

# Bell Hydromatics



## Throttle with Check Modular Valves



### Features

- This valve is used for actuator speed control
- Clockwise rotation of the adjusting handle decreases flow rate and counter clockwise rotation increases it
- Since the valve is of the spool type, oil flow cannot be shut off completely.
- Cracking pressure of the check valve is 0.8 bar

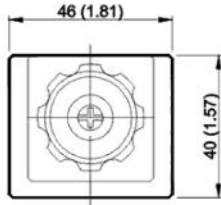
# Ratings

<b>Model</b>	<b>Max operating Pres bar(PSI)</b>	<b>Max Flow lpm(USgpm)</b>	<b>Valve Size</b>	<b>Weight kg(lb)</b>
MS* -01- *	250(3600)	50(13.2)	1/8"	1.5(3.3)
MS* -03- *	250(3600)	100(26.5)	3/8"	3.7(8.1)
MS* -04- *	250(3600)	190(50.2)	1/2"	7.0(15.4)
MS* -06- *	250(3600)	300(79.3)	3/4"	12.2(26.8)

<b>Model &amp; Symbol</b>	<b>Model &amp; Symbol</b>
MSA-01(03)-X	MSA-04(06)-X
MSB-01(03)-X	MSB-04(06)-X
MSW-01(03)-X	MSW-04(06)-X
MSA-01(03)-Y	MSA-04(06)-Y
MSB-01(03)-Y	MSB-04(06)-Y
MSW-01(03)-Y	MSW-04(06)-Y

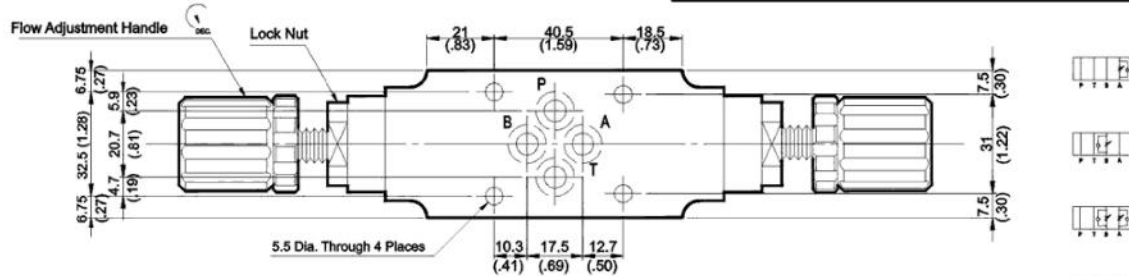
## MSW-01 Throttle with Check Valves (Modular Type)

**MOUNTING SURFACE: MS\*-01-CETOP3  
ISO 03-NFPAD03**

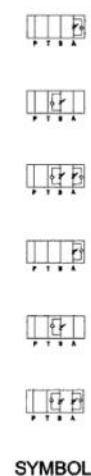
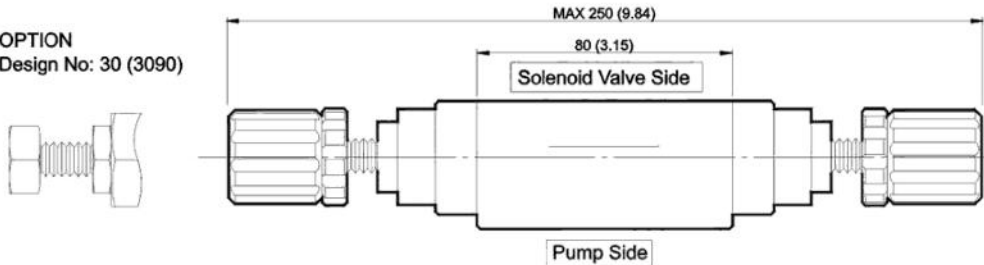


### Valve Specifications & Attachment

Flow Rating	50 lpm (13.2 gpm)
Max. Pressure	250 bar (3600 psi)
Weight kg (lbs.)	1.5 (3.3)
CODE:20	M5 X85LgX4pcs
CODE:2090	10-24UNCX3-1/4"LgX4pcs
Mounting Surface O-Ring P9 x 4 pc	



**OPTION  
Design No: 30 (3090)**

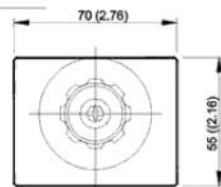
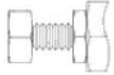


**SYMBOL**

## MSW-03 Throttle with Check Valves (Modular Type)

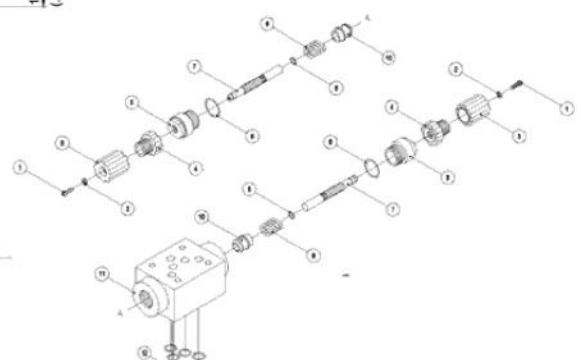
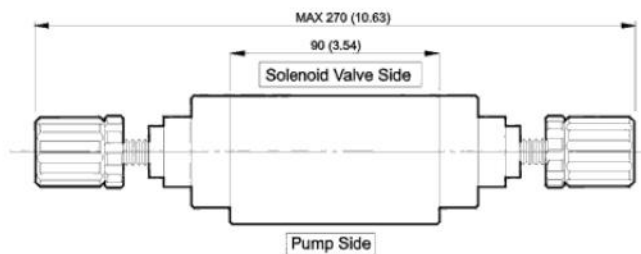
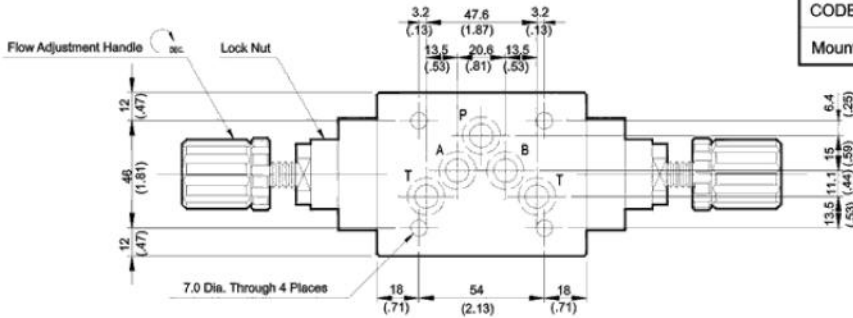
**MOUNTING SURFACE: MS\*-03-CETOP5  
ISO 05-NFPAD05**

**OPTION  
Design No: 30 (3090)**



### Valve Specifications & Attachment

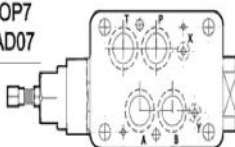
Flow Rating	100 lpm (26.5 gpm)
Max. Pressure	250 bar (3600 psi)
Weight kg (lbs.)	3.7 (8.2)
CODE:20	M6 X90LgX4pcs
CODE:2090	1/4-20UNCX3-1/2LgX4pcs
Mounting Surface O-Ring P12 x 5 pc	



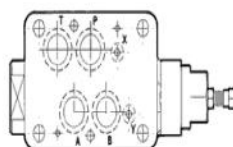
**SYMBOL**

## MS-04 Throttle with Check Valves (Modular Type)

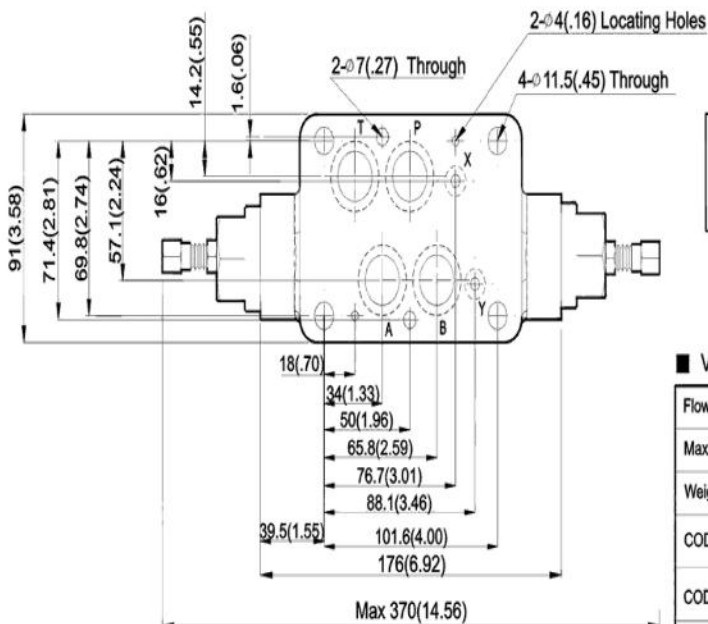
MOUNTING SURFACE: MS\*-04-CETOP7  
ISO 07-NFPAD07



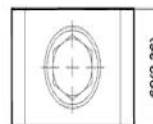
MSB-04



MSA-04



MSW-04



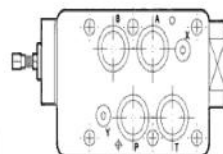
SYMBOL

### Valve Specifications & Attachment

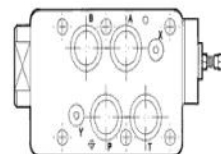
Flow Rating	190 lpm (50.2 gpm)
Max. Pressure	250 bar (3600 psi)
Weight kg(lbs.)	7.0 (15.4)
CODE:20	M6X125LgX2pcs M10X120LgX4pcs
CODE:2090	1/4-20UNCX4-7/8"LgX2pcs 3/8-16UNCX4-5/8"Lg X4pcs
Mounting Surface O-Ring P9 x 2 pc & P22A x 4 pcs	

## MS-06 Throttle with Check Valves (Modular Type)

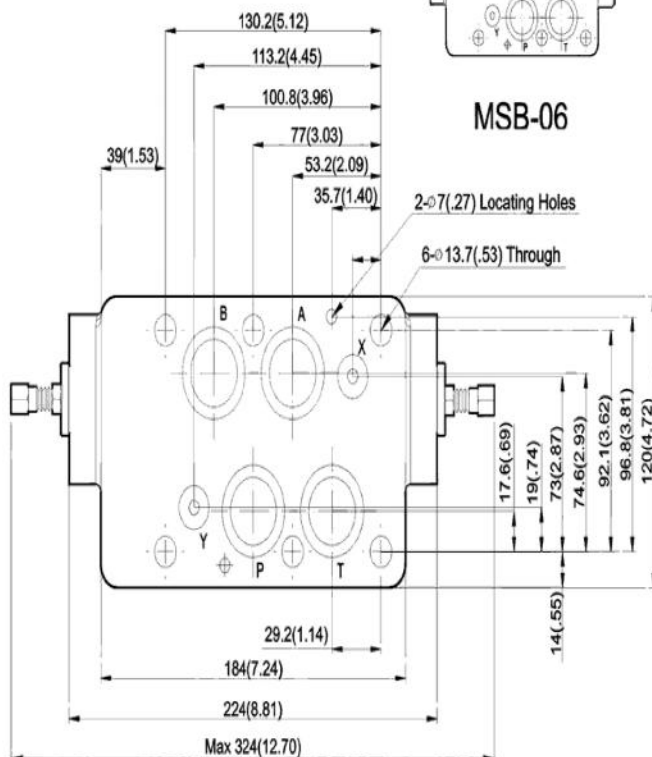
MOUNTING SURFACE: MS\*-06-CETOP8  
ISO 08-NFPAD08



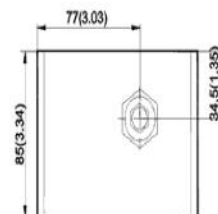
MSB-06



MSA-06



MSW-06



SYMBOL

### 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	

## Ordering Code

<b>MS</b>	<b>A</b>	<b>03</b>	<b>X</b>	<b>L</b>	<b>20</b>	<b>S</b>
<b>Series No</b>	<b>Control Line</b>	<b>Valve Size</b>	<b>Pressure Adj. Range</b>	<b>Pressure Adj. Range</b>	<b>Design No.</b>	<b>Option Kits</b>
Throttle Check Modular Valves	A: A Port	(DSG-01) (NFPA-D03)	X: Meter out	L: 5~50 bar	20 DIn 912 bolts	None: With Knob
	B: B Port	(DSG-03) (NFPA-D05)	Y: Meter in	H: 50~ 250 bar	2090 UNC bolts (North America)	S: Soc.Hd Cap Screw
	W: A & B Port	(DSHG-04) (NFPA-D07)				
		(DSHG-08) (NFPA-D08)				