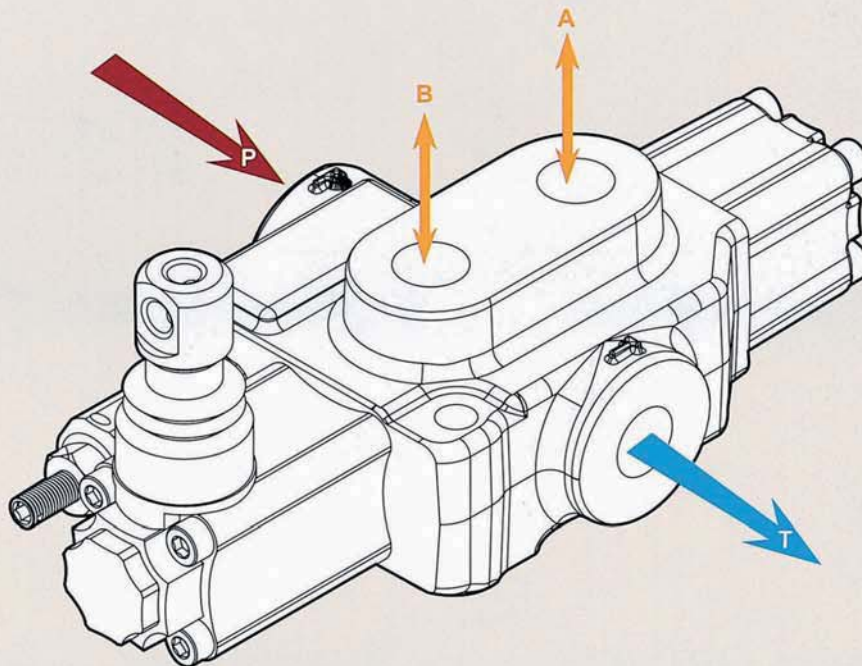


# MB-2

## Monoblock Directional Control Valves

MB-2



### MB-2 Specifications

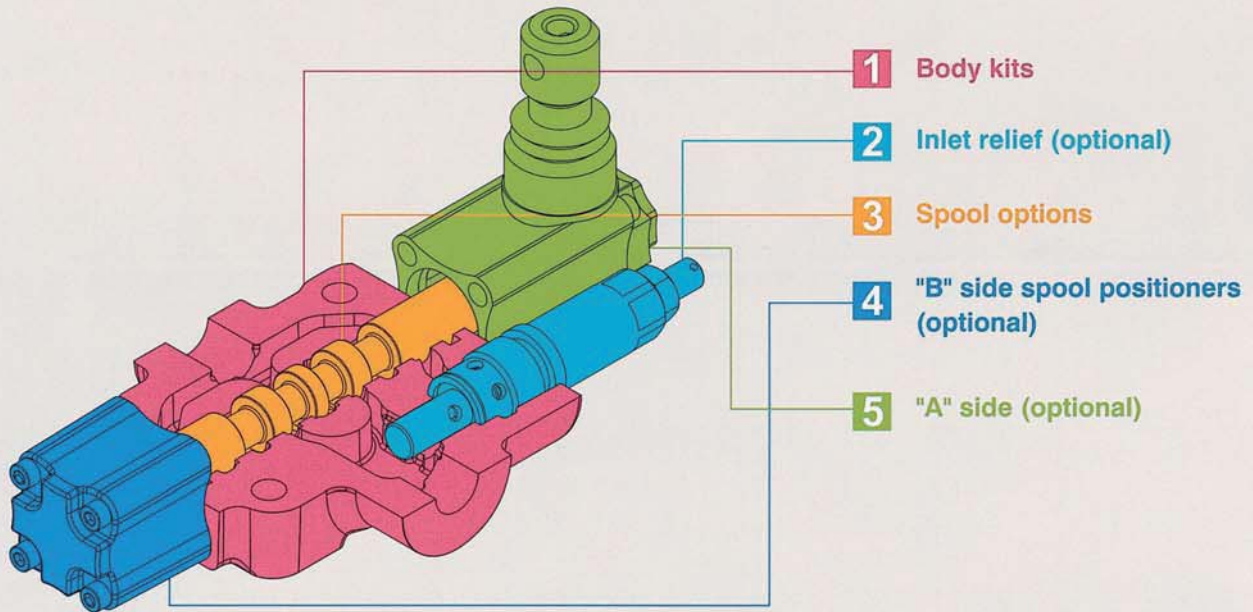
Nominal flow rate		45 l/min	12 US gpm
Operating pressure (maximum)		250 bar	3600 psi
Back pressure (maximum)	on outlet port T	25 bar	360 psi
Fluid temperature range	with NBR(BUNA-N) seals	from - 20° to 80°C	from - 4° to 176° F
	with FPM(VITON) seal	from - 20° to 100°C	from - 4° to 212° F
Viscosity	operating range	from 15 to 75 mm <sup>2</sup> /s	from 15 to 75 cst
	min.	12 mm <sup>2</sup> /s	12 cst
	max.	400 mm <sup>2</sup> /s	400 cst
Ambient temperature range		from - 40° to 60°C	from - 40° to 140° F

• All specifications, dimensions and design characteristics shown in this catalogue are subject to change without notice.

# MB-2

## Monoblock Directional Control Valves

MB-2 / **1S** - **3** / **18L** / G-3 / M1  
 1 2 3 4 5



MB-2

1:	<b>Body kits</b>	WITHOUT SERVICE PORT VALVES PREARRANGEMENT (INCLUDE BODY, SEALS, RINGS AND LOAD CHECK VALVE.)
	<b>TYPE</b>	<b>DESCRIPTION</b>
	1 - S	1 section

2:	<b>Inlet Relief (optional)</b>			
	<b>TYPE</b>	<b>CODE</b>	<b>DESCRIPTION</b>	<b>PAGE</b>
	DG-2	YLMB32002	Range 40 to 80 bar / 580 to 1150 psi, standard setting 80 bar / 1150 psi	P. 8
	DG-3	YLMB32003	Range 63 to 200 bar / 900 to 2900 psi, standard setting 120 bar / 1750 psi	P. 8
	DG-4	YLMB32004	Range 160 to 315 bar / 2300 to 4600 psi, standard setting 220 bar / 3200 psi	P. 8
	SV	YLMB32100	Relief valve blanking plug	P. 8

# MB-2

## Monoblock Directional Control Valves

MB-2

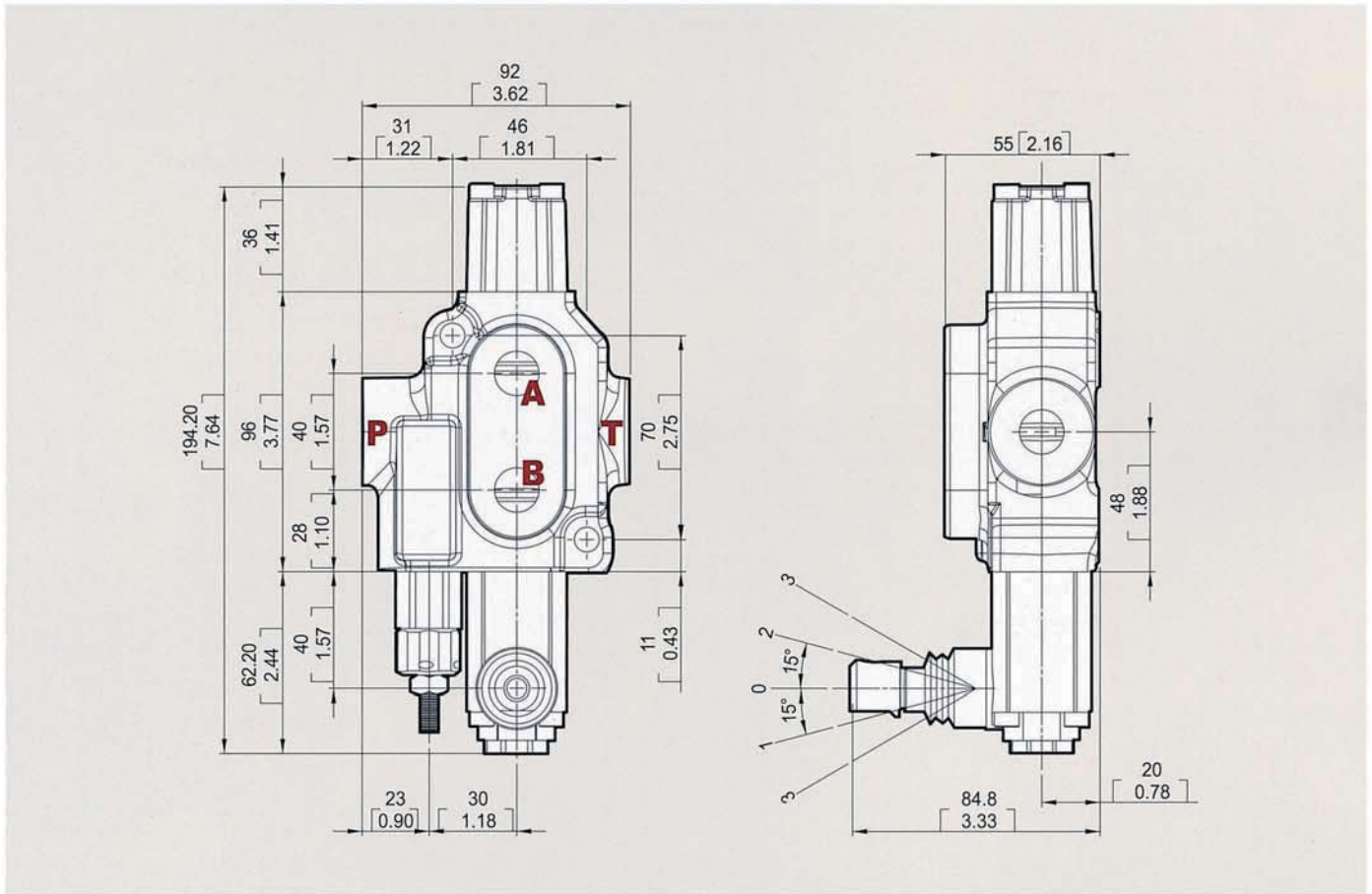
3: Spool Options			
TYPE	CODE	DESCRIPTION	PAGE
1	YLMB23001	Double acting, 3 positions, with A, B closed in neutral position	P. 9
2	YLMB23002	Double acting, 3 positions, with A, B open to Tank in neutral position	P. 9
3	YLMB23003	Single acting on A closed in neutral position, 3 positions, B plugged	P. 10
4	YLMB23003	Single acting on B closed in neutral position, 3 positions, A plugged	P. 10
9	YLMB23009	Double acting, 3 positions, with P, T, A, B closed in neutral position (Closed center)	P. 11
10	YLMB23010	Double acting, 3 positions, with A, B open to Tank and P, T closed in neutral position (Closed center)	P. 11

4: B Side Spool Positioners			
TYPE	CODE	DESCRIPTION	PAGE
6-1	YLMB24061	Detent in pos. 1-0-2, without spring centered	P. 14
6-2	YLMB24062	2 positions, detent in pos. 0-2, without spring centered	P. 14
6-3	YLMB24063	2 positions, detent in pos. 1-0, without spring centered	P. 14
8D2	YLMB24200	With spring return to neutral position and pin with M8 male thread for dual control	P. 14
8EP3	YLMB24300	ON/OFF Electro-Pneumatic actuator	P. 15
8P	YLMB24080	ON/OFF Pneumatic actuator	P. 15
8MG1 (NO)	YLMB24801	Microswitch kit operated in pos. 1 (Normally Open)	P. 16
8MG2 (NO)	YLMB24802	Microswitch kit operated in pos. 2 (Normally Open)	P. 16
8MG3 (NO)	YLMB24803	Microswitch kit operated in pos. 1&2 (Normally Open)	P. 16
MG (NO)	YLMB24804	Microswitch with NO terminal	P. 16
8MG1 (NC)	YLMB248011	Microswitch kit operated in pos. 1 (Normally Closed)	P. 16
8MG2(NC)	YLMB248021	Microswitch kit operated in pos. 2 (Normally Closed)	P. 16
8MG3 (NC)	YLMB248031	Microswitch kit operated in pos. 1&2 (Normally Closed)	P. 16
MG (NC)	YLMB248041	Microswitch with NC terminal	P. 16
8	YLMB24008	With spring return to neutral position	P. 17
8-1	YLMB24081	2 positions, with spring centered from pos. 1	P. 17
8-2	YLMB24082	2 positions, with spring centered from pos. 2	P. 17
9-1	YLMB24091	Detent in pos. 1, 2 with spring centered	P. 17
9-2	YLMB24092	Detent in pos. 2 with spring centered	P. 17
9-3	YLMB24093	Detent in pos. 1 with spring centered	P. 17

5: A Side (optional)			
TYPE	CODE	DESCRIPTION	PAGE
L	YLMB45000	Standard lever box	P. 12
SLP	YLMB45001	Without lever box, with dust-proof plate	P. 12
TQ	YLMB45003	Flexible cable connection	P. 13

# MB-2 Dimensions

## Monoblock Directional Control Valves



MB-2

### Standard threads

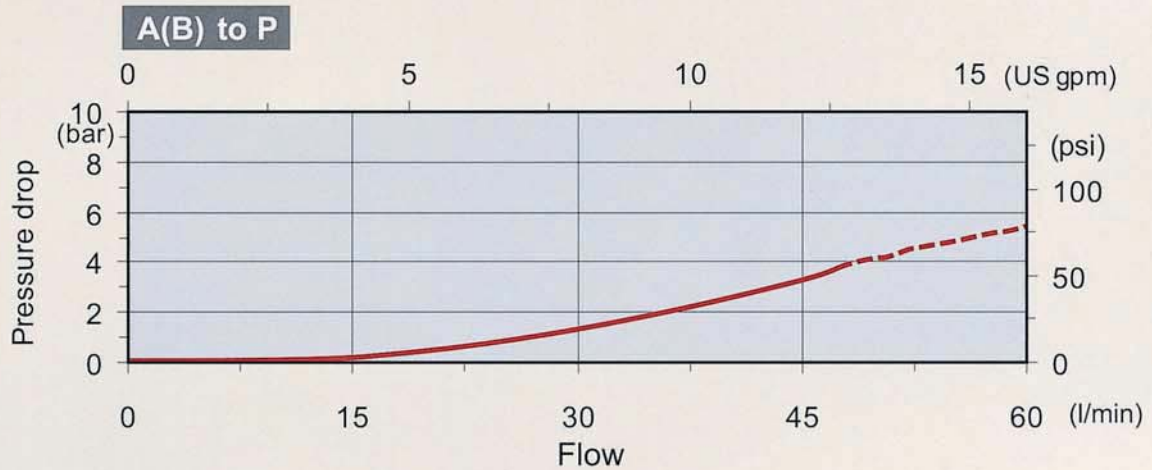
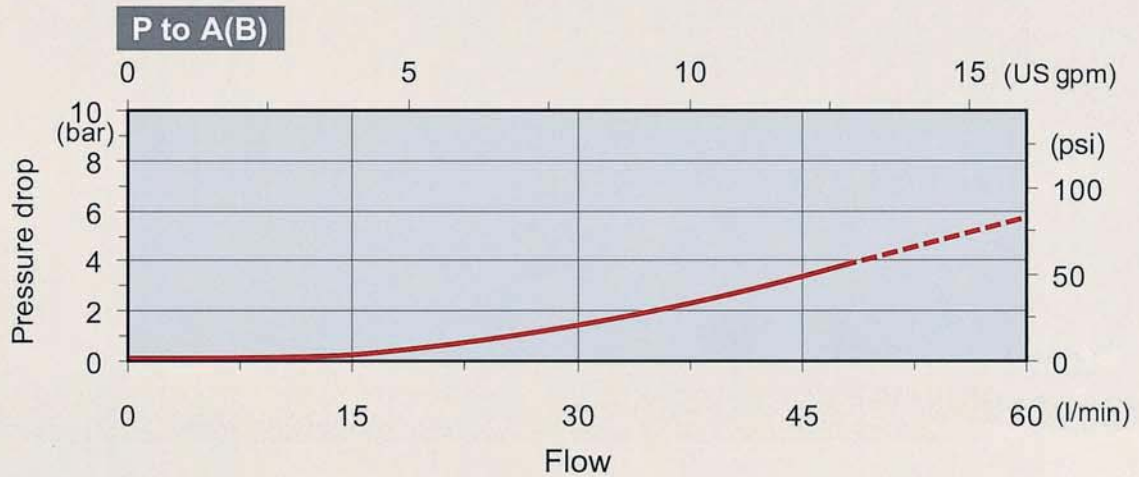
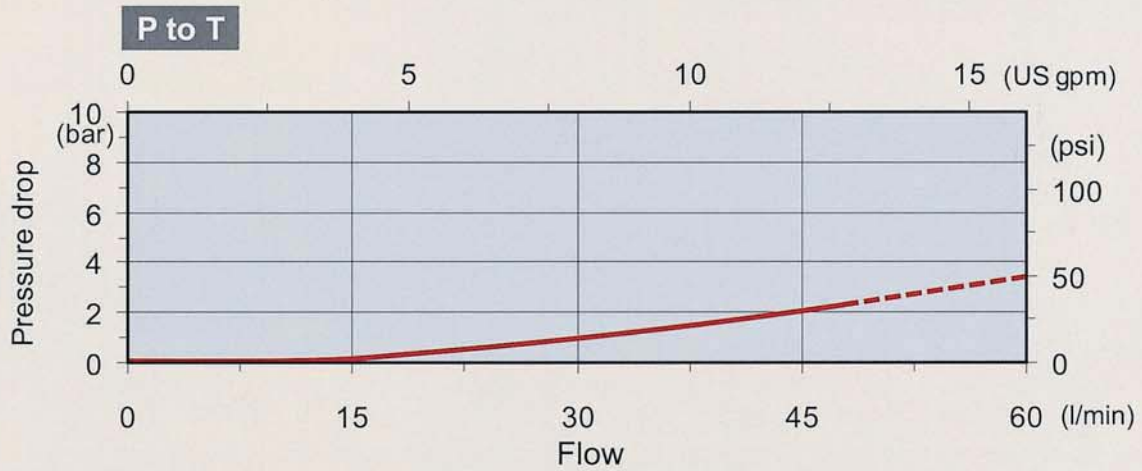
Ports	Inlet P	A and B	Outlet T
BSP	G3/8	G3/8	G3/8
UN-UNF	3/4-16 UNF-2B (SAE 8)	3/4-16 UNF-2B (SAE 8)	3/4-16 UNF-2B (SAE 8)
METRIC	M18x1.5	M18x1.5	M18x1.5

• G-1/2 : G4    G-3/8 : G3    G-3/4 : G6  
 • SAE 8: E8    SAE 10: E10    SAE 12: E12    SAE 16: E16

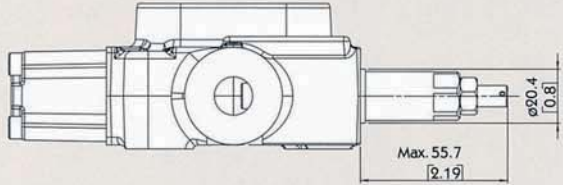
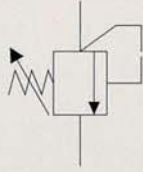
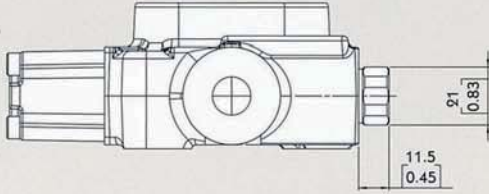

# MB-2 Performance curve chart

## Monoblock Directional Control Valves

MB-2



# MB-2 Inlet Relief (Optional) Monoblock Directional Control Valves

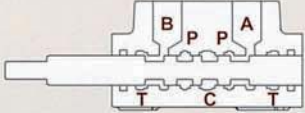
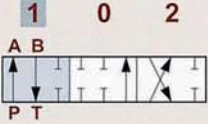
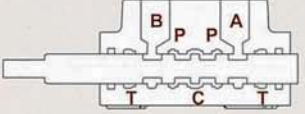
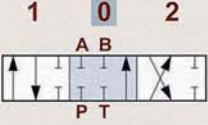
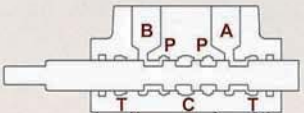
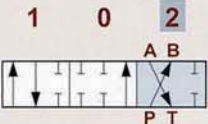
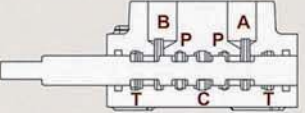
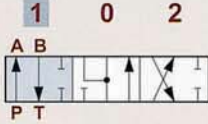
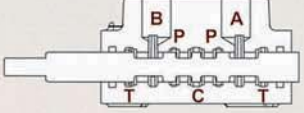
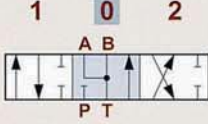
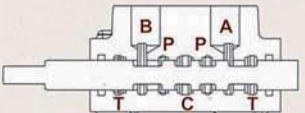
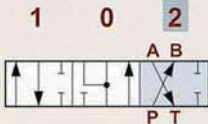
<p>Type DG</p>	
	<p>Direct pressure relief valve:</p> 
<p>Type SV</p>	
	<p>Relief valve blanking plug:</p> 

MB-2

# MB-2 Spool Options

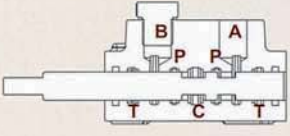
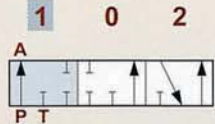
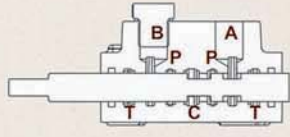
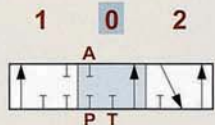
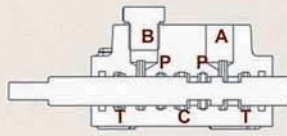
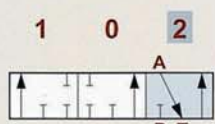
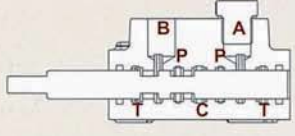
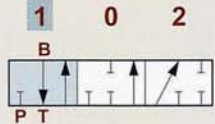
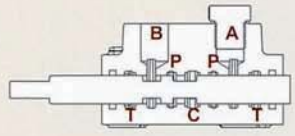
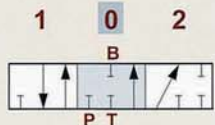
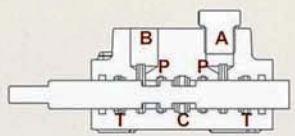
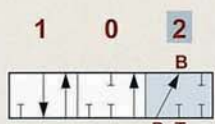
## Monoblock Directional Control Valves

MB-2

TYPE 1		
	<p>P → A</p> <p>B → T</p> <p>C closed</p>	
	<p>P &amp; T &amp; A &amp; B closed</p> <p>C open</p>	
	<p>P → B</p> <p>A → T</p> <p>C closed</p>	
TYPE 2		
	<p>P → A</p> <p>B → T</p> <p>C closed</p>	
	<p>A &amp; B → T</p> <p>C open</p>	
	<p>P → B</p> <p>A → T</p> <p>C closed</p>	

# MB-2 Spool Options

## Monoblock Directional Control Valves

TYPE 3		
	<p>P → A</p> <p>C closed</p>	<p>1 0 2</p>  <p>"B" port plugged</p>
	<p>P &amp; A &amp; T closed</p> <p>C open</p>	<p>1 0 2</p>  <p>"B" port plugged</p>
	<p>A → T</p> <p>C open</p>	<p>1 0 2</p>  <p>"B" port plugged</p>
TYPE 4		
	<p>B → T</p> <p>closed</p>	<p>1 0 2</p>  <p>"A" port plugged</p>
	<p>P &amp; B &amp; T closed</p> <p>C open</p>	<p>1 0 2</p>  <p>"A" port plugged</p>
	<p>P → B</p> <p>C closed</p>	<p>1 0 2</p>  <p>"A" port plugged</p>

MB-2



# MB-2 Spool Options

## Monoblock Directional Control Valves

MB-2

TYPE 9		
	<p>P → B</p> <p>A → T</p> <p>C closed</p>	
	<p>P → A</p> <p>B → T</p> <p>C closed</p>	
	<p>P → A</p> <p>B → T</p> <p>C closed</p>	
TYPE 10		
	<p>P → B</p> <p>A → T</p> <p>C closed</p>	
	<p>P → A</p> <p>B → T</p> <p>C closed</p>	
	<p>P → A</p> <p>B → T</p> <p>C closed</p>	

# MB-2 A Side

## Monoblock Directional Control Valves

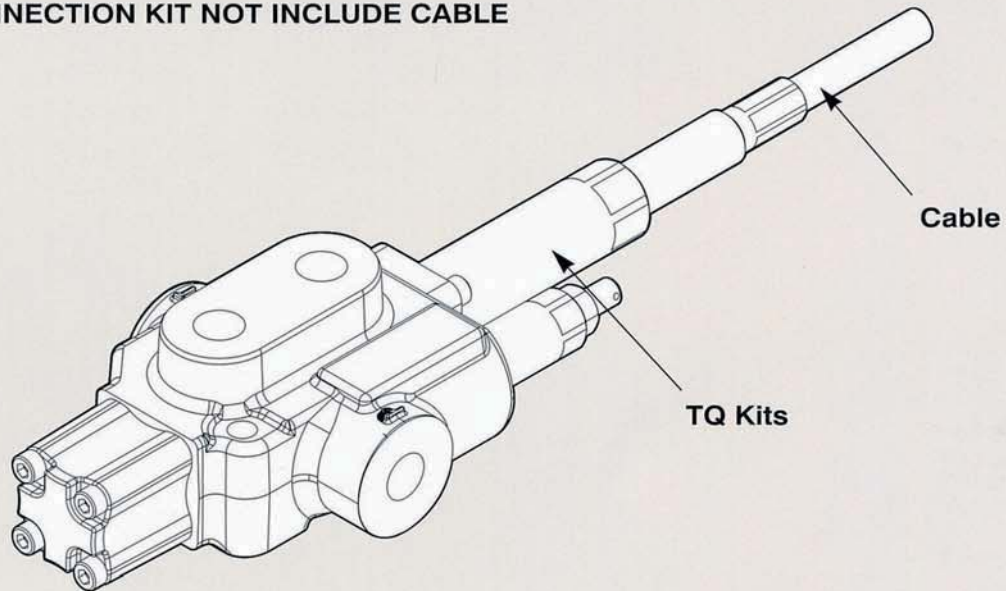
MB-2

Type L		
		<p><b>Type L:</b> STANDART LEVER KIT</p>
Type R		
		<p><b>Type R:</b> STANDART LEVER KIT (ROTATED 180 DEGREE)</p>
Type SL		
		<p><b>Type SL:</b> WITHOUT ANY COVER</p>
Type SLP		
		<p><b>Type SLP:</b> WITH DUST-PROOF PLATE</p>

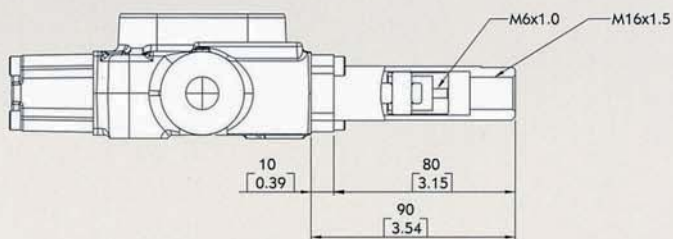
# MB-2 A Side Monoblock Directional Control Valves

MB-2

Note : CONNECTION KIT NOT INCLUDE CABLE



## Type TQ



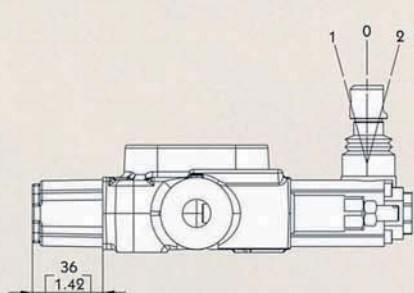
TQ Kit:

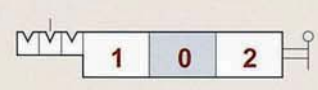
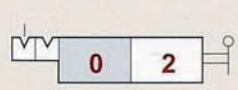



# MB-2 B Side Monoblock Directional Control Valves

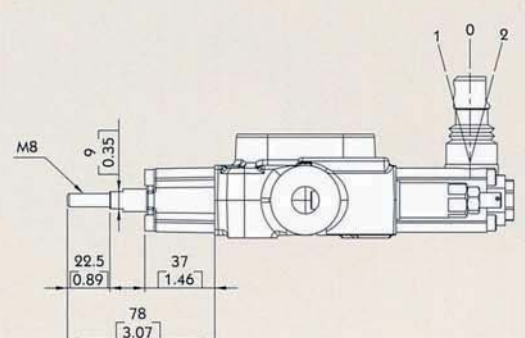
MB-2

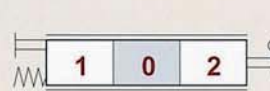
**Type 6**



	<p><b>6-1 Kit:</b> DETENT IN POS. 1-0-2, WITHOUT SPRING CENTERED</p>
	<p><b>6-2 Kit:</b> 2 POSITIONS, DETENT IN POS. 0-2, WITHOUT SPRING CENTERED</p>
	<p><b>6-3 Kit:</b> 2 POSITIONS, DETENT IN POS. 1-0, WITHOUT SPRING CENTERED</p>

**Type 8D2**



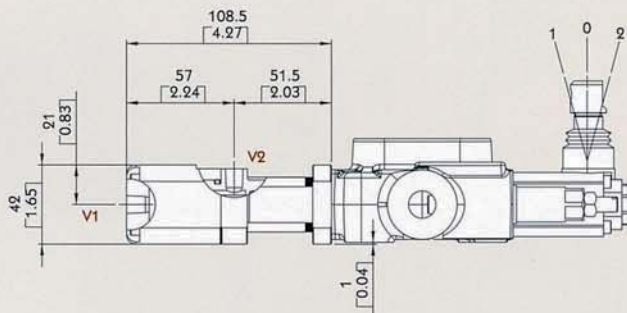
	<p><b>8D2 Kit:</b> WITH SPRING RETURN TO NEUTRAL POSITION AND PIN WITH M8 MALE THREAD FOR DUAL CONTROL</p>
--	--

# MB-2 B Side Monoblock Directional Control Valves

MB-2

## Type 8P

V1 & V2: NPT 1/8 - 27

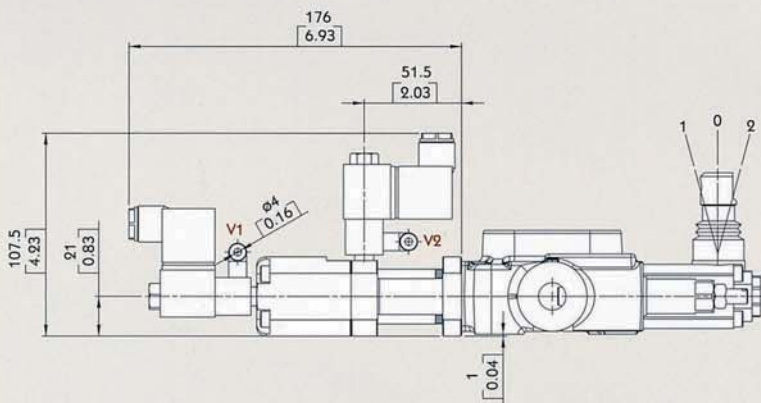


**Operating feature :**

PILOT PRESSURE (MIN.): 5.5 BAR / 80 PSI  
PILOT PRESSURE (MAX.): 10 BAR / 145 PSI

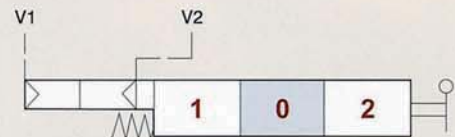


## Type 8EP3



**Solenoid operating features :**

NOMINAL VOLTAGE: 24VDC  
NOMINAL VOLTAGE TOLERANCE: ±10%  
POWER RATING: 5W

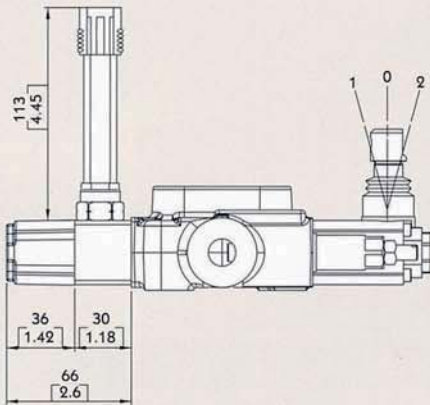


# MB-2 B Side

## Monoblock Directional Control Valves

MB-2

Type 8MG



**MICROSWITCH**  
Operating features :

MECHANICAL LIFE: • 5X10<sup>6</sup> OPERATIONS

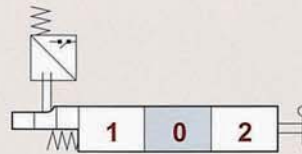
ELECTRICAL LIFE (RESISTIVE LOAD):

- 10<sup>6</sup> OPERATIONS - 7A / 13.5 VDC
- 5x10<sup>4</sup> OPERATIONS - 10A / 12 VDC
- 5x10<sup>4</sup> OPERATIONS - 3A / 28 VDC



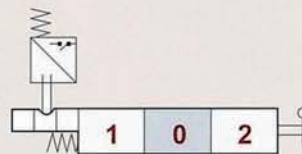
**8MG1 Kit:**

MICROSWITCH WITH MALE/FEMALE CONNECTOR, OPERATED IN POS. 1



**8MG2 Kit:**

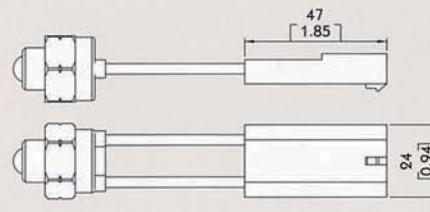
MICROSWITCH WITH MALE/FEMALE CONNECTOR, OPERATED IN POS. 2



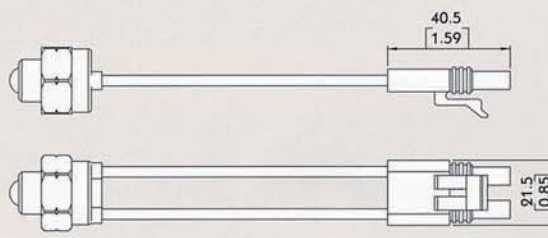
**8MG3 Kit:**

MICROSWITCH WITH MALE/FEMALE CONNECTOR, OPERATED IN POS. 1 AND POS. 2

**With NO contact (female connector with male end)**



**With NC contact (male connector with female end)**



# MB-2 B Side Monoblock Directional Control Valves

MB-2

Type 8		
		<p><b>8 Kit:</b> SPRING RETURN TO NEUTRAL POSITION.</p>
		<p><b>8-1 Kit:</b> SPRING RETURN TO NEUTRAL POSITION. (2 POSITIONS)</p>
		<p><b>8-2 Kit:</b> SPRING RETURN TO NEUTRAL POSITION. (2 POSITIONS)</p>

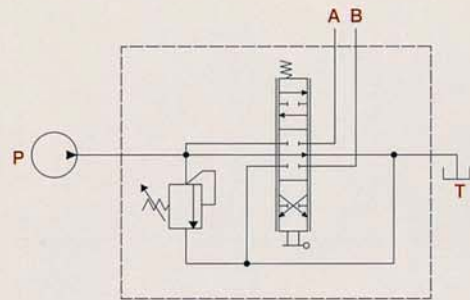
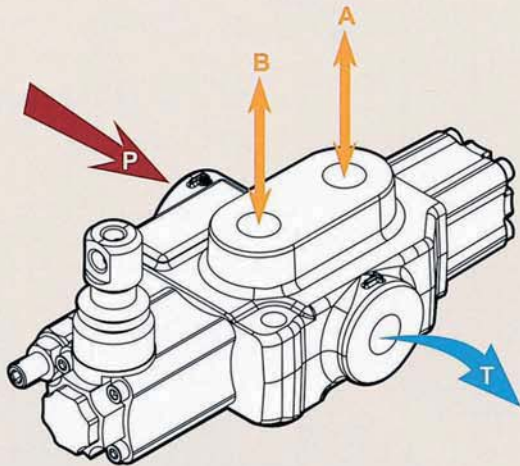
Type 9		
		<p><b>9-1 Kit:</b> DETENT IN POS. 1, 2 WITH SPRING CENTERED</p>
		<p><b>9-2 Kit:</b> DETENT IN POS. 2 WITH SPRING CENTERED</p>
		<p><b>9-3 Kit:</b> DETENT IN POS. 1 WITH SPRING CENTERED</p>

# MB-2 Inlet

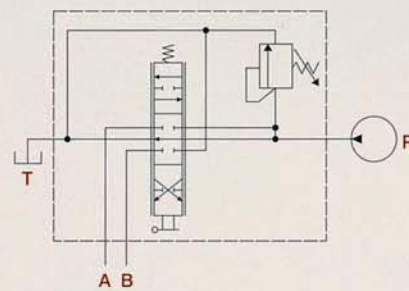
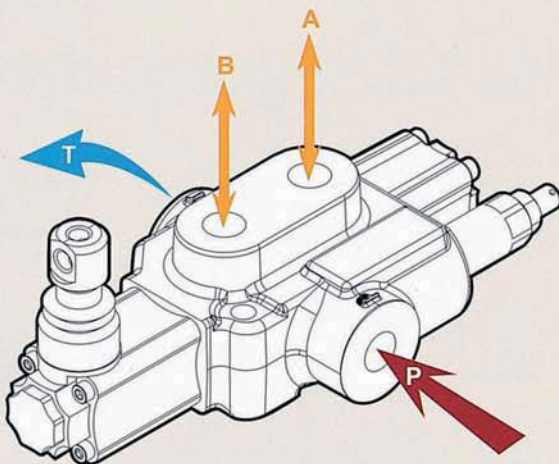
## Monoblock Directional Control Valves

A symmetrical body allows the reverse assembly of spool and relative control kit and lever

( Left inlet)



( Right inlet)



MB-2