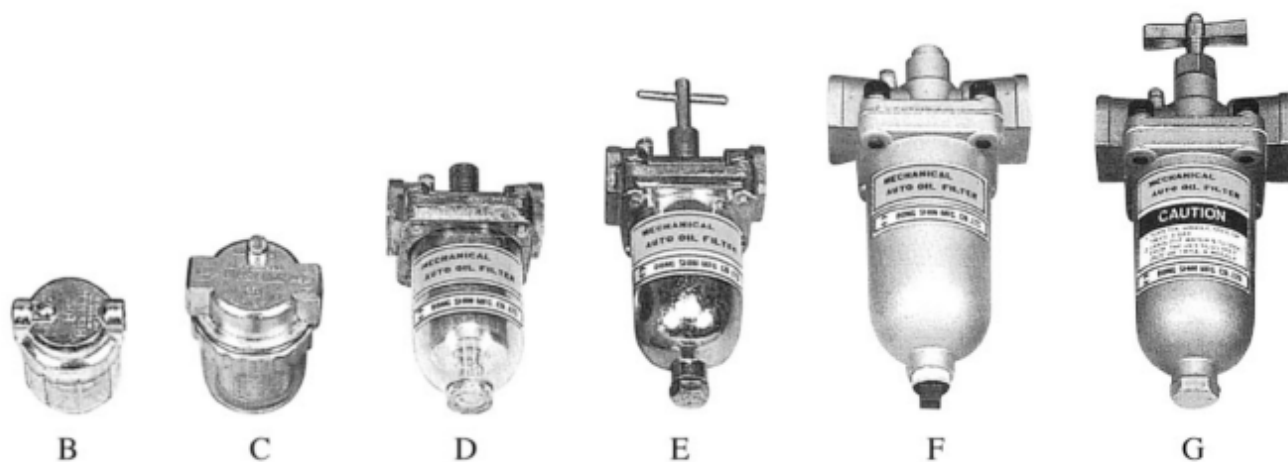


Model	A mm	B mm	C mm	D PT	E mm	F mm	Weight Kg
PGF-63A	33	71.3	20.9	1/4"	14	11	0.23
PGF-100A	36	110.0	26.3	3/8" , 1/2"	22		0.70



Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	K (PT)	Weight kg
PGF-63BD	87.5	80.5	4.5	33.0	7.2	71.3	58.0	14	64.5	1/4"	0.27
PGF-100BD	132.0	117.0	6.0	36.0	7.7	110.0	74.0	22	100.0	3/8" , 1/2"	0.80

● OF (IN-LINE FILTER)



Model	Size		Remarks
	Intet	Outlet	
OFB-02	1/4"	1/4"	Use Bumer for Oil Boiler 30,000kcal
OFC-02	1/4"	1/4"	Use Bumer for Oil Boiler 50,000kcal
OFC-03	3/8"	3/8"	Use Bumer for Oil Boiler 50,000kcal
OFD-04	1/2"	1/2"	Use Bumer for Oil Boiler 50,000kcal
OFE-04H	1/2"	1/2"	Use Bumer for Oil Boiler 50,000kcal(With handle)
OFE-06H	3/4"	3/4"	Use Bumer for Oil Boiler 50,000kcal(With handle)
OFF-06	3/4"	3/4"	Use Bumer for Oil Boiler 100,000kcal
OFF-08	1"	1"	Use Bumer for Oil Boiler 100,000kcal
OFG-06H	3/4"	3/4"	Use Bumer for Oil Boiler 100,000kcal l(With handle)
OFG-08G	1"	1"	Use Bumer for Oil Boiler 100,000kcal l(With handle)