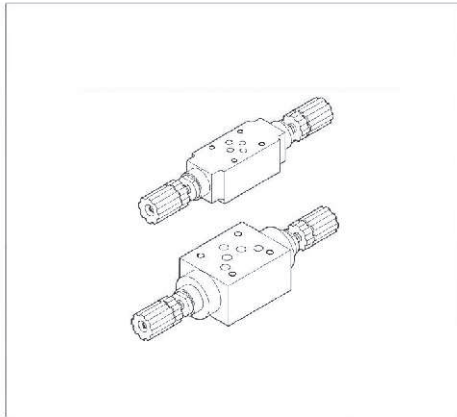


THROTTLE WITH CHECK MODULAR VALVES

Throttle with Check Valves(Modular Type)



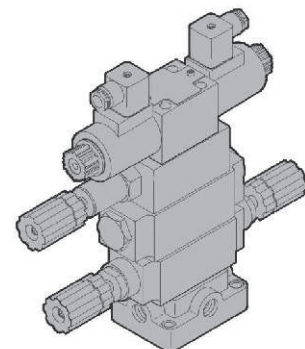
Ratings

Model	Max Operating Pres bar (PSI)	Max Flow lpm (USgpm)	Valve Size	Weight kg (lb)
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)

Ordering Code

MS A - 03 - X - L - 20 - S

Series No	Control Line	Valve Size	Pressure Adj. Range	Pressure Adj. Range	Design No	Option Kits
Throttle Check Modular Valves	A : A Port 	(DSG-) 01 (NFFPA-D03) 	X : Meter out	L: 5~ 50 bar 	20 DIN 912 bolts 	None: With Knob 
	B : B Port 	(DSG-) 03 (NFFPA-D05) 	Y : Meter in	H: 50~ 250 bar 	2090 UNC bolts (North America) 	S: Soc. Hd. Cap Screw 
	W : A & B Port 	(DSHG-) 04 (NFFPA-D07) 				
		(DSHG-) 06 (NFFPA-D08) 				



Model & Symbol	Model & Symbol
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 

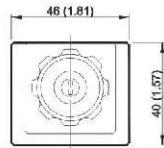
- This valve is used for actuator speed control.
- Clockwise rotation of the adjusting handle decreases flow rate and counter-clockwise rotation increases it.
- Since the valve is of the spool type, oil flow cannot be shut off completely.
- Cracking pressure of check valve is 0.8 bar.

DIMENSIONS

MILLIMETERS(INCHES)

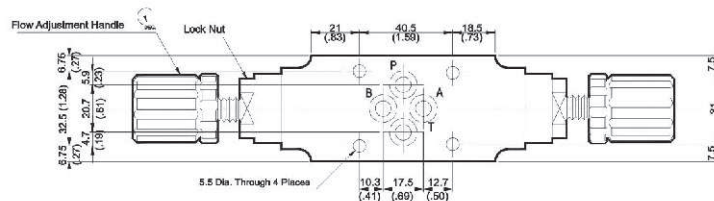
MSW-01 Throttle with Check Valves(Modular Type)

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

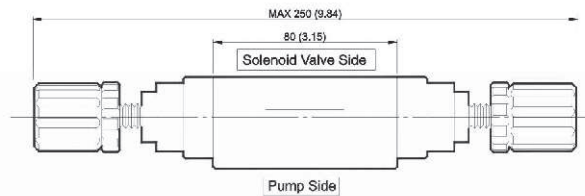
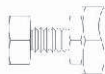


Valve Specifications & Attachment

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	



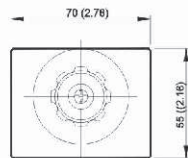
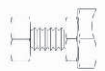
OPTION
Design No: 30 (3090)



MSW-03 Throttle with Check Valves(Modular Type)

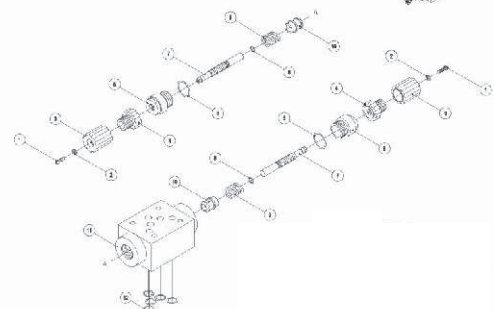
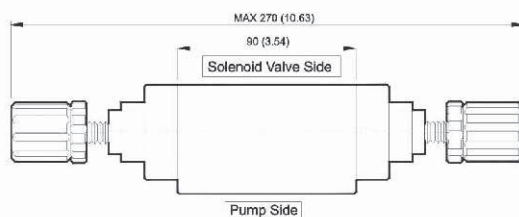
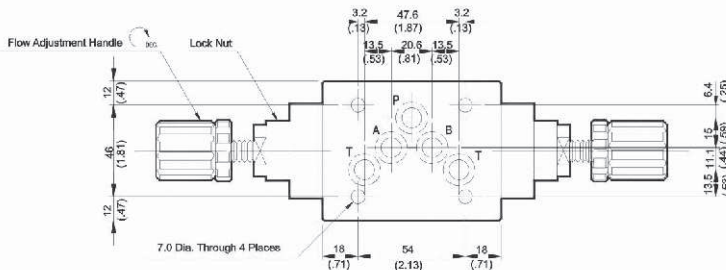
MOUNTING SURFACE:MS*-03-CETOP5
ISO 05-NFPAD05

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	

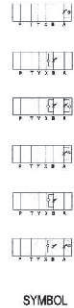
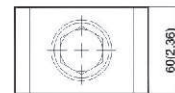
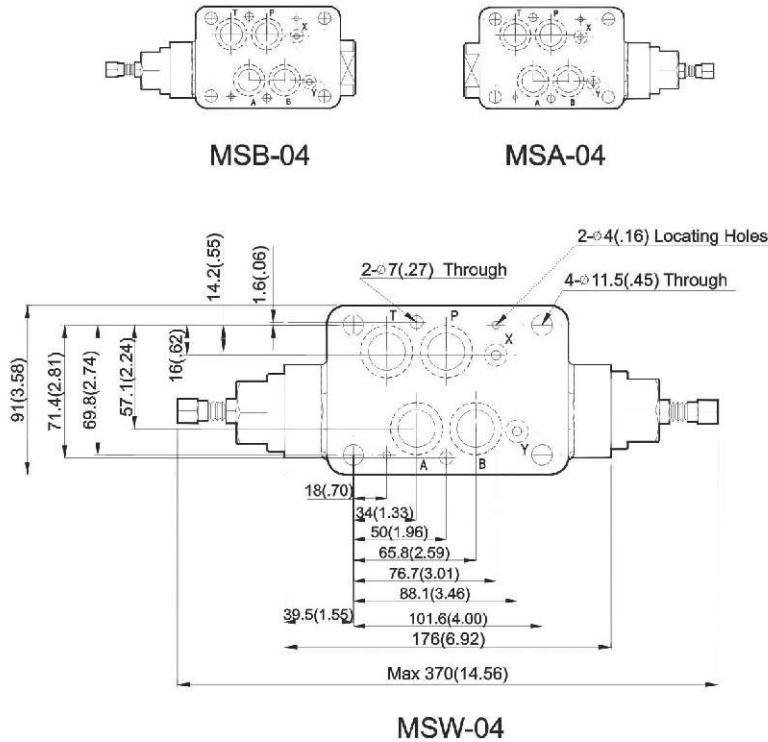


DIMENSIONS

MILLIMETERS(INCHES)

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

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

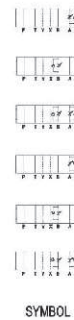
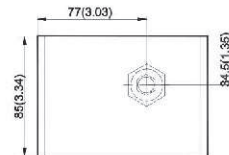
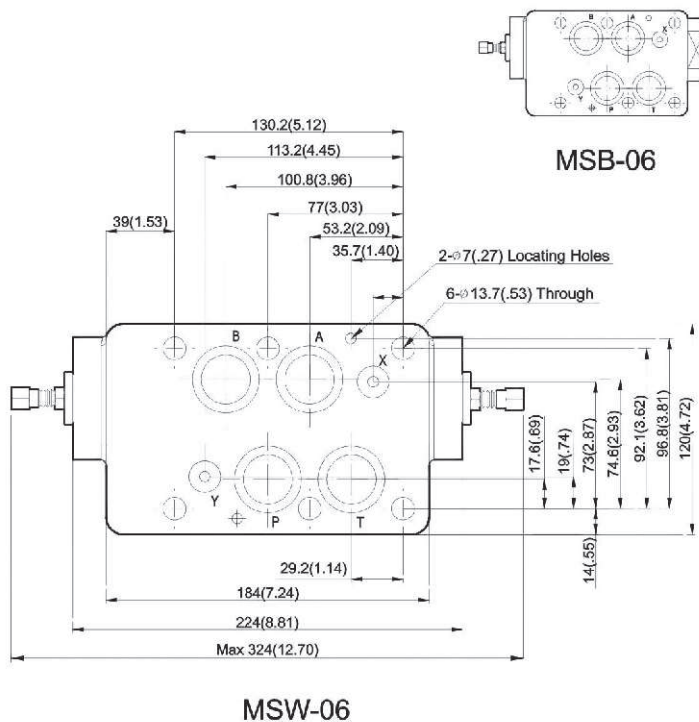


Valve Specifications & Attachment

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 P8 x 2 pc & P22A x 4 pcs	

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

MOUNTING SURFACE:MS*-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, P26 x 4 pcs	