YEOSHE Modular Valves

Modular Throttle Valve

MST	MT	MTC	MCT
Solenoid Operated Throttle Valve	Throttle Valve	Throttle and Check Valve	Counter Restrictors Valve




Modular Relief Valve

MGS	MBR	MCB	MRB	MSV	MRV
Two Section Reducing Valve	Reducing Valve	Counter Balance Valve	Balance Valve	Sequence Valve	Relief Valve





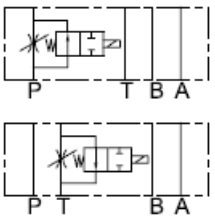

Modular Check Valve

MCV	MPC
Check Valve	Pilot Operated Check Valve


Manifold Block

M-02	M-03
Manifold Block MA-02	Manifold Block MA-03


Solenoid Operated Throttle Valve



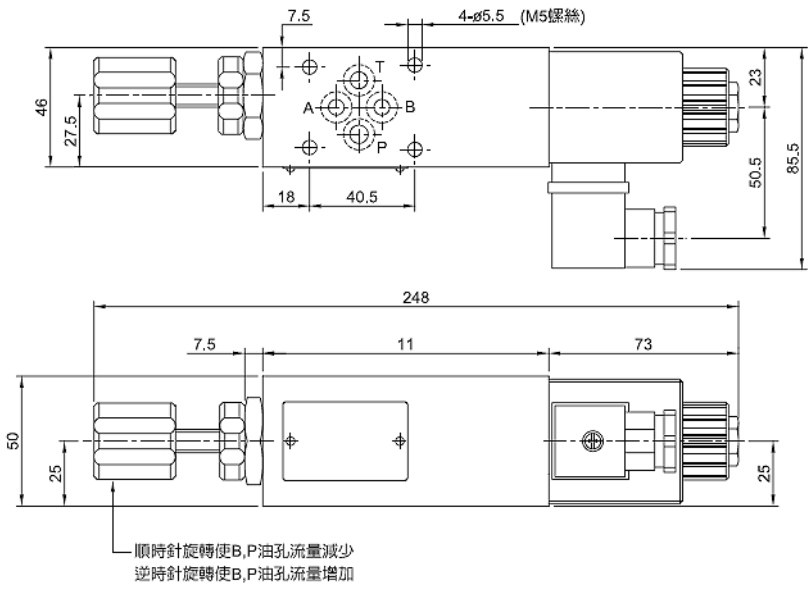
Order No.

Group	Port Size	Control Port	Voltage
MST-	02	P	AC110
MST: Solenoid Operated Throttle Valve	02: 1/4"	T: T Port P: P Port	AC110 AC220 DC12 DC24

Specifications

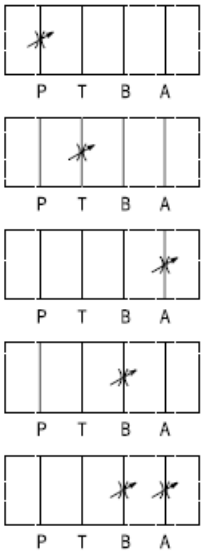
Model	Rated Pressure kgf/cm2	Rated Flow L/min
MST-02*	70	20

Dimensions



Modular Throttle Valve			
MST	MT	MTC	MCT
Solenoid Operated Throttle Valve	Throttle Valve	Throttle and Check Valve	Counter Restrictors Valve
			

Throttle Valve



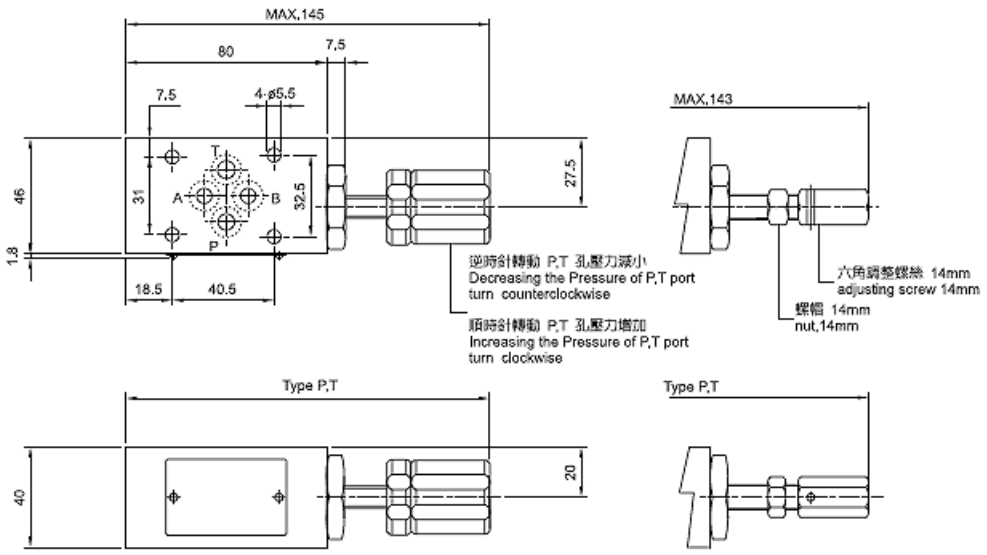
Order No.

Group	Port Size	Control Port
MT-	02-	P
MT: Throttle Valve	02: 1/4" 03: 3/8"	P: P Port A: A Port B: B Port T: T Port W: A and B Port

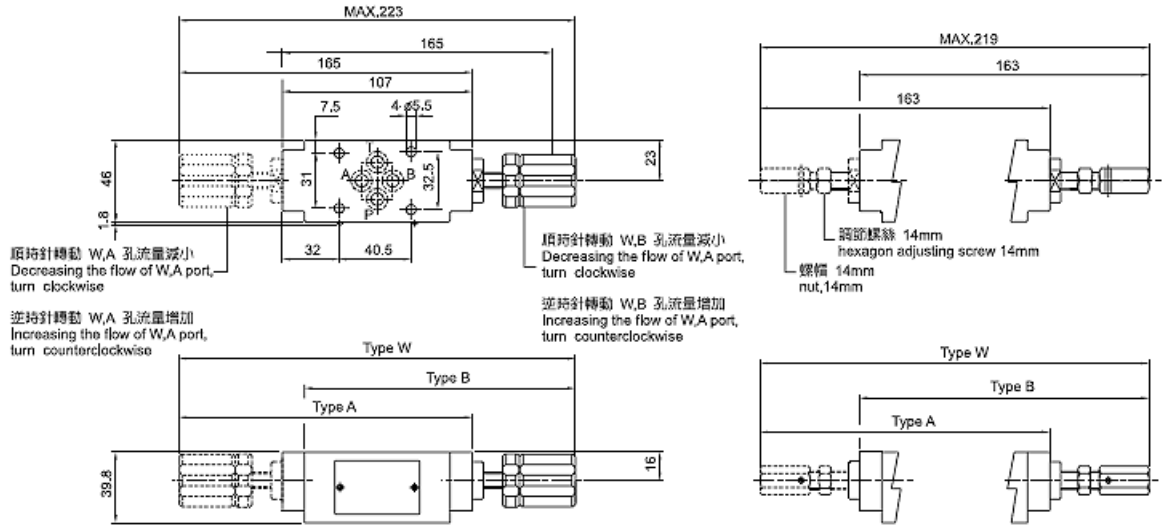
Specifications

Model	Max. Pressure kgf/cm2	Max. Flow L/min	Weight Kg
MT-02-P	250	50	1.3
MT-02-T			1.3
MT-02-W			1.5
MT-02-A			1.4
MT-02-B			1.4
MT-03-P		100	2.6
MT-03-T			2.6
MT-03-W			3.1
MT-03-A			2.9
MT-03-B			2.9

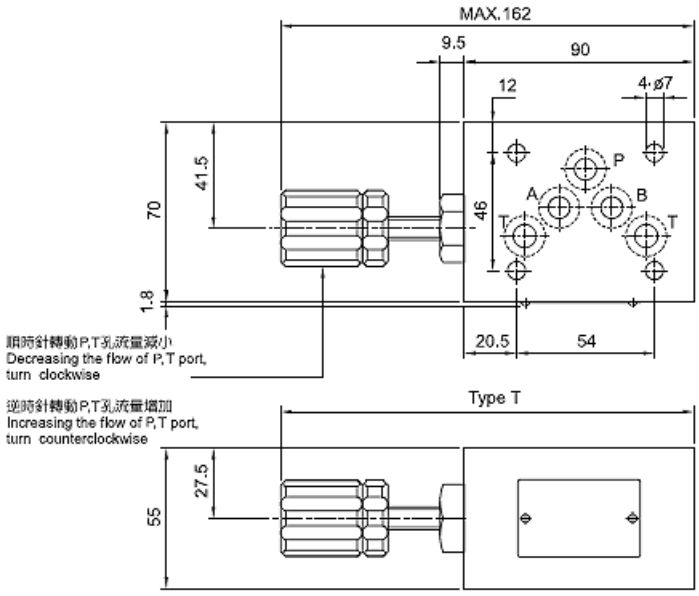
MT-02-P,T



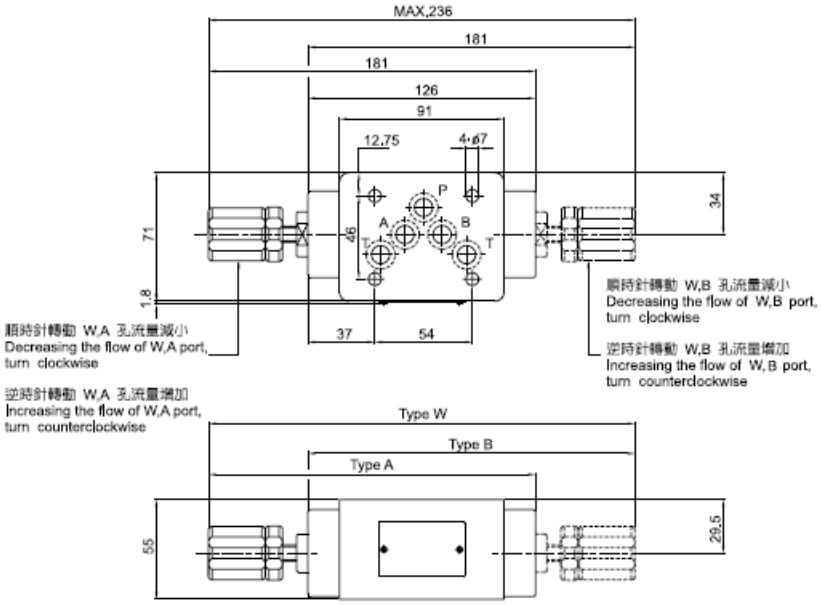
MT-02-W,A,B



MT-03-P,T

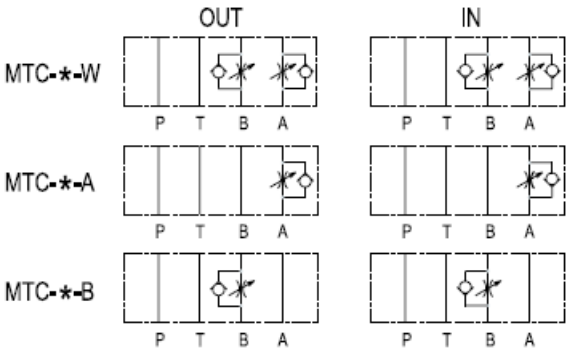


MT-03-W,A,B



Modular Throttle Valve			
MST	MT	MTC	MCT
Solenoid Operated Throttle Valve	Throttle Valve	Throttle and Check Valve	Counter Restrictors Valve
			

Throttle and Check Valve



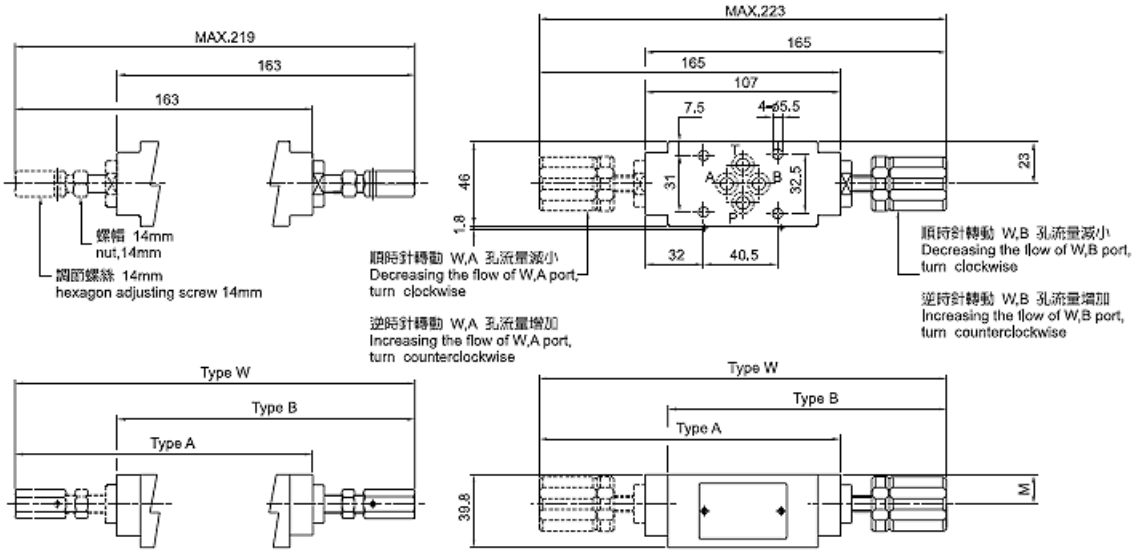
Specifications

Model	Max. Pressure kgf/cm2	Max. Flow L/min	Weight Kg
MTC-02-A,B	250	50	1.3
MTC-02-W			1.5
MTC-03-A,B		100	2.8
MTC-03-W			3.0
MTC-06-A,B		180	13.0
MTC-06-W			13.6

Order No.

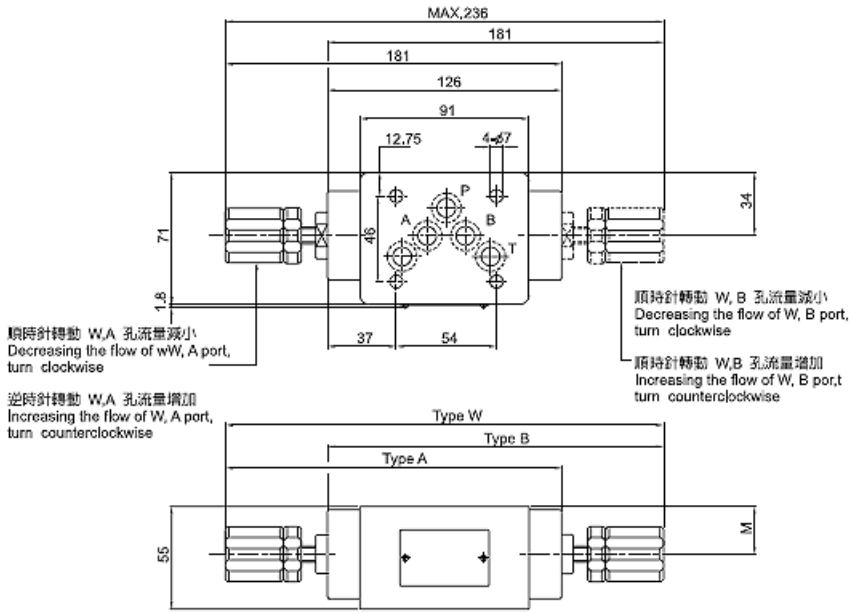
Group	Port Size	Control Port	Direction of Flow	Adjusting Type
MTC-	02-	A	1-	
MTC: Throttle and Check Valve	02: 1/4" 03: 3/8" 06: 3/4"	A: A Port B: B Port W: A and B Port	1: Meter in None: Meter Out	K: with knob None: without

MTC-02



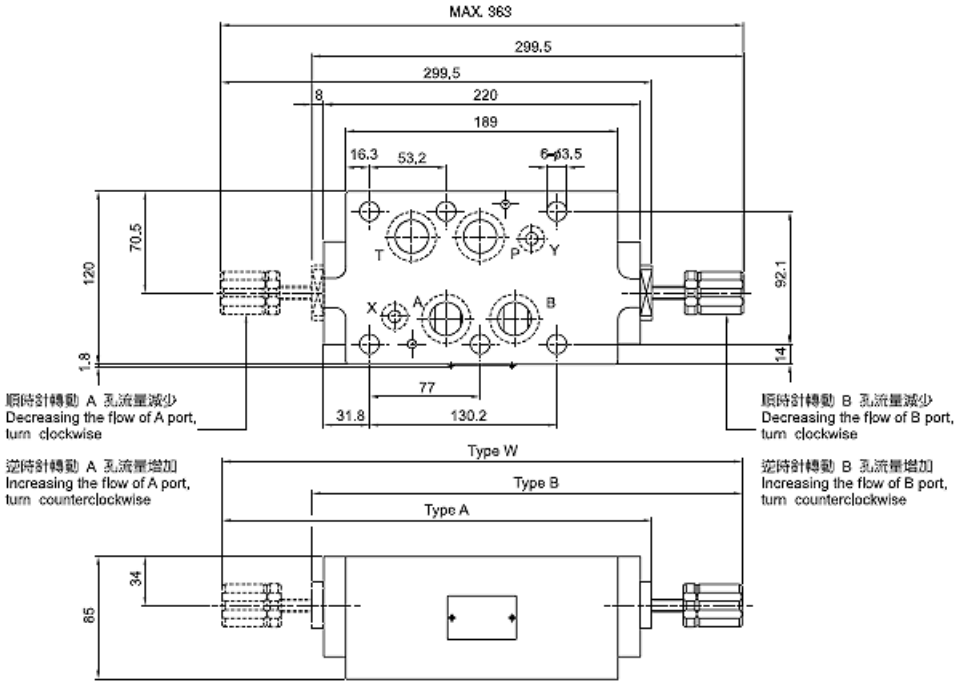
Model	M
Meter In	23.8
Meter Out	16

MTC-03



Model	M
Meter In	29.8
Meter Out	25.5

MTC-06

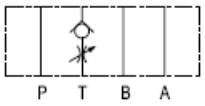


Model	M
Meter In	51
Meter Out	31

Modular Throttle Valve			
MST	MT	MTC	MCT
Solenoid Operated Throttle Valve	Throttle Valve	Throttle and Check Valve	Counter Restrictors Valve
			

Counter Restrictors Valve	
	

MCT-0★-P

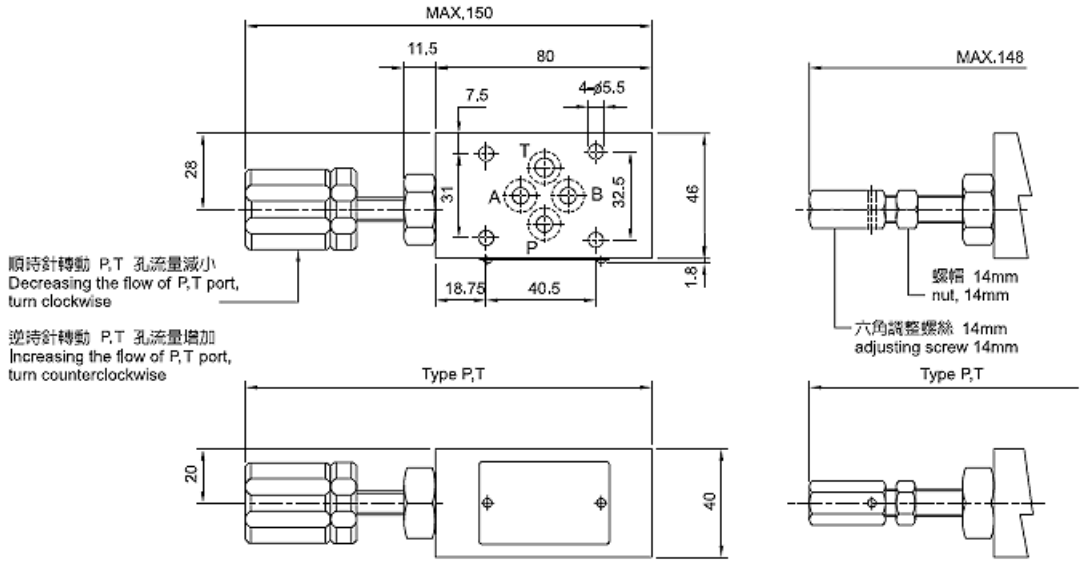


MCT-0★-T

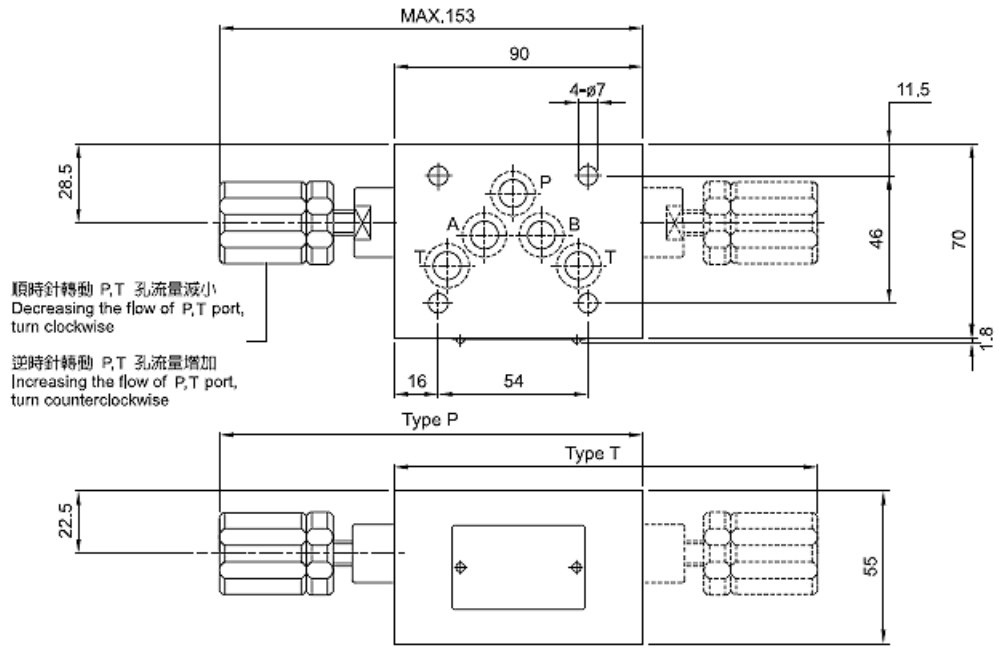
Order No.		
Group	Port Size	Control Port
MCT-	02-	P
MCT: Counter Restrictors Valve	02: 1/4" 03: 3/8" 06: 3/4"	P: P Port T: T Port

Specifications			
Model	Max. Pressure kgf/cm2	Max. Flow L/min	Weight Kg
MCT-02	250	50	1.3
MCT-03		100	2.7
MCT-06		100	13.5

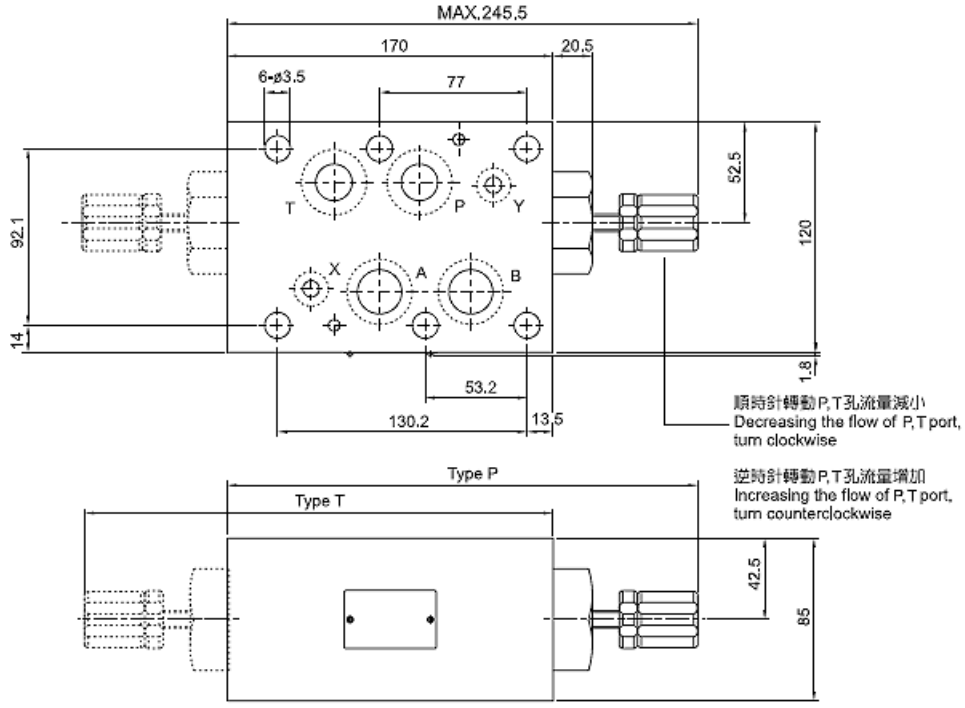
MCT-02



MCT-03

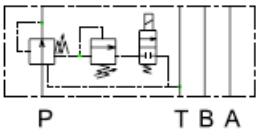

MAX.153
90
4-ø7
11.5
28.5
P
A
B
T
T
46
70
1.8
順時針轉動 P,T 孔流量減小
Decreasing the flow of P,T port,
turn clockwise
逆時針轉動 P,T 孔流量增加
Increasing the flow of P,T port,
turn counterclockwise
16
54
Type P
Type T
22.5
55

MCT-06


MAX.245.5
170
20.5
6-ø3.5
77
52.5
92.1
T
P
Y
120
X
A
B
14
1.8
53.2
130.2
13.5
順時針轉動P,T孔流量減小
Decreasing the flow of P,T port,
turn clockwise
逆時針轉動P,T孔流量增加
Increasing the flow of P,T port,
turn counterclockwise
Type P
Type T
42.5
85

Modular Relief Valve					
MGS	MBR	MCB	MRB	MSV	MRV
Two Section Reducing Valve	Reducing Valve	Counter Balance Valve	Balance Valve	Sequence Valve	Relief Valve
					

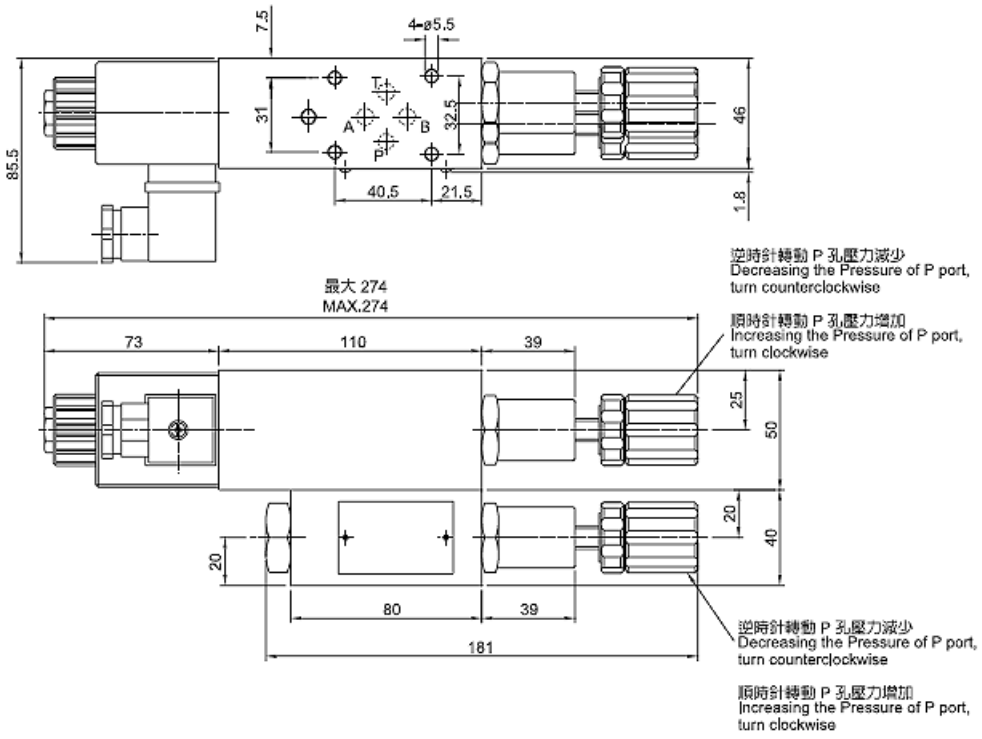
Two Section Reducing Valve



Order No.			
Group	Port Size	Control Port	Voltage
MGS-	02-	P	AC110
MGS: Two Section Reducing Valve	02: 1/4"	P: P Port	AC110 AC220 DC12 DC24

Specifications			
Model	Rated Pressure kgf/cm2	Rated Flow L/min	Pressure Adj Range kgf/cm2
MGS-02-P	140	40	2~70

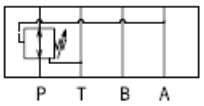
Dimensions



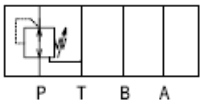
Modular Relief Valve					
MGS	MBR	MCB	MRB	MSV	MRV
Two Section Reducing Valve	Reducing Valve	Counter Balance Valve	Balance Valve	Sequence Valve	Relief Valve
					

Reducing Valve

MBR-0*-B



MBR-0*-A



MBR-0*-P

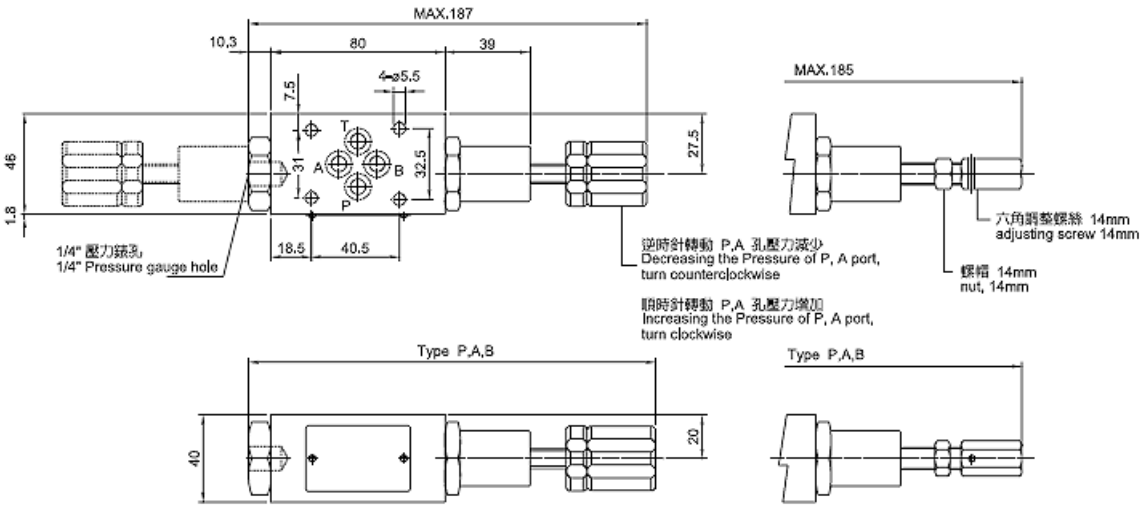
Specifications

Model	Max. Pressure kgf/cm2	Max. Flow L/min	Weight Kg
MBR-02	250	50	1.4
MBR-03		100	3.7
MBR-06		180	12.3

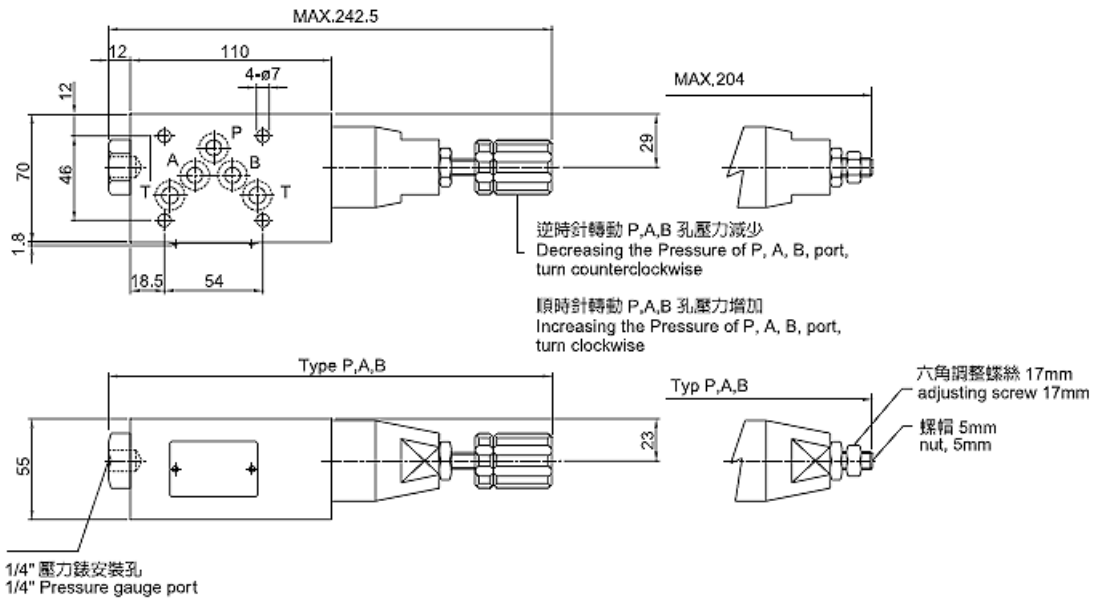
Order No.

Group	Port Size	Control Port	Pressure Adj Range	Adjusting Type
MBR-	02-	P-	1-	
MBR: Reducing Valve	02: 1/4" 03: 3/8" 06: 3/4"	P: P Port A: A Port B: B Port	1: 3-35 kgf/cm2 2: 8-70 kgf/cm2 3: 10-250 kgf/cm2 1S: 1.5-35 kgf/cm2 2S: 8-140 kgf/cm2 3S: 8-250 kgf/cm2	K: with knob None: without

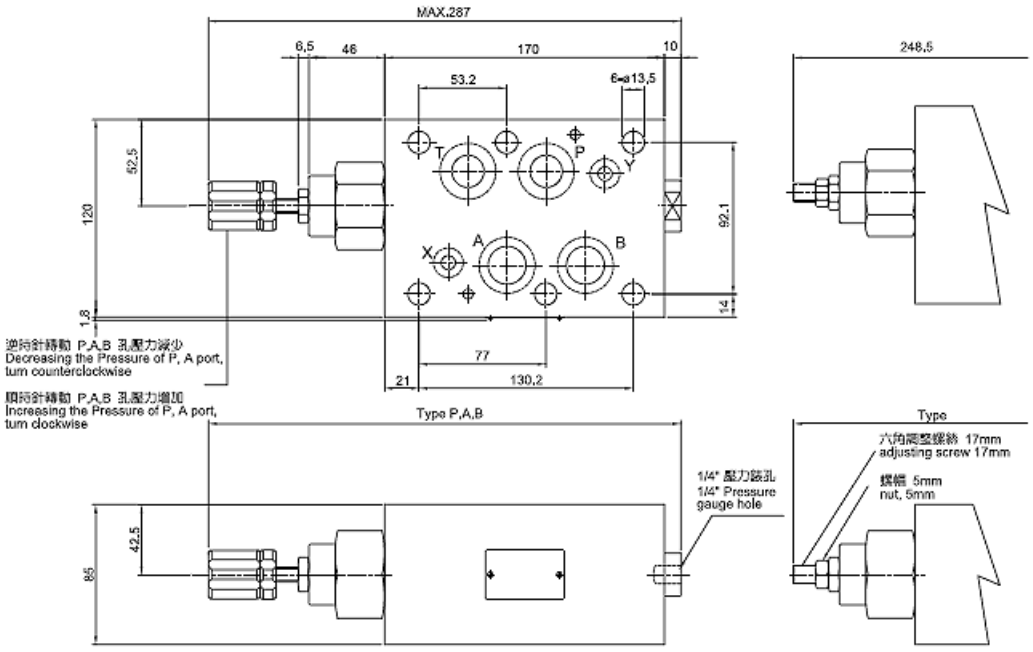
MBR-02



MBR-03

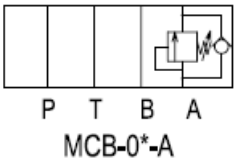

MAX.242.5
12
110
4-ø7
12
70
46
1.8
18.5
54
P
A
B
T
T
29
MAX.204
逆時針轉動 P,A,B 孔壓力減少
Decreasing the Pressure of P, A, B, port, turn counterclockwise
順時針轉動 P,A,B 孔壓力增加
Increasing the Pressure of P, A, B, port, turn clockwise
Type P,A,B
55
23
1/4" 壓力錶安裝孔
1/4" Pressure gauge port
Typ P,A,B
六角調整螺絲 17mm
adjusting screw 17mm
螺帽 5mm
nut, 5mm

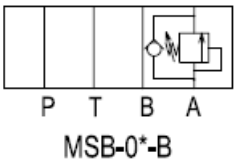
MBR-06


MAX.287
6,5
46
170
10
53.2
6-ø13,5
248,5
82,5
120
1,8
92,1
T
P
X
A
B
逆時針轉動 P,A,B 孔壓力減少
Decreasing the Pressure of P, A port, turn counterclockwise
順時針轉動 P,A,B 孔壓力增加
Increasing the Pressure of P, A port, turn clockwise
77
21
130,2
Type P,A,B
42,5
85
1/4" 壓力錶孔
1/4" Pressure gauge hole
Type
六角調整螺絲 17mm
adjusting screw 17mm
螺帽 5mm
nut, 5mm

Modular Relief Valve					
MGS	MBR	MCB	MRB	MSV	MRV
Two Section Reducing Valve	Reducing Valve	Counter Balance Valve	Balance Valve	Sequence Valve	Relief Valve
					

Counter Balance Valve





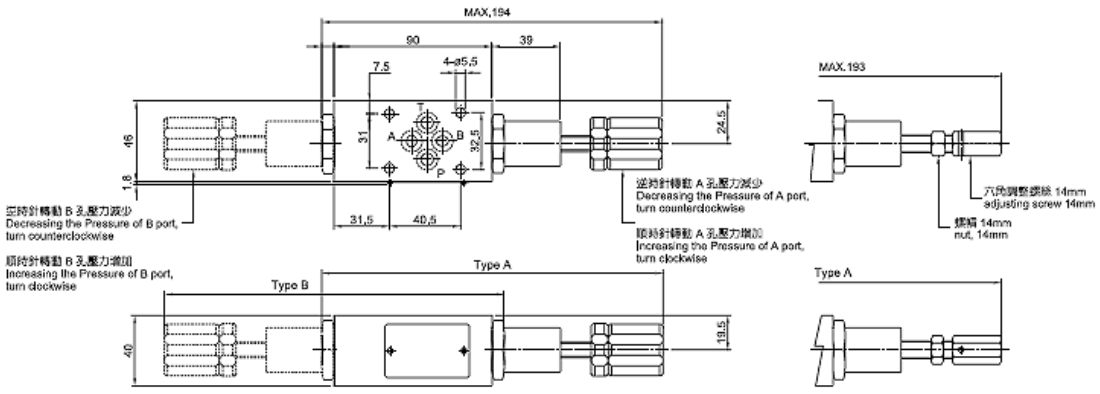
Specifications

Model	Max. Pressure kgf/cm2	Max. Flow L/min	Weight Kg
MCB-02	250	50	1.6
MCB-03		100	4.5

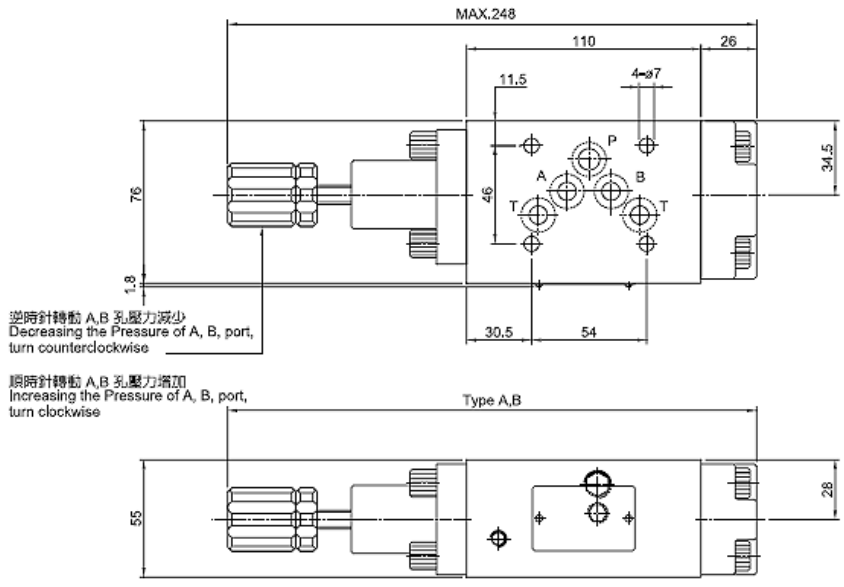
Order No.

Group	Port Size	Control Port	Pressure Adj Range	Adjusting Type
MCB-	02-	A-	1-	
MCB: Counter Balance Valve	02: 1/4" 03: 3/8"	A: A Port B: B Port	1: 8-70 kgf/cm2 2: 8-140 kgf/cm2 3: 70-250 kgf/cm2	K: with knob None: without

MCB-02



MCB-03

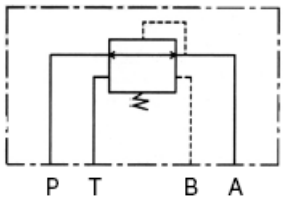


Modular Relief Valve					
MGS	MBR	MCB	MRB	MSV	MRV
Two Section Reducing Valve	Reducing Valve	Counter Balance Valve	Balance Valve	Sequence Valve	Relief Valve
					

Balance Valve

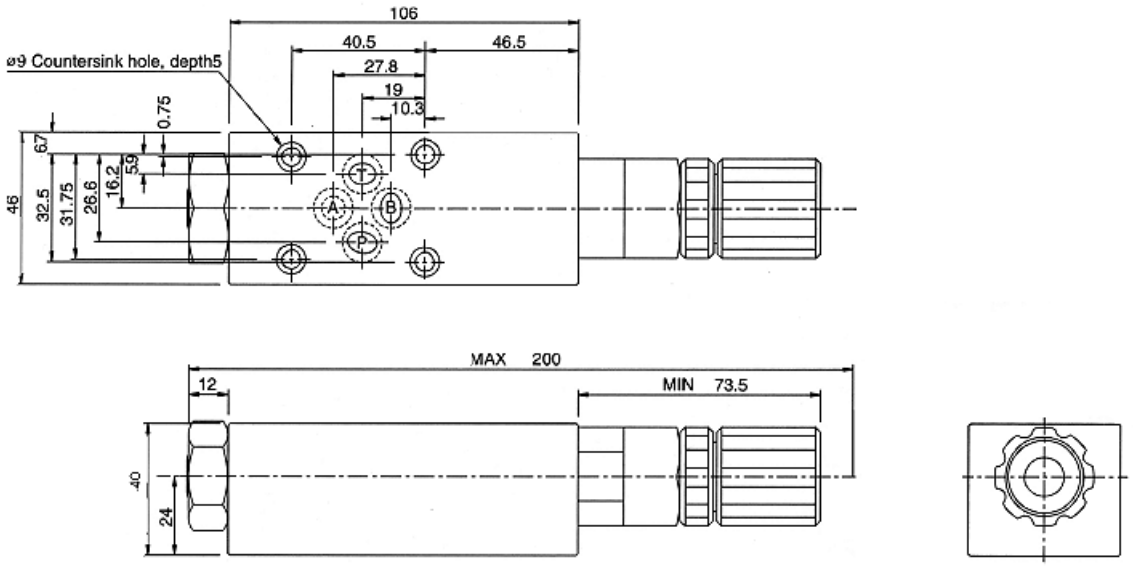
Specifications

Model	Max. Pressure kgf/cm2	Max. Flow L/min	Weight Kg
MRB-02	250	30	1.1
MRB-03		50	4.2

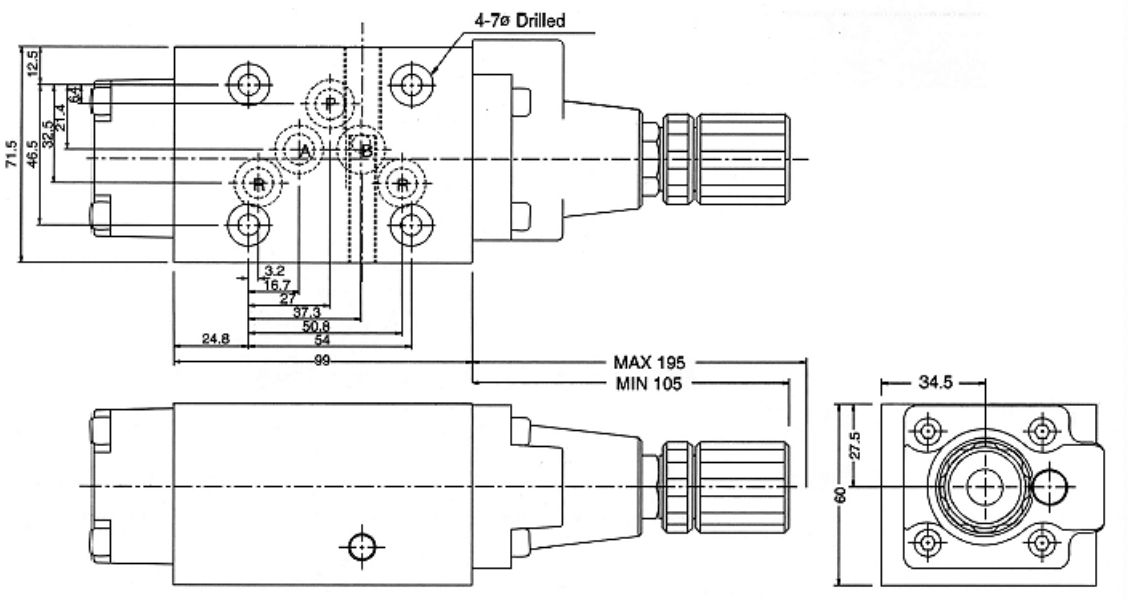


Order No.				
Group	Port Size	Type	Control Port	Pressure Adj Range
MRB-	02-	G	A-	1
MRB: Balance Valve	02: 1/4" 03: 3/8"	G: Sub plate Mounting	A: A Port	1: 8-70 kgf/cm2 2: 8-140 kgf/cm2 3: 70-250 kgf/cm2

MRB-02



MRB-03

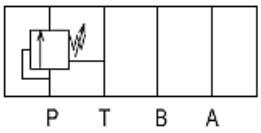


Modular Relief Valve					
MGS	MBR	MCB	MRB	MSV	MRV
Two Section Reducing Valve	Reducing Valve	Counter Balance Valve	Balance Valve	Sequence Valve	Relief Valve
					

Sequence Valve

Specifications

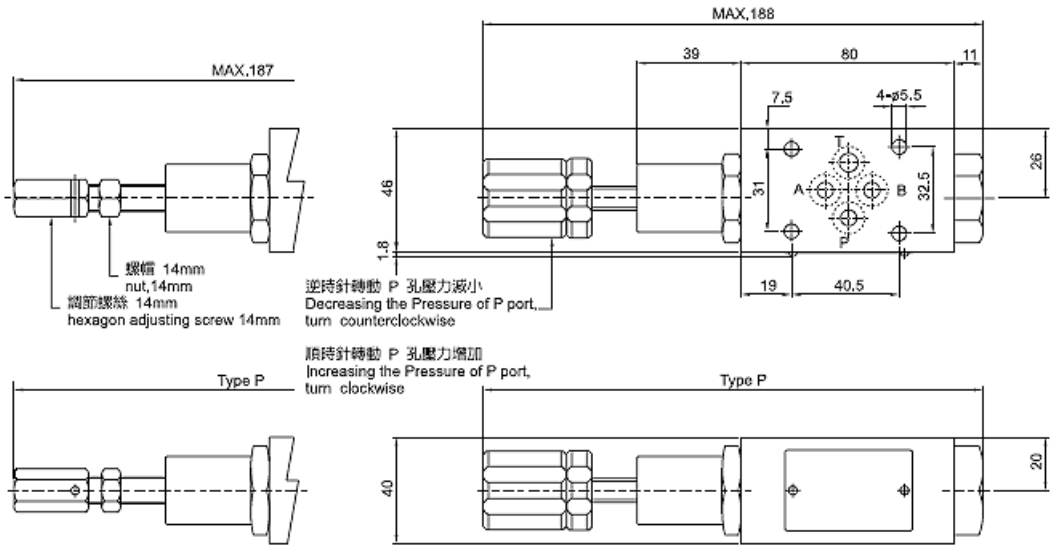
Model	Max. Pressure kgf/cm2	Max. Flow L/min	Weight Kg
MSV-02	250	50	1.3
MSV-03		100	4.5



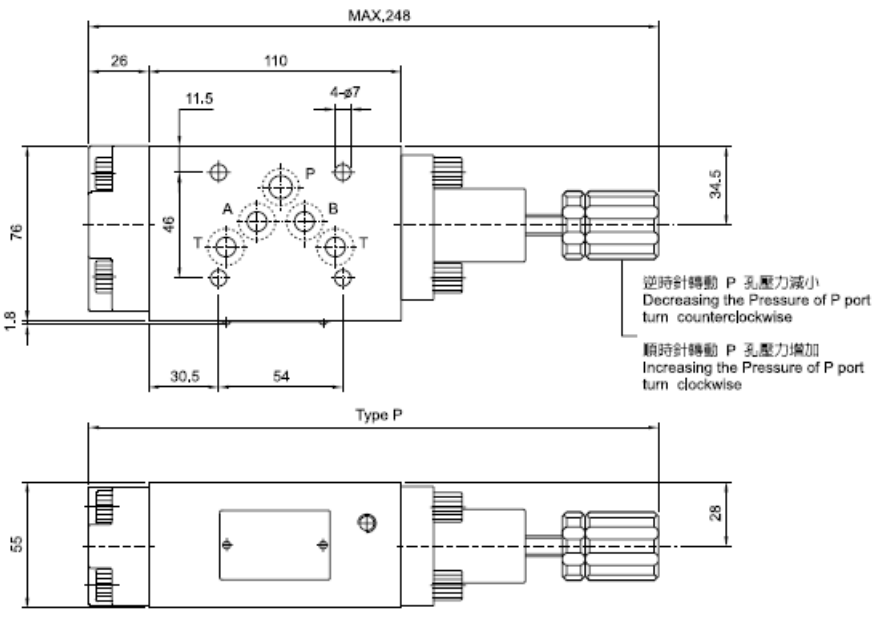
Order No.

Group	Port Size	Control Port	Pressure Adj Range	Adjusting Type
MSV-	02-	P	1	K
MSV: Sequence Valve	02: 1/4" 03: 3/8"	P: P Port	1: 8-70 kgf/cm2 2: 8-140 kgf/cm2 3: 70-250 kgf/cm2	K: with knob None: without

MSV-02



MSV-03



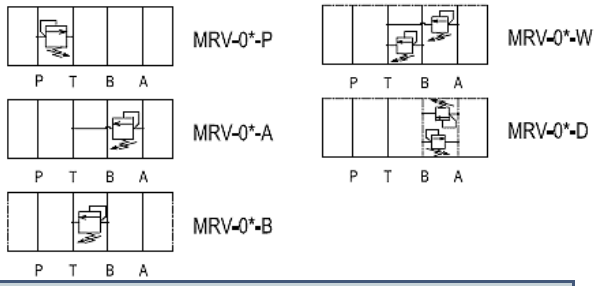
Modular Relief Valve					
MGS	MBR	MCB	MRB	MSV	MRV
Two Section Reducing Valve	Reducing Valve	Counter Balance Valve	Balance Valve	Sequence Valve	Relief Valve

Adjusting Type: K

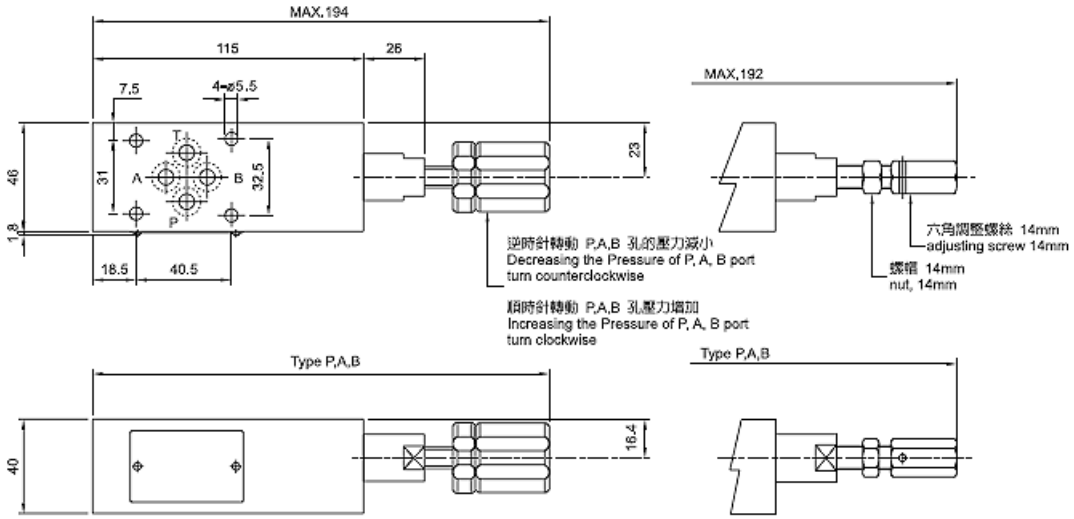
Adjusting Type: None

Order No.				
Group	Port Size	Control Port	Pressure Adj Range	Adjusting Type
MRV-	02-	P	1	K
MRV: Relief Valve	01: 1/8" 02: 1/4" 03: 3/8"	P: P Port A: A Port B: B Port W: A&B port D: T to B and B to A port (D: Brake Valve)	1: 8-70 kgf/cm2 2: 8-140 kgf/cm2 3: 10-250 kgf/cm2 4: 10-350 kgf/cm2	K: with knob None: without
MRVG: Relief & Remote Valve	06: 3/4"			A: A Port Remote B: B Port Remote

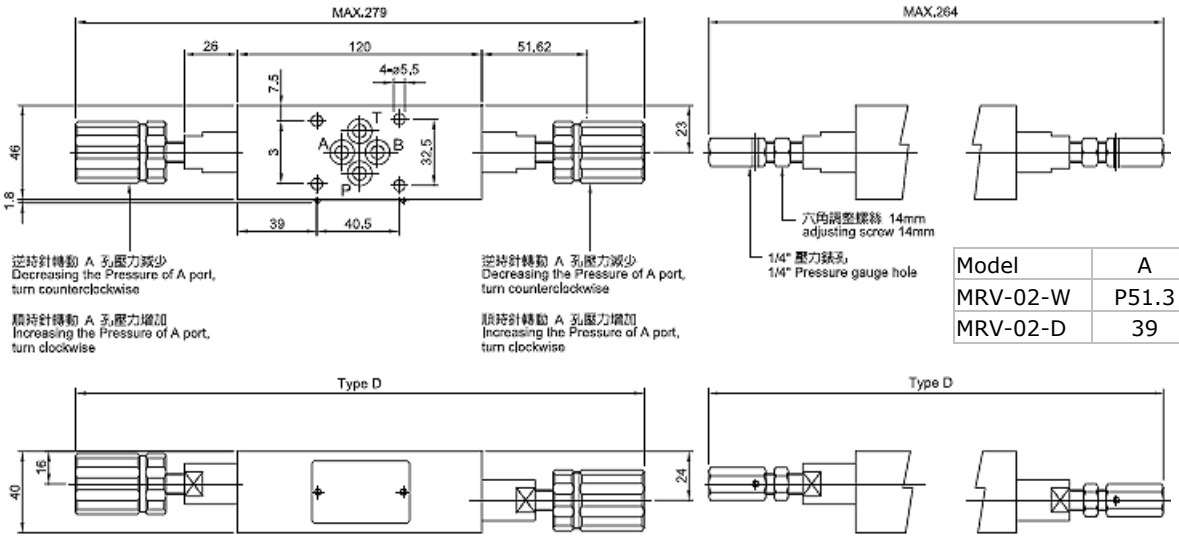
Specifications			
Model	Max. Pressure kgf/cm2	Max. Flow L/min	Weight Kg
MRV-02P,A,B	250	50	1.7
MRV-02W,D			2.2
MRV-03P,A,B		100	3.6
MRV-03W,D			4.8
MRV-06		180	12.0



MRV-02P,A,B

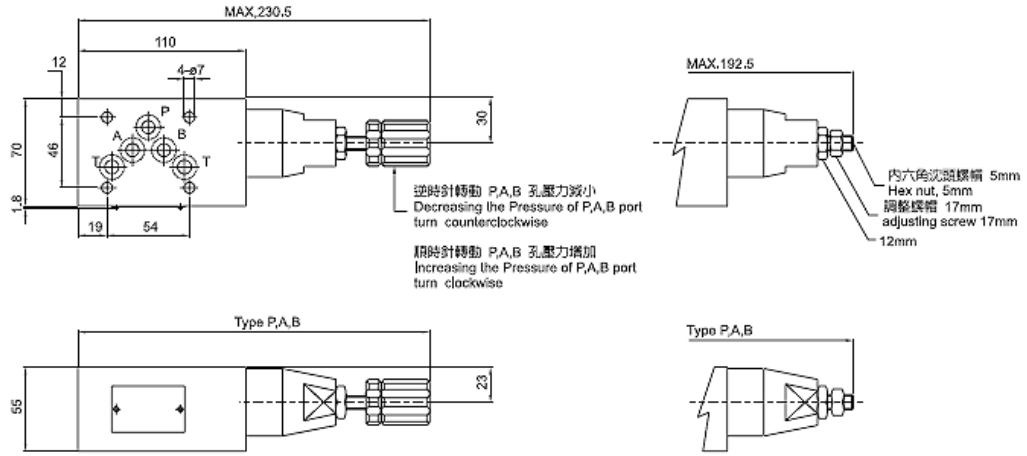


MRV-02W,D

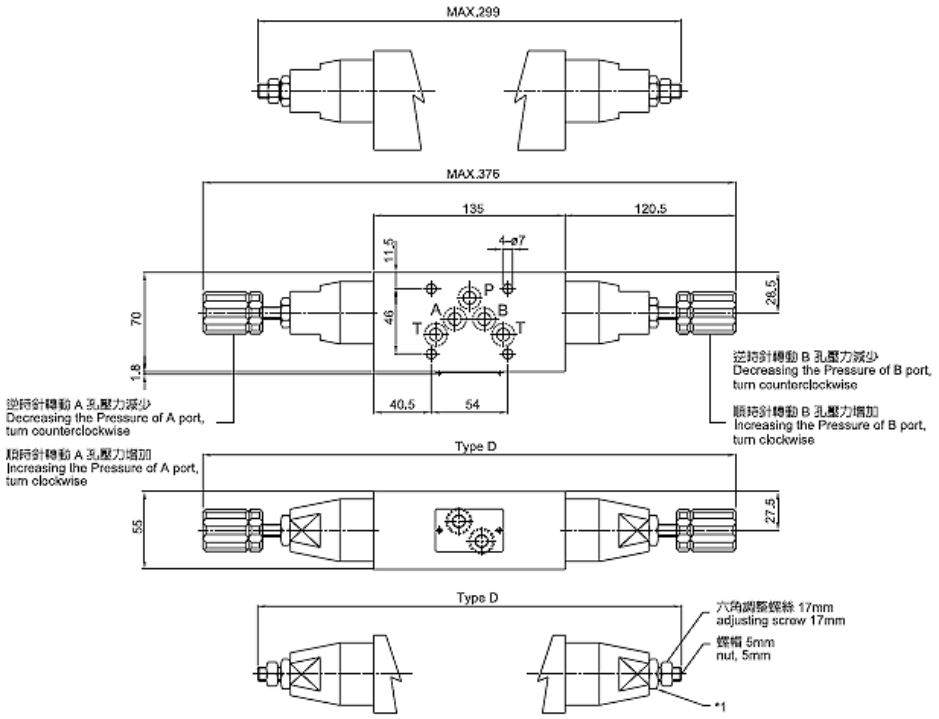


Model	A	B	C
MRV-02-W	P51.3	145	MAX.304
MRV-02-D	39	120	MAX.279

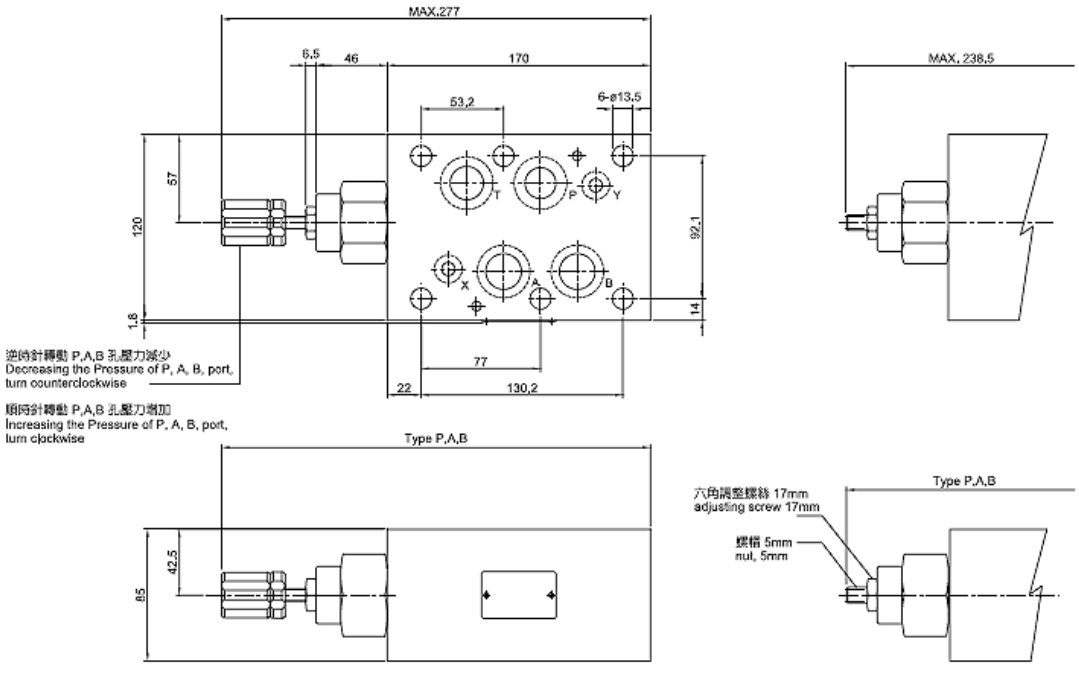
MRV-03P,A,B



MRV-03W,D

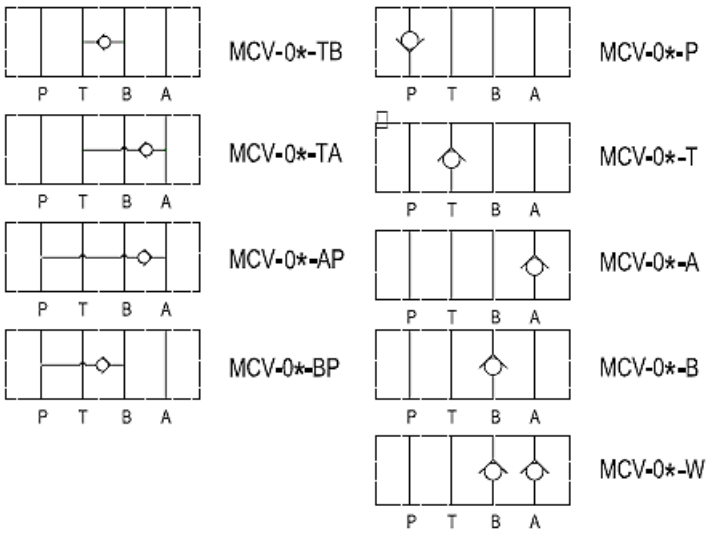


MRV-06



Modular Check Valve		Manifold Block	
MCV	MPC	M-02	M-03
Check Valve	Pilot Operated Check Valve	Manifold Block M-02	Manifold Block M-03
			

Check Valve



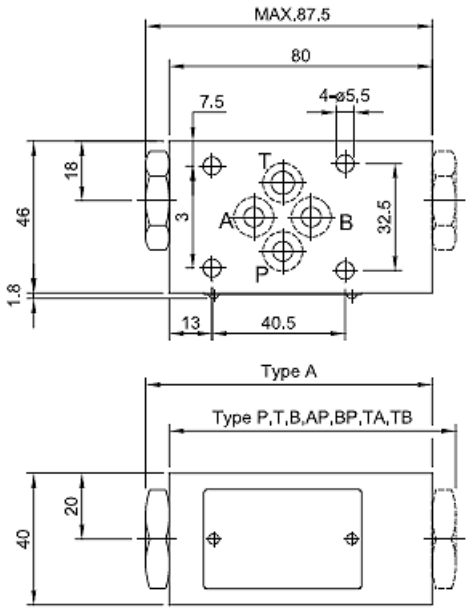
Specifications

Model	Max. Pressure kgf/cm2	Max. Flow L/min	Weight Kg
MCV-02-P,T,A,B,TA,TB,PA,PB	250	50	1.2
MCV-02-W			1.3
MCV-03-P,T,A,B,TA,TB,PA,PB		100	2.5
MCV-03-W			3.5
MCV-06		180	14.0

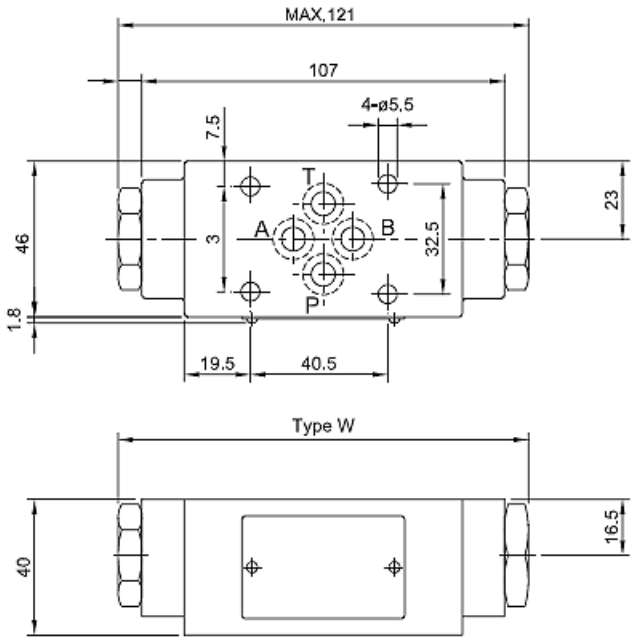
Order No.

Group	Port Size	Control Port	Cherking Pressure
MCV-	02-	P	1
MCV: Check Valve	02: 1/4" 03: 3/8" 06: 3/4"	P: P Port T: T Port A: A Port B: B Port W: A and B Port TA: A to T port AP: P to A port BP: P to B port	1: 0.5 kgf/cm2 2: 2.4 kgf/cm2

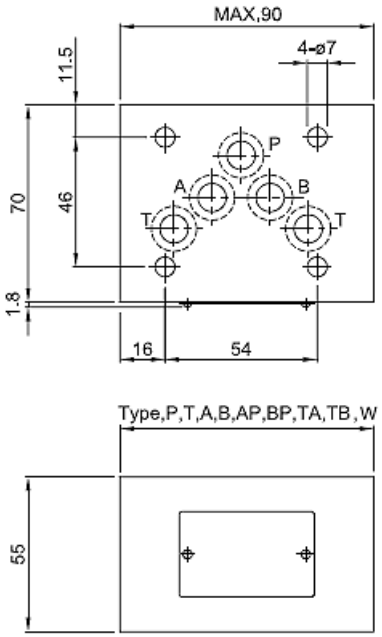
MCV-02-P,T,A,B,TA,TB,PA,PB



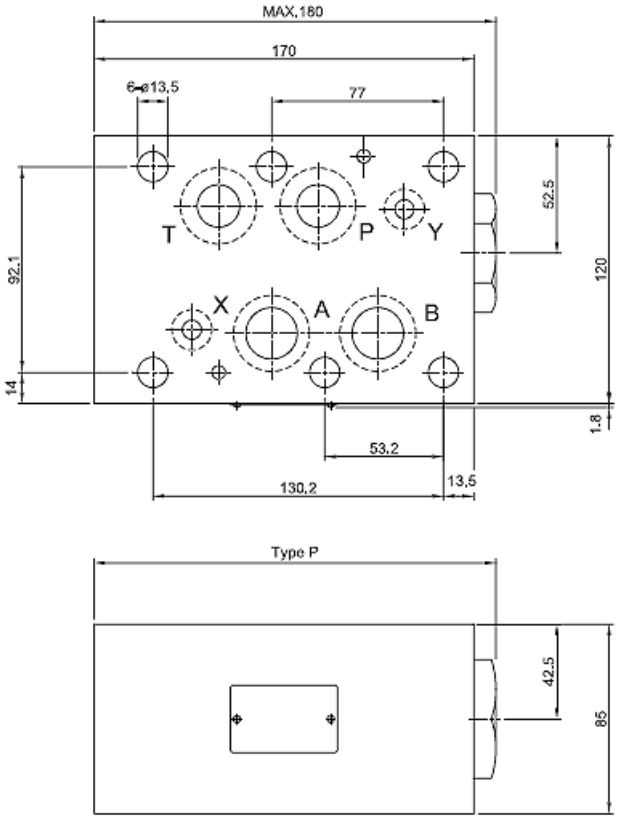
MCV-02-W



MCV-03

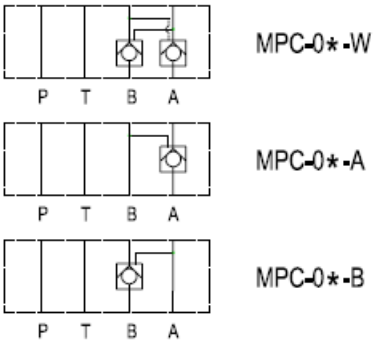


MCV-06



Modular Check Valve		Manifold Block	
MCV	MPC	M-02	M-03
Check Valve	Pilot Operated Check Valve	Manifold Block M-02	Manifold Block M-03
			

Pilot Operated Check Valve



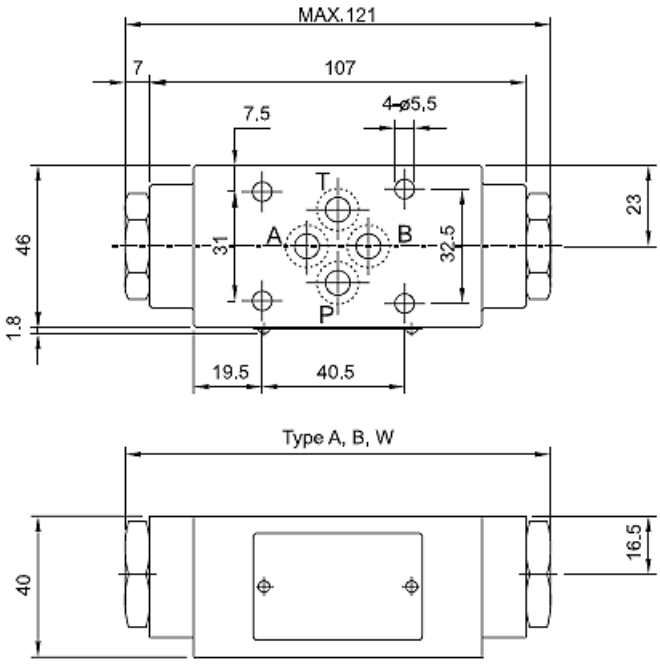
Specifications

Model	Max. Pressure kgf/cm2	Max. Flow L/min	Weight Kg
MPC-02	250	50	1.4
MPC-03		100	3.0
MPC-06		180	13.5

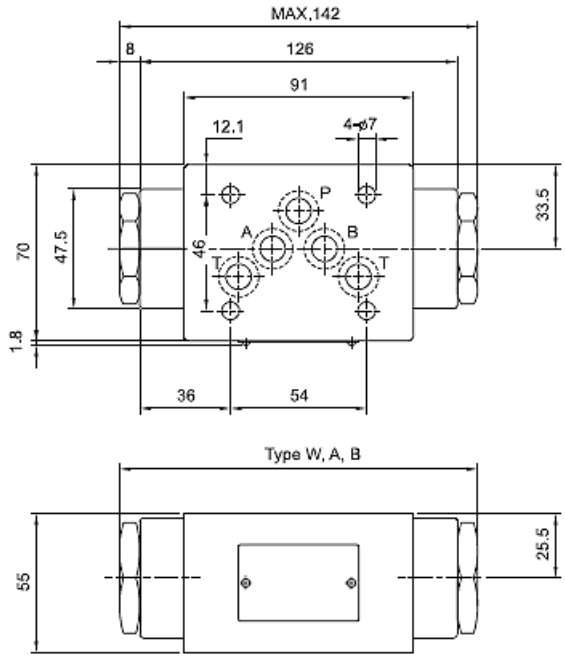
Order No.

Group	Port Size	Control Port	Cherking Pressure
MPC-	02-	P	1
MPC: Pilot Operated Check Valve	02: 1/4" 03: 3/8" 06: 3/4"	A: A Port B: B Port W: A and B Port	1: 0.5 kgf/cm2 2: 2.5 kgf/cm2

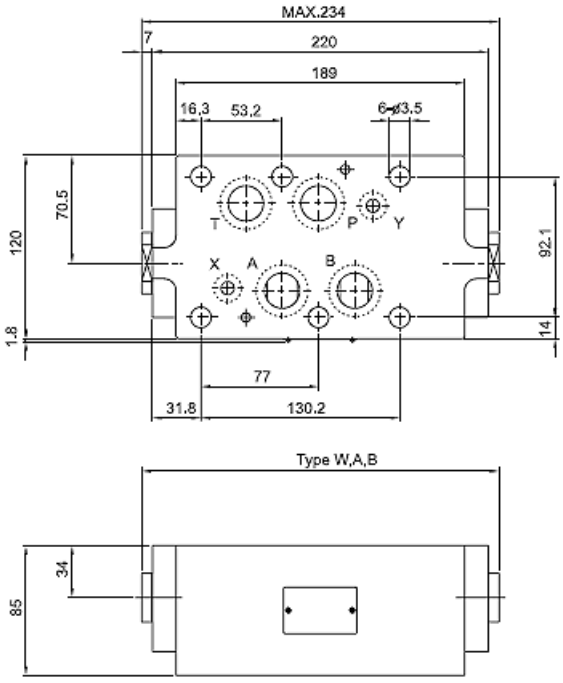
MPC-02



MPC-03

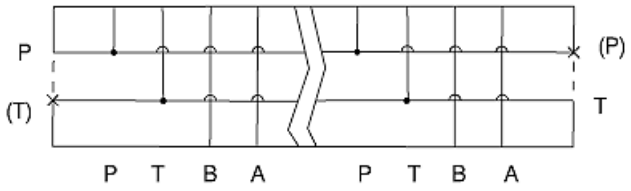

MAX.142
8
126
91
12.1
4-ø7
P
A
B
T
T
33.5
70
47.5
46
1.8
36
54
Type W, A, B
25.5
55

MPC-06


MAX.234
7
220
189
16.3
53.2
6-ø3.5
T
P
Y
X
A
B
70.5
120
92.1
1.8
14
77
31.8
130.2
Type W,A,B
34
85

Modular Check Valve		Manifold Block	
MCV	MPC	M-02	M-03
Check Valve	Pilot Operated Check Valve	Manifold Block M-02	Manifold Block M-03
			

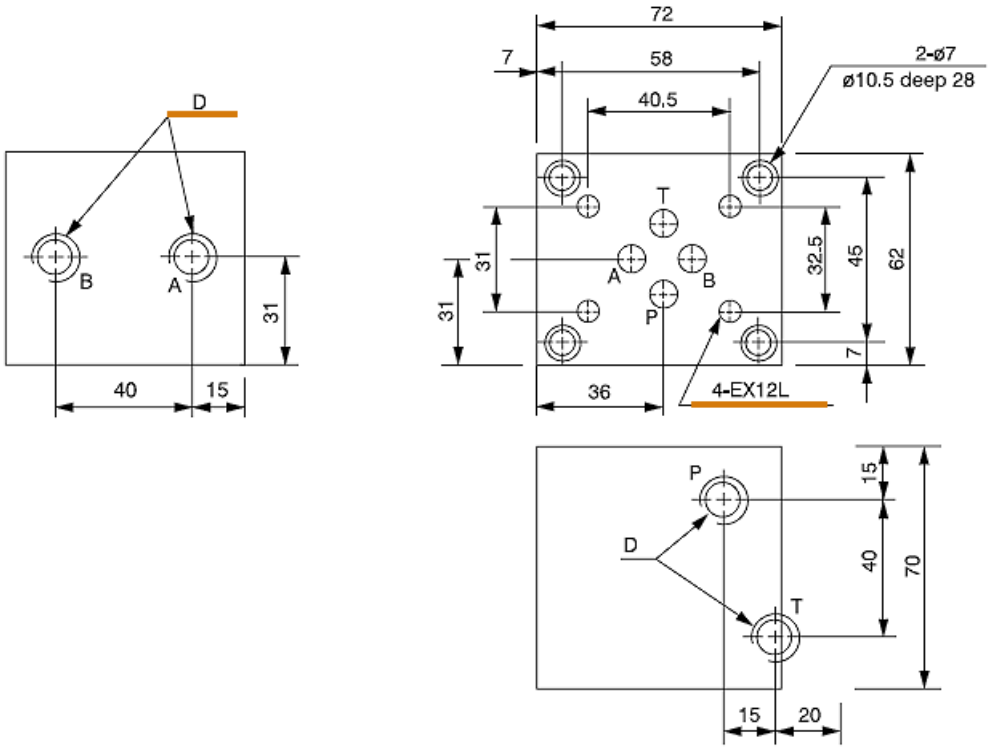
Manifold Block



Order No.

Group	Port Size	Quantity of Circuit	Thread
MA-	02-	1	1
MA: Manifold Block	02: 1/4"	1: 1 2: 2 3: 3 4: 4 5: 5	1: PT 2: NPT

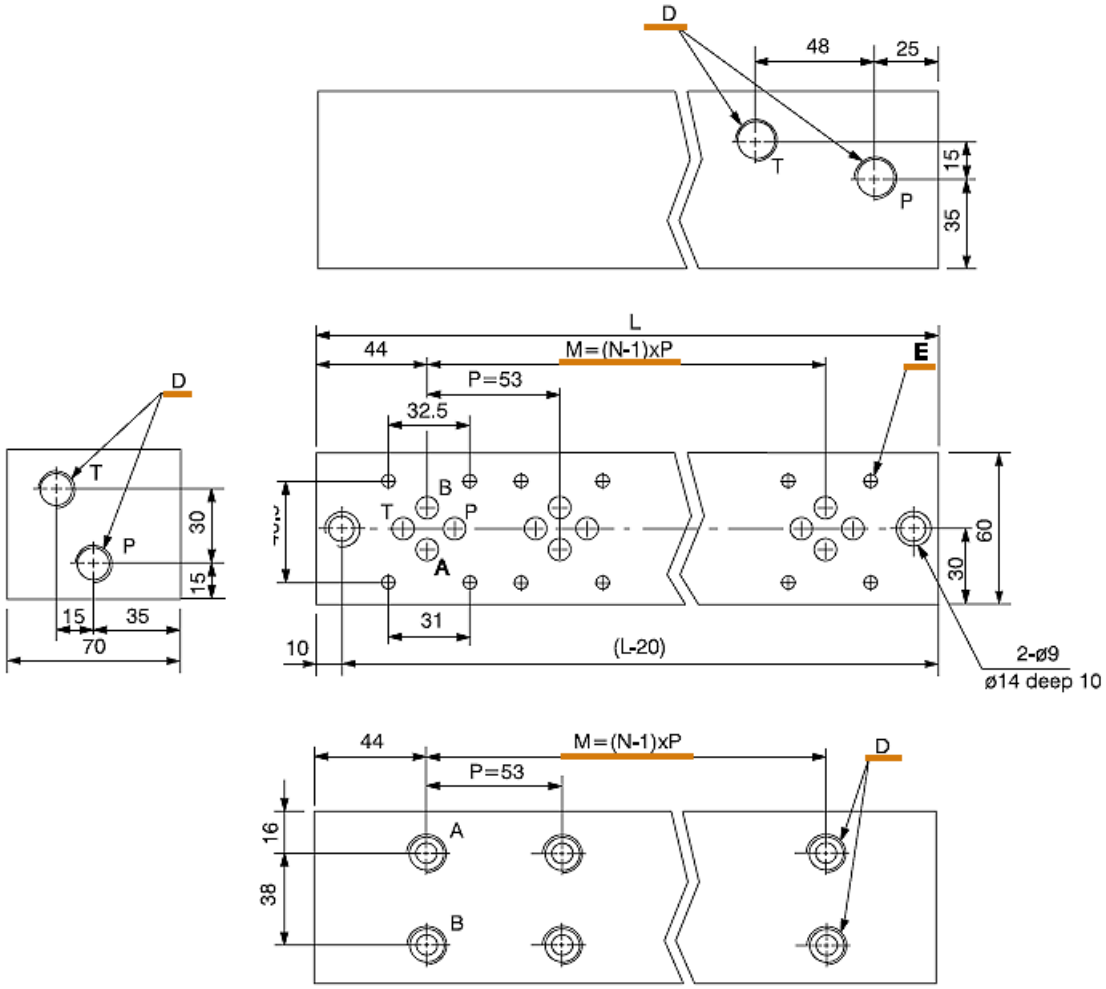
MA-02-1E



Model	D	E
MA-02-1-1	PT 3/8"	M5x0.8P
MA-02-1-2	NPT 3/8"	# 10-24UNC

Modular Check Valve		Manifold Block	
MCV	MPC	M-02	M-03
Check Valve	Pilot Operated Check Valve	Manifold Block M-02	Manifold Block M-03
			

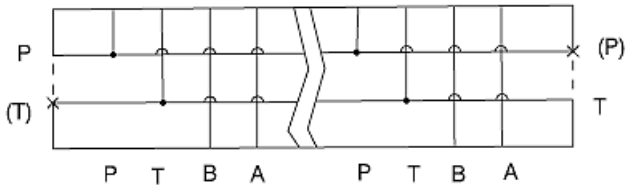
MA-02-*E



Model		D	E	N	M	L	WIGHT
MA-02-2-	1	PT 3/8"	M5x0.8P	2	53	141	4.6
	2	NPT 3/8"	# 10-24UNC				
MA-02-3-	1	PT 3/8"	M5x0.8P	3	106	194	6.3
	2	NPT 3/8"	# 10-24UNC				
MA-02-4-	1	PT 3/8"	M5x0.8P	4	159	247	8.1
	2	NPT 3/8"	# 10-24UNC				
MA-02-5-	1	PT 3/8"	M5x0.8P	5	212	300	10
	2	NPT 3/8"	# 10-24UNC				
MA-02-6-	1	PT 3/8"	M5x0.8P	6	265	353	11.8
	2	NPT 3/8"	# 10-24UNC				
MA-02-7-	1	PT 3/8"	M5x0.8P	7	318	406	13.6
	2	NPT 3/8"	# 10-24UNC				

Modular Check Valve		Manifold Block	
MCV	MPC	M-02	M-03
Check Valve	Pilot Operated Check Valve	Manifold Block M-02	Manifold Block M-03
			

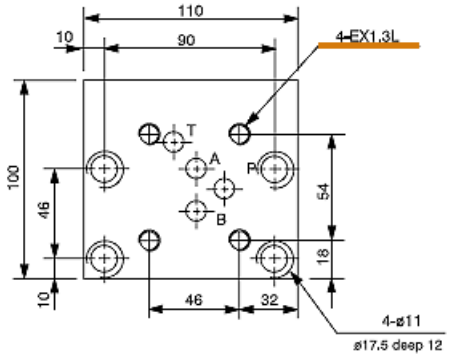
Manifold Block

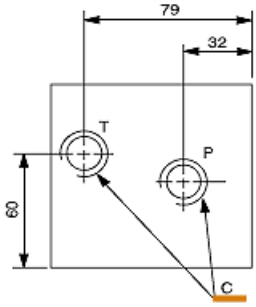


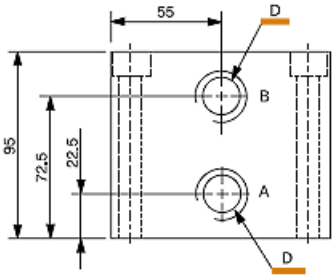
Order No.

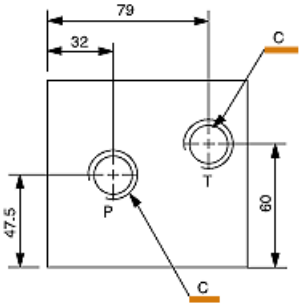
Group	Port Size	Quantity of Circuit	Thread
MA-	03-	1	1
MA: Manifold Block	03: 3/8"	1: 1 2: 2 3: 3 4: 4 5: 5	1: PT 2: NPT

MA-03-1-*





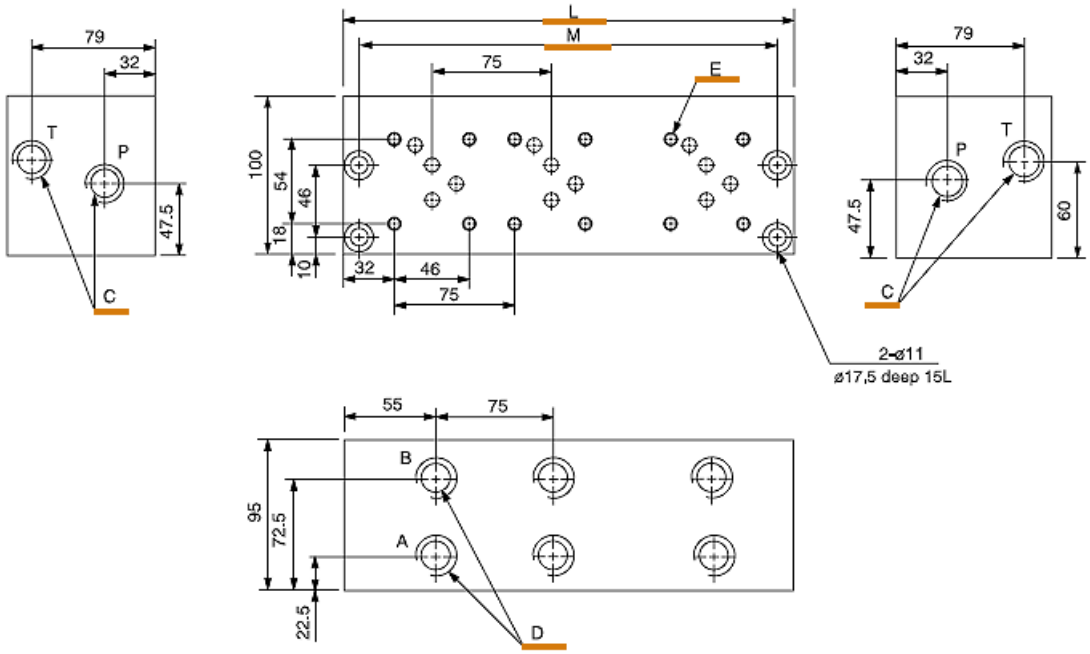




Model	C	D	E
MA-03-1-1	PT 3/4"	PT 1/2"	M16x1.0P
MA-03-1-2	NPT 3/4"	NPT 1/2"	# 10-24UNC

Modular Check Valve		Manifold Block	
MCV	MPC	M-02	M-03
Check Valve	Pilot Operated Check Valve	Manifold Block M-02	Manifold Block M-03
			

MA-03-*-*

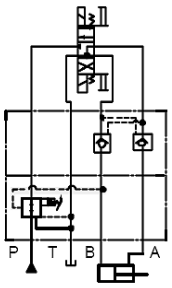
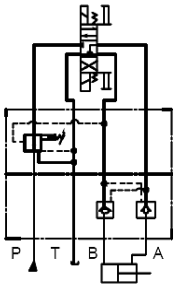


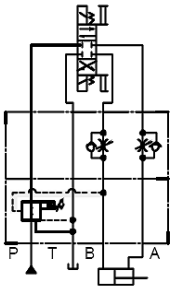
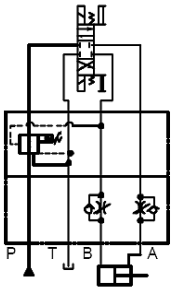
Model		D	E	N	M	L	WIGHT (kg)
MA-03-2	1	PT 1/2"	M16x1.0P	2	165	185	13.8
-	2	NPT 1/2"	1/4-20UNC				
MA-03-3	1	PT 1/2"	M16x1.0P	3	240	260	19.5
-	2	NPT 1/2"	1/4-20UNC				
MA-03-4	1	PT 1/2"	M16x1.0P	4	315	335	25.0
-	2	NPT 1/2"	1/4-20UNC				
MA-03-5	1	PT 1/2"	M16x1.0P	5	390	410	31.0
-	2	NPT 1/2"	1/4-20UNC				

Instructions

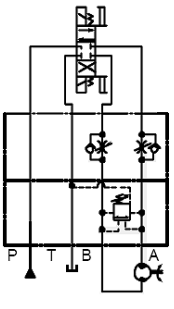
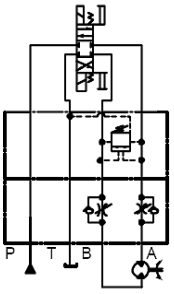
Caution in the selection of valves and circuit designing

The selection of modular valves, to suit a particular function or hydraulic circuit, are made in exactly the same way as conventional valves, taking into account of the flow and pressure of each valve to be used. In some cases, the stacking system may be restricted, so please refer to the following instructions for stacking sequence. Please note, that when designing a system using modular stacking valves, due consideration should be given to working space for future maintenance.

		(Incorrect)	(Correct)
Stacking sequence when using reducing valves (for "A" or "B" line) and pilot operated check valves. Because reducing valves are spool type, there is an internal leakage. In the stacking sequence shown in the drawing left (incorrect), the cylinder moves due to leakage through the pilot pressure line . Consequently, retaining the position of the cylinder using a pilot operated check valve becomes impossible. The stacking sequence shown in the drawing right (correct) is required in order to retain the cylinder position.	Solenoid Operated Directional Valve Pilot Operated Check Valve (for "A&B-Lines") Reducing Valve (for "B-Line")		

		(Incorrect)	(Correct)
Stacking sequence when using reducing valves (for "A" or "B" line) and throttle and check valves (for meter-out). In B to T flow in the drawing left (incorrect), pressure is generated at part with a throttle effect of the throttle and check valve. Depending upon the pressure so generated, the reducing valve may perform a pressure reducing function which causes a shortage of output power of the cylinder and spoils the smooth operation of the cylinder. Therefore, stacking sequence in the drawing right (correct) is required in this combination.	Solenoid Operated Directional Valve Pilot Operated Check Valve (for "A&B-Lines") Reducing Valve (for "B-Line")		

		(Incorrect)	(Correct)
Stacking sequence when using pilot operated check valves and throttle and check valves (meter out). In A to T flow in the drawing left (incorrect), pressure is generated at part with a throttle effect of the throttle and check valve. The pressure so generated acts to shut the pilot operated check valve and eventually creates an open and shut operation of the valve repeatedly which may cause the cylinder to have a knocking effect (the same effect will occur in the case of B to T flow). Therefore, the stacking sequence in the drawing right (correct) is required in this combination.	Solenoid Operated Directional Valve Pilot Operated Check Valve (for "A&B-Lines") Reducing Valve (for "B-Line")		

		(Incorrect)	(Correct)
Stacking sequence when using brake valves and throttle and check valves. In the drawing left (incorrect), pressure is generated at part (a load pressure and a back pressure from throttle effect). For structual reasons of the brake valve, the load pressure and back pressure act to open the valve, therefore, the setting pressure should be more than the pressure equal to the load pressure plus back pressure (Pa + Pb). If the setting pressure is less than Pa + Pb, the brake valve acts and brakes the movement of the actuator in operation, this eventually reduces the speed of the actuator. On the contrary, if the setting pressure is more than Pa + Pb, shock may occur when braking the actuator since the setting pressure is too high against the load pressure. Therefore, the stacking sequence in the drawing right (correct) is required in this combination.	Solenoid Operated Directional Valve Pilot Operated Check Valve (for "A&B-Lines") Reducing Valve (for "B-Line")		

Hydraulic Fluids

Fluid Types

Any type of hydraulic fluid, listed in the table below can be used.

Petroleum base oils	Use fluids equivalent to ISO VG 32 or VG 46.
Synthetic fluids	Use phosphate ester or polyol ester fluid. When phosphate ester fluid is used, prefix "F-" to the model number because the special seals (fluororubber) are required to be used.
Water containing fluids	Use water-glycol fluid.

Note: For use with hydraulic fluids other than those listed above, please consult y our Yuken representatives in advance.

Recommended Viscosity and Temperatures

Always be sure to use hydraulic fluids within the stipulated conditions shown below:
Viscosity: 15 to 400 mm2 /s (77 to 1800 SSU), Temperature: -15 to +70°C (5 to 160°F)

Control of Contamination
Due caution must be paid to maintaining control over contamination of the hydraulic fluids which may otherwise lead to breakdowns and shorten the life of the valve. Please maintain the degree of contamination within NAS 1638-Grade 12. Use 25 μm or finer line filter.

Contact US

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Order

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Note

If the product make the special design, the advice doesn't command any more.