

Sectional Directional Control Valve

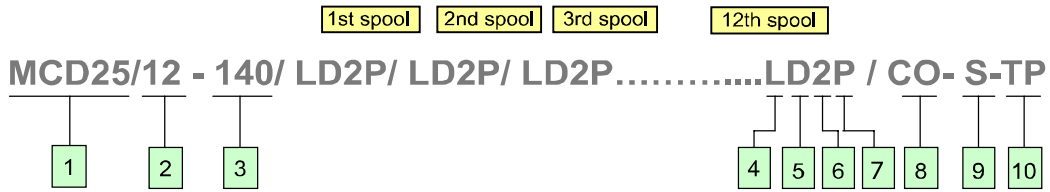
MCD10 and MCD25 Series



Features

MCD10 and MCD25 are manual sectional directional control valves. MCD10 nominal flow is 80 liters/min. MCD25 nominal flow is 380 liters/min at 350 bar operating pressure. Both valves are highly flexible and easily adaptable to most applications. A wide range of options is available to cater to the widest range of applications.





1 Model
MCD10, MCD25

2 Number of Spool
1 - 12

3 Relief Valve Setting (Inlet cover)
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 (Intermediate section)
N - Without valve
P - Without valve, but with pre-arranged holes
A - With Anti-cavitation valves on port A and B
W - With Work port relife valves on port A and B
AW - With Anti-cavitation valve on port A and with Work port relife valve on port B
WA - With Anti-cavitation valve on port B and with Work port relife valve on port A

8 Circuit Option (Outlet cover)
OC - With open center plug
CO - With carry over plug
CC - With closed center plug

9 Port Connection
T - Threaded Port

MCD10

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

MCD25

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

F - Flange Connection (MCD25 only)
1.25 - SAE port 1"1/4-11.5 NPTF
1.50 - SAE port 1"1/2-11.5 NPTF

10 Optional Port Connection
MCD10

SP - Use port P and T at side plugged P and T on top
TP - Use port P and T on top plugged P and T at side

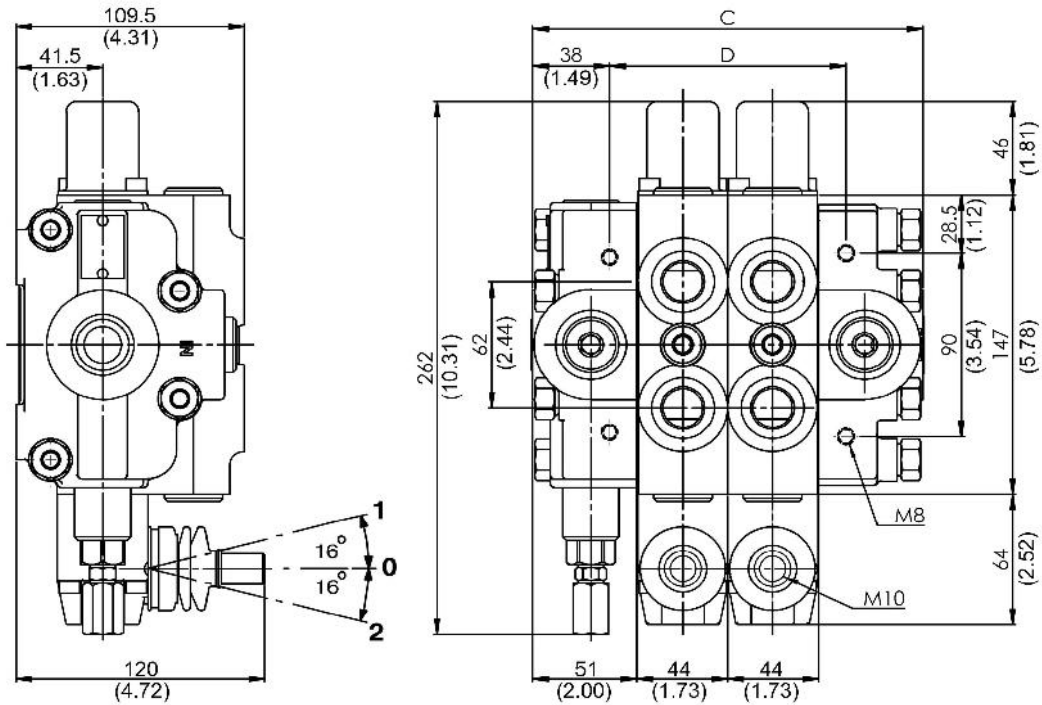
MCD25

TP - Use port P and T on top without port P and T at side
SP - Use port P and T at side plugged P and T on top
(For SP available upon request)

MCD10

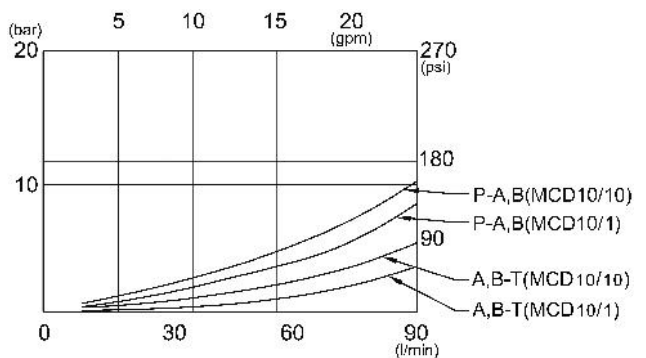
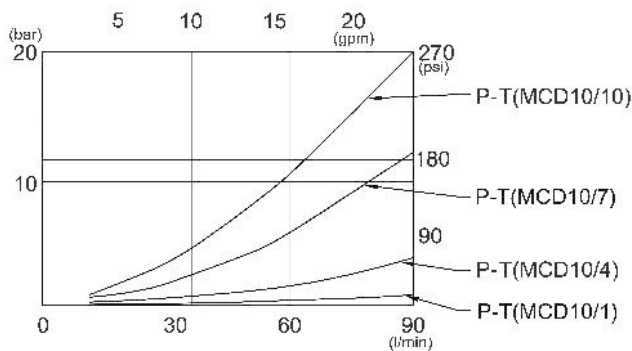
Specification

Nominal Flow 80 L/min (21 USgpm)
 Max. Pressure 210 bar (3000 psi)
 Port A-B BSP 1/2", SAE8, BSP 3/4"
 Port P BSP 1/2", SAE10, BSP 3/4"
 Port T BSP 3/4", SAE10, BSP 3/4"



	C		D		Weight	
	mm	inch	mm	inch	Kg	lb
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

Pressure drop

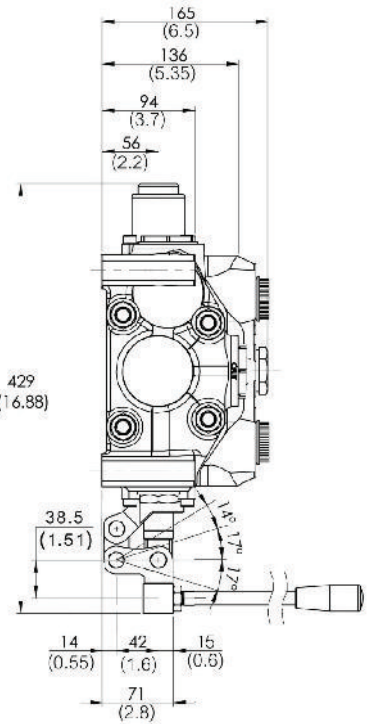
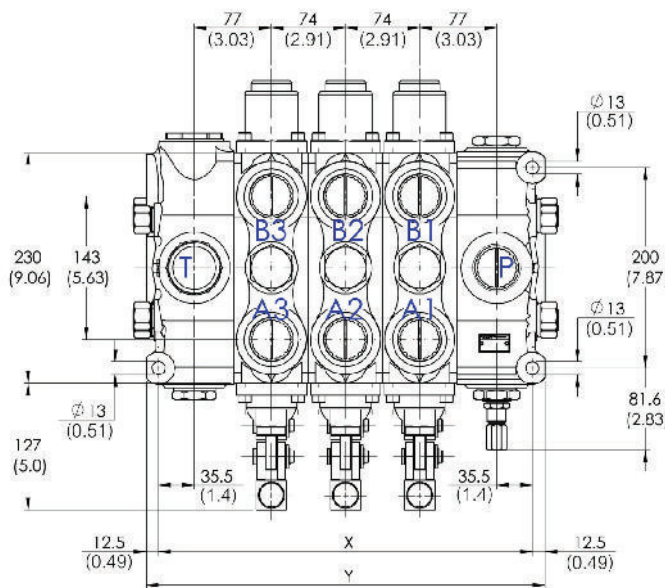
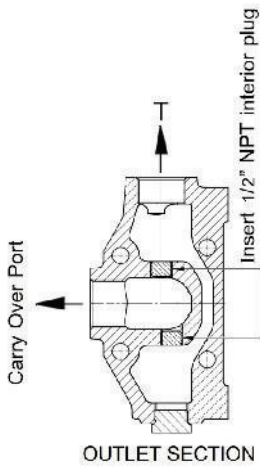
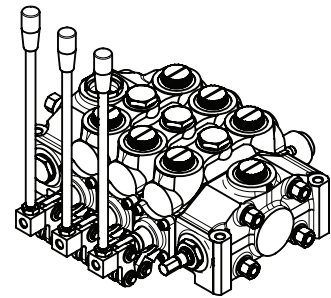


MCD25

Specification

Max. recommended flow	380 l/min	(100 GPM)
Max. pressure	350 bar	(5100PSI)
Max. backpressure	20 bar	(290 PSI)
Tie rod tightening torque	110 Nm	(81.13 lbft)

Installation Dimensions mm. (inch).



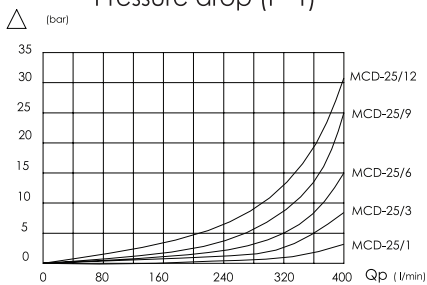
Variable Dimension

Type	/1	/2	/3	/4	/5	/6	/7	/8	/9	/10	/11	/12
X(mm)	225	299	373	447	521	595	669	743	817	891	965	1039
X(in)	8.9	11.8	14.7	17.6	20.5	23.4	25.6	28.5	31.4	34.3	37.2	40.1
Y(mm)	250	324	398	472	546	620	694	768	842	916	990	1064
Y(in)	9.84	12.8	15.7	18.6	21.5	24.4	27.3	30.2	33.1	36.1	38.9	41.8

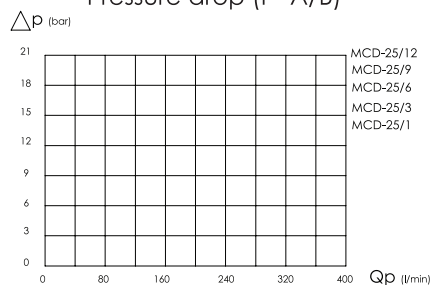
Weights

Type	/1	/2	/3	/4	/5	/6	/7	/8	/9	/10	/11	/12
Kg.	40.4	55.8	71.2	86.6	102	117.4	132.8	148.2	163.6	179	194.4	209.8
lb	89.06	123.0	156.9	190.9	224.8	258.8	292.7	326.7	360.6	394.6	428.5	462.5

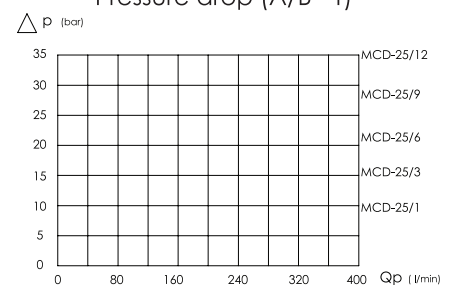
Pressure drop (P - T)



Pressure drop (P - A/B)



Pressure drop (A/B - T)



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		

Spool Control B Port side		
Code	Description	Scheme
L	Standard Lever	1 0 2

Spool Control A Port side		
Code	Description	Scheme
S	Spring return to center	1 0 2
D	Detent in three positions	1 0 2
I	Detent in two positions	1 0
O	Detent out two positions	0 2