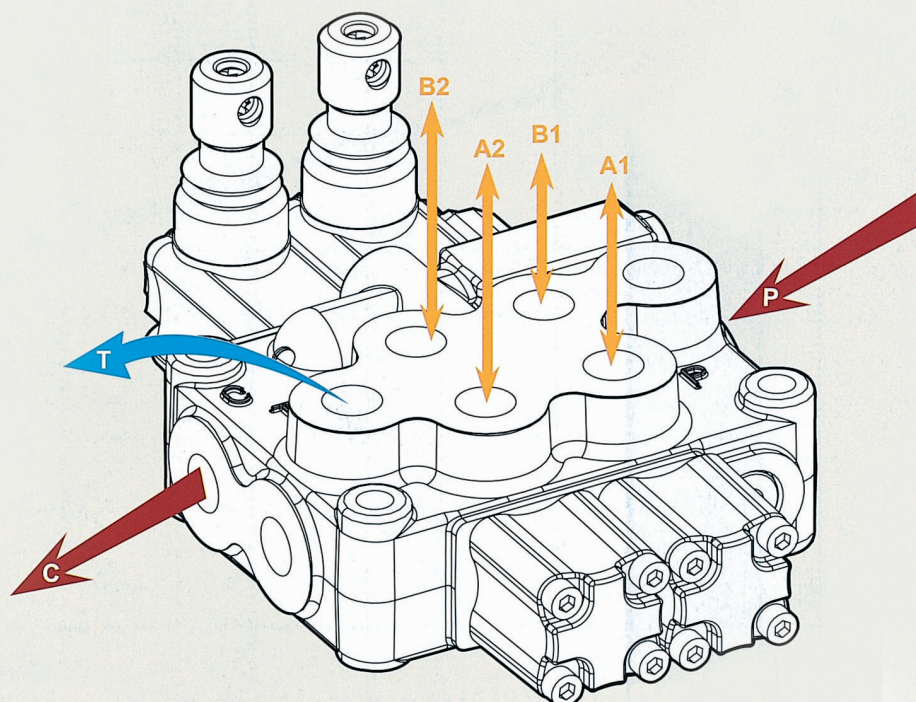


MB-3

Monoblock Directional Control Valves

MB-3



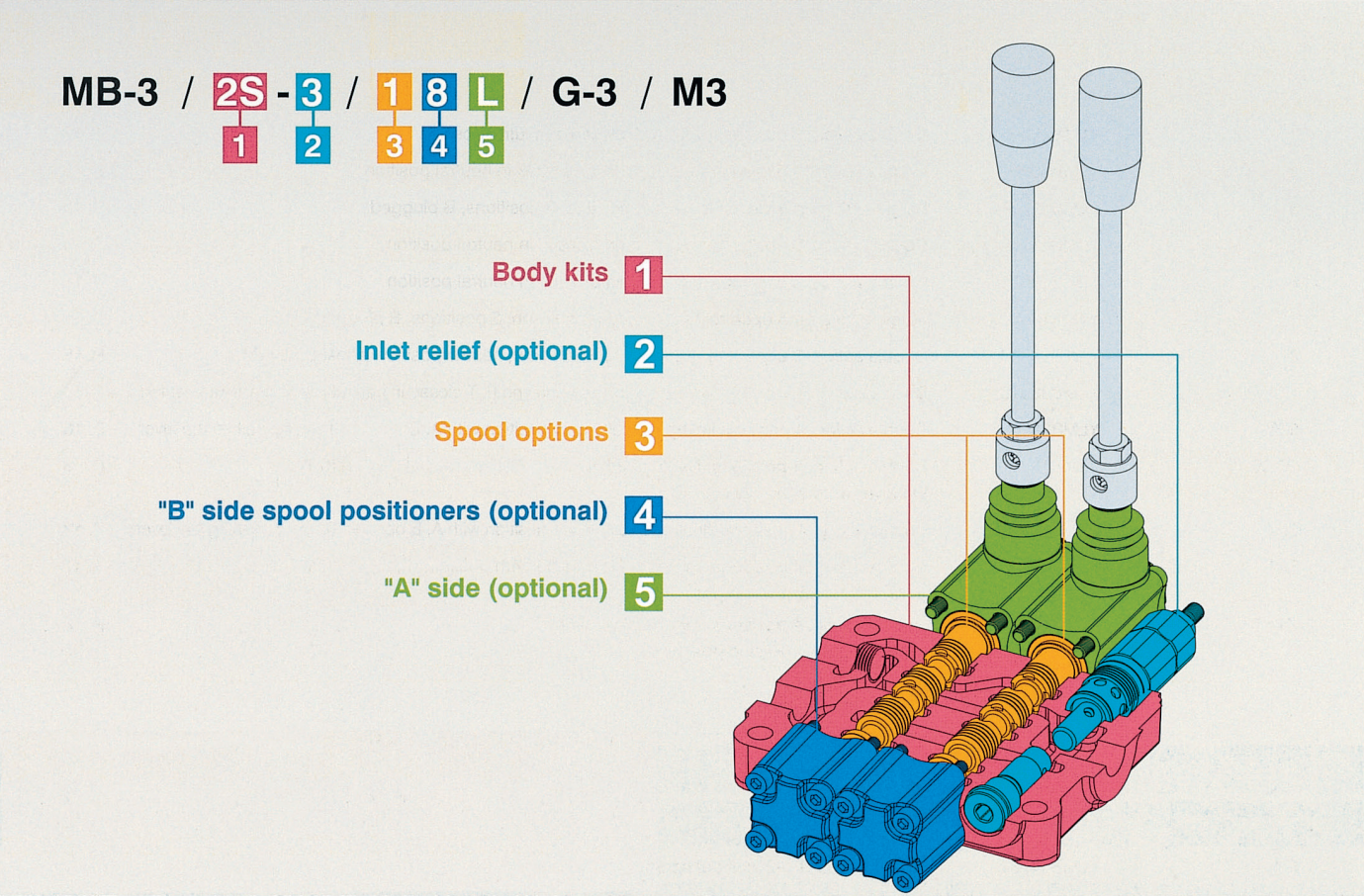
MB-3 Specifications

Nominal flow rate		45 l/min	12 US gpm
Operating pressure (maximum)		315 bar	4600 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-3

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 - S		2 sections	
3 - S		3 sections	
4 - S		4 sections	
5 - S		5 sections	
6 - S		6 sections	

2:	Inlet Relief (optional)		
TYPE		CODE	PAGE
DG-2		YLMB32002	P. 25
DG-3		YLMB32003	P. 25
DG-4		YLMB32004	P. 25
SV		YLMB32100	P. 25

MB-3

Monoblock Directional Control Valves

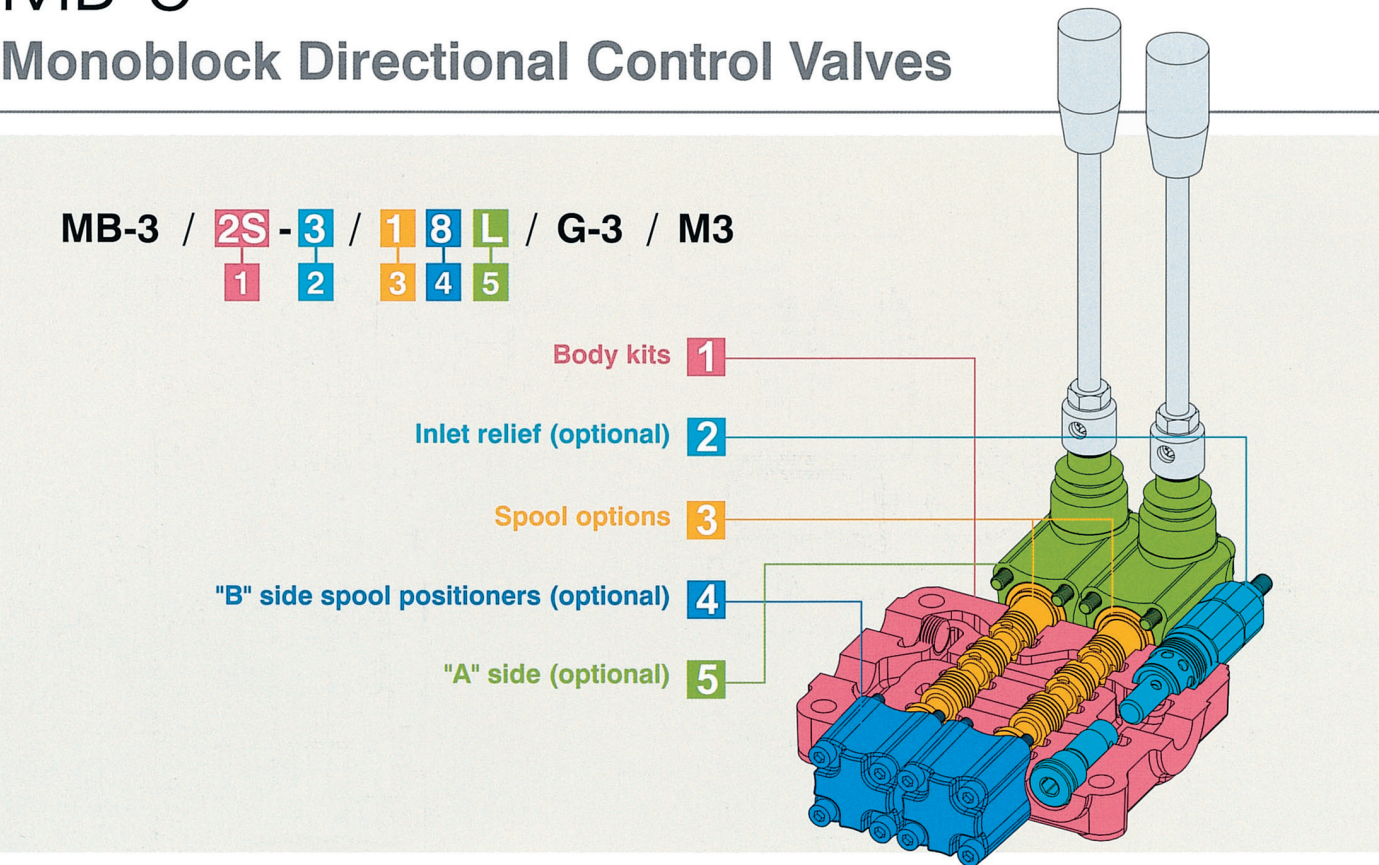
MB-3

3: Spool Options			
TYPE	CODE	DESCRIPTION	PAGE
1	YLMB33001	Double acting, 3 positions, with A, B closed in neutral position	P. 26
2	YLMB33002	Double acting, 3 positions, with A, B open to Tank in neutral position	P. 26
3	YLMB33003	Single acting on A closed in neutral position, 3 positions, B plugged	P. 27
5	YLMB33005	Double acting, 3 positions, with B open to Tank in neutral position	P. 27
6	YLMB33006	Double acting, 3 positions, with A open to Tank in neutral position	P. 28
7	YLMB33007	Single acting on A open to Tank in neutral position, 3 positions, B plugged	P. 28
9	YLMB33009	Double acting, 3 positions, with P, T, A, B closed in neutral position (Closed center)	P. 29
1 0	YLMB33010	Double acting, 3 positions, with A, B open to Tank and P, T closed in neutral position (Closed center)	P. 29
5DY	YLMB33052	Double acting, 4 position, floating circuit in 4th position with A, B open to Tank by pulling the lever	P. 30
5PYX	YLMB330511	Double acting, 4 positions, floating circuit in 4th position with A, B open to Tank by pushing the lever (with check valve)	P. 30
5PY	YLMB33051	Double acting, 4 positions, floating circuit in 4th position with A, B open to Tank by pushing the lever	P. 31
Z41	YLMB33041	Double acting, 4 positions, regenerative circuit in 4th position with P open to A, B by pulling the lever (Rest in pos. 1)	P. 31
Z42	YLMB33042	Double acting, 4 positions, regenerative circuit in 4th position with P open to A, B by pulling the lever (Rest in pos. 0)	P. 32

4: B Side Spool Positioners			
TYPE	CODE	DESCRIPTION	PAGE
6-1	YLMB44061	Detent in pos. 1-0-2, without spring centered	P. 36
6-2	YLMB44062	2 positions, detent in pos. 0-2, without spring centered	P. 36
6-3	YLMB44063	2 positions, detent in pos. 1-0, without spring centered	P. 36
8D2	YLMB44200	With spring return to neutral position and pin with M8 male thread for dual control	P. 36
8EP3	YLMB44300	ON/OFF Electro-Pneumatic actuator	P. 37
8P	YLMB44080	ON/OFF Pneumatic actuator	P. 37
8MG1 (NO)	YLMB44801	Microswitch kit operated in pos. 1 (Normally Open)	P. 40
8MG2 (NO)	YLMB44802	Microswitch kit operated in pos. 2 (Normally Open)	P. 40
8MG3 (NO)	YLMB44803	Microswitch kit operated in pos. 1&2 (Normally Open)	P. 40
MG (NO)	YLMB44804	Microswitch with NO terminal	P. 40
8MG1 (NC)	YLMB448011	Microswitch kit operated in pos. 1 (Normally Closed)	P. 40
8MG2 (NC)	YLMB448021	Microswitch kit operated in pos. 2 (Normally Closed)	P. 40
8MG3 (NC)	YLMB448031	Microswitch kit operated in pos. 1&2 (Normally Closed)	P. 40
MG (NC)	YLMB448041	Microswitch with NC terminal	P. 40
8	YLMB44008	With spring return to neutral position	P. 41
8-1	YLMB44081	2 positions, with spring centered from pos. 1	P. 41
8-2	YLMB44082	2 positions, with spring centered from pos. 2	P. 41
9-1	YLMB44091	Detent in pos. 1, 2 with spring centered	P. 41
9-2	YLMB44092	Detent in pos. 2 with spring centered	P. 41
9-3	YLMB44093	Detent in pos. 1 with spring centered	P. 41

MB-3

Monoblock Directional Control Valves

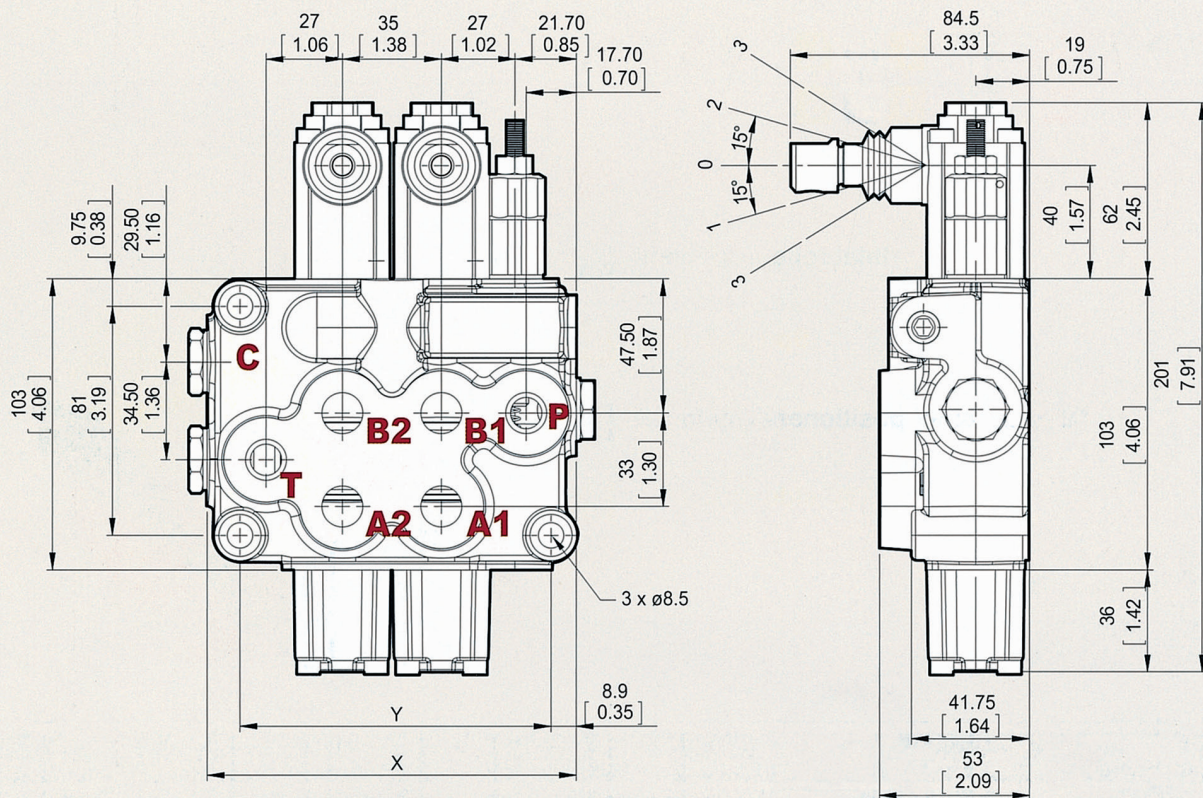


4: B Side Spool Positioners			
TYPE	CODE	DESCRIPTION	PAGE
8ED3+RV-KE1R3	YLMB44201	1S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 38
8ED3+RV-KE2R3	YLMB44202	2S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 38
8ED3+RV-KE3R3	YLMB44203	3S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 38
8ED3+RV-KE4R3	YLMB44204	4S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 38
8ED3+RV-KE5R3	YLMB44205	5S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 38
8ED3+RV-KE6R3	YLMB44206	6S: ON/OFF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	P. 38
8ER3+KE1S0	YLMB44401	1S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 39
8ER3+KE2S0	YLMB44402	2S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 39
8ER3+KE3S0	YLMB44403	3S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 39
8ER3+KE4S0	YLMB44404	4S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 39
8ER3+KE5S0	YLMB44405	5S:ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 39
8ER3+KE6S0	YLMB44406	6S: ON/OFF Electro-hydraulic control kit with collector kit for external pilot and drain	P. 39

5: A Side (optional)			
TYPE	CODE	DESCRIPTION	PAGE
L	YLMB45000	Standard lever box	P. 33
SLP	YLMB45001	Without lever box, with dust-proof plate	P. 33
LCB	YLMB45002	Joystick lever for 2 section operation	P. 34
TQ	YLMB45003	Flexible cable connection	P. 35

MB-3 Dimensions

Monoblock Directional Control Valves



Standard threads

Ports	Inlet P	A and B	Outlet T and C
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

Standard dimensions

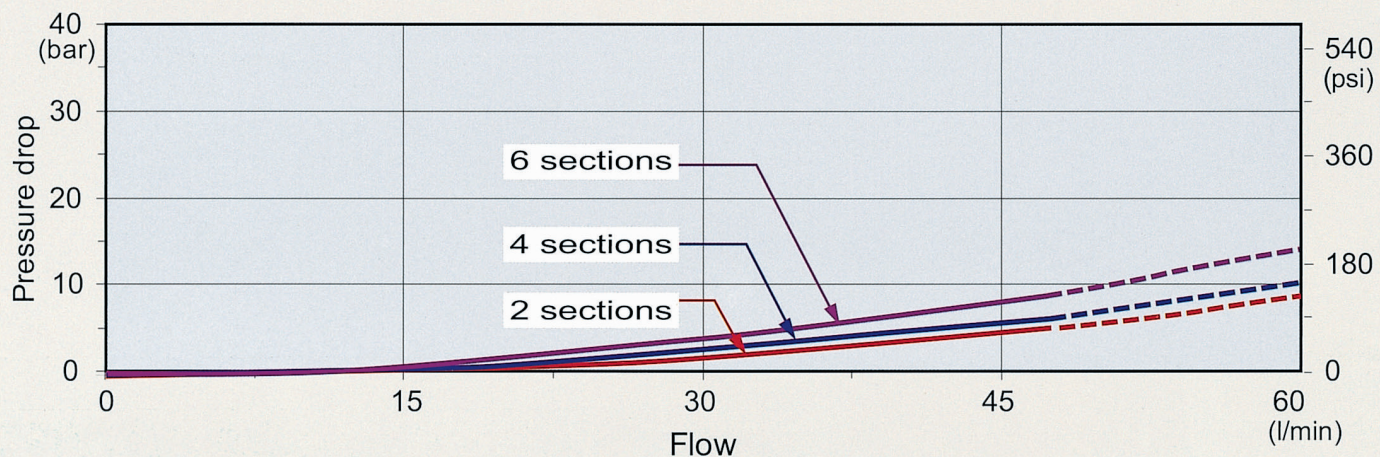
TYPE	X		Y	
	mm	in	mm	in
MB3 /1S	93.5	3.68	73	2.87
MB3 /2S	130.5	5.14	110	4.33
MB3 /3S	165.5	6.52	147	5.79
MB3 /4S	202.5	7.97	184	7.24
MB3 /5S	239.5	9.43	221	8.7
MB3 /6S	276.5	10.89	258	10.16
MB3 /7S	313.5	12.34	295	11.61

MB-3 Performance curve chart

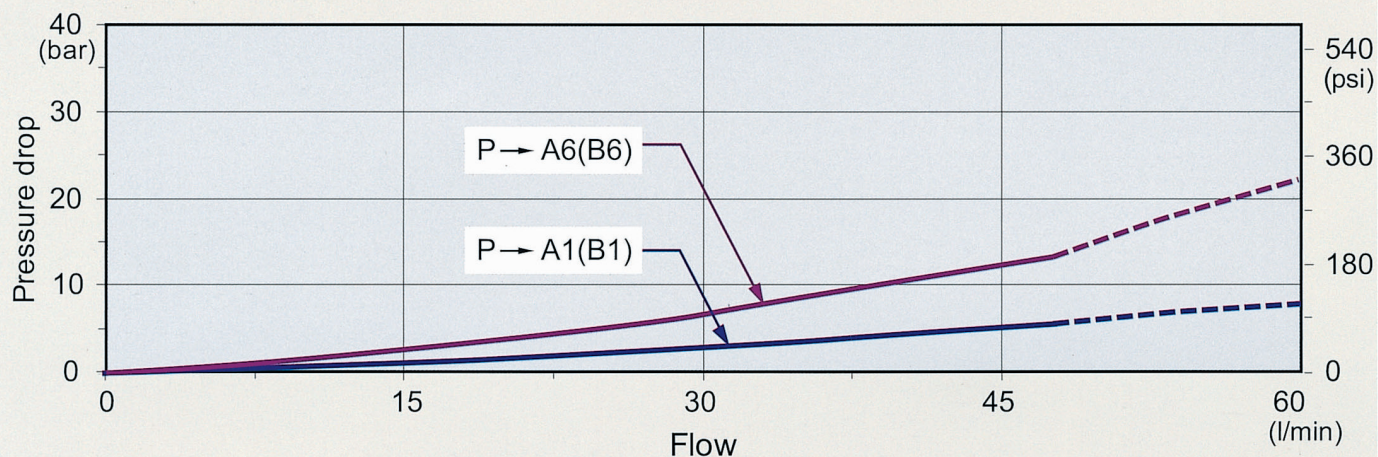
Monoblock Directional Control Valves

MB-3

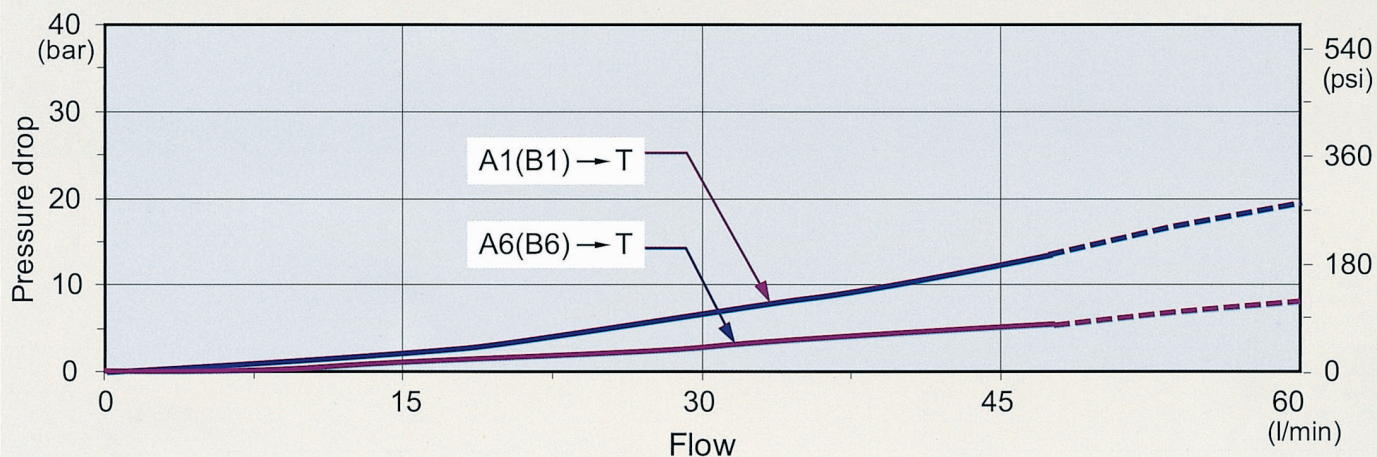
P to T



P to A(B)



A(B) to T

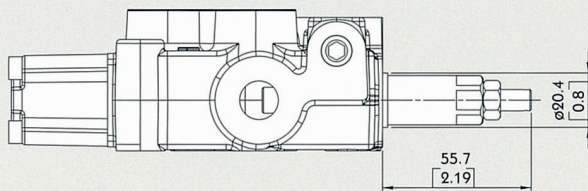


MB-3

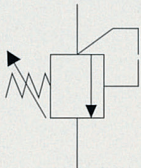
MB-3 Inlet Relief (Optional)

Monoblock Directional Control Valves

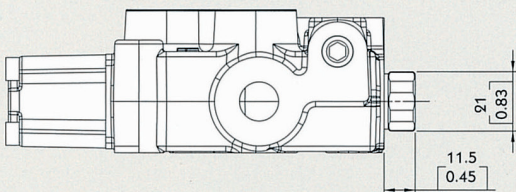
Type DG



Direct pressure relief valve:



Type SV



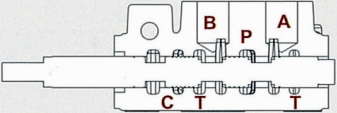
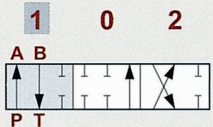
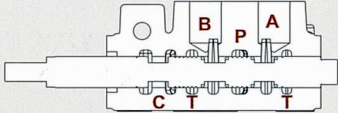
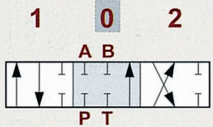
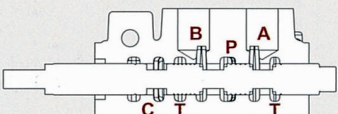
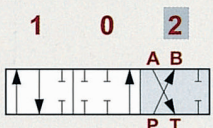
Relief valve blanking plug:



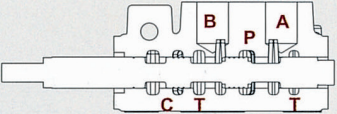
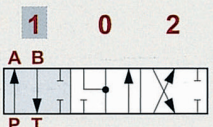
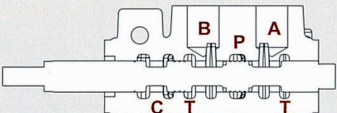
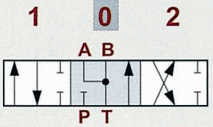
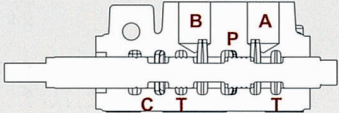
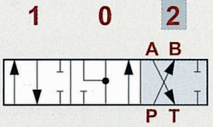
MB-3 Spool Options

Monoblock Directional Control Valves

TYPE 1

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

TYPE 2

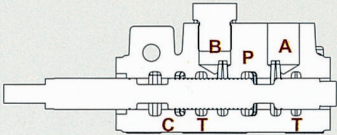
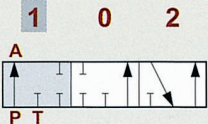
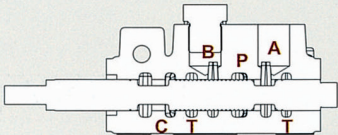
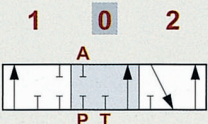
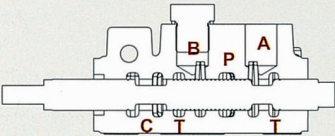
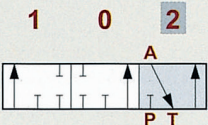
	<p>P → A B → T C closed</p>	
	<p>A & B → T P closed C open</p>	
	<p>P → B A → T C closed</p>	

MB-3 Spool Options

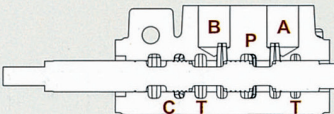
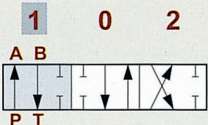
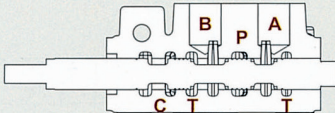
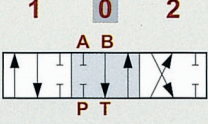
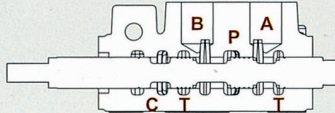
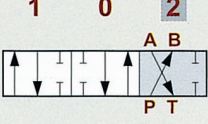
Monoblock Directional Control Valves

MB-3

TYPE 3

	<p>$P \rightarrow A$</p> <p>C & T closed</p>	 <p>"B" port plugged</p>
	<p>P & A & T closed</p> <p>C open</p>	 <p>"B" port plugged</p>
	<p>$A \rightarrow T$</p> <p>P closed</p> <p>C open</p>	 <p>"B" port plugged</p>

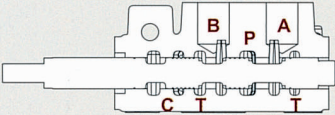
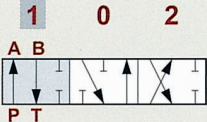
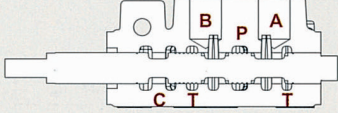
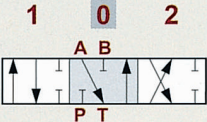
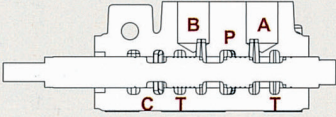
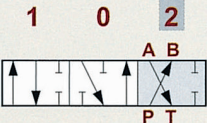
TYPE 5

	<p>$P \rightarrow A$</p> <p>$B \rightarrow T$</p> <p>C closed</p>	
	<p>$B \rightarrow T$</p> <p>A & P closed</p> <p>C open</p>	
	<p>$P \rightarrow B$</p> <p>$A \rightarrow T$</p> <p>C closed</p>	

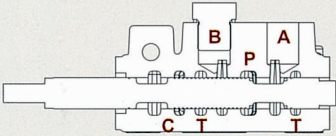
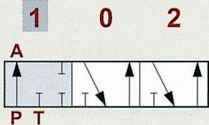
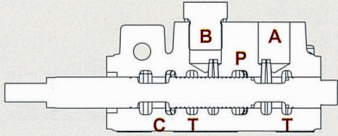
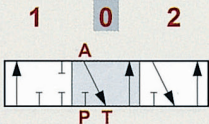
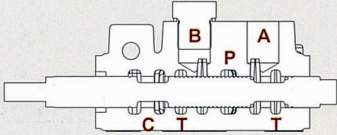
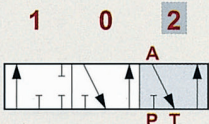
MB-3 Spool Options

Monoblock Directional Control Valves

TYPE 6

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

TYPE 7

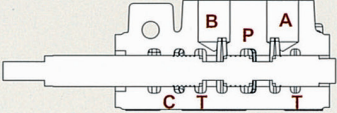
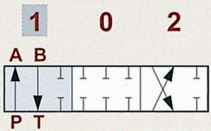
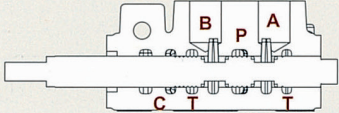
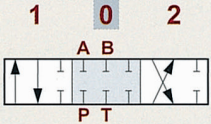
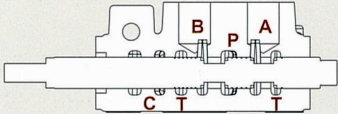
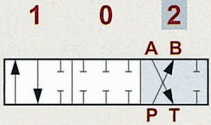
	<p>P → A</p> <p>C & T closed</p>	 "B" port plugged
	<p>A → T</p> <p>P closed</p> <p>C open</p>	 "B" port plugged
	<p>A → T</p> <p>P closed</p> <p>C open</p>	 "B" port plugged

MB-3 Spool Options

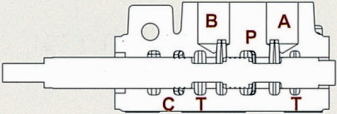
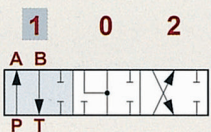
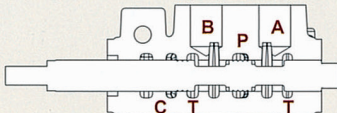
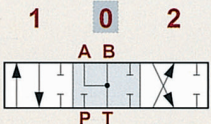
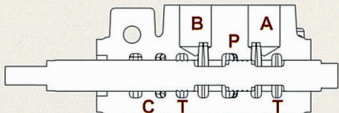
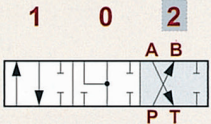
Monoblock Directional Control Valves

MB-3

TYPE 9

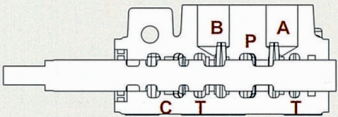
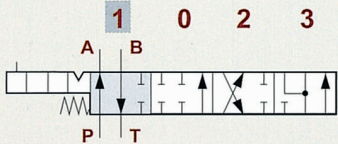
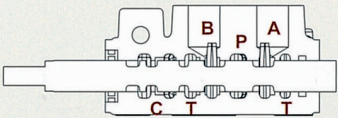
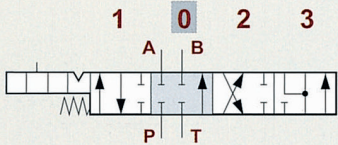
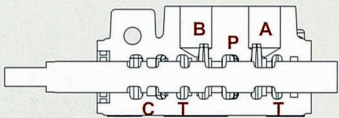
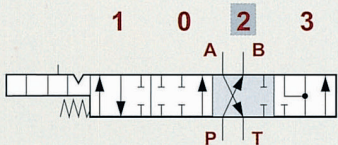
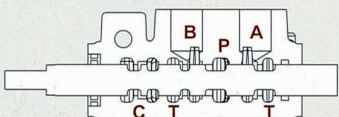
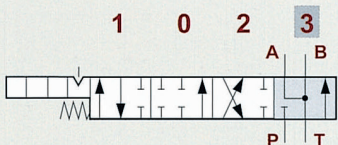
	<p>P → A</p> <p>B → T</p> <p>C closed</p>	
	<p>A & B & P & T closed</p> <p>C closed</p>	
	<p>P → B</p> <p>A → T</p> <p>C closed</p>	

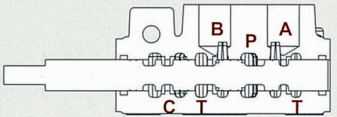
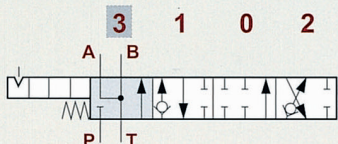
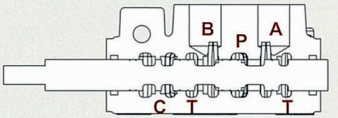
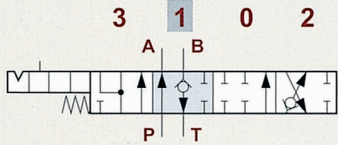
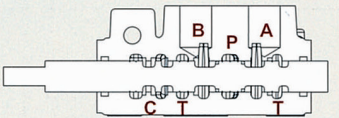
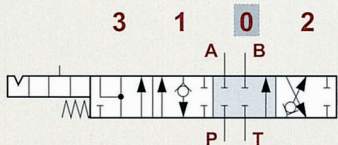
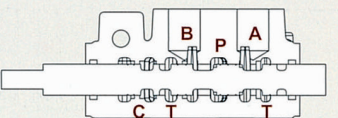
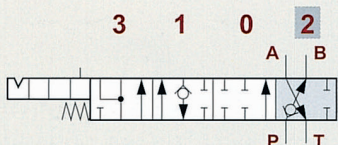
TYPE 10

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

MB-3 Spool Options

Monoblock Directional Control Valves

TYPE 5DY	NOTE: WITH SPECIAL BODY AND SPECIAL POSITIONER	
	P → A B → T C closed	
	P & A & B & T closed C open	
	P → B A → T C closed	
	A & B → T P closed C open	

TYPE 5PYX	NOTE: WITH SPECIAL BODY AND SPECIAL POSITIONER	
	A & B → T P closed C open	
	P → A B → T C closed	
	P & A & B & T closed C open	
	P → B A → T C closed	

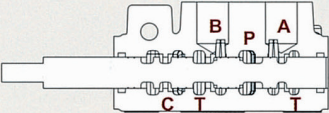
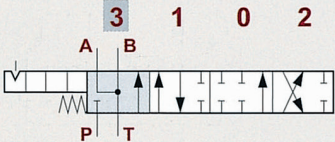
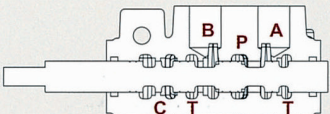
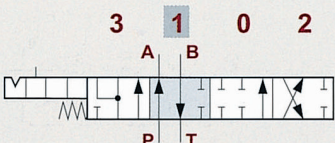
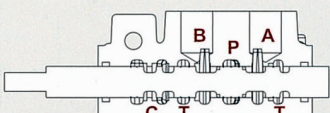
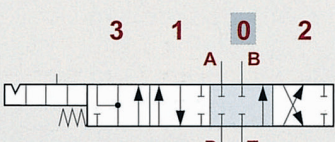
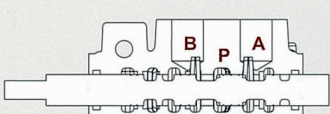
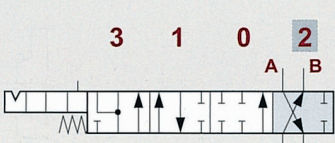
MB-3 spool Options

Monoblock Directional Control Valves

MB-3

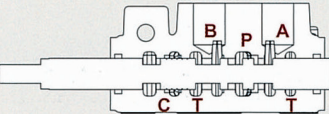
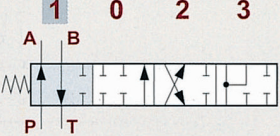
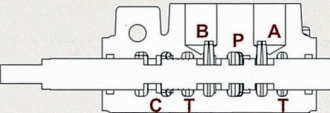
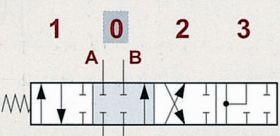
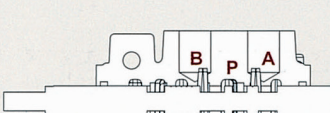
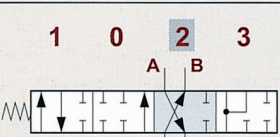

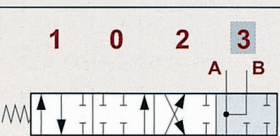
TYPE 5PY

NOTE: WITH SPECIAL BODY AND SPECIAL POSITIONER

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

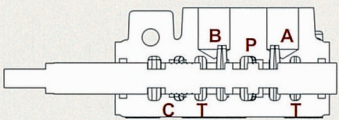
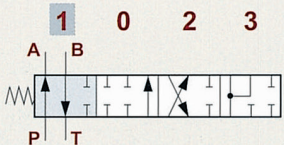
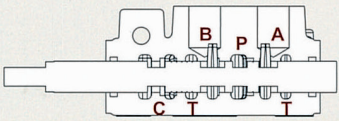
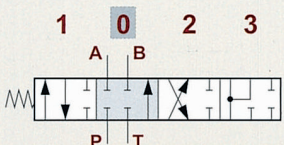
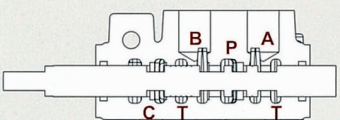
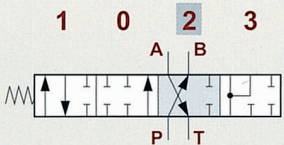
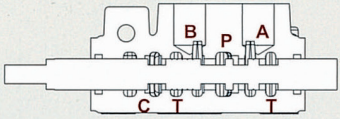
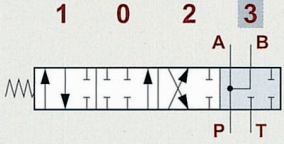
TYPE Z41

NOTE: WITH SPECIAL BODY AND SPECIAL POSITIONER

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

MB-3 Spool Options

Monoblock Directional Control Valves

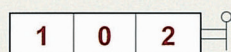
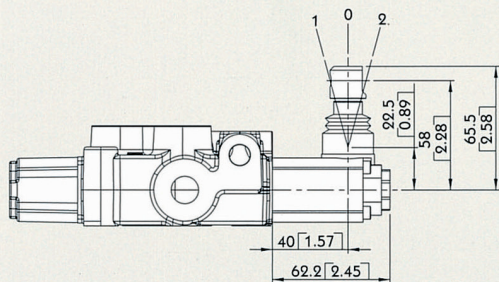
TYPE Z42		NOTE: WITH SPECIAL BODY AND SPECIAL POSITIONER	
	<p>P → A</p> <p>B → T</p> <p>C closed</p>		
	<p>P & A & B & T closed</p> <p>C open</p>		
	<p>P → B</p> <p>A → T</p> <p>C closed</p>		
	<p>P → A & B</p> <p>T & C closed</p>		

MB-3

MB-3 A Side

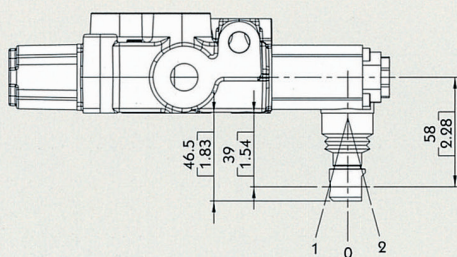
Monoblock Directional Control Valves

Type L



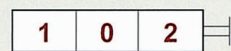
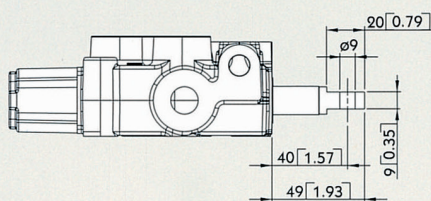
Type L :
STANDART LEVER KIT

Type R



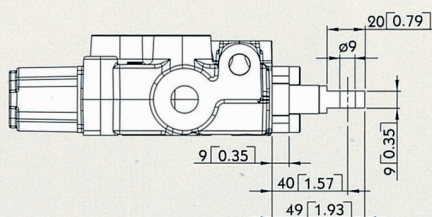
Type R :
STANDART LEVER KIT
(ROTATED 180 DEGREE)

Type SL



Type SL :
WITHOUT ANY COVER

Type SLP

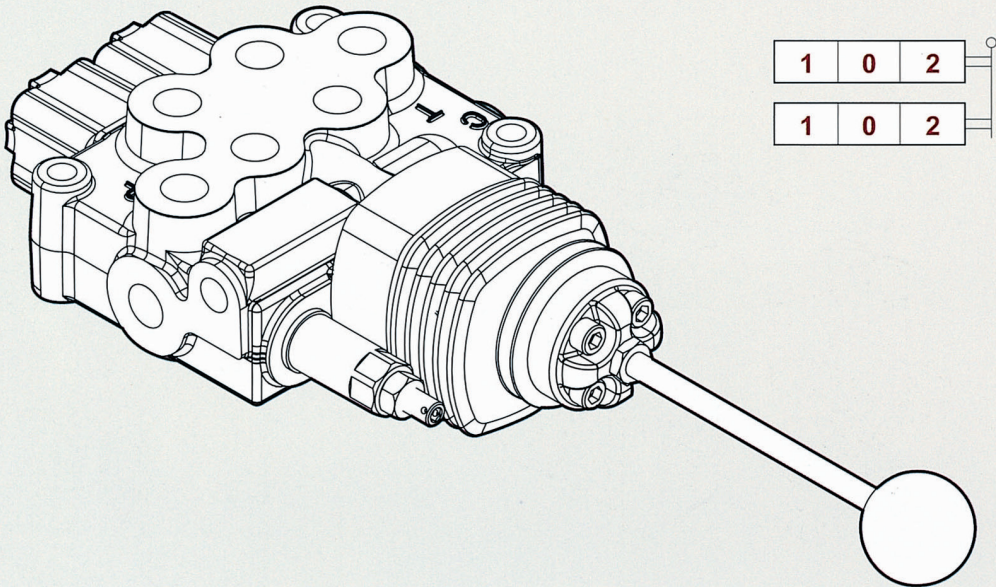


Type SLP :
WITH DUST-PROOF PLATE

MB-3 A Side

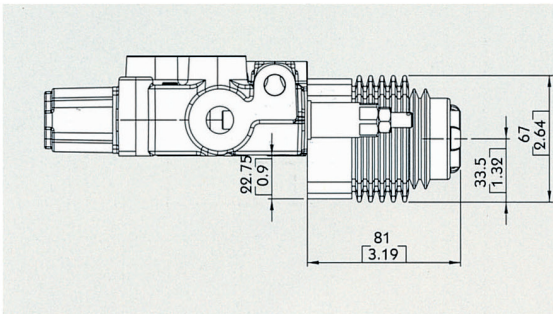
Monoblock Directional Control Valves

LCB: Joystick control

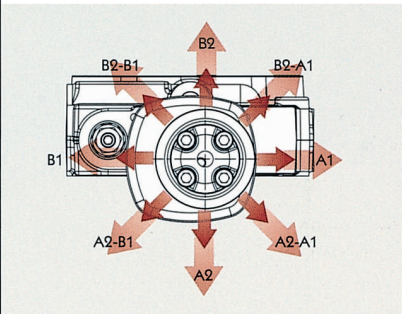


MB-3

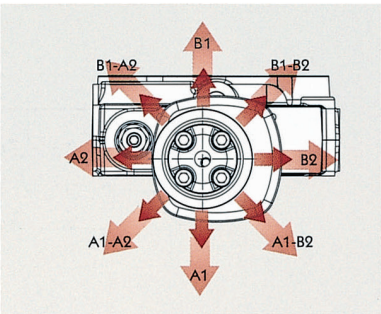
Type LCB



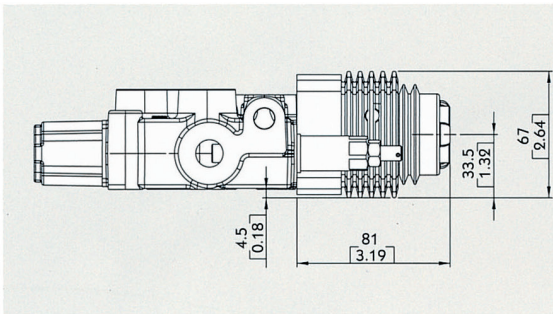
LCB1



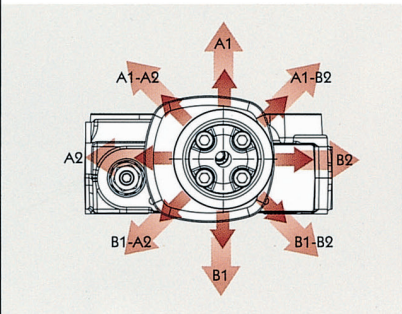
LCB2



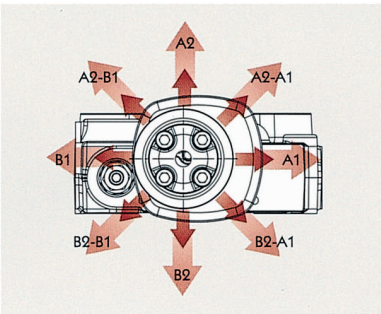
Type LCB



LCB3



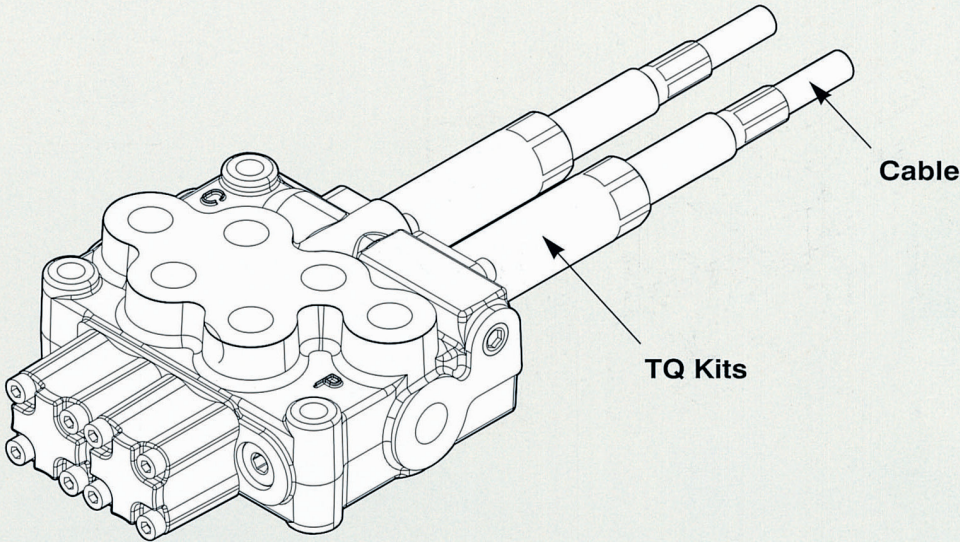
LCB4



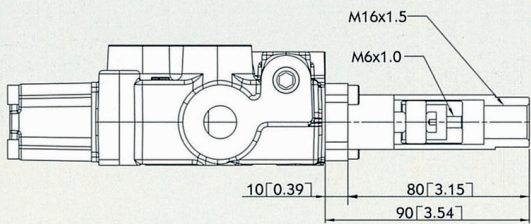
MB-3 A Side

Monoblock Directional Control Valves

Note : CONNECTION KIT NOT INCLUDE CABLE



Type TQ

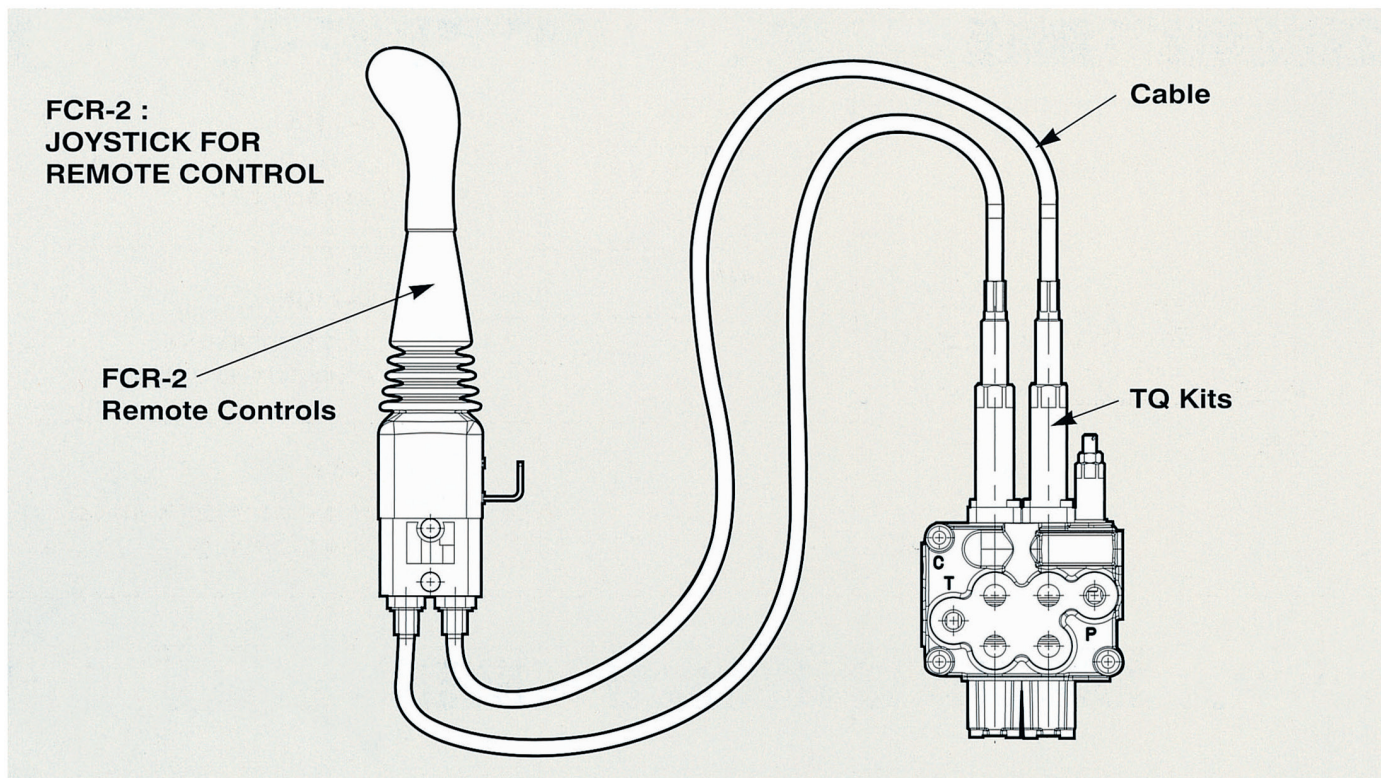


TQ Kit:

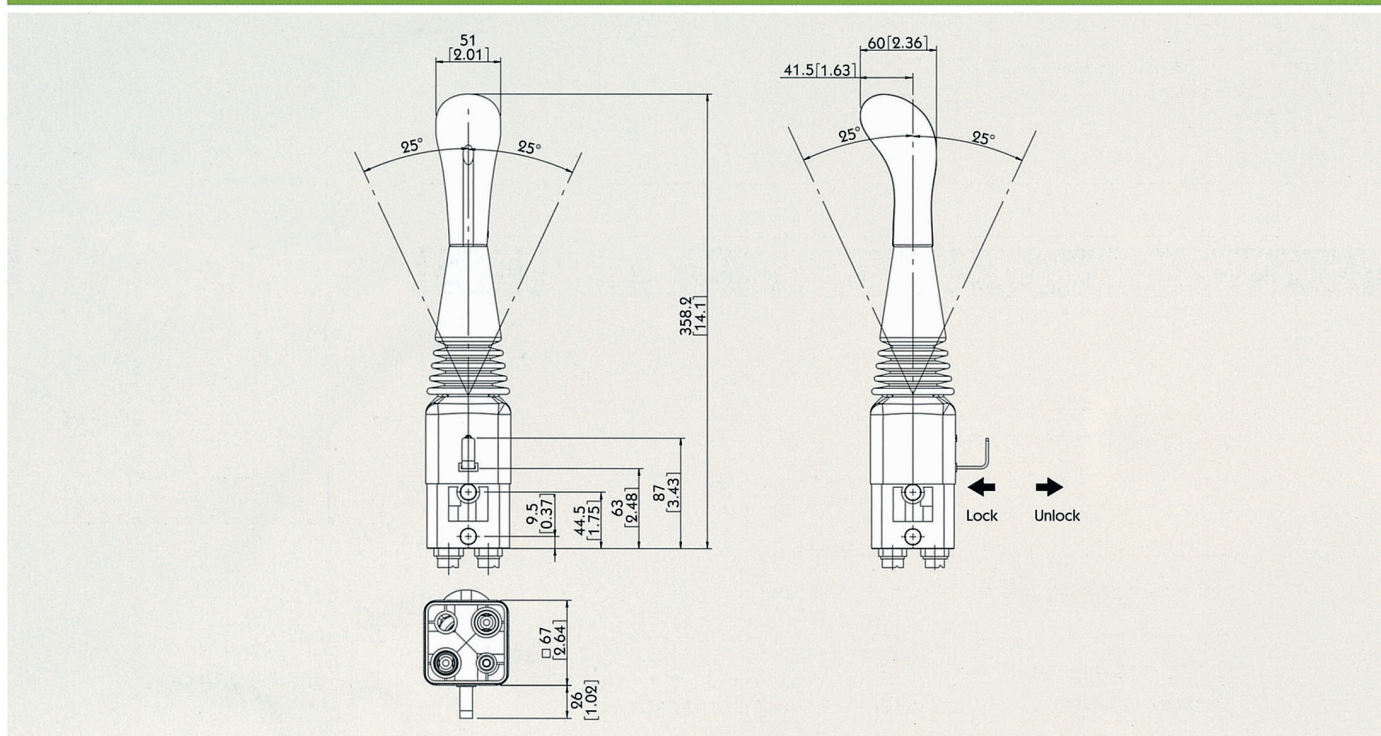
1	0	2
---	---	---

MB-3 A Side

Monoblock Directional Control Valves



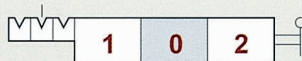
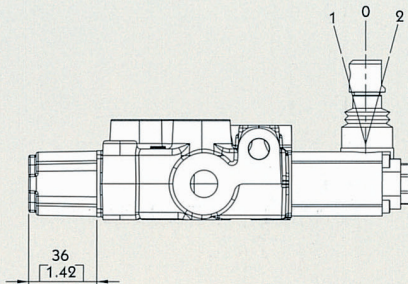
Type FCR-2



MB-3 B Side

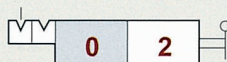
Monoblock Directional Control Valves

Type 6



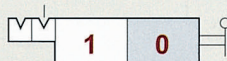
6-1 Kit:

DETENT IN POS. 1-0-2, WITHOUT SPRING CENTERED



6-2 Kit:

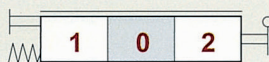
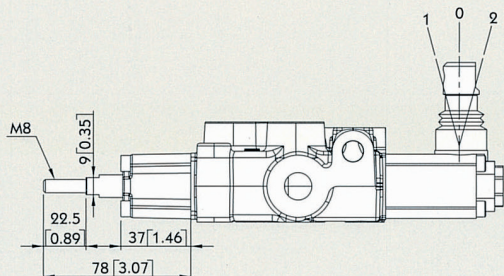
2 POSITIONS, DETENT IN POS. 0-2, WITHOUT SPRING CENTERED



6-3 Kit:

2 POSITIONS, DETENT IN POS. 1-0, WITHOUT SPRING CENTERED

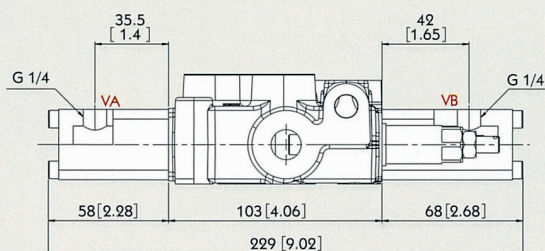
Type 8D2



8D2 Kit:

WITH SPRING RETURN TO NEUTRAL POSITION AND PIN WITH M8 MALE THREAD FOR DUAL CONTROL

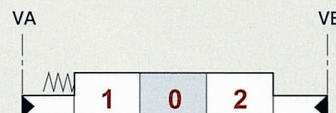
Type 8IM



Operating features :

PILOT PRESSURE : MAX. 50 BAR

INTERNAL LEAKAGE A(B) -> T : MAX. 6 CM³/MIN (100 BAR / 40°C)

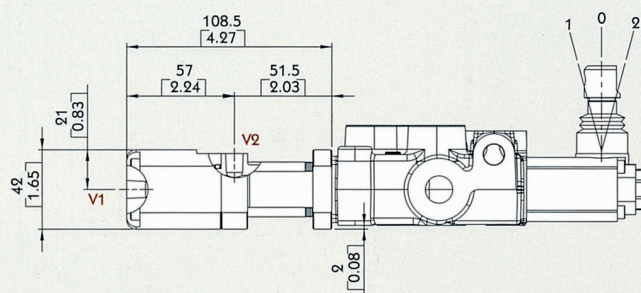


MB-3 B Side

Monoblock Directional Control Valves

Type 8P

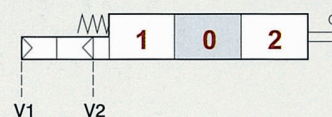
V1 & V2: NPT 1/8 - 27



Operating feature :

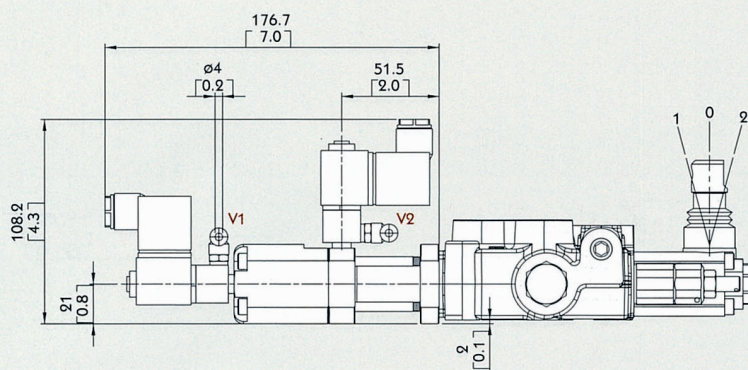
PILOT PRESSURE (MIN.): 5.5 BAR / 80 PSI

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



MB-3

Type 8EP3

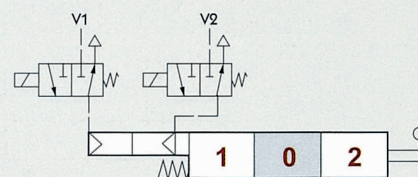


Solenoid operating features :

NOMINAL VOLTAGE: 24VDC

NOMINAL VOLTAGE TOLERANCE: $\pm 10\%$

POWER RATING: 5W

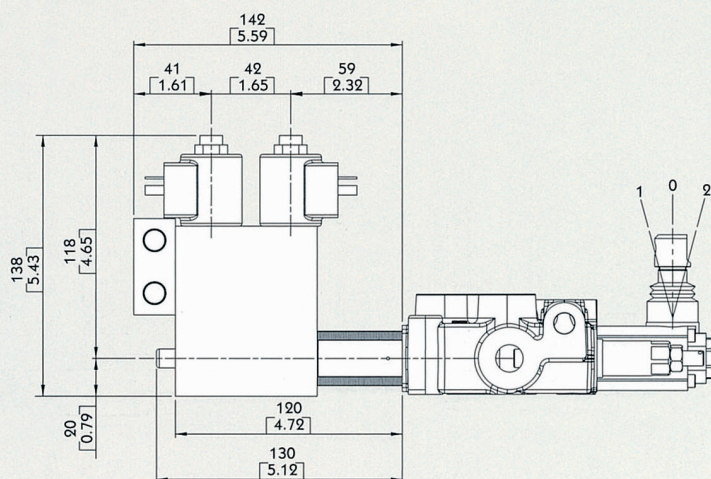
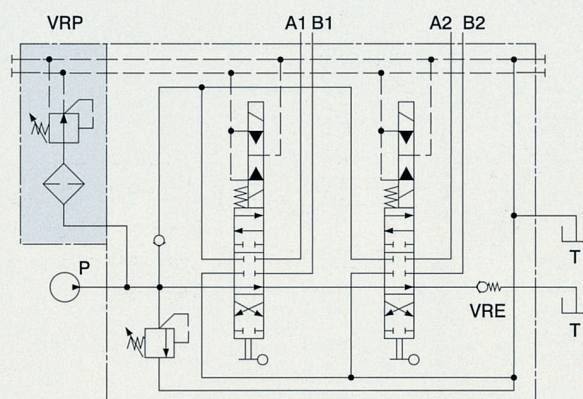
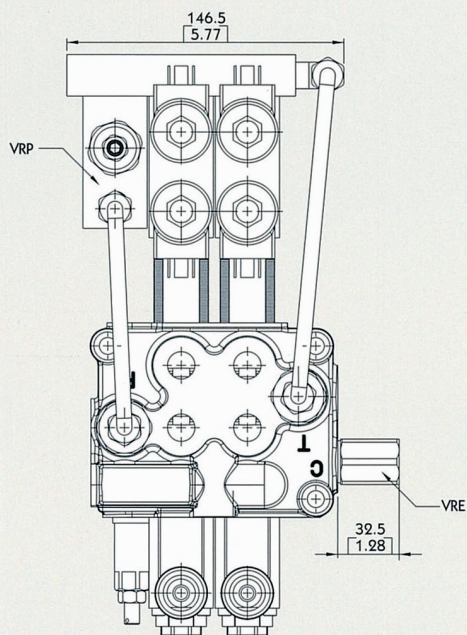


MB-3 B Side

Monoblock Directional Control Valves

MB-3

Type 8ED3

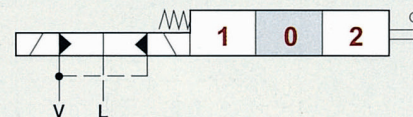


Operating features :

- PILOT PRESSURE:
- MIN. 10 BAR / 145 PSI
 - MAX. 50 BAR / 725 PSI
- MAX. BACKPRESSURE ON DRAIN L: 25 BAR / 360PSI

Coil features :

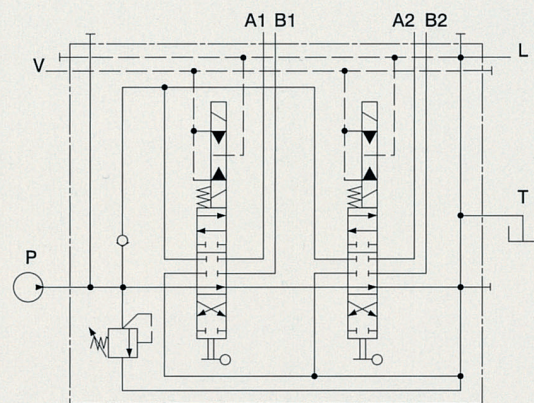
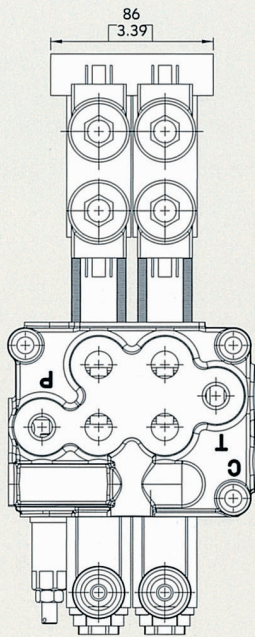
- NOMINAL VOLTAGE TOLERANCE: $\pm 10\%$
- ELECTRIC POWER: 21 W
- STANDARD VOLTAGE: 12 VDC / 24 VDC



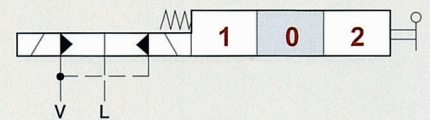
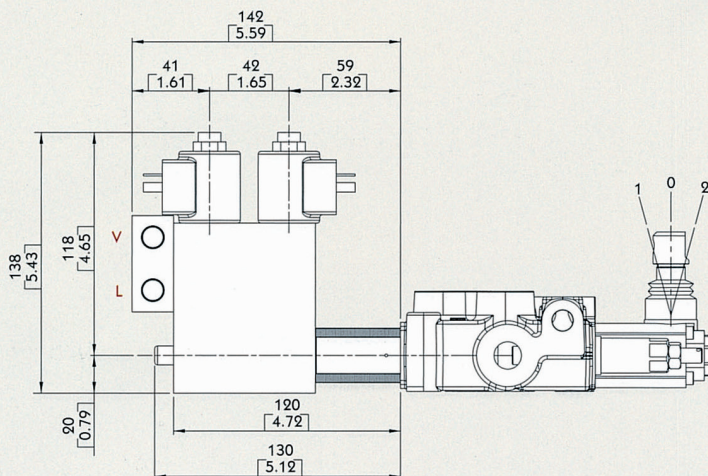
MB-3 B Side

Monoblock Directional Control Valves

Type 8ER3



MB-3



Operating features :

PILOT PRESSURE: • MIN. 10 BAR / 145 PSI
• MAX. 50 BAR / 725 PSI

MAX. BACKPRESSURE ON DRAIN L: 25 BAR / 360PSI

Coil features :

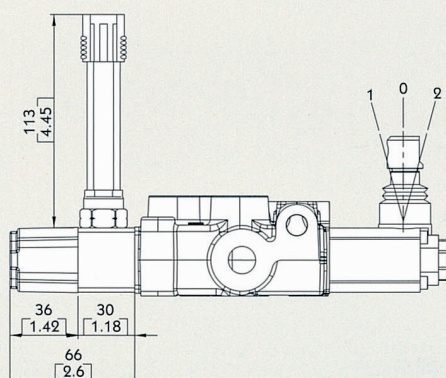
NOMINAL VOLTAGE TOLERANCE: $\pm 10\%$
ELECTRIC POWER: 21 W
STANDARD VOLTAGE: 12 VDC / 24 VDC

MB-3 B Side

Monoblock Directional Control Valves

MB-3

Type 8MG



MICROSWITCH

Operating features :

MECHANICAL LIFE: • 5X10⁵ OPERATIONS

ELECTRICAL LIFE (RESISTIVE LOAD):

- 10⁵ OPERATIONS - 7A / 13.5 VDC
- 5x10⁴ OPERATIONS - 10A / 12 VDC
- 5x10⁴ OPERATIONS - 3A / 28 VDC



8MG1 Kit:

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



8MG2 Kit:

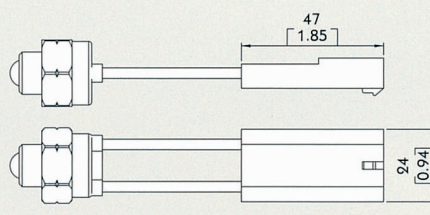
MICROSWITCH WITH MALE/FEMALE CONNECTOR, OPERATED IN POS. 2



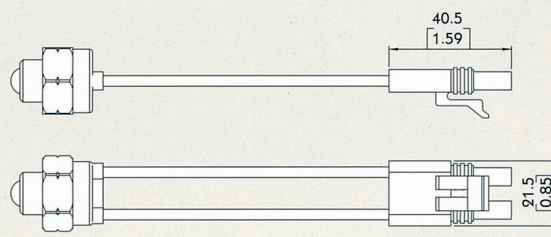
8MG3 Kit:

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

With NO contact (female connector with male end)



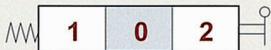
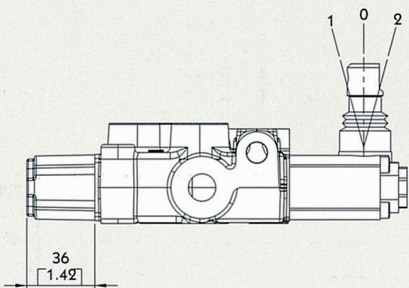
With NC contact (male connector with female end)



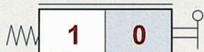
MB-3 B Side

Monoblock Directional Control Valves

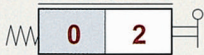
Type 8



8 Kit:
SPRING RETURN TO NEUTRAL POSITION.

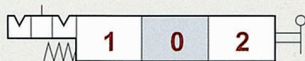
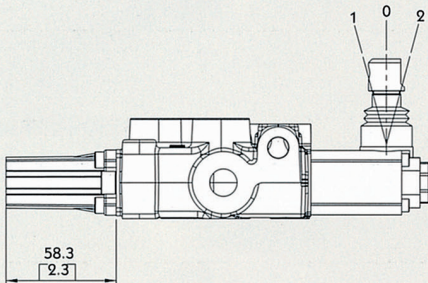


8-1 Kit:
SPRING RETURN TO NEUTRAL POSITION.
(2 POSITIONS)



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

Type 9



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

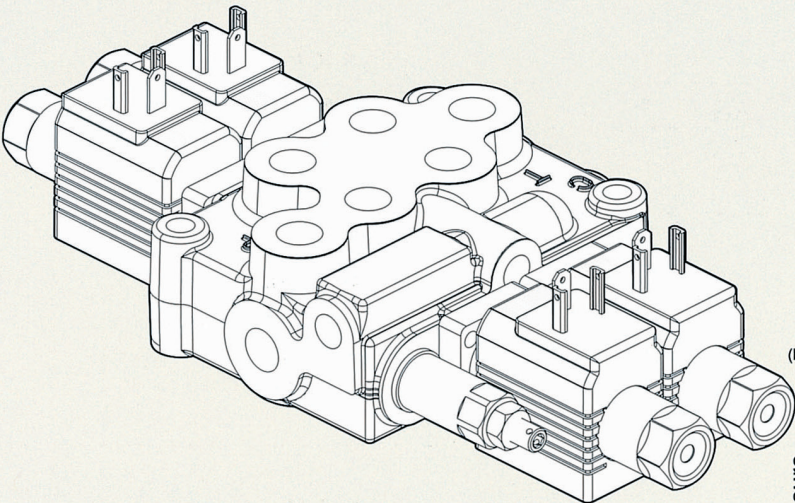


9-2 Kit:
DETENT IN POS. 2 WITH SPRING CENTERED



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

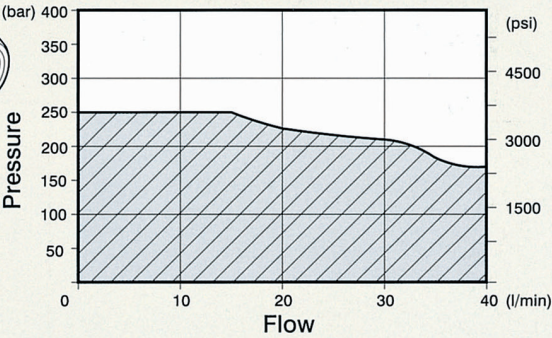
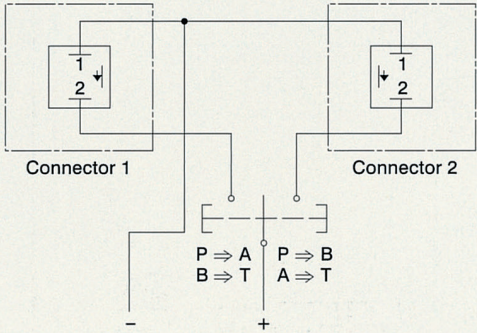
MB-3 B Side (Optional controls) Monoblock Directional Control Valves



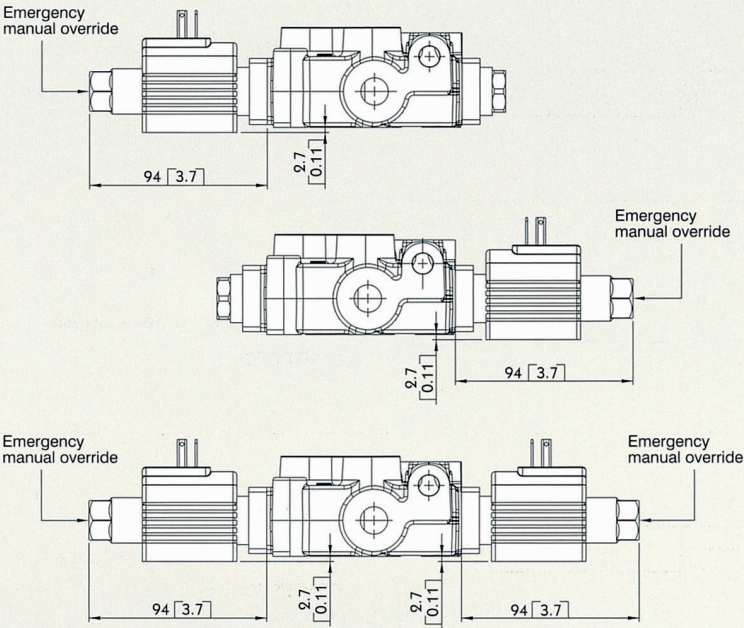
Coil features :

NOMINAL VOLTAGE TOLERANCE: $\pm 10\%$
 ELECTRIC POWER: 36 W
 STANDARD VOLTAGE: 12 VDC / 24 VDC

Electric wiring example



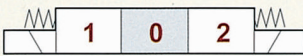
Type 8ES



8ES1 Kit:
 ACTING IN 1



8ES2 Kit:
 ACTING IN 2

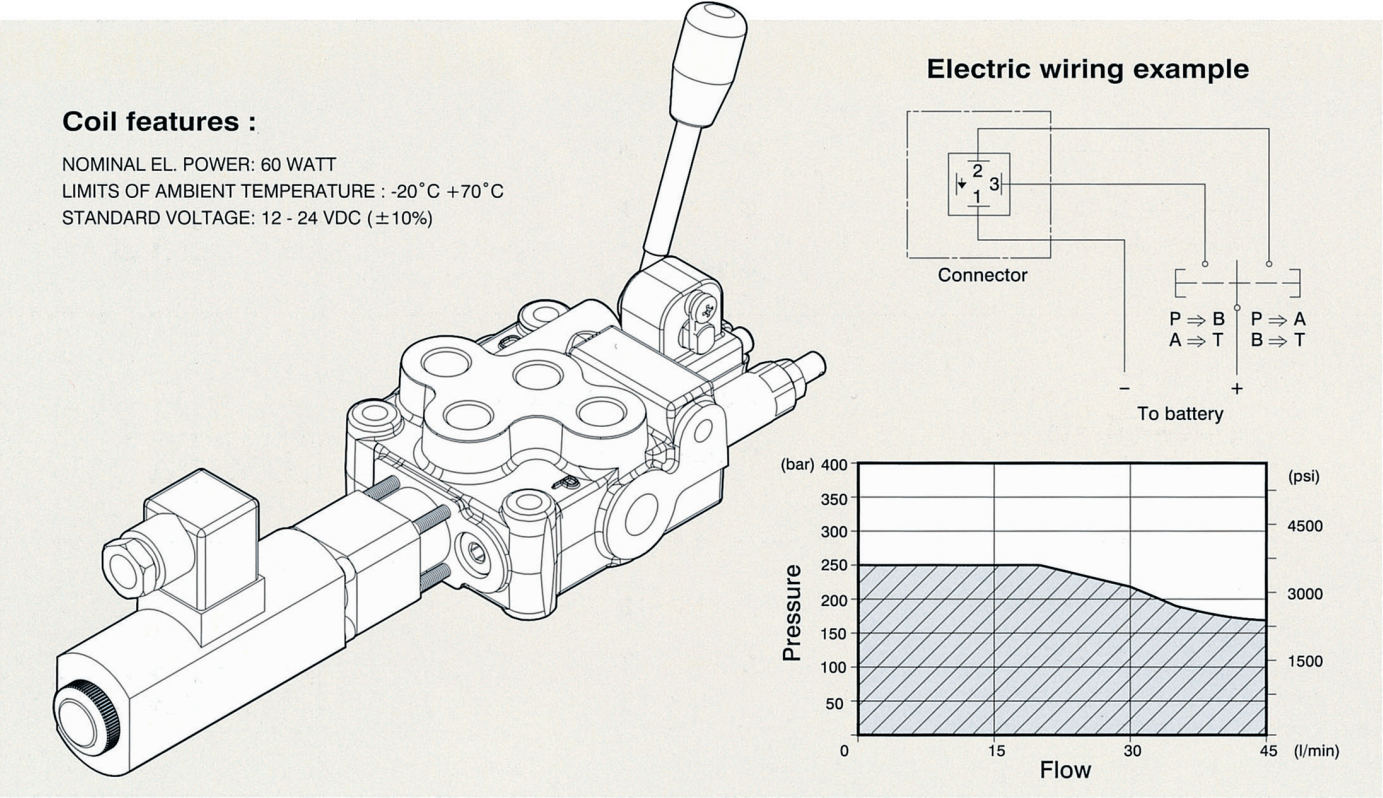


8ES3 Kit:
 ACTING IN 1 & 2

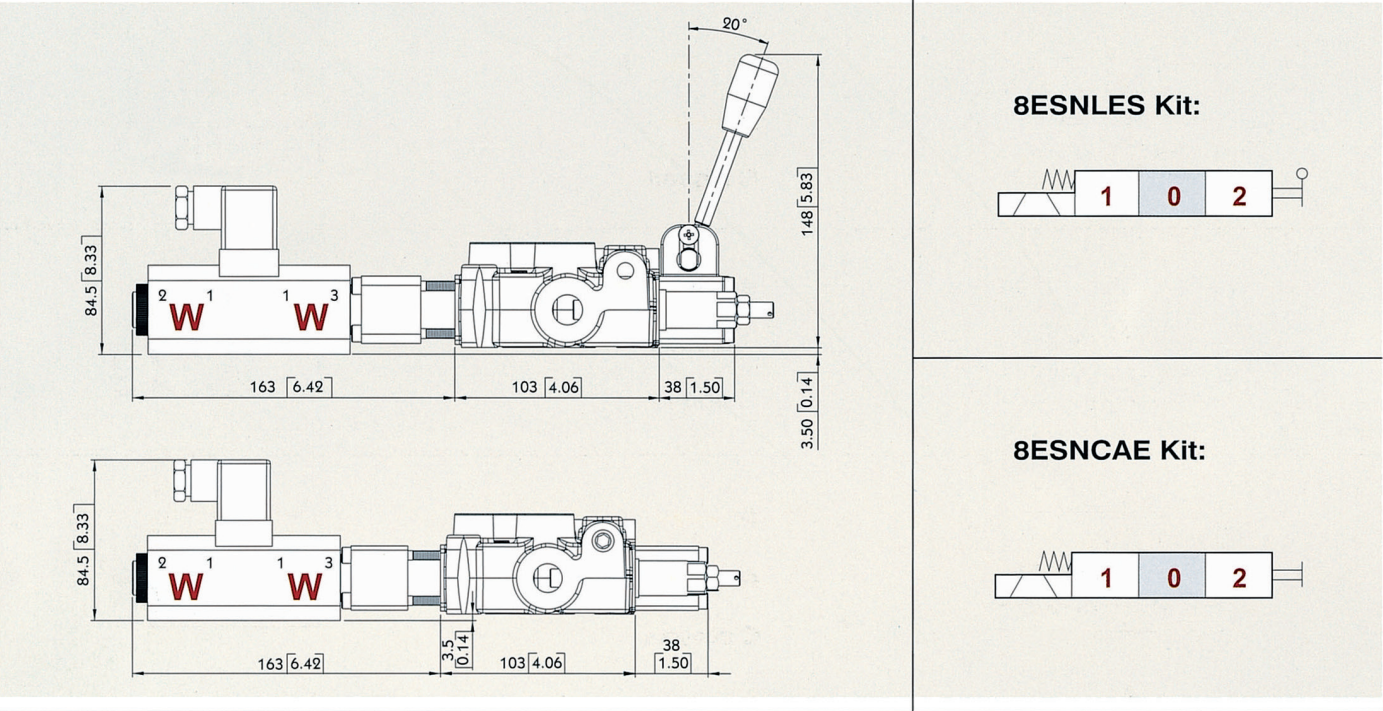
MB-3 B Side (Optional controls)

Monoblock Directional Control Valves

MB-3



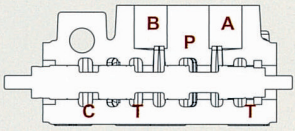
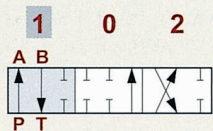
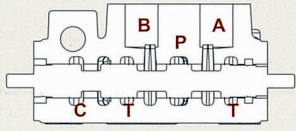
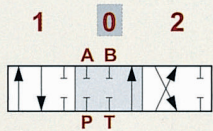
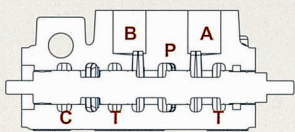
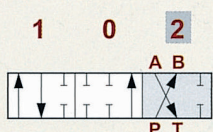
Type 8ESN



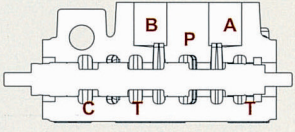
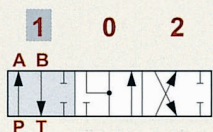
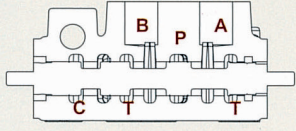
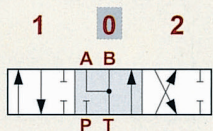
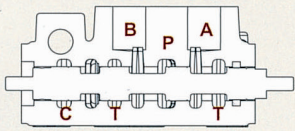
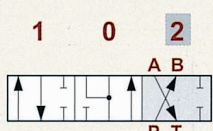
MB-3 special spool (Options for 8ES Kit)

Monoblock Directional Control Valves

Type 8ES3#1

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

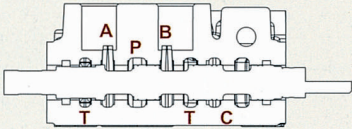
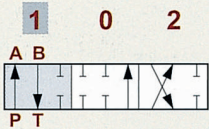
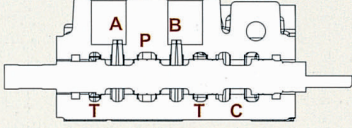
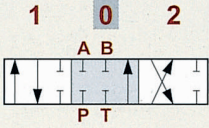
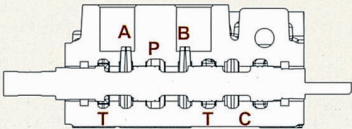
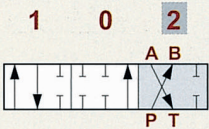
Type 8ES3#2

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

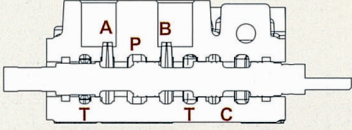
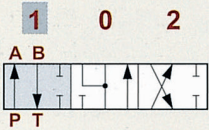
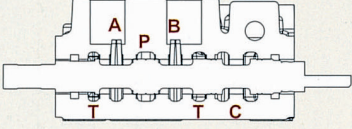
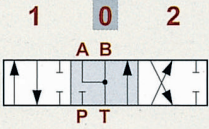
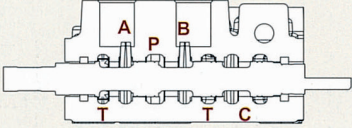
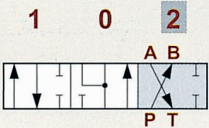
MB-3 special spool (Options for 8ESN Kit)

Monoblock Directional Control Valves

Type 8ESN#1

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

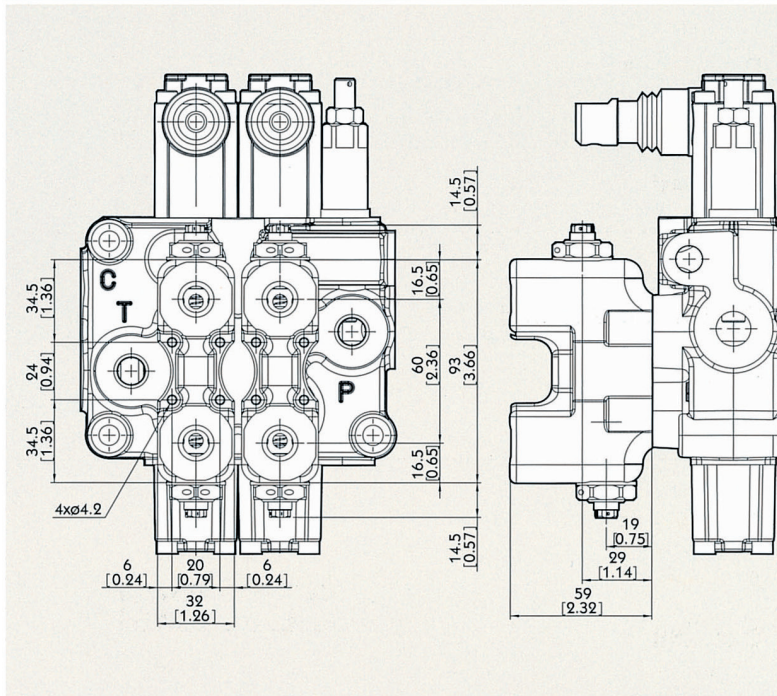
Type 8ESN#2

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

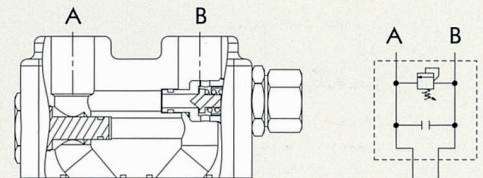
MB-3 service and auxiliary valves

Monoblock Directional Control Valves

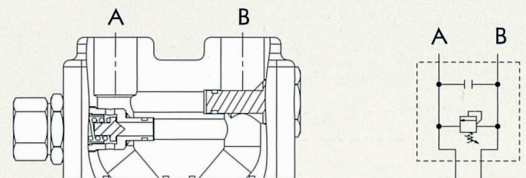
Type P



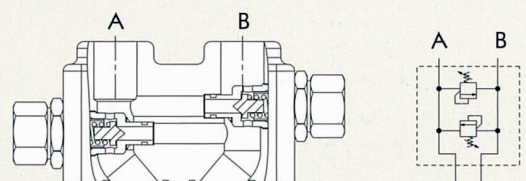
P1 Kit: Block with valve on port A



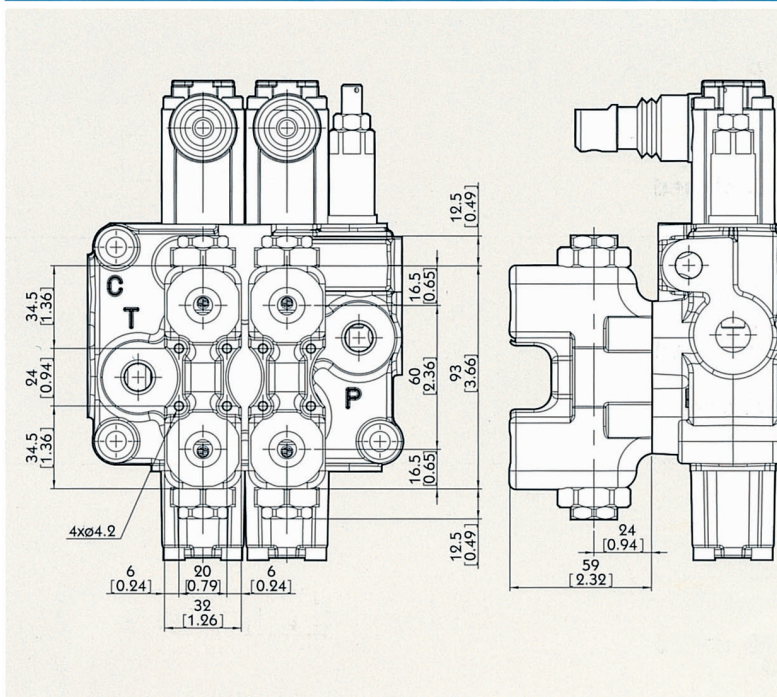
P2 Kit: Block with valve on port B



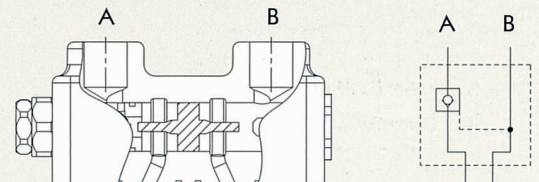
P3 Kit: Block with valve on port A and B



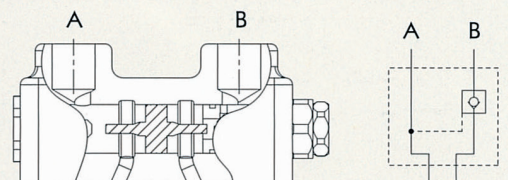
Type BPS Pilot check valves (With Pre-opening, supplied with mounting block)



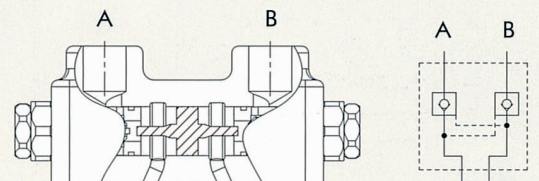
BPS1 Kit: Block with valve on port A



BPS2 Kit: Block with valve on port B



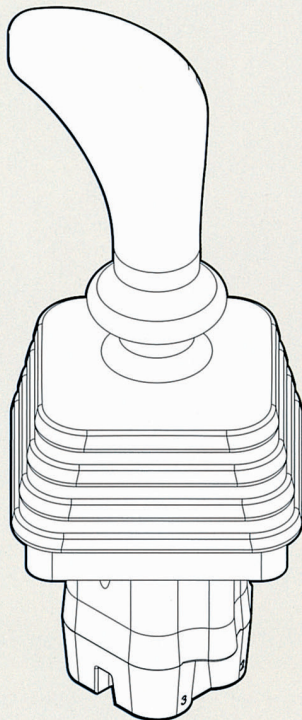
BPS3 Kit: Block with valve on port A and B



MB-3 Accessories

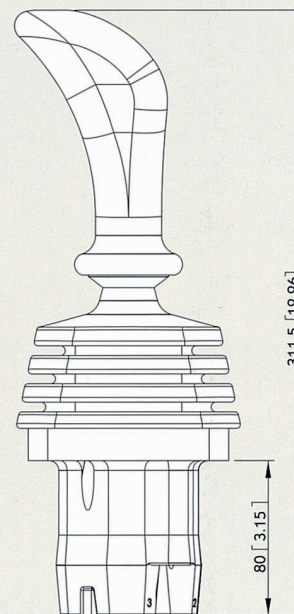
Sectional Directional Control Valves

Type JHP-2

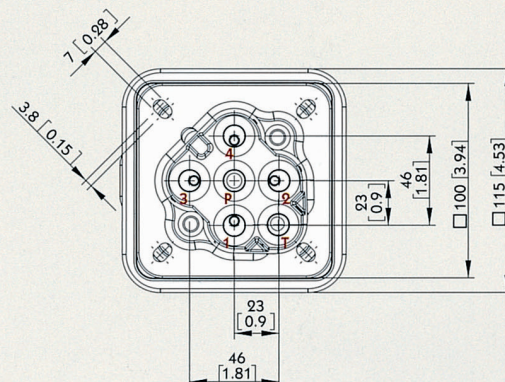
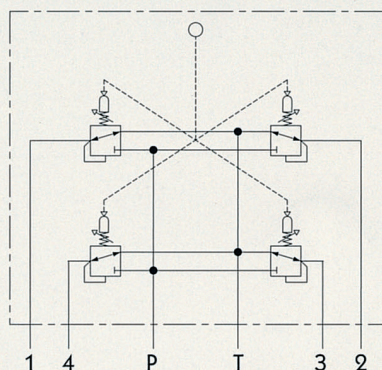


Specifications:

- This data sheet shows technical spec. with mineral oil of 46 mm²/s (cSt) viscosity at 40°C (104°F)
- Flow : 5 ~ 20 LPM
- Feeding pressure : 30 ~ 100 bar
- Max. backpressure : 3 bar
- Internal leakage at 30 bar : 10 ~ 18 cm³/min
- Fluid : mineral oil
- Fluid temperature : - 10 ~ 80°C
- Ambient temperature : - 40 ~ 60°C



HYDRAULIC SCHEME:



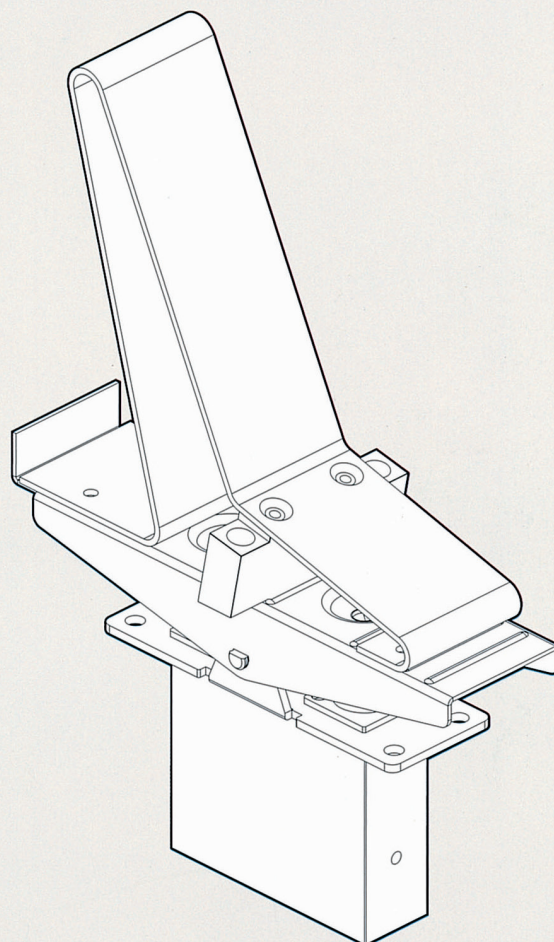
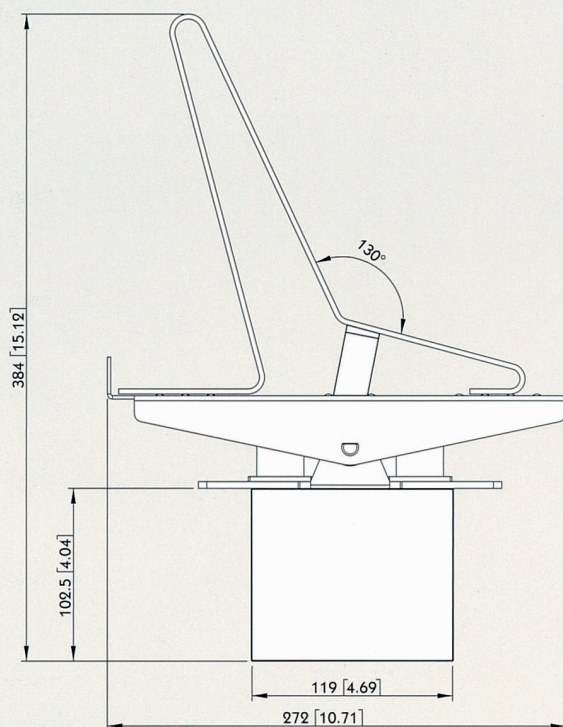
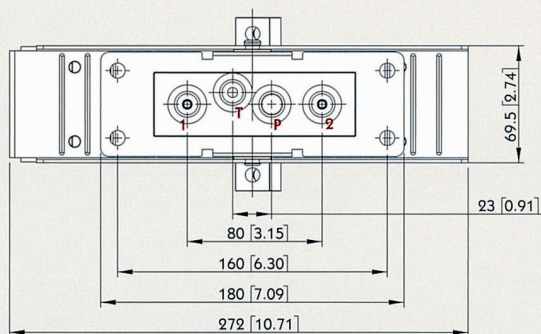
MB-3 Accessories

Sectional Directional Control Valves

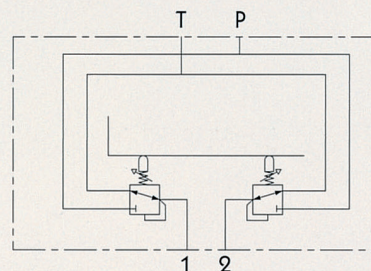
Type PHP-1

Specifications:

- This data sheet shows technical spec. with mineral oil of 46 mm²/s (cSt) viscosity at 40°C (104°F)
- Flow : 5 ~ 20 LPM
- Feeding pressure : 30 ~ 100 bar
- Max. backpressure : 3 bar
- Internal leakage at 30 bar : 10 ~ 18 cm³/min
- Fluid : mineral oil
- Fluid temperature : - 10 ~ 80°C
- Ambient temperature : - 40 ~ 60°C



HYDRAULIC SCHEME:



MB-3 Outlet

Monoblock Directional Control Valves

Power Beyond Conversion plug
(Closed center plug)

