# Monoblock Directional Control Valve MCD50 Series

## Features and Handling

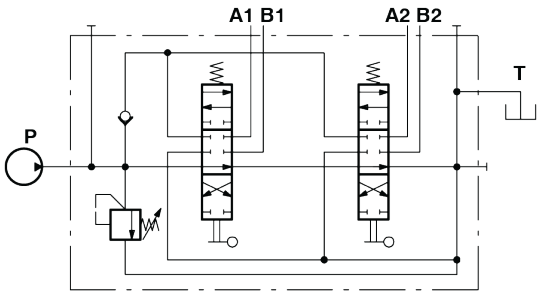
• MCD50 series are monoblock directional control valve with parallel circuits. The standard valve comes with an adjustable main relief valve, check valve, and 4 mounting holes for standard and optional mounting. The carry over circuit, spool types, spool controls, and other options are available.

• The compact casting is made of high strenght cast iron. The spools are made of hardened and tempered steel.

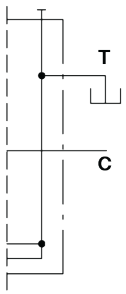


## Specification

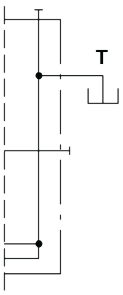
Standard - with open center




With carry over



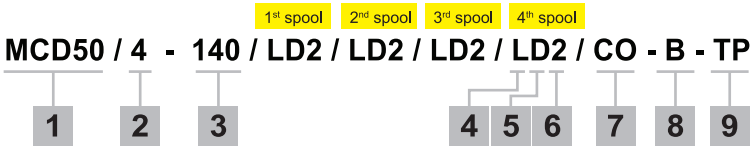

With closed center




| Model | Nominal Flow L/min (USgpm) | Maximum Pressure bar (psi) |
|---|---|---|
| MCD 50 | 70 (18) | 350 (5100) |

# Monoblock Directional Control Valve MCD50 Series

## Ordering Code




1. Model : MCD50

2. Number of Spool
   1 - 4

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
   K - Kick out with detent automatic in neutral position
   M - Microswitch connector operated in port 1 and 2

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

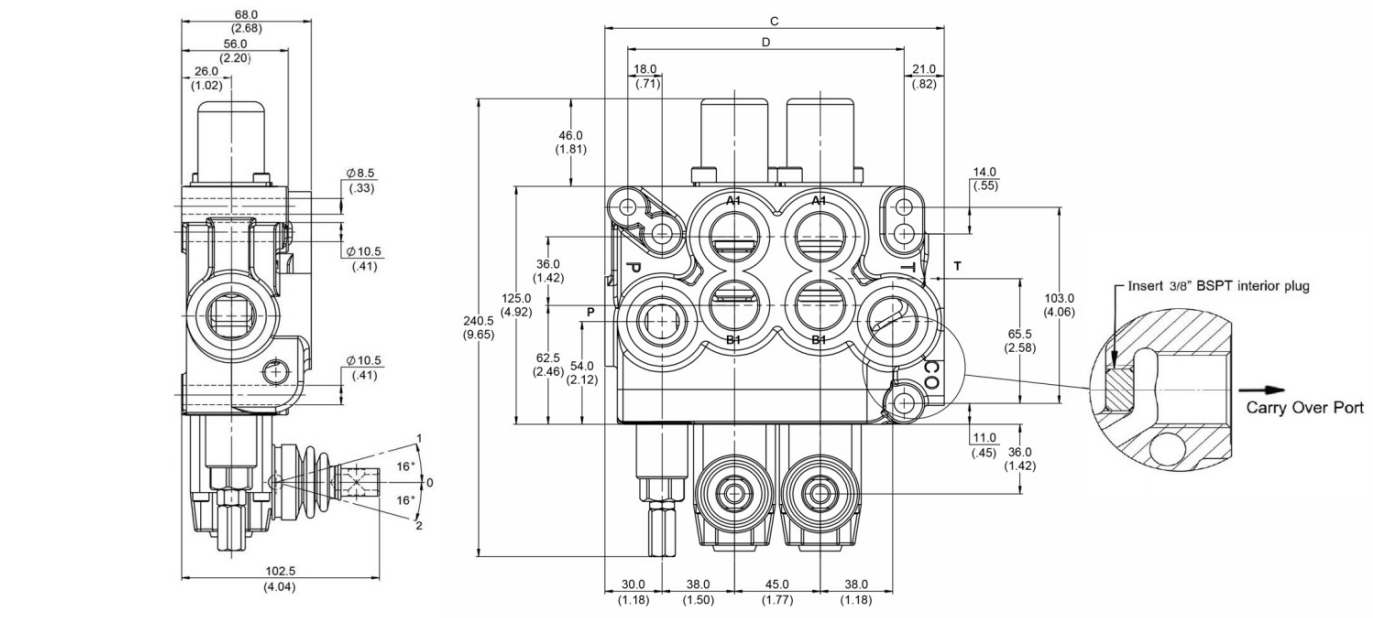
8. Port Connection

| Code | Thread | Port A-B | Port P | Port T | Port CO |
|---|---|---|---|---|---|
| B4 | BSP | 1/2" | 1/2" | 3/4" | 1/2" |
| S | SAE | SAE 10 | SAE 12 | SAE 12 | SAE 12 |

9. Optional Port Connection
   SP - Use port P and T at side pluged P and T on top (standard)
   TP - Use port P and T on top pluged P and T at side

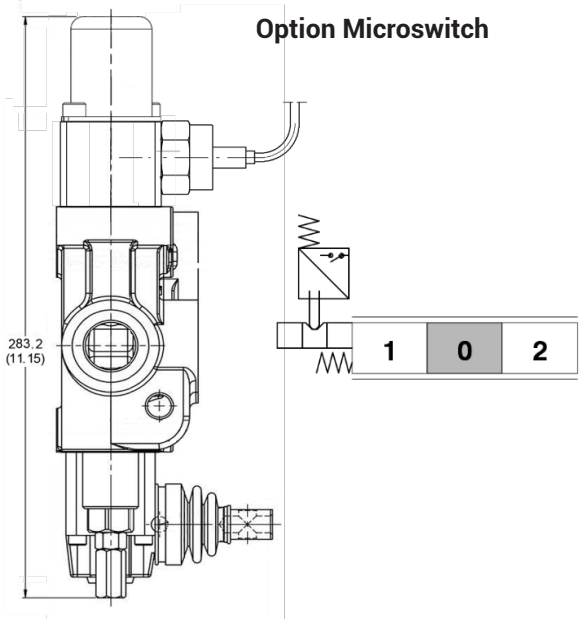
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## Installation Dimension mm (inch)

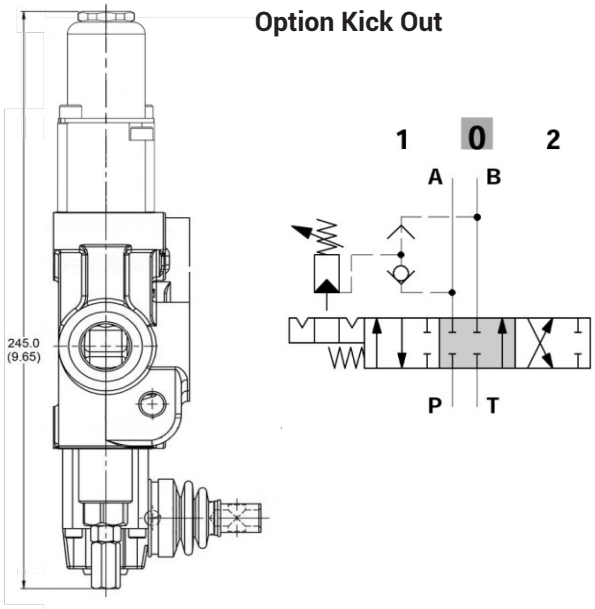



| Model | Dimension mm (inch | | Weight |
|---|---|---|---|
| | C | D | kg (lb) |
| MCD 50/1 | 133 (5.23) | 100 (3.94) | 6.4 (14.8) |
| MCD 50/2 | 178 (7.00) | 145 (5.71) | 9.0 (19.8) |
| MCD 50/3 | 223 (8.78) | 190 (7.48) | 11.6 (25.5) |
| MCD 50/4 | 268 (10.55) | 235 (9.25) | 14.2 (31.3) |

### Option Microswitch




### Option Kick Out

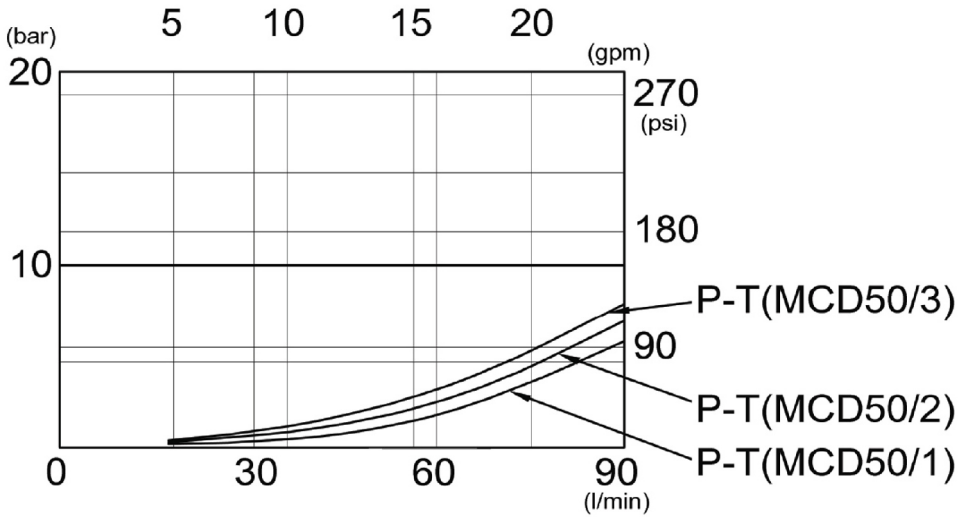


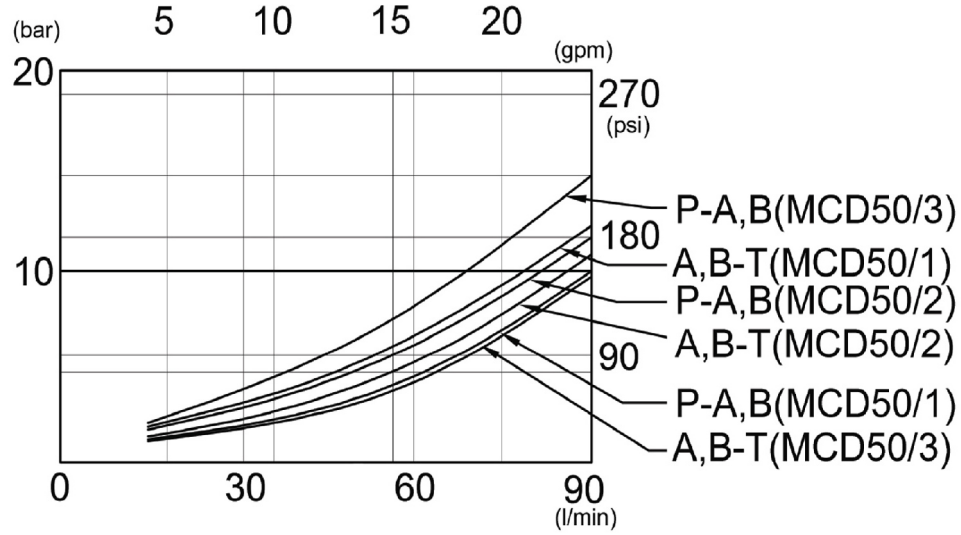

• Standard pressure setting 100 bar and pressure range from 20 to 120 bar max.

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## Performance Characteristics

### Pressure Drop




Test condition Hydraulic oil ISO VG 32 temperature 50˚C Viscocity 23.6 cSt