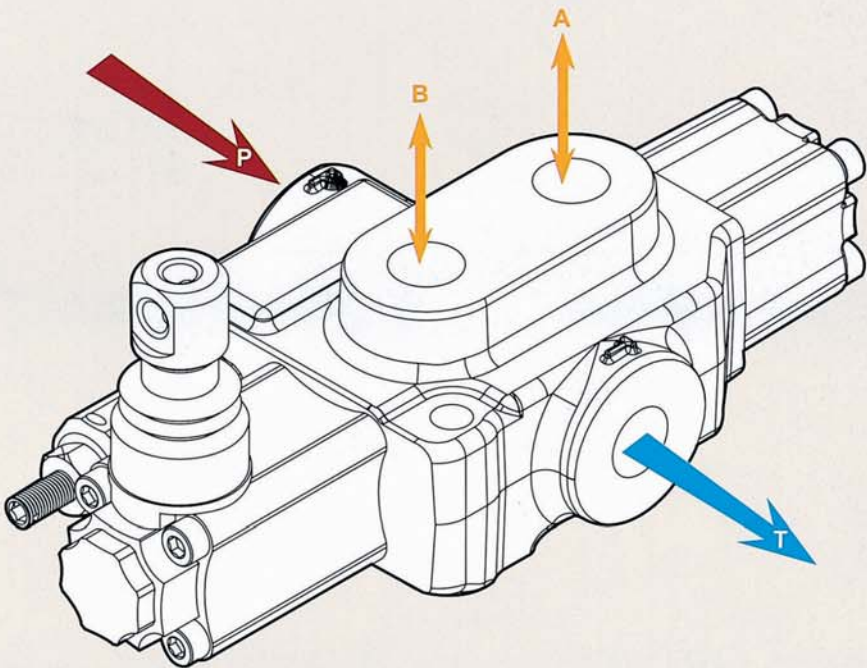


# MB-2

## Monoblock Directional Control Valves



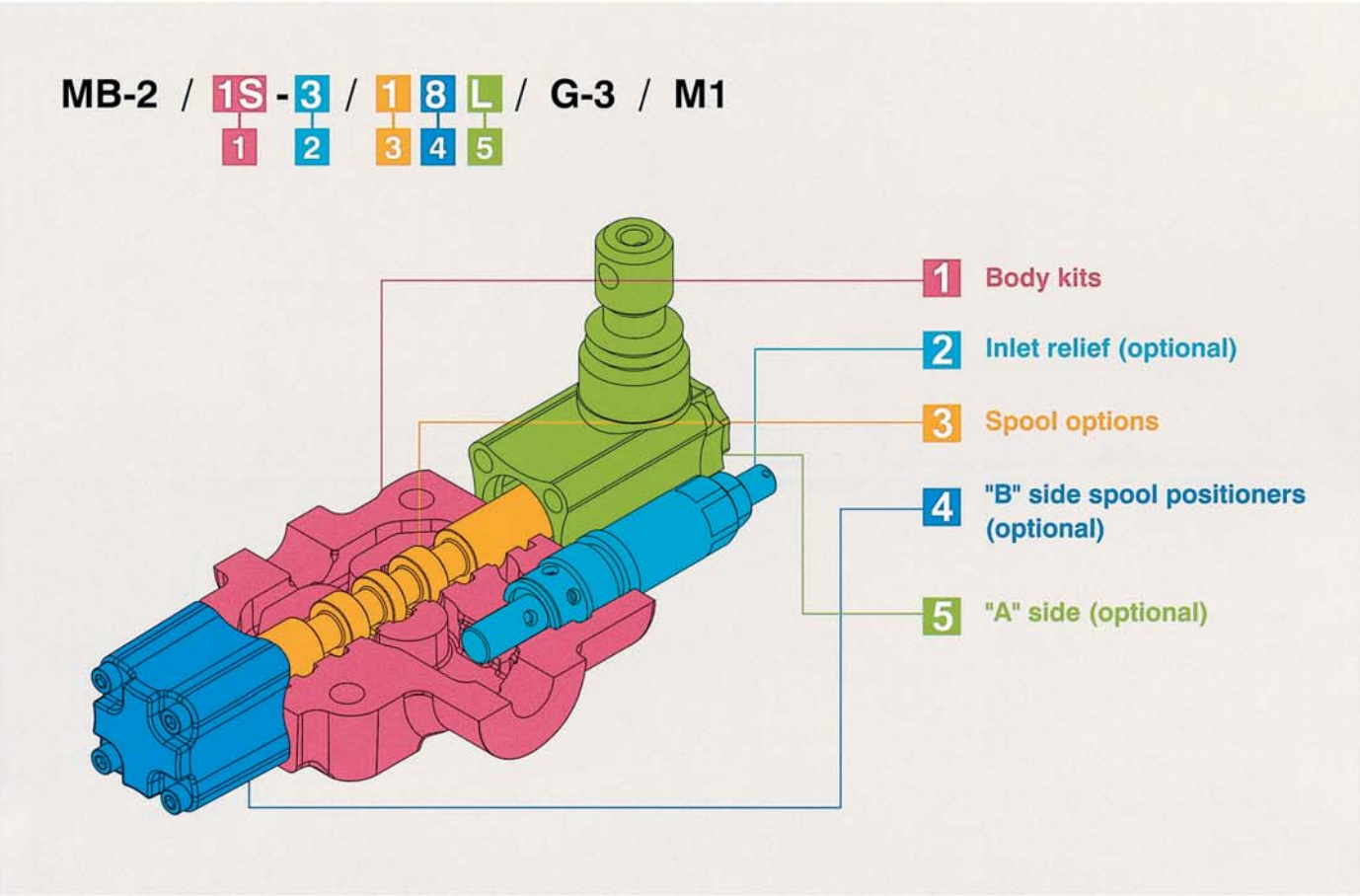
### MB-2 Specifications

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 mm²/s	from 15 to 75 cst
	min	12 mm²/s	12 cst
	max.	400 mm²/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



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

2:	Inlet Relief (optional)		
TYPE	CODE	DESCRIPTION	PAGE
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

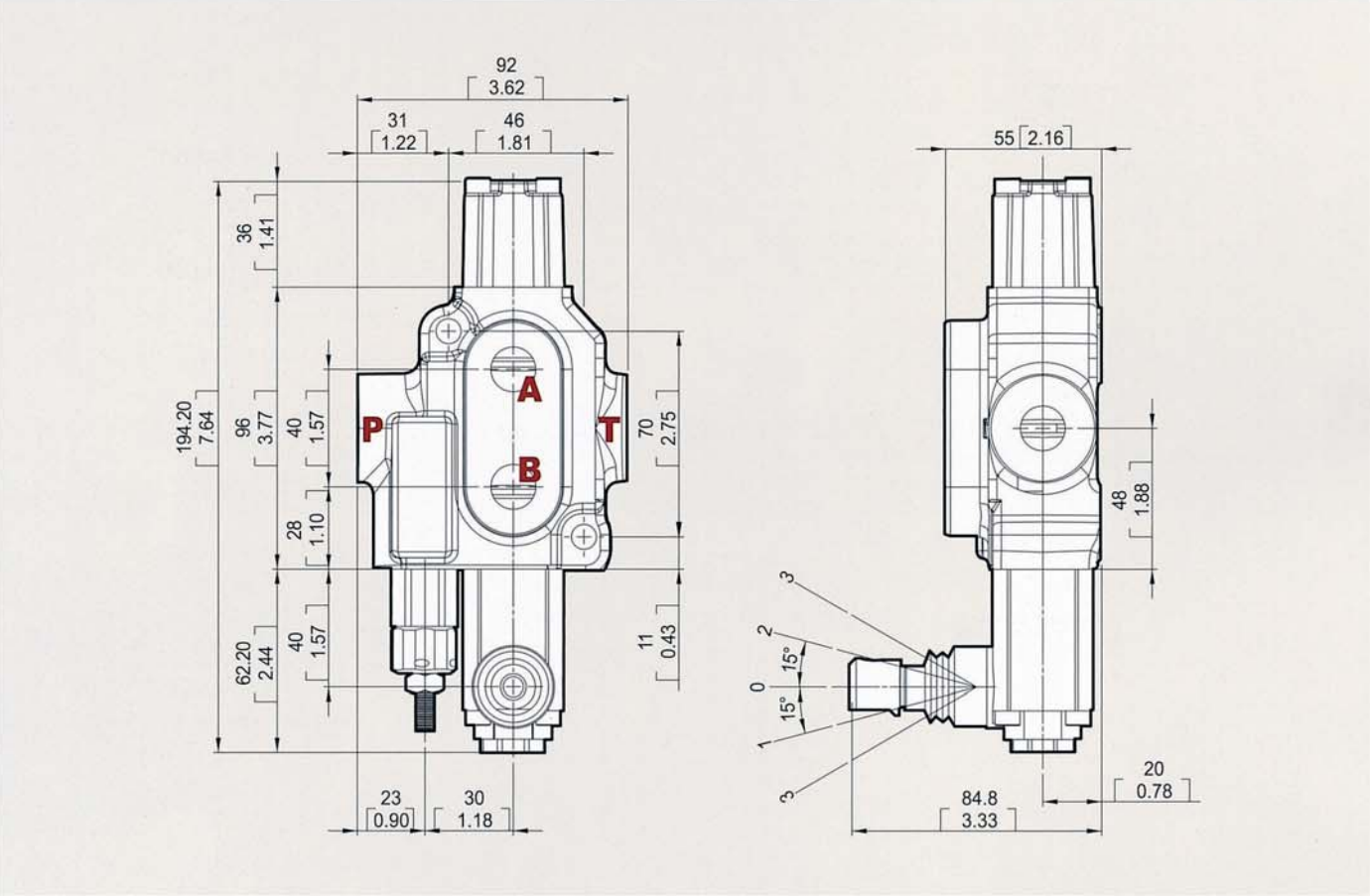
3: Spool Options			
TYPE	CODE	DESCRIPTION	PAGE
1	YLMB23001	Double acting, 3 positions, with A, B closed in neutral position	P. 9
2	YLMB23002	Double acting, 3 positions, with A, B open to Tank in neutral position	P. 9
3	YLMB23003	Single acting on A closed in neutral position, 3 positions, B plugged	P. 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



### 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

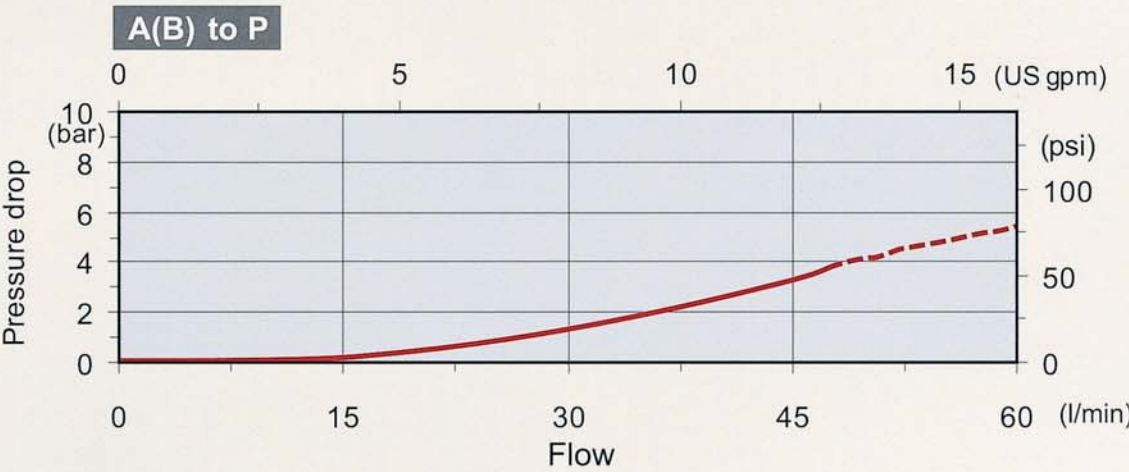
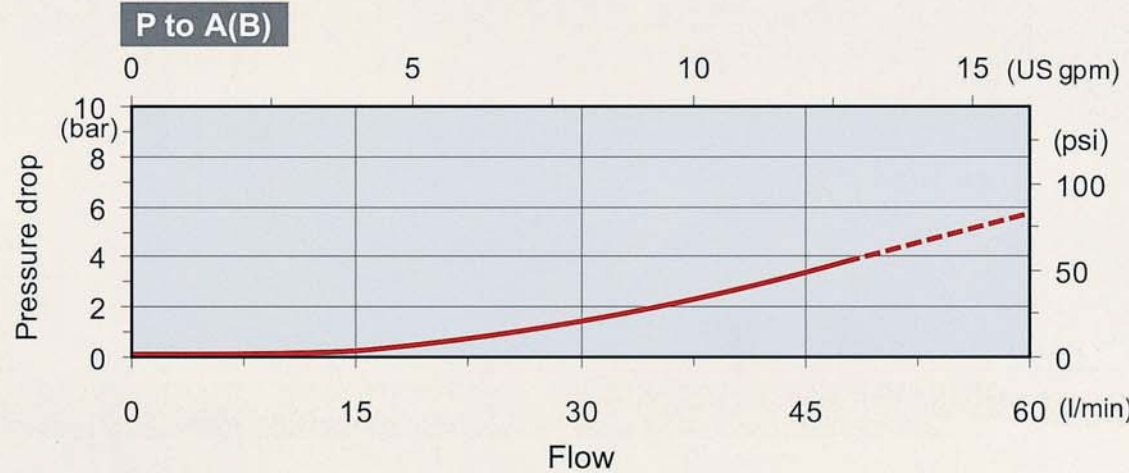
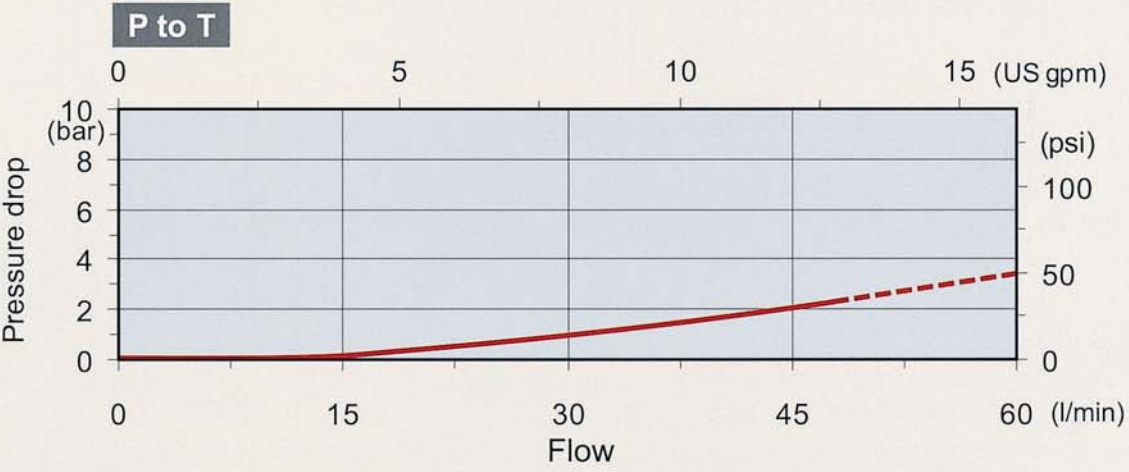
• G-1/2 : G4    G-3/8 : G3    G-3/4 : G6  
• SAE 8: E8    SAE 10: E10    SAE 12: E12    SAE 16: E16

MB-2

# MB-2 Performance curve chart

## Monoblock Directional Control Valves

MB-2

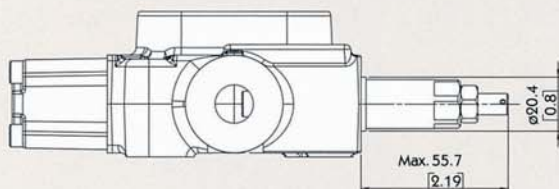




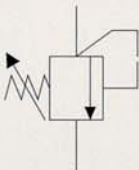
# MB-2 Inlet Relief (Optional)

## Monoblock Directional Control Valves

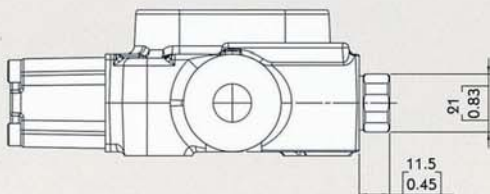
### Type DG



Direct pressure relief valve:



### Type SV



Relief valve blanking plug:



MB-2

# MB-2 Spool Options

## Monoblock Directional Control Valves

### 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>	

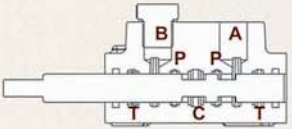
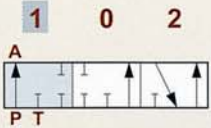
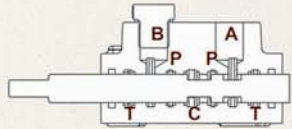
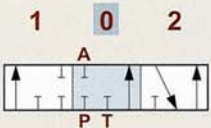
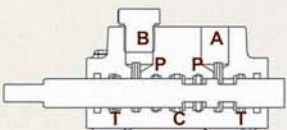
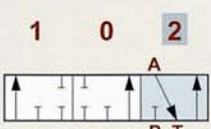
### TYPE 2

	<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>	

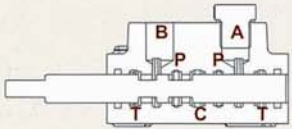
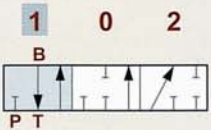
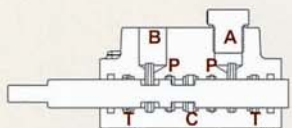
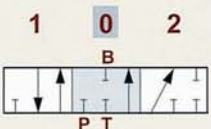
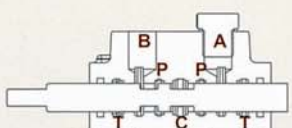
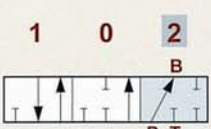
# MB-2 Spool Options

## Monoblock Directional Control Valves

### TYPE 3

	<p><b>P → A</b></p> <p><b>C closed</b></p>	 <p><b>"B" port plugged</b></p>
	<p><b>P &amp; A &amp; T closed</b></p> <p><b>C open</b></p>	 <p><b>"B" port plugged</b></p>
	<p><b>A → T</b></p> <p><b>C open</b></p>	 <p><b>"B" port plugged</b></p>

### TYPE 4

	<p><b>B → T</b></p> <p><b>closed</b></p>	 <p><b>"A" port plugged</b></p>
	<p><b>P &amp; B &amp; T closed</b></p> <p><b>C open</b></p>	 <p><b>"A" port plugged</b></p>
	<p><b>P → B</b></p> <p><b>C closed</b></p>	 <p><b>"A" port plugged</b></p>

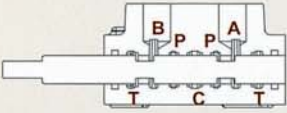
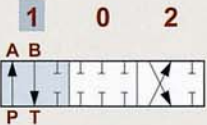
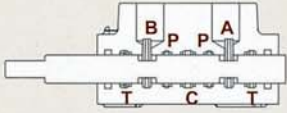
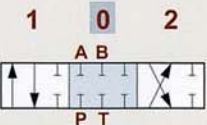
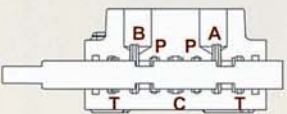
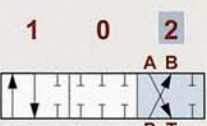


# MB-2 Spool Options

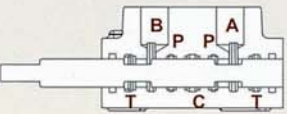
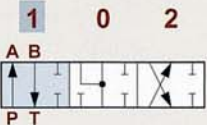
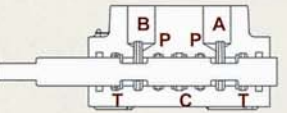
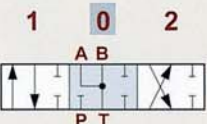
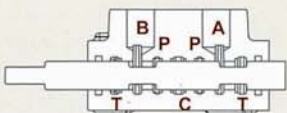
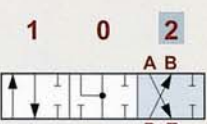
## Monoblock Directional Control Valves

MB-2

### TYPE 9

	<p>P → A</p> <p>B → T</p> <p>C closed</p>	
	<p>P &amp; A &amp; B &amp; T closed</p> <p>C closed</p>	
	<p>P → B</p> <p>A → T</p> <p>C closed</p>	

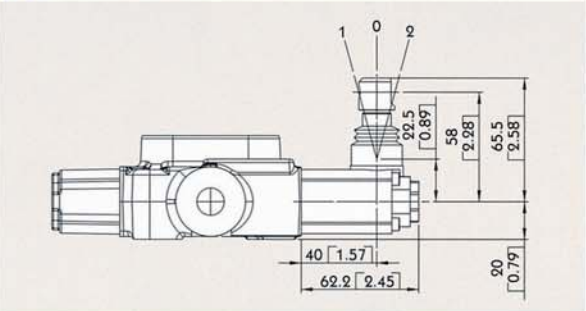
### TYPE 10

	<p>P → A</p> <p>B → T</p> <p>C closed</p>	
	<p>A &amp; B → T</p> <p>P &amp; C closed</p>	
	<p>P → B</p> <p>A → T</p> <p>C closed</p>	

# MB-2 A Side

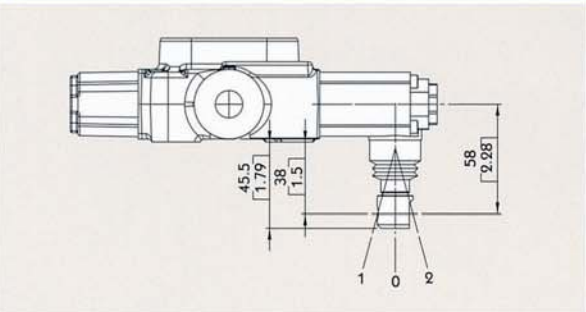
## Monoblock Directional Control Valves

Type L



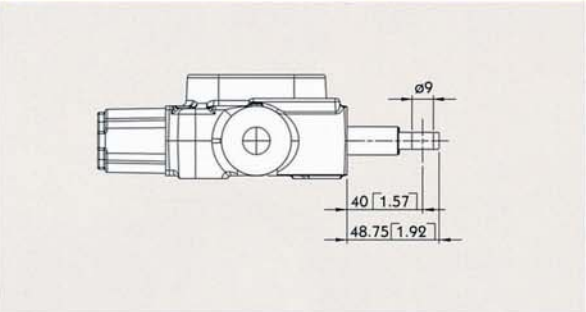
**Type L:**  
STANDART LEVER KIT

Type R



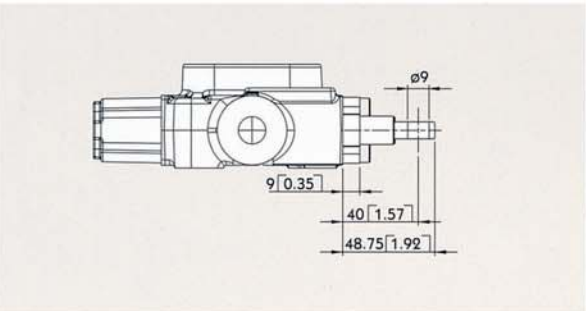
**Type R:**  
STANDART LEVER KIT  
(ROTATED 180 DEGREE)

Type SL



**Type SL:**  
WITHOUT ANY COVER

Type SLP



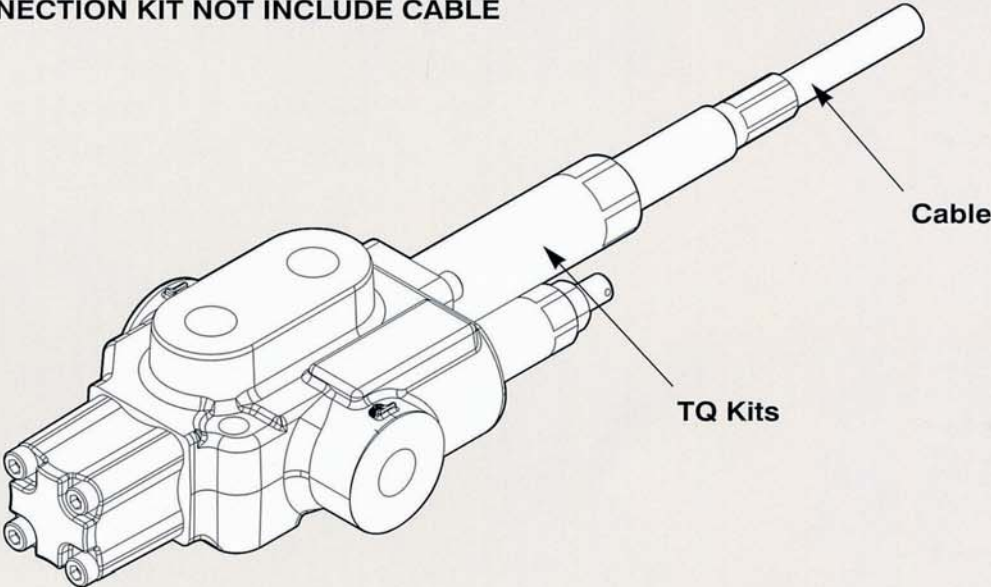
**Type SLP:**  
WITH DUST-PROOF PLATE

MB-2

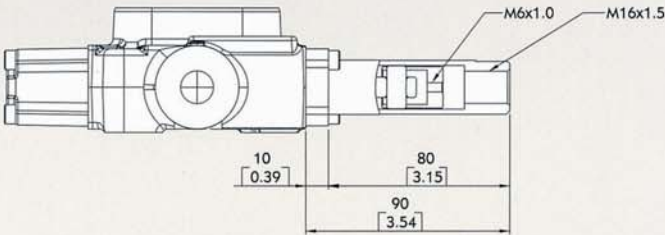
# MB-2 A Side

## Monoblock Directional Control Valves

Note : CONNECTION KIT NOT INCLUDE CABLE



### Type TQ



TQ Kit:

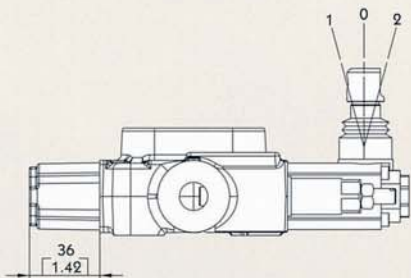




# MB-2 B Side

## Monoblock Directional Control Valves

Type 6



**6-1 Kit:**  
DETENT IN POS. 1-0-2, WITHOUT SPRING CENTERED

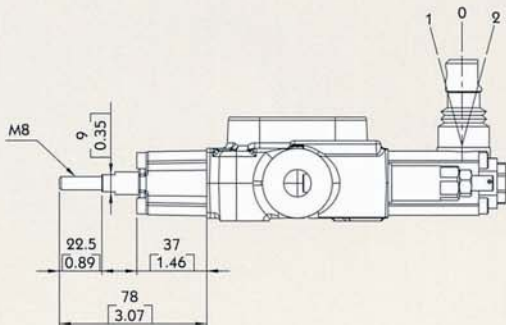


**6-2 Kit:**  
2 POSITIONS, DETENT IN POS. 0-2, WITHOUT SPRING CENTERED



**6-3 Kit:**  
2 POSITIONS, DETENT IN POS. 1-0, WITHOUT SPRING CENTERED

Type 8D2



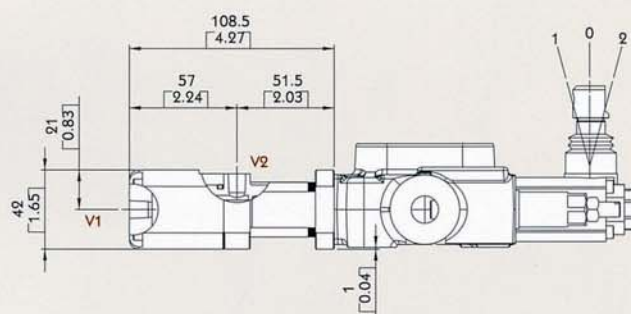
**8D2 Kit:**  
WITH SPRING RETURN TO NEUTRAL POSITION AND PIN WITH M8 MALE THREAD FOR DUAL CONTROL

# MB-2 B Side

## Monoblock Directional Control Valves

### Type 8P

V1 & V2: NPT 1/8 - 27



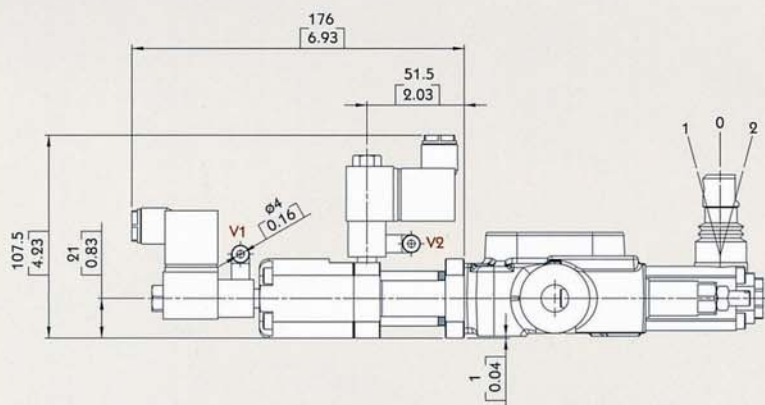
#### Operating feature :

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:  $\pm 10\%$

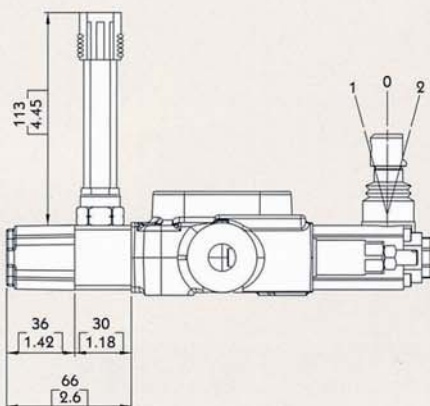
POWER RATING: 5W



# MB-2 B Side

## Monoblock Directional Control Valves

### Type 8MG



#### MICROSWITCH

##### Operating features :

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

ELECTRICAL LIFE (RESISTIVE LOAD):

- 10<sup>5</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:

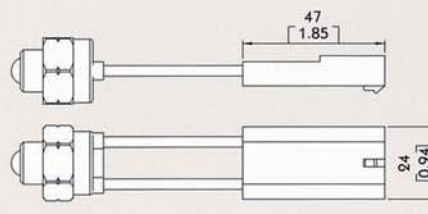
MICROSWITCH WITH MALE/FEMALE CONNECTOR, OPERATED IN POS. 2



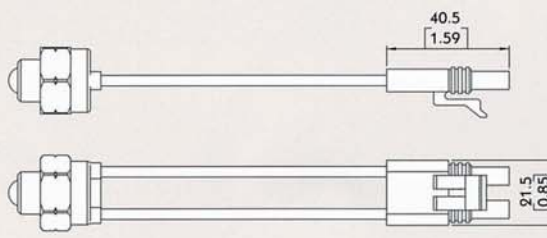
#### 8MG3 Kit:

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)

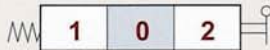
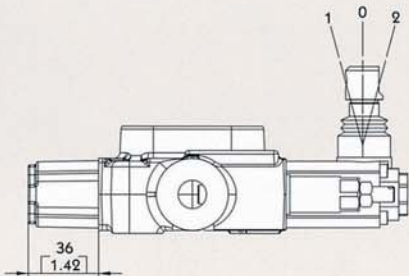




# MB-2 B Side

## Monoblock Directional Control Valves

### Type 8



**8 Kit:**  
SPRING RETURN TO NEUTRAL POSITION.

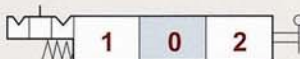
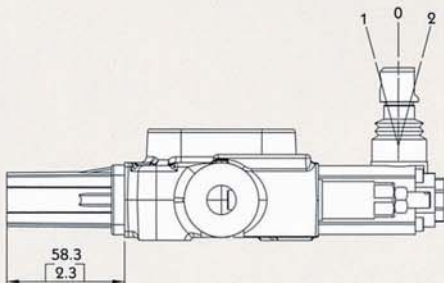


**8-1 Kit:**  
SPRING RETURN TO NEUTRAL POSITION.  
(2 POSITIONS)



**8-2 Kit:**  
SPRING RETURN TO NEUTRAL POSITION.  
(2 POSITIONS)

### Type 9



**9-1 Kit:**  
DETENT IN POS. 1, 2 WITH SPRING CENTERED



**9-2 Kit:**  
DETENT IN POS. 2 WITH SPRING CENTERED



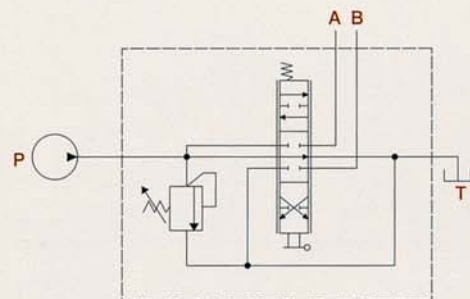
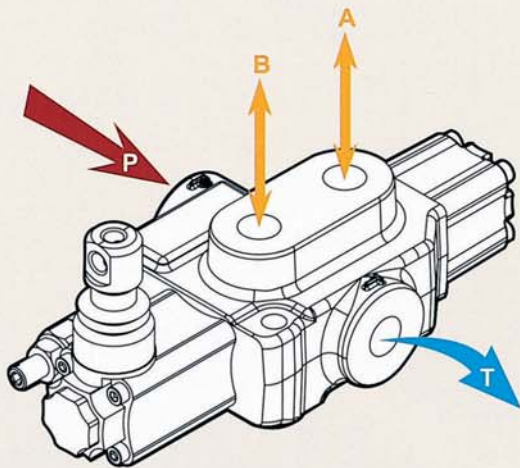
**9-3 Kit:**  
DETENT IN POS. 1 WITH SPRING CENTERED

# 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)

