



Sectional Directional Control Valve

Catalog 2021

Sectional Directional Control Valve

MCD10 Series

Features and Handling

MCD10 series is a manual sectional directional control valve with nominal flow of 80L/min and operating pressure at 350 bar.

It can be used as open centre, carry over or closed centre circuit with extended range of options to cater various usage:

- Work port relief valve
- Anti-cavitation valve
- Combinations of anti-cavitation valve & work port relief valve

Applications : wheel loader, combined harvester, sugarcane harvester, truck crane, sea platform crane, hydraulic press, drilling rigs, and etc.



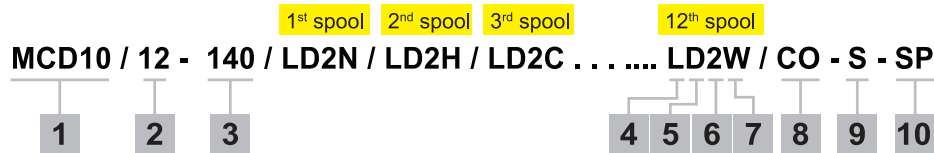
Specification

Model	Nominal Flow L/min (USgpm)	Maximum Pressure bar (psi)
MCD 10	80 (21)	350 (5100)

Sectional Directional Control Valve

MCD10 Series

Ordering Code



1. Model : MCD10

2. Number of Spool
1 - 12

3. Relief Valve Setting
210 bar
140 bar

4. Spool Control B Port side
L - Standard Lever

5. Spool Control A Port Side
S - Spring return to center
D - Detent in three positions
I - Detent in two positions
O - Detent out two positions

6. Spool Type
(Type.1) 1 - Double acting, 3 position with A and B closed in center (Cylinder spool)
(Type.2) 2 - Double acting, 3 position with A and B to tank in center (Motoring spool)
(Type.3) 3 - Single acting on A, 3 position B plugged
(Type.4) 4 - Single acting on B, 3 position A plugged

7. Service valve
N - Without pre-arranged holes and valve (Standard)
H - Without valve, but with pre-arranged holes
C - With anti-cavitation valves on port A and B
W - With work port relief valves on port A and B
CW - With anti-cavitation valves on port A and with work port relief valves on port B
WC - With work port relief valves on port A and with anti-cavitation valves on port B
ACBH - With anti-cavitation valves on port A
BCAH - With anti-cavitation valves on port B
AWBH - With work port relief valves on port A
BWAH - With work port relief valves on port B

8. Circuit Option

OC - With open center plug
CO - With carry over plug
CC - With closed center plug

9. Port Connection

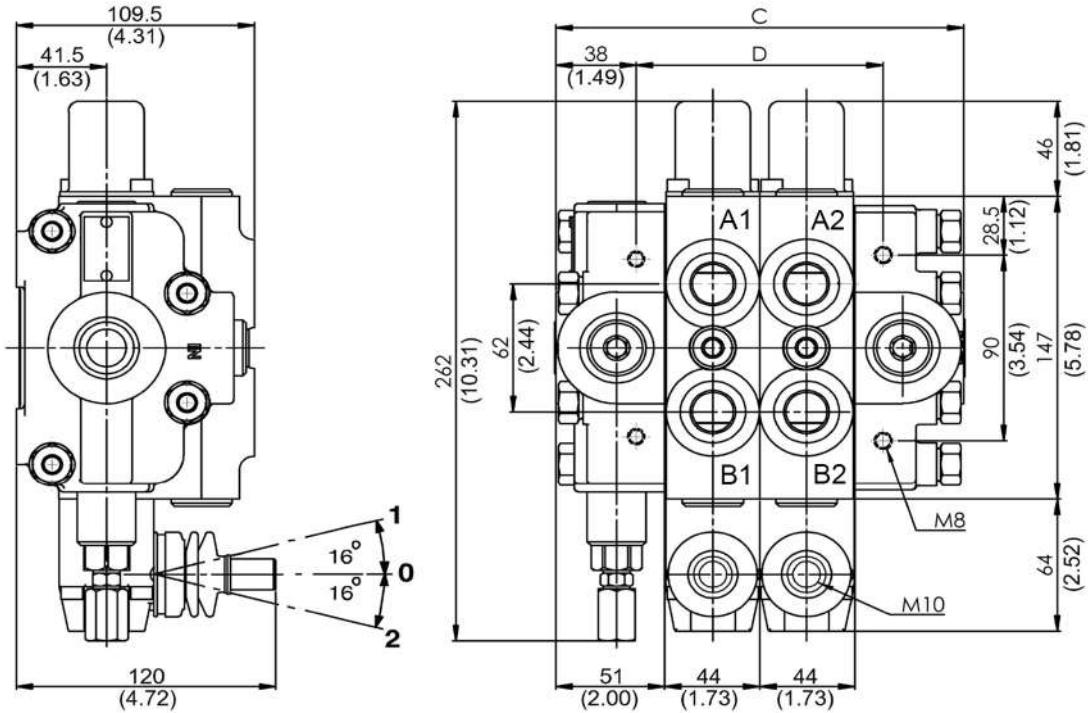
Code	Thread	Port A-B	Port P	Port T	Port CO
B4	BSP	1/2"	1/2"	3/4"	3/4"
B6	BSP	3/4"	3/4"	3/4"	3/4"
S	SAE	SAE 8	SAE 10	SAE 10	SAE 10

10. Optional Port Connection

SP - Use port P and T at side
plugged P and T on top (standard)
TP - Use port P and T on top
plug P and T at side

Sectional Directional Control Valve MCD10 Series

Installation Dimension mm (inch)

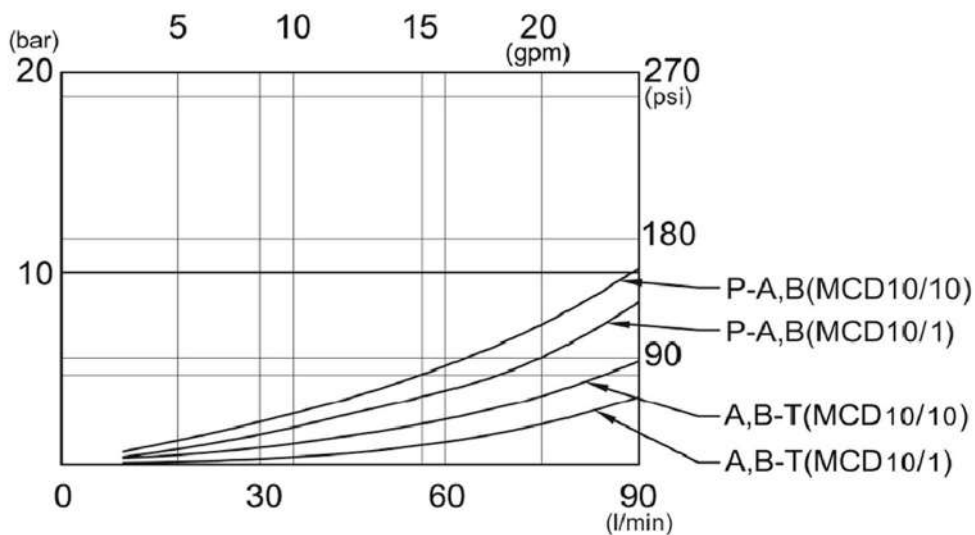
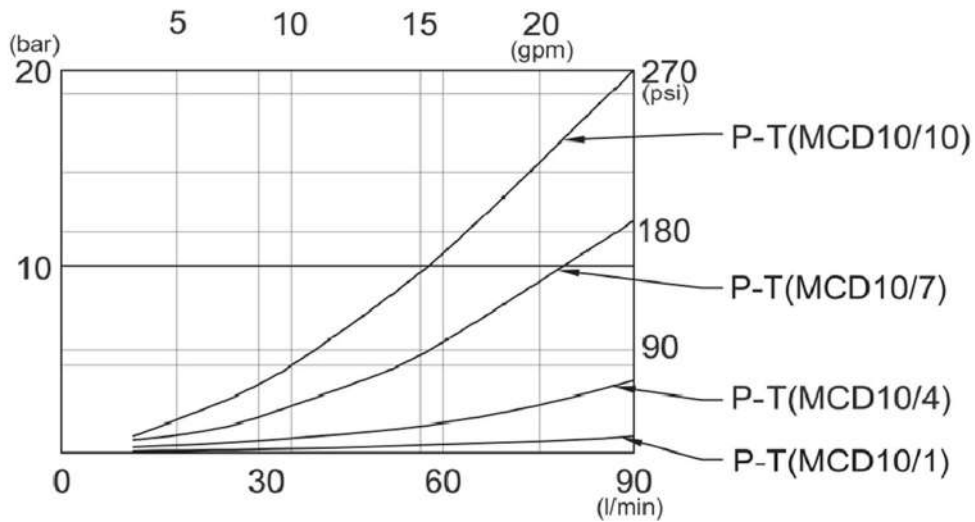


Model	Dimension mm (inch)		Weight kg (lb)
	C	D	
MCD 10/1	144 (5.67)	70 (2.76)	10.2 (22.4)
MCD 10/2	188 (7.40)	114 (4.49)	14.9 (32.8)
MCD 10/3	232 (9.13)	158 (6.22)	19.6 (43.1)
MCD 10/4	276 (10.87)	202 (7.95)	24.3 (53.5)
MCD 10/5	320 (12.60)	246 (9.69)	29.0 (63.8)
MCD 10/6	364 (14.33)	290 (11.42)	33.7 (74.1)
MCD 10/7	408 (16.06)	334 (13.15)	38.4 (84.5)
MCD 10/8	452 (17.80)	378 (14.88)	43.1 (94.8)
MCD 10/9	496 (19.53)	422 (16.61)	47.8 (105.2)
MCD 10/10	540 (21.26)	466 (18.35)	52.5 (115.5)
MCD 10/11	584 (23.00)	510 (20.07)	57.2 (126.1)
MCD 10/12	628 (24.70)	554 (21.81)	61.9 (136.4)

Sectional Directional Control Valve MCD10 Series

Performance Characteristics

Pressure Drop



Sectional Directional Control Valve

MCD25 Series

Features and Handling

MCD25 series is a manual sectional directional control valve with nominal flow of 380L/min and operating pressure at 350 bar.

It can be used as open centre, carry over or closed centre circuit with extended range of options to cater various usage:

- Anti-shock valve with 5 pressure setting range
- Anti-cavitation valve
- Pilot-combined valve with 2 pressure setting ranges
- Combinations of anti-cavitation valve & anti-shock valve
- Combinations of anti-cavitation valve & pilot-combined valve

Applications : sea platform crane, hydraulic press, drilling rigs, and etc.



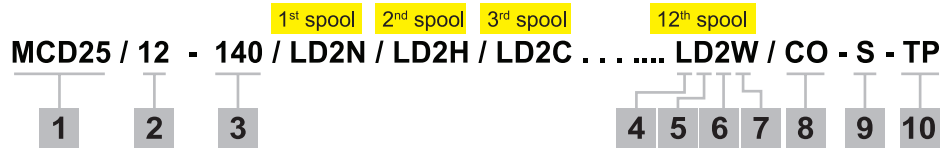
Specification

Model	Nominal Flow L/min (USgpm)	Maximum Pressure bar (psi)	Maximum Backpressure bar (psi)	Tightening Torque Nm (lbft)
MCD 25	380 (100)	350 (5100)	20 (290)	110 (81.13)

Sectional Directional Control Valve

MCD25 Series

Ordering Code



1. Model : MCD25
2. Number of Spool
1 - 12
3. Relief Valve Setting
210 bar
140 bar
4. Spool Control B Port side
L - Standard Lever
5. Spool Control A Port Side
S - Spring return to center
D - Detent in three positions
I - Detent in two positions
O - Detent out two positions
6. Spool Type
(Type.1) 1 - Double acting, 3 position with A and B closed in center (Cylinder spool)
(Type.2) 2 - Double acting, 3 position with A and B to tank in center (Motoring spool)
(Type.3) 3 - Single acting on A, 3 position B plugged
(Type.4) 4 - Single acting on B, 3 position A plugged
7. Service valve
N - Without pre-arranged holes and valve (Standard)
H - Without valve, but with pre-arranged holes
C - With anti-cavitation valves on port A and B
S - With anti-shock valves on port A and B
P - With pilot combined valves on port A and B
CS - With anti-cavitation valves on port A and with anti-shock valves on port B
CP - With anti-cavitation valves on port A and with pilot combined valves on port B
SC - With anti-shock valves on port A and with anti-cavitation valves on port B
PC - With pilot combined valves on port A and with anti-cavitation valves on port B
PS - With pilot combined valves on port A and with anti-shock valves on port B

- ACBH - With anti-cavitation valves on port A
- BCAH - With anti-cavitation valves on port B
- ASBH - With anti-shock valves on port A
- BSAH - With anti-shock valves on port B
- APBH - With pilot combined valves on port A
- BPAH - With pilot combined valves on port B

Code	Description	Setting range (bar) at full flow
C	Anti-cavitation valve	-
S	Anti-shock valve	0/70
		71/120
		121/150
		151/300
P	Pilot combined valve	30/110
		111/350

8. Circuit Option
OC - With open center plug
CO - With carry over plug
CC - With closed center plug

9. Port Connection

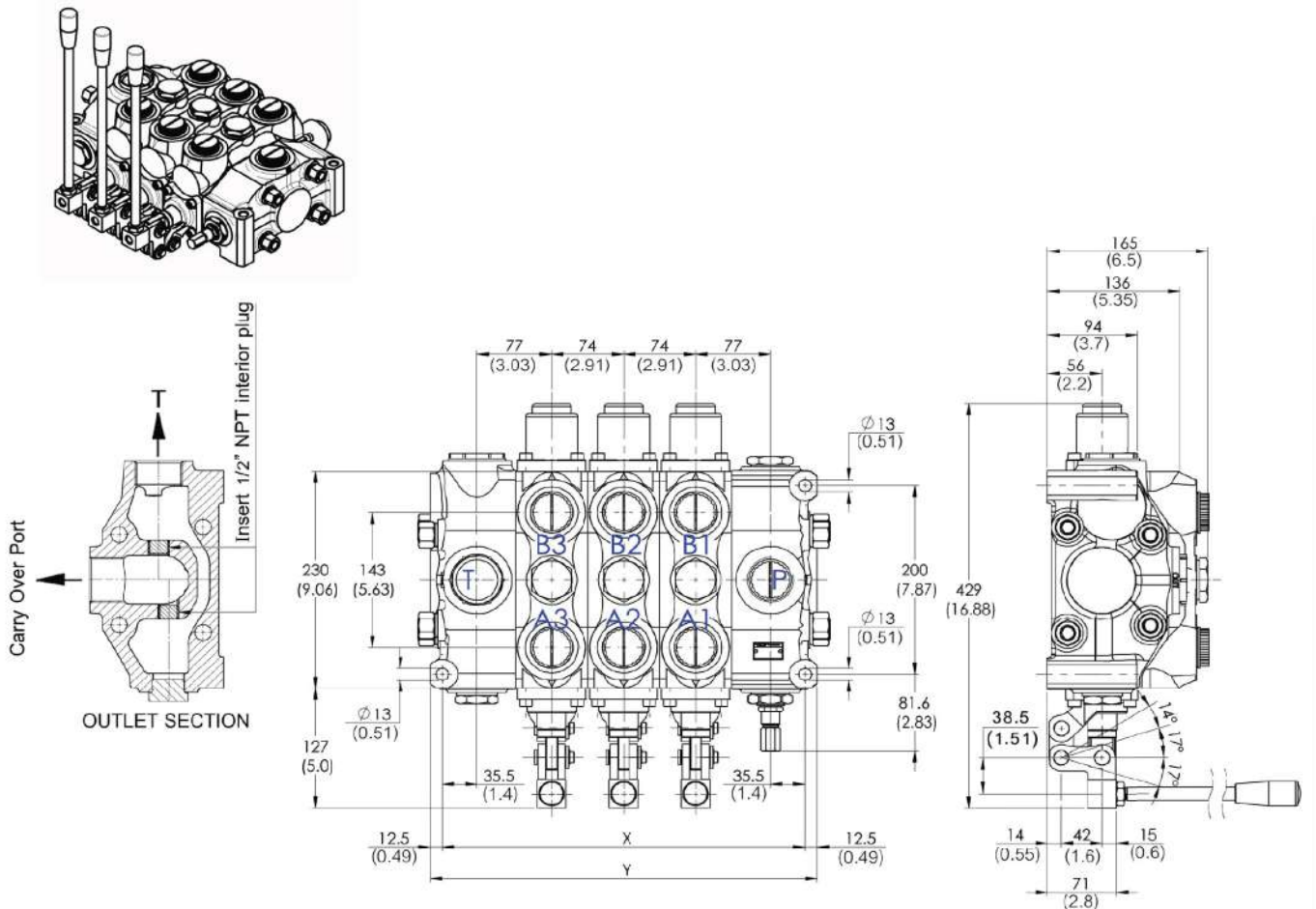
Code	Thread	Port A-B	Port P	Port T	Port CO
B10	BSP	1"1/4	1"1/4	1"1/2	1"1/2
B12	BSP	1"1/2	1"1/2	1"1/2	1"1/2
S	SAE	SAE 20	SAE 20	SAE 20	SAE 20

10. Optional Port Connection

- TP - Use port P and T on top
Without port P and T at side

Sectional Directional Control Valve MCD25 Series

Installation Dimension mm (inch)

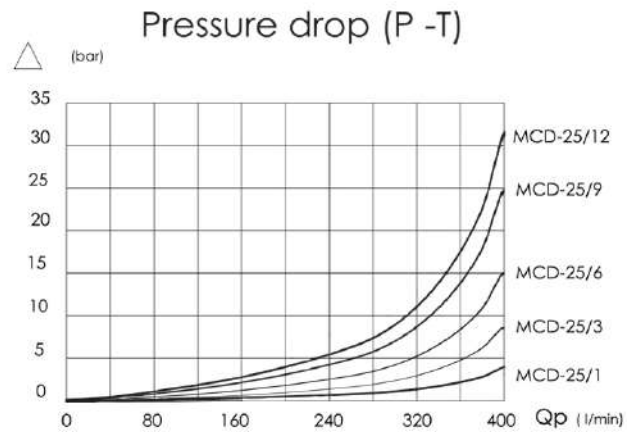


Model	Dimension mm (inch)		Weight kg (lb)
	C	D	
MCD 25/1	225 (8.9)	250(9.84)	40.4 (89.06)
MCD 25/2	299 (11.8)	324 (12.8)	55.8 (123)
MCD 25/3	373 (14.7)	398(15.7)	71.2 (156.9)
MCD 25/4	447 (17.6)	472 (18.6)	86.6 (190.9)
MCD 25/5	521 (20.5)	546 (21.5)	102 (224.8)
MCD 25/6	595 (23.4)	620 (24.4)	117.4 (258.8)
MCD 25/7	669 (25.6)	694 (27.3)	132.8 (292.7)
MCD 25/8	743(28.5)	768 (30.2)	148.2 (326.7)
MCD 25/9	817 (31.4)	842 (33.1)	163.6 (360.6)
MCD 25/10	891 (34.3)	916 (36.1)	179 (394.6)
MCD 25/11	965 (37.2)	990 (38.9)	194.4 (428.5)
MCD 25/12	1039 (40.1)	1064 (41.8)	209.8 (462.5)

Sectional Directional Control Valve MCD25 Series

Performance Characteristics

Pressure Drop



Monoblock and Sectional Directional Control Valve

Spool type and Spool control System

Spools for Monoblock and Sectional Valves			
Type	Spools Description	Monoblock	Sectional
1	Double acting, 3 position with A and B closed in center (Cylinder spool)		
2	Double acting, 3 position with A and B to tank in center (Motor spool)		
3	Single acting on A, 3 position B plugged		
4	Single acting on B, 3 position A plugged		

Spools Control B Port side		
Code	Description	Scheme
1	Standard Lever	

Spools Control B Port side		
Code	Description	Scheme
S	Spring return to center	
D	Detent in three positions	
I	Detent in two positions	
O	Detent out two positions	

HOF Hydraulic represented by

Flowlution Co.,Ltd.

26/48 Moo4 Suksavadh Road, Jomthong, 10150 Bangkok, Thailand
Tel: +662 877 3223 Fax: +662 877 3373 info@flowlution.com

HOF Corindus Co.,Ltd. (Thailand only)

891 Rama3 Road, Bangpongpan, Yannawa, 10120 Bangkok
Tel: 02 284 1100 Fax: 02 683 4414 info@hofcorindus.co.th
www.hofcorindus.co.th