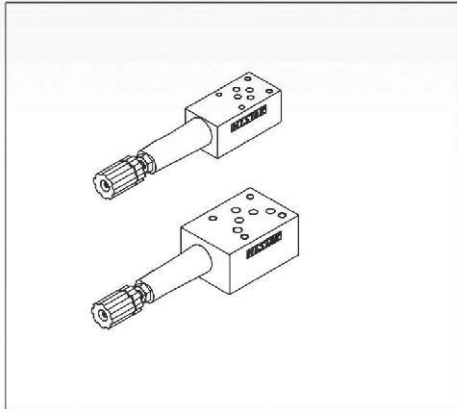


SEQUENCE VALVES & COUNTER BALANCE MODULAR VALVES

- Sequence Valves (Modular Type) - MHP-0*-*
- Counter-balance Valves (Modular Type) - MHA(B)-0*-*



Model & Symbol	Model & Symbol
MHP-01 (03) 	MHP-04 (06) 
MHA-01 (03) 	MHA-04 (06) 
MHB-01 (03) 	MHB-04 (06) 

■ Ratings

Model	Max Operating Pres bar (PSI)	Max Flow lpm (USgpm)	Valve Size	Weight kg (lb)
MH*-01-*	250 (3600)	50 (13.2)	1/8"	1.1 (2.4)
MH*-03-*	250 (3600)	100 (26.5)	3/8"	3.8 (8.3)
MH*-04-*	250 (3600)	190 (50.2)	1/2"	7.0 (15.4)
MH*-06-*	250 (3600)	300 (79.3)	3/4"	11.2 (24.6)

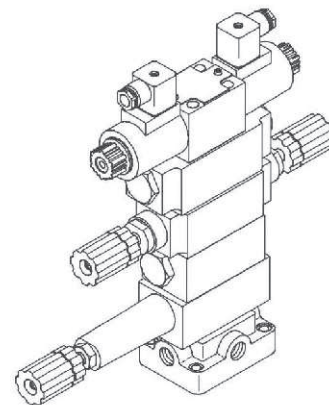
- This sequence modular valves (MHP-0*-*) is used for actuator sequential operation, as well as for circuit pressure holding. With wide adjustment range 6 ~ 250 bar. hydraulic circuit and also serves as a safety valve.

- MHA(B)-0*-* counter-balance modular valves is used for actuator back pressure control.

■ Ordering Code

MH - P - 01 - C - 20 - S

Series No	Control Line	Valve Size	Pressure Adj. Range	Design No	Special Kits
MHP Sequence Modular Valves	P : P Port 	(DSG-) 01 (NFPA-D03) 	N: 6~ 18 bar 	20 DIN 912 bolts 	None: With Knob 
MHA(B) Counterbalance Modular Valves	A : A Port 	(DSG-) 03 (NFPA-D05) 	A: 18~ 35 bar 	2090 UNC bolts (North America) 	S: Soc. Hd. Cap Screw 
	B : B Port 	(DSHG-) 04 (NFPA-D07) 	B: 35~ 70 bar 		
		(DSHG-) 06 (NFPA-D08) 	C: 70~ 250 bar 		



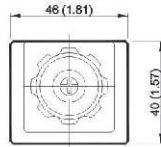
DIMENSIONS

MILLIMETERS(INCHES)

MHB-01

Counterbalance Valves(Modular Type)

MOUNTING SURFACE:MH*-01-CETOP3
ISO 03-NFPAD03

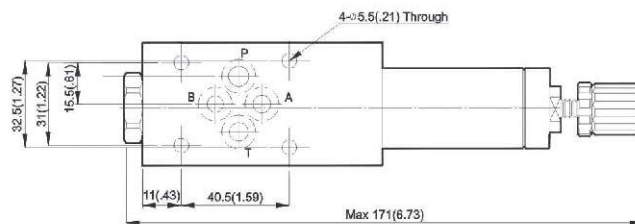


Valve Specifications & Attachment

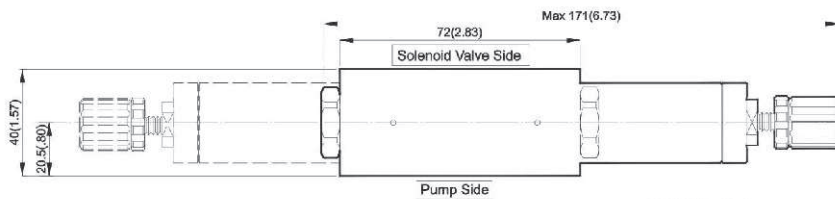
Flow Rating	50 lpm (13.2 gpm)
Max. Pressure	250 bar (3600 psi)
Weight kg(lbs.)	1.1 (2.4)
CODE:20	M5 X85LgX4pcs
CODE:2090	10-24UNCX3-4/4"LgX4pcs
Mounting Surface O-Ring P9 x 2 pc	



SYMBOL



OPTION
Design No: 30 (3090)



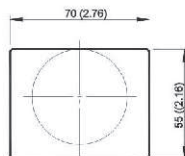
MHA-01

MHB-01

MHB-03

Counterbalance Valves(Modular Type)

MOUNTING SURFACE:MH*-03-CETOP5
ISO 05-NFPAD05

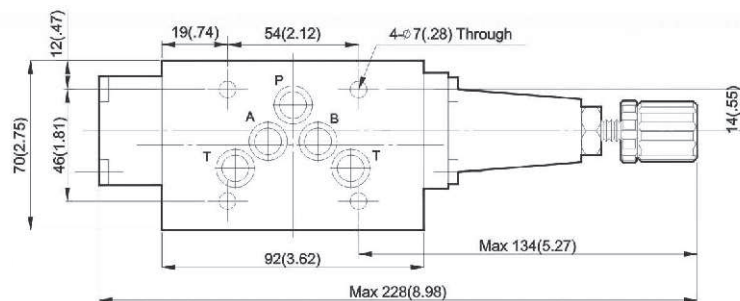


Valve Specifications & Attachment

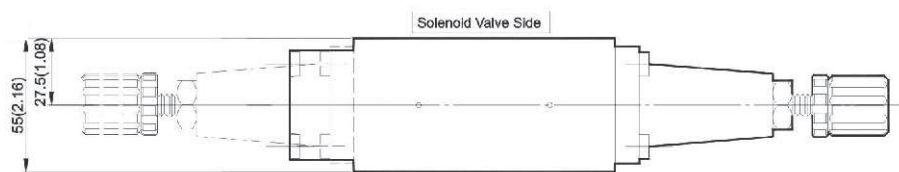
Flow Rating	100 lpm (26.5 gpm)
Max. Pressure	250 bar (3600 psi)
Weight kg(lbs.)	3.5 (7.7)
CODE:20	M6 X90LgX4pcs
CODE:2090	1/4-20UNCX3-1/2LgX4pcs
Mounting Surface O-Ring P12 x 5 pc	



SYMBOL



OPTION
Design No: 30 (3090)



MHA-03

MHB-03

DIMENSIONS

MILLIMETERS(INCHES)

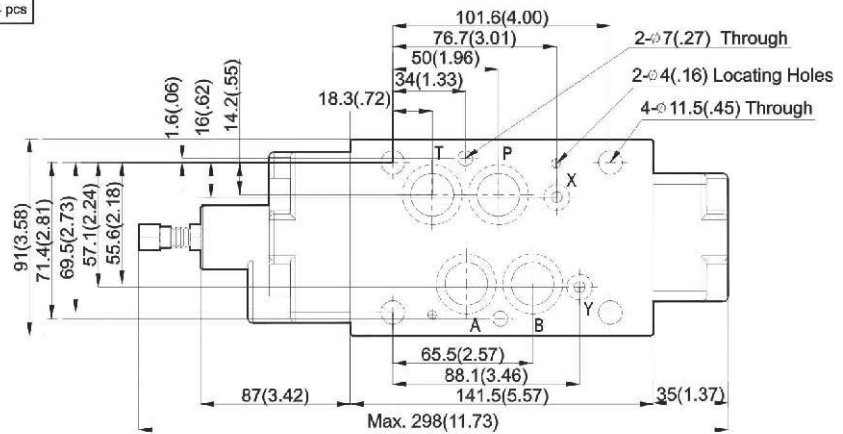
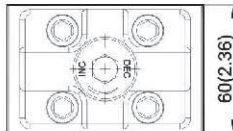
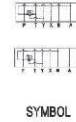
MHB-04

Counterbalance Valves(Modular Type)

MOUNTING SURFACE:MH*-04-CETOP7
ISO 07-NFPAD07

Valve Specifications & Attachment

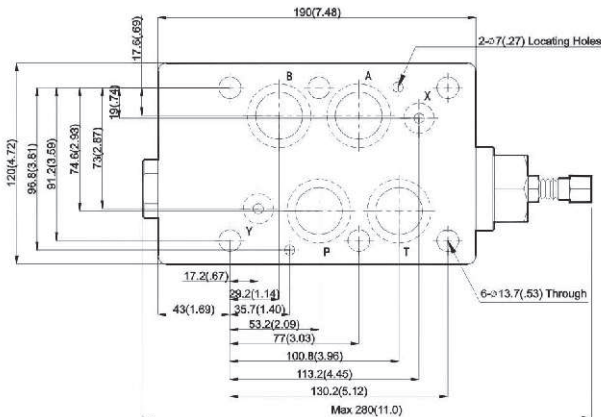
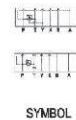
Flow Rating	190 lpm (50.2 gpm)
Max. Pressure	250 bar (3600 psi)
Weight kg(lbs.)	7.0 (15.4)
CODE:20	M6X125LgX2pcs M10X120LgX4pcs
CODE:2090	1/4-20UNCX4-7/8"LgX2pcs 3/8-16UNCX4-5/8"Lg X4pcs
Mounting Surface O-Ring P9 x 2 pc & P22A x 4 pcs	



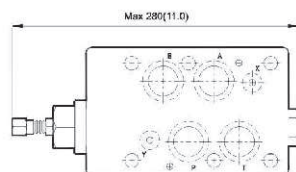
MHB-06

Counterbalance Valves(Modular Type)

MOUNTING SURFACE:MH*-06-CETOP8
ISO 08-NFPAD08



MHB-06



MHA-06

Valve Specifications & Attachment

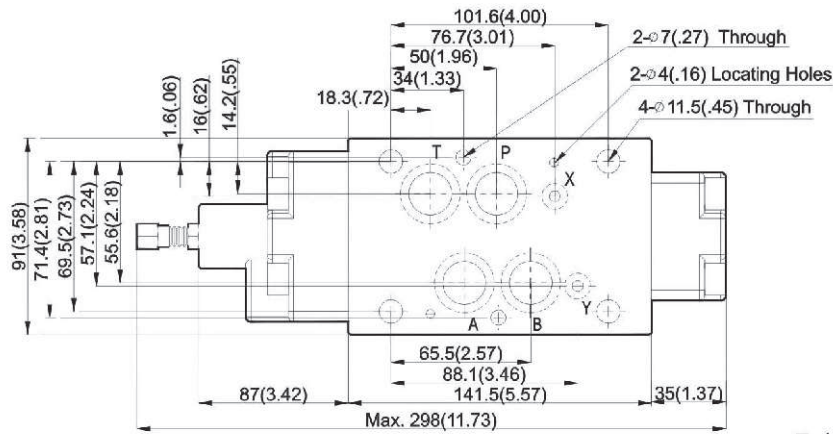
Flow Rating	300 lpm (79.3 gpm)
Max. Pressure	250 bar (3600 psi)
Weight kg(lbs.)	11.2 (24.6)
CODE:20	M12X140LgX6pcs
CODE:2090	1/2-13UNCX4-5/8"Lg X8pcs
Mounting Surface O-Ring P12 x 2 pc, P28 x 4 pcs	

DIMENSIONS

MILLIMETERS(INCHES)

MHP-04 Sequence Valves(Modular Type)

MOUNTING SURFACE:MH*-04-CETOP7
ISO 07-NFPAD07

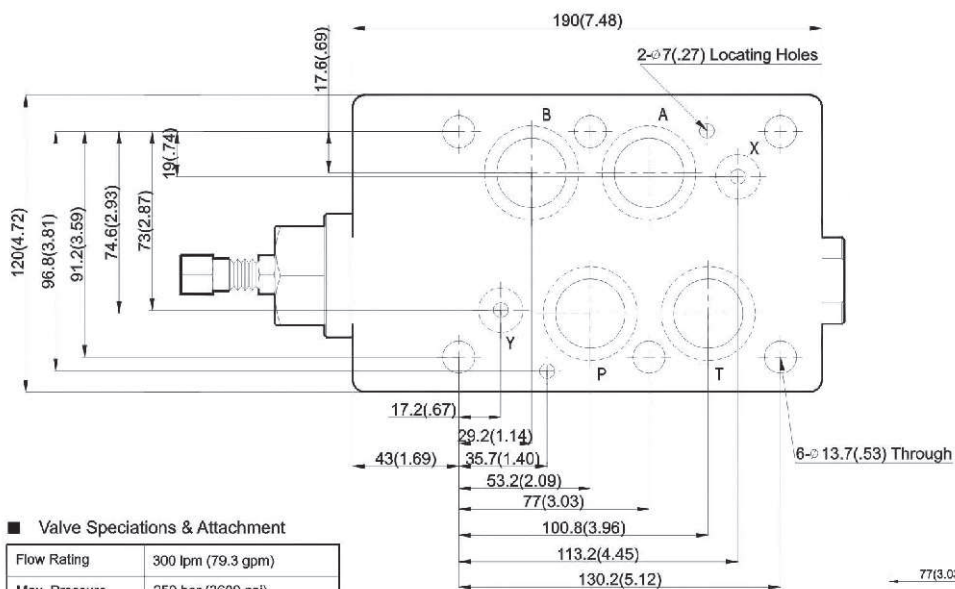


Valve Specifications & Attachment

Flow Rating	190 lpm (50.2 gpm)
Max. Pressure	250 bar (3600 psi)
Weight kg(lbs.)	7.0 (15.4)
CODE:20	M6X125LgX2pcs M10X120LgX4pcs
CODE:2090	1/4-20UNCX4-7/8"LgX2pcs 3/8-16UNCX4-5/8"Lg X4pcs
Mounting Surface O-Ring	P9 x 2 pc & P22A x 4 pcs

MHP-06 Sequence Valves(Modular Type)

MOUNTING SURFACE:MH*-06-CETOP8
ISO 08-NFPAD08



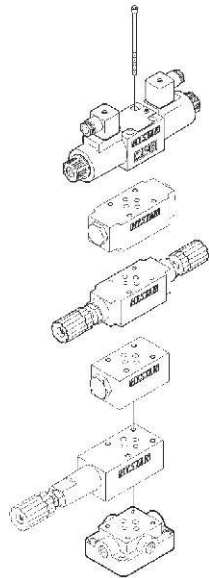
Valve Specifications & Attachment

Flow Rating	300 lpm (79.3 gpm)
Max. Pressure	250 bar (3600 psi)
Weight kg(lbs.)	11.2 (24.6)
CODE:20	M12X140LgX6pcs
CODE:2090	1/2-13UNCX4-5/8"Lg X6pcs
Mounting Surface O-Ring	P12 x 2 pc, P28 x 4 pcs

MOUNTING BOLTS KITS(DIN 912 / ANSI-ASME B18.3)

MBK-01

Hexagon Socket Head Cap Screw



Model	Symbol
DSG-3C*-N-01-*** Solenoid Operated Directional Valves	
MPW-01-*** Pilot Operated Check Modular Valves	
MSW-01-*** Throttle with Check Modular Valves	
MCP-01-*** Check Modular Valves	
MBP-01-*** Relief Modular Valves	
MMC-01 Base Plate	

Ordering Code

MBK - 01 - 3 - 20

Design No.
20: DIN 912 bolts
2090: UNC bolts (N American)

No. of Valves
1, 2, 3, 4, 5
(Refer to The Following Chart)

Size of Modular Valve 01(1/8")

Series Number
MBK: Bolt Kits for Modular Valves

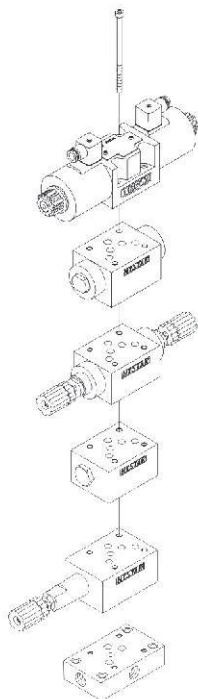
Hexagon Socket Head Cap Screw (DIN 912 / ANSI-ASME B18.3)	
Material	SCM 435
Tensile Strength	180 KSI < 1/2" (1220N/mm2)
Hardness	HRC 39 ~ 45

Code	No. of Valves	20: DIN 912 bolts	2090: UNC bolts North American (ANSI-ASME B18.3)	Weight g(lbs)
MBK-01-01-20*	1	M5 X45LgX4pcs	10-24UNCX1-3/4"LgX4pcs	60(.13)
MBK-01-02-20*	2	M5 X85LgX4pcs	10-24UNCX3-3/8"LgX4pcs	100(.22)
MBK-01-03-20*	3	M5 X125LgX4pcs	10-24UNCX3-9/16"LgX4pcs	130(.29)
MBK-01-04-20*	4	M5 X165LgX4pcs	10-24UNCX3-1/2"LgX4pcs	160(.35)
MBK-01-05-20*	5	M5 X205LgX4pcs	10-24UNCX3-1/2"LgX4pcs	190(.42)

■ If assembled with MBW-01-*, the bolts height will be 10 mm longer.

MBK-03

Hexagon Socket Head Cap Screw



Model	Symbol
DSG-3C*-N-03-*** Solenoid Operated Directional Valves	
MPW-03-*** Pilot Operated Check Modular Valves	
MSW-03-*** Throttle with Check Modular Valves	
MCP-03-*** Check Modular Valves	
MBP-03-*** Relief Modular Valves	
MMC-03 Base Plate	

Ordering Code

MBK - 03 - 3 - 20

Design No.
20: DIN 912 bolts
2090: UNC bolts (N American)

No. of Valves
1, 2, 3, 4, 5
(Refer to The Following Chart)

Size of Modular Valve 03(3/8")

Series Number
MBK: Bolt Kits for Modular Valves

Hexagon Socket Head Cap Screw (DIN 912 / ANSI-ASME B18.3)	
Material	SCM 435
Tensile Strength	180 KSI < 1/2" (1220N/mm2)
Hardness	HRC 39 ~ 45

Code	No. of Valves	20: DIN 912 bolts	2090: UNC bolts North American (ANSI-ASME B18.3)	Weight g(lbs)
MBK-03-01-20*	1	M6 X35LgX4pcs	1/4-20UNCX1-1/2"LgX4pcs	120(.26)
MBK-03-02-20*	2	M6 X90LgX4pcs	1/4-20UNCX3-5/8"LgX4pcs	160(.35)
MBK-03-03-20*	3	M6 X145LgX4pcs	1/4-20UNCX3-3/4"LgX4pcs	200(.44)
MBK-03-04-20*	4	M6 X200LgX4pcs	1/4-20UNCX3-1/2"LgX4pcs	240(.53)
MBK-03-05-20*	5	M6 X255LgX4pcs	1/4-20UNCX3-1/2"LgX4pcs	280(.62)