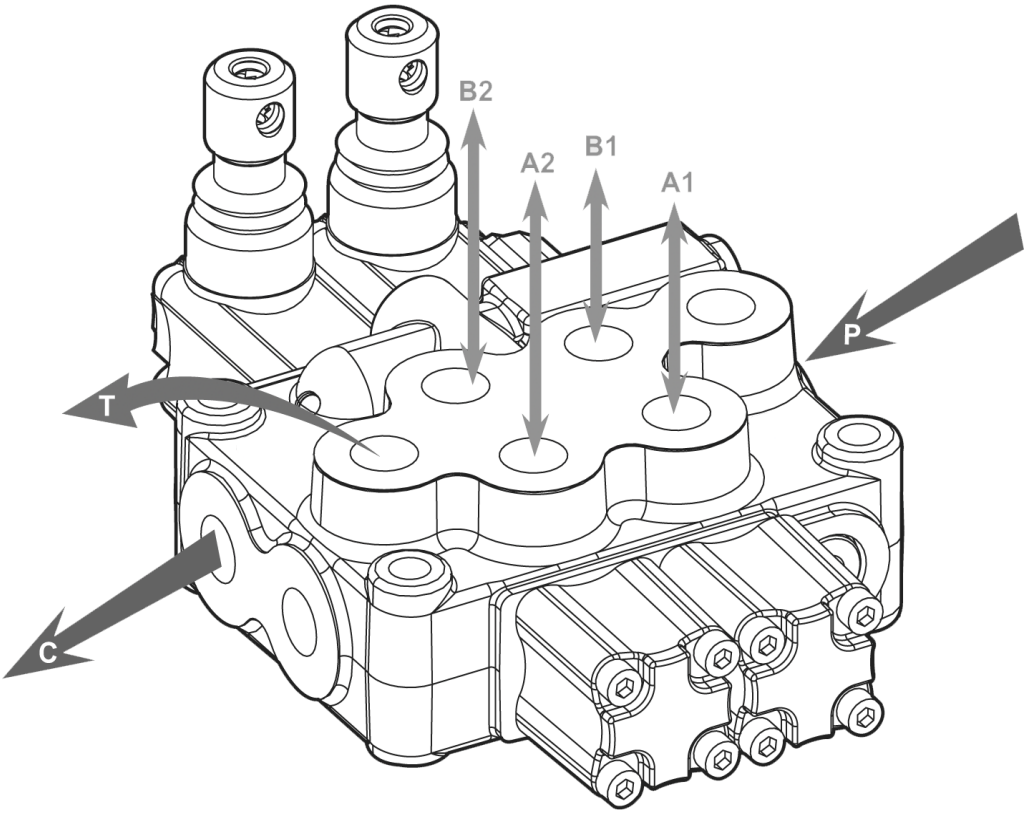
VM3

Monoblock Directional Control Valves



VM3 Specifications

Nominal flow rate		**45 l/min**	**12 US gpm**
Operating pressure (maximum)	parallet or tandem circuit	315 bar	4600 psi
	series circit	210 bar	3050 psi
Back pressure (maximum)	on outlet port T	25 bar	360 psi
Fluid temperature range	with NBR(BUNA-N) seals	from -20°C to 80°C	from -4° to 176°F
	with FPM(VITON) seals	from -20°C to 100°C	from -4° to 212°F
Viscosity	operating range	from 15 to 75 mm^2/s	from 15 to 75 cst
	min	12 mm^2/s	12 cst
	max.	400 mm^2/s	400 cst
Ambient temperature range		from -40°C to 60°C	from -40° to 140°F

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

VM3

Monoblock Directional Control Valves

VM3 / 2S - 3 / 1 8 L /G-3 /M3

1 2 3 4 5

1 Body

2 Inlet relief

3 Spool options

4 "B" side spool positioners

5 "A" side controls

1:	Body	WITHOUT SERVICE PORT VALVES PREARRANGEMENT (INCLUDE BODY, SEALS, RINGS AND LOAD CHECK VALVE.)
TYPE		**DESCRIPTION**
1 - S		1 section
2 - S		2 section
3 - S		3 section
4 - S		4 section
5 - S		5 section
6 - S		6 section

2:	Inlet Relief		
TYPE	**CODE**	**DESCRIPTION**	
DG-2	VM32002	Range 40 to 80 bar / 580 to 1150 psi, standard setting 80 bar / 1150 psi	
DG-3	VM32003	Range 63 to 200 bar / 900 to 2900 psi, standard setting 120 bar / 1750 psi	
DG-4	VM32004	Range 160 to 315 bar / 2300 to 4600 psi, standard setting 220 bar / 3200 psi	
SV	VM32100	Relief valve blanking plug	

VM3

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3:	Spool Options		
	TYPE	CODE	DESCRIPTION
	1	VM33001	Double acting, 3 positions, with A, B closed in neutral position
	2	VM33002	Double acting, 3 positions, with A, B open to Tank in neutral position
	3	VM33003	Single acting on A closed in neutral position, 3 positions, B plugged
	5	VM33005	Double acting, 3 positions, with B open to Tank in neutral position
	6	VM33006	Double acting, 3 positions, with A open to Tank in neutral position
	7	VM33007	Single acting on A open to Tank in neutral position, 3 positions, B plugged
	9	VM33009	Double acting, 3 positions, with P, T, A, B closed in neutral position (Closed center)
	10	VM33010	Double acting, 3 positions, with A, B open to Tank and P, T closed in neutral position (Closed center)
	5DY	VM33052	Double acting, 4 positions, floating circuit in 4th position with A, B open to Tank by pulling the lever
	5PYX	VM330511	Double acting, 4 positions, floating circuit in 4th position with A, B open to Tank by pushing the lever (with check valve)
	5PY	VM33051	Double acting, 4 positions, floating circuit in 4th position with A, B open to Tank by pushing the lever
	Z41	VM33041	Double acting, 4 positions, regenerative circuit in 4th position with P open to A, B by pulling the lever (Rest in pos.1)
	Z42	VM33042	Double acting, 4 positions, regenerative circuit in 4th position with P open to A, B by pulling the lever (Rest in pos.0)

4:	B Side Spool Positioners		
	TYPE	CODE	DESCRIPTION
	6-1	VM44061	Detent in pos. 1-0-2, without spring centered
	6-2	VM44062	2 positions, detent in pos. 0-2, without spring centered
	6-3	VM44063	2 positions, detent in pos. 1-0, without spring centered
	8D2	VM44200	With spring return to neutral position and pin with M8 male thread for dual control
	8EP3	VM44300	ON/OFF Electro-Pneumatic actuator
	8P	VM44080	ON/OFF Pneumatic actuator
	8MG1 (NO)	VM44801	Microswitch kit operated in pos. 1 (Normally Open)
	8MG2 (NO)	VM44802	Microswitch kit operated in pos. 2 (Normally Open)
	8MG3 (NO)	VM44803	Microswitch kit operated in pos. 1&2 (Normally Open)
	MG (NO)	VM44804	Microswitch with NO terminal
	8MG1 (NC)	VM448011	Microswitch kit operated in pos. 1 (Normally Closed)
	8MG2 (NC)	VM448021	Microswitch kit operated in pos. 2 (Normally Closed)
	8MG3 (NC)	VM448031	Microswitch kit operated in pos. 1&2 (Normally Closed)
	MG (NC)	VM448041	Microswitch with NC terminal
	8	VM44008	With spring return to neutral position
	8-1	VM44081	2 positions, with spring centered from pos. 1
	8-2	VM44082	2 positions, with spring centered from pos. 2
	9-1	VM44091	Detent in pos. 1, 2 with spring centered
	9-2	VM44092	Detent in pos. 2 with spring centered
	9-3	VM44093	Detent in pos. 1 with spring centered

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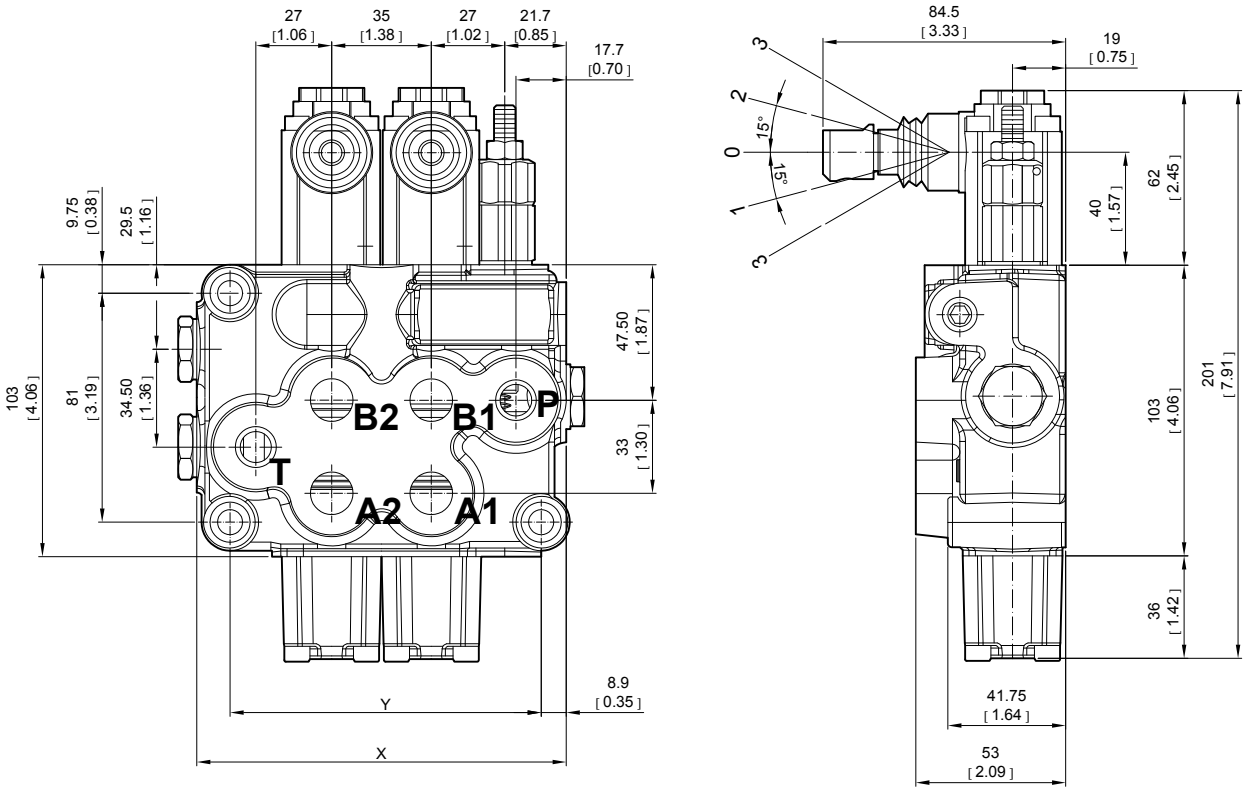
4: B Side Spool Positioners			
TYPE	**CODE**	**DESCRIPTION**	
8ED3+RV-KE1R3	VM44201	1S: ON/OF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	
8ED3+RV-KE2R3	VM44202	2S: ON/OF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	
8ED3+RV-KE3R3	VM44203	3S: ON/OF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	
8ED3+RV-KE4R3	VM44204	4S: ON/OF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	
8ED3+RV-KE5R3	VM44205	5S: ON/OF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	
8ED3+RV-KE6R3	VM44206	6S: ON/OF Electro-Hydraulic control kit with pilot and drain line+backpressure valve (12/24 VDC)	
8ER3+KE1SO	VM44401	1S: ON/OF Electro-Hydraulic control kit with collector kit for external pilot and drain	
8ER3+KE2SO	VM44402	2S: ON/OF Electro-Hydraulic control kit with collector kit for external pilot and drain	
8ER3+KE3SO	VM44403	3S: ON/OF Electro-Hydraulic control kit with collector kit for external pilot and drain	
8ER3+KE4SO	VM44404	4S: ON/OF Electro-Hydraulic control kit with collector kit for external pilot and drain	
8ER3+KE5SO	VM44405	5S: ON/OF Electro-Hydraulic control kit with collector kit for external pilot and drain	
8ER3+KE6SO	VM44406	6S: ON/OF Electro-Hydraulic control kit with collector kit for external pilot and drain	

5: A Side controls			
TYPE	**CODE**	**DESCRIPTION**	
L	VM45000	Standard lever box	
SLP	VM45001	Without lever box, with dust-proof plate	
LCB	VM45002	Joystick lever for 2 section operation	
TQ	VM45003	Flexible cable connection	

VM3 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**

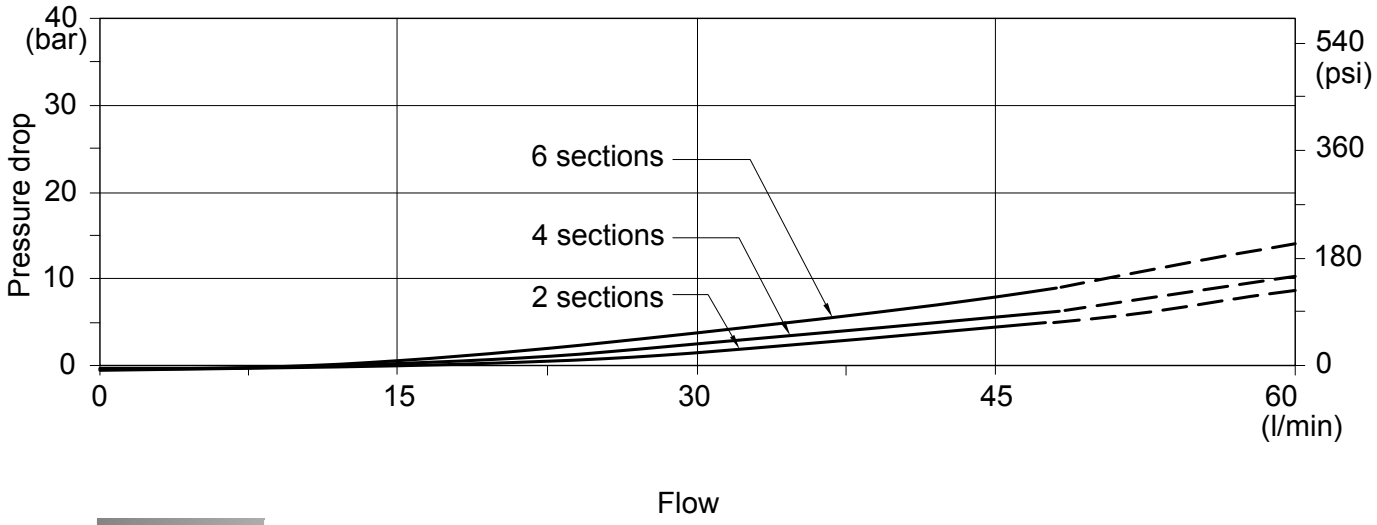
Standard dimensions

TYPE	X		Y	
	mm	in	mm	in
VM3/1S	93.5	3.68	73	2.87
VM3/2S	130.5	5.14	110	4.33
VM3/3S	165.5	6.52	147	5.79
VM3/4S	202.5	7.97	184	7.24
VM3/5S	239.5	9.43	221	8.7
VM3/6S	276.5	10.89	258	10.16

VM3 Performance curve chart

Monoblock Directional Control Valves

P to T



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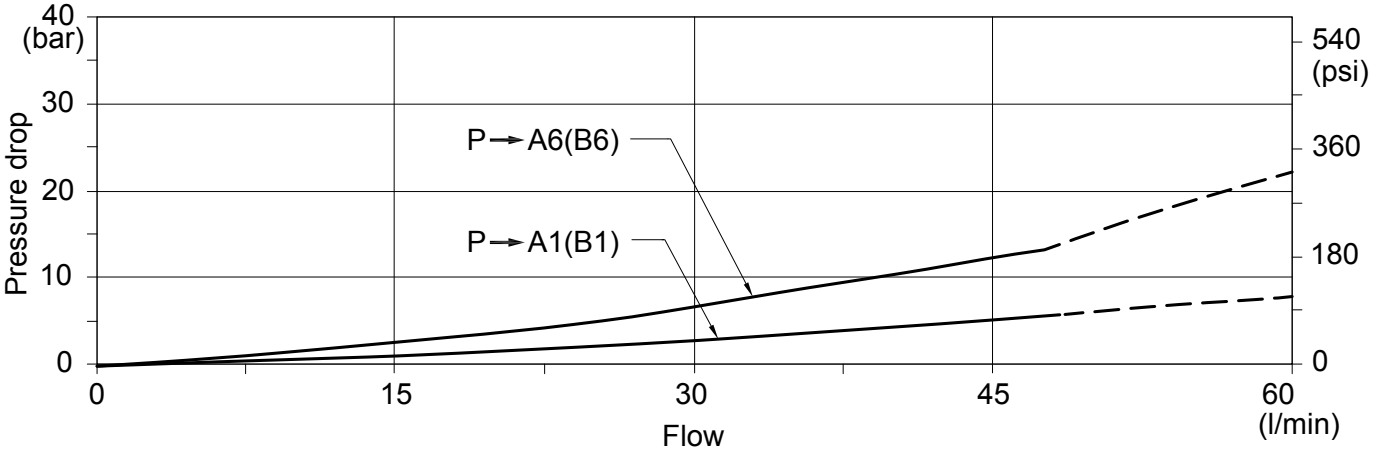
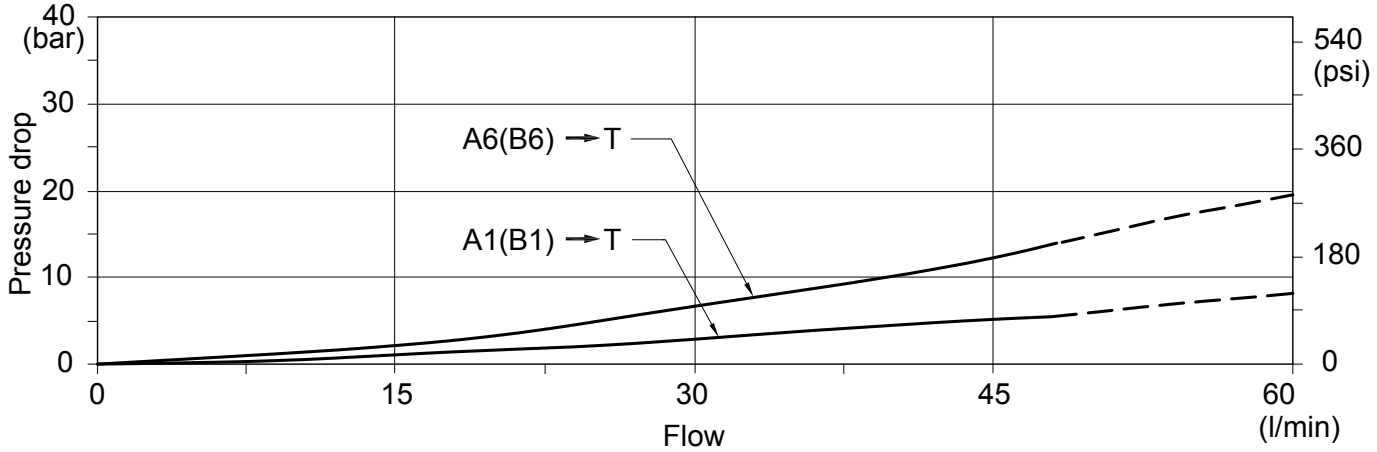


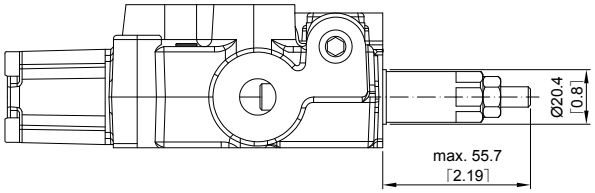
A(B) to T



VM3 Inlet Relief (Optional)

Monoblock Directional Control Valves

Type DG



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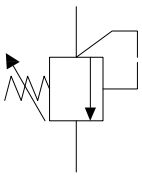

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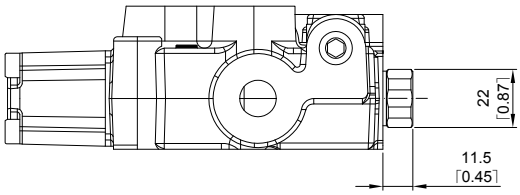
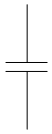


Relief valve blanking plug:



VM3 Spool Options

Monoblock Directional Control Valves

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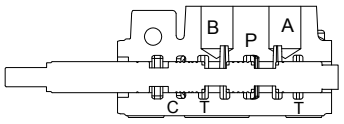
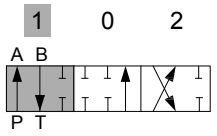
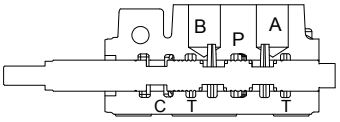
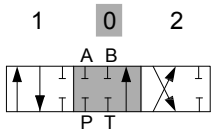
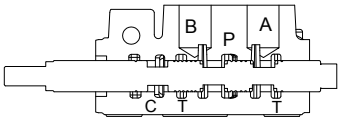
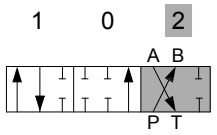
	P → A B → T C closed	
	A & B & P & T closed C open	
	P → B A → T C closed	

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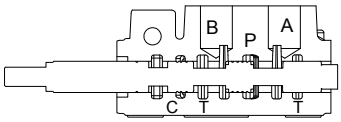
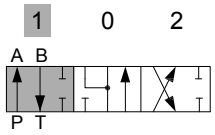
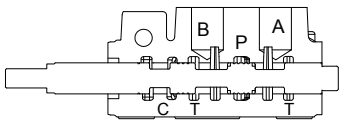
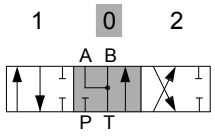
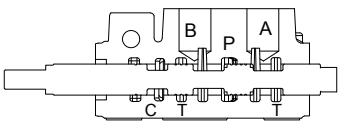
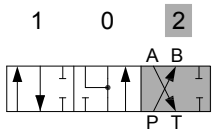
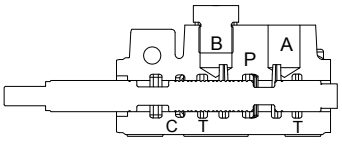
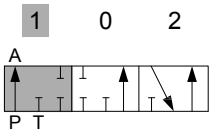
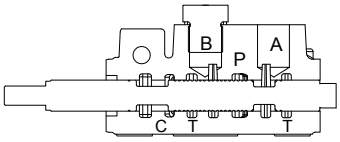
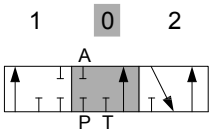
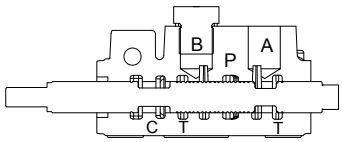
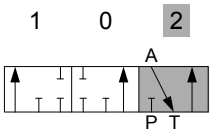
	P → A B → T C closed	
	A & B → T P closed C open	
	P → B A → T C closed	

VM3 Spool Options

Monoblock Directional Control Valves

TYPE 3

	P → A C & T closed	 "B" port plugged
	P & A & T closed C open	 "B" port plugged
	A → T P closed C open	 "B" port plugged

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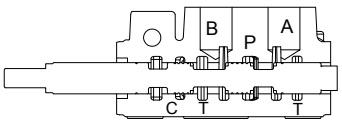
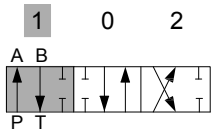
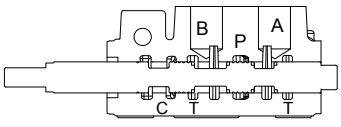
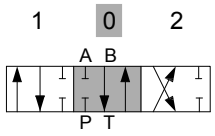
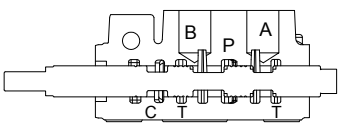
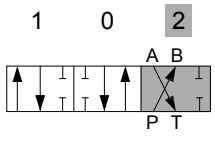
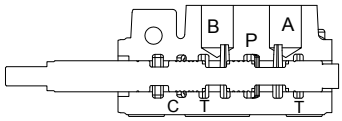
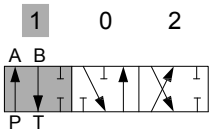
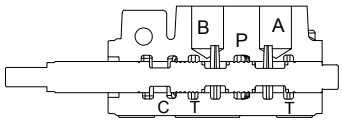
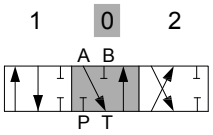
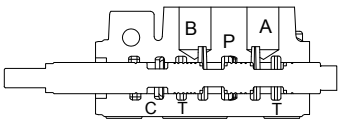
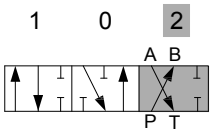
	P → A B → T C closed	
	B → T A & P closed C open	
	P → B A → T C closed	

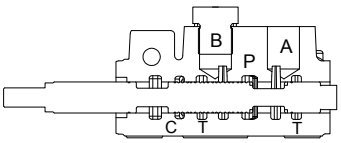
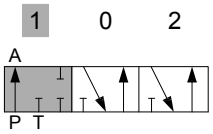
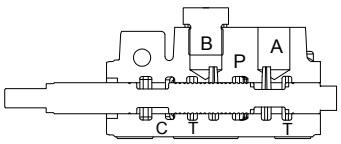
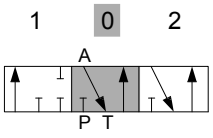
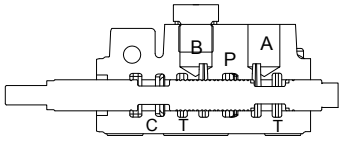
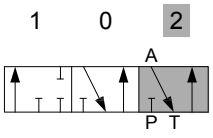
VM3 Spool Options

Monoblock Directional Control Valves

TYPE 6

	P → A B → T C closed	
	A → T P & B closed C open	
	P → B A → T C closed	

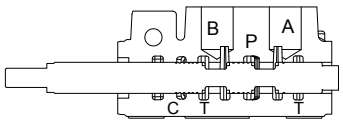
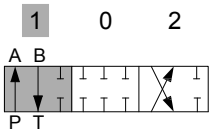
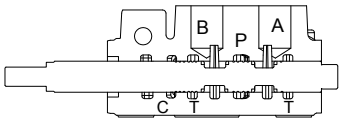
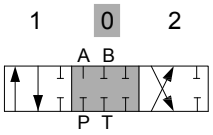
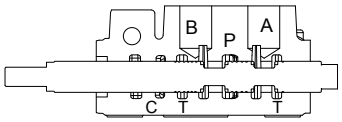
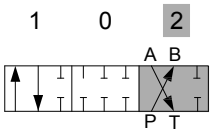
TYPE 7

	P → A C & T closed	 "B" port plugged
	A → T P closed C open	 "B" port plugged
	A → T P closed C open	 "B" port plugged

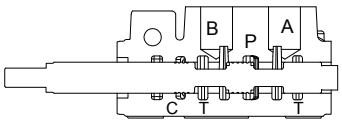
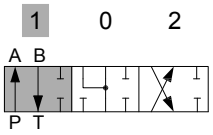
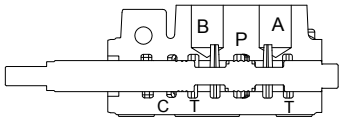
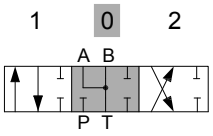
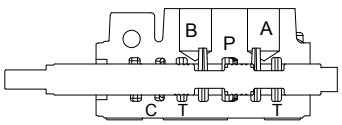
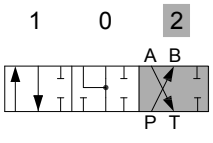
VM3 Spool Options

Monoblock Directional Control Valves

TYPE 9

	P → A B → T C closed	
	A & B & P & T closed C closed	
	P → B A → T C closed	

TYPE 10

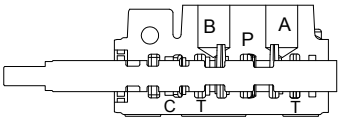
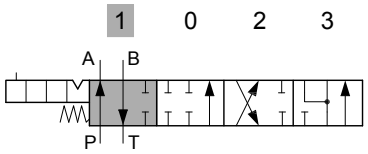
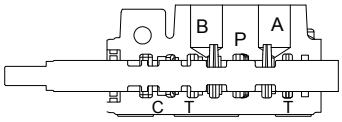
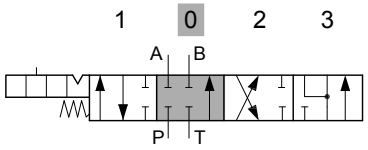
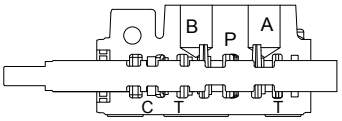
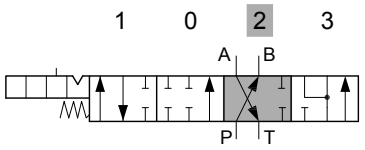
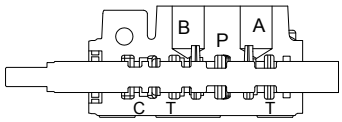
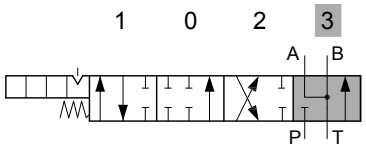
	P → A B → T C closed	
	A & B → T P & C closed	
	P → B A → T C closed	

VM3 Spool Options

Monoblock Directional Control Valves

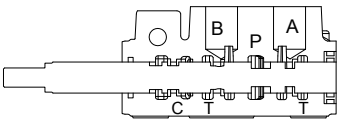
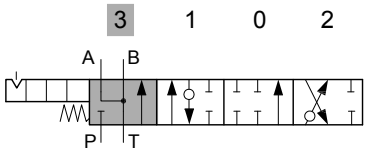
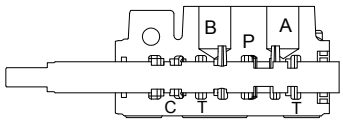
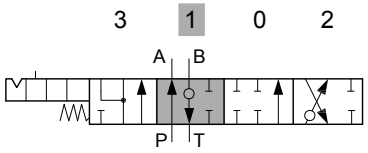
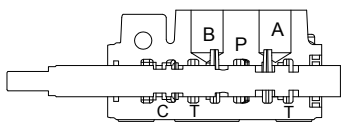
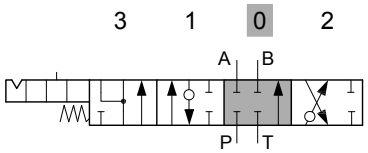
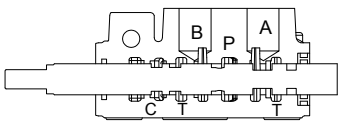
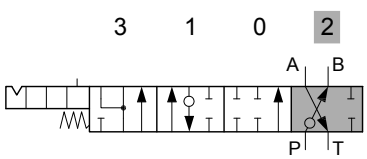
TYPE 5DY

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

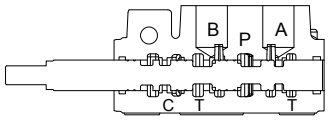
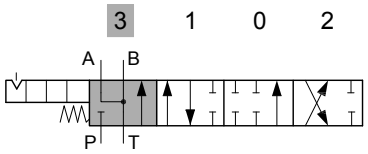
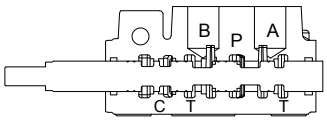
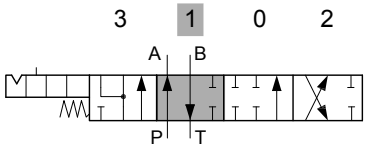
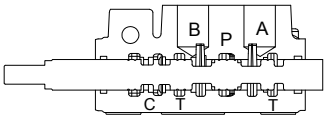
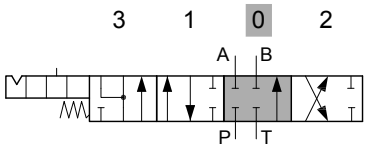
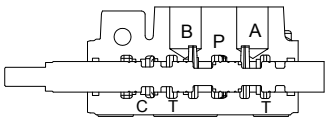
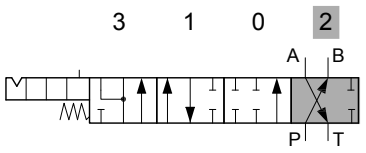
	A & B → T P closed C open	
	P → A B → T C closed	
	P & A & B & T closed C open	
	P → B A → T C closed	

VM3 Spool Options

Monoblock Directional Control Valves

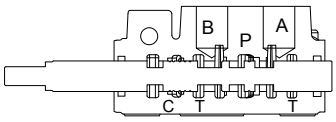
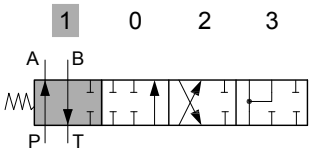
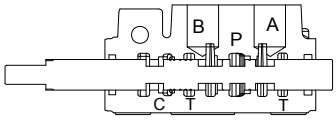
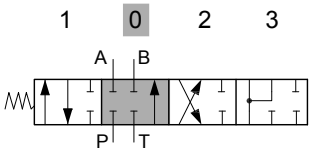
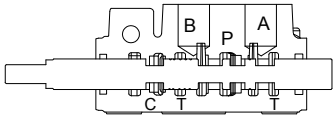
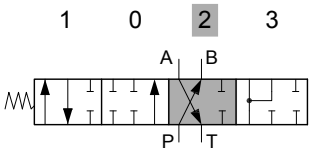
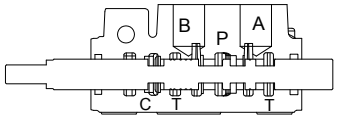
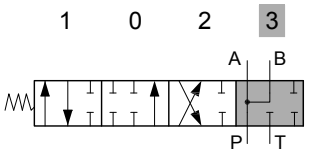
TYPE 5PY

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	

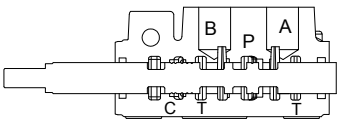
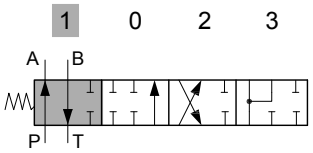
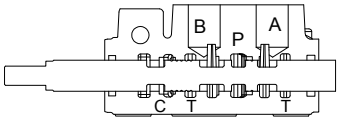
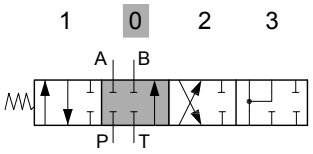
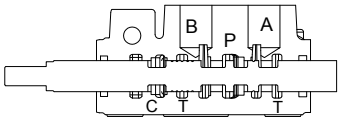
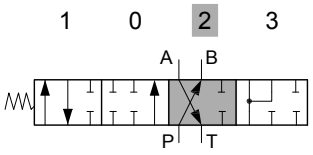
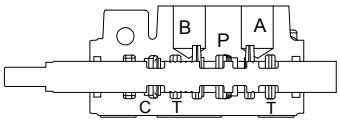
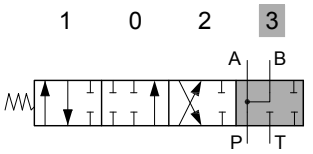
TYPE Z41

NOTE: WITH SPECIAL BODY AND SPECIAL POSITIONER

	P → A B → T C closed	 Rest in pos. 1
	P & A & B & T closed C open	
	P → B A → T C closed	
	P → A & B T & C closed	

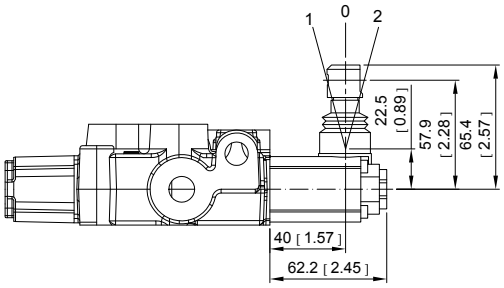
VM3 Spool Options

Monoblock Directional Control Valves

TYPE Z42	NOTE: WITH SPECIAL BODY AND SPECIAL POSITIONER	
	P → A B → T C closed	
	P & A & B & T closed C open	 Rest in pos. 0
	P → B A → T C closed	
	P → A & B T & C closed	

VM3 A Side
Monoblock Directional Control Valves

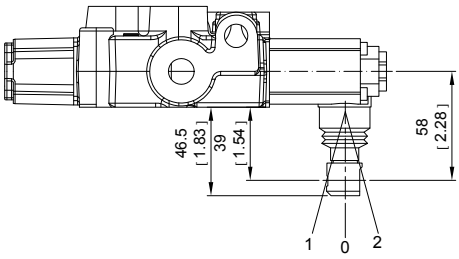
Type L



1	0	2

Type L:
STANDART LEVER KIT

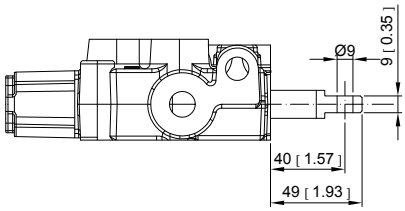
Type R



1	0	2

Type R:
STANDART LEVER KIT
(ROTATED 180 DEGREE)

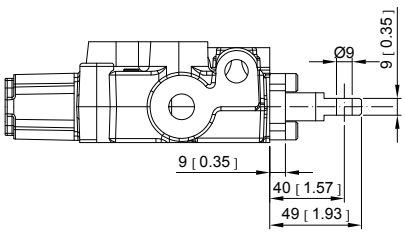
Type SL



1	0	2

Type SL:
WITHOUT ANY COVER

Type SLP

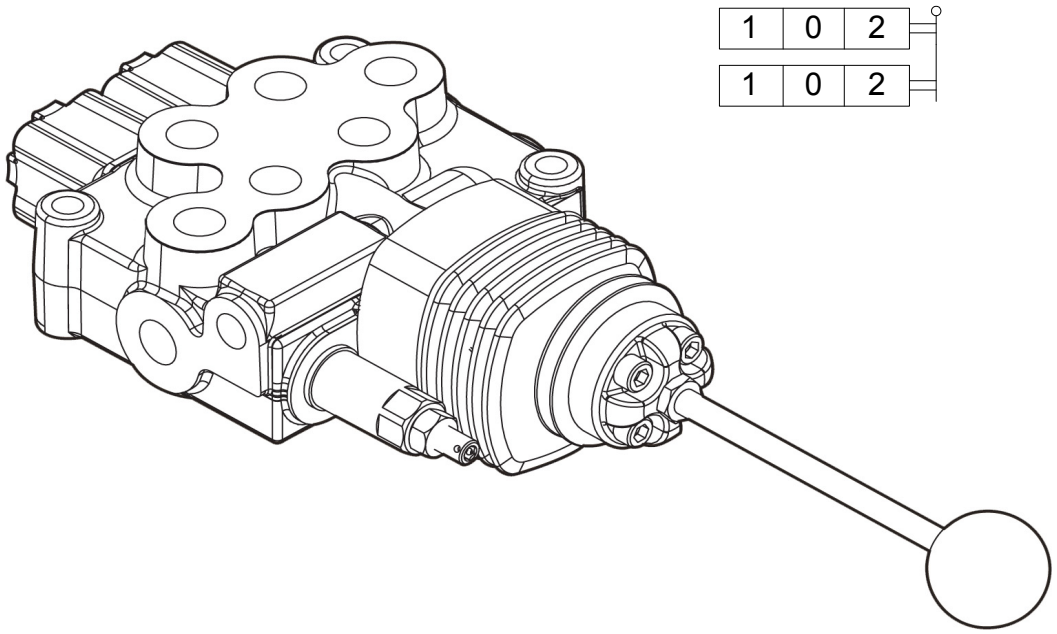


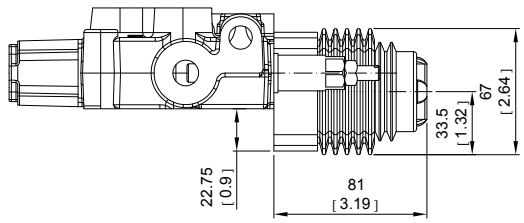
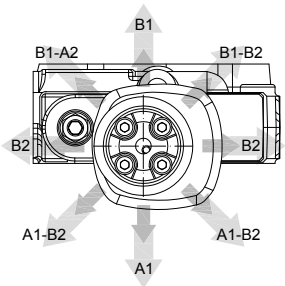
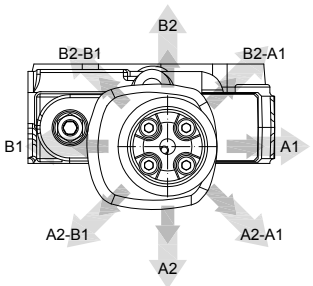
1	0	2

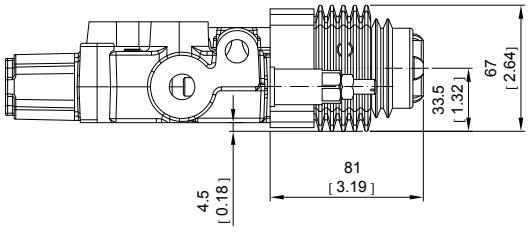
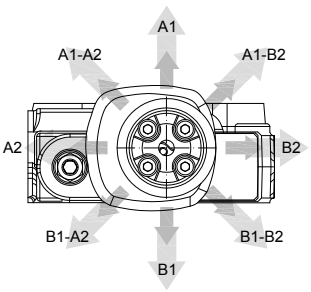
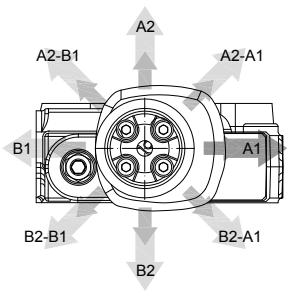
Type SLP:
WITH DUST-PROOF PLATE

VM3 A Side
Monoblock Directional Control Valves

LCB: Joystick control

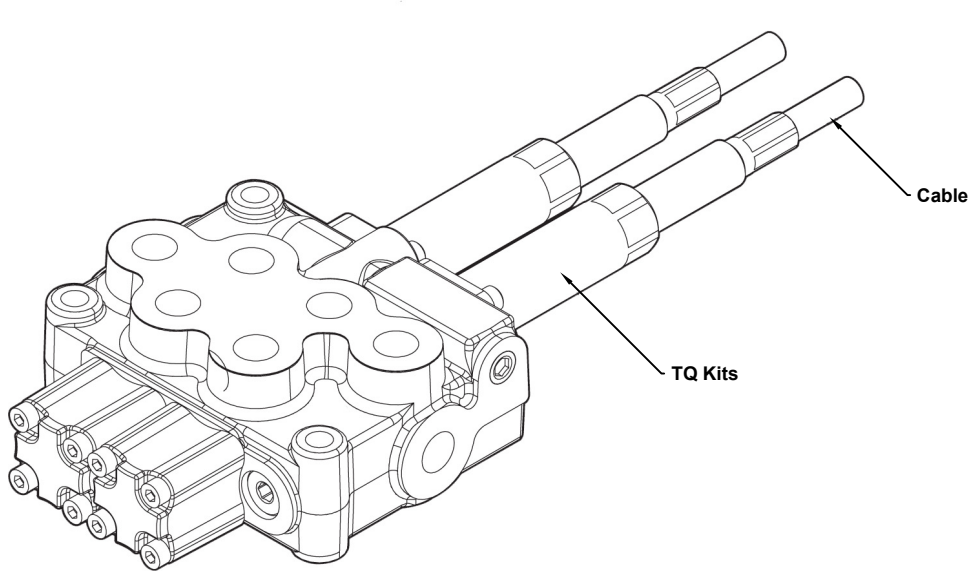


Type LCB	LCB 1	LCB 2
		

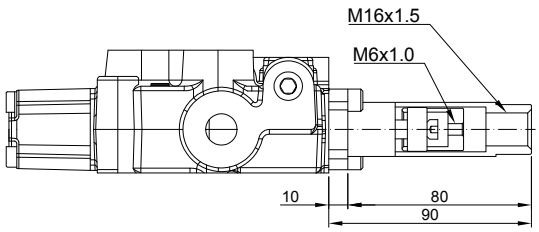
Type LCB	LCB 3	LCB 4
		

VM3 B Side
Monoblock Directional Control Valves

Note : CONNECTION KIT NOT INCLUDE CABLE



Type TQ

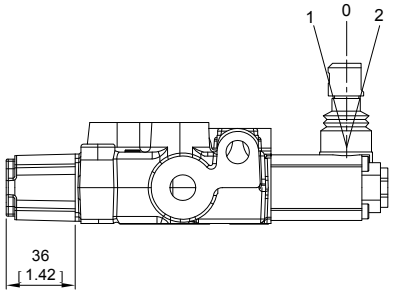


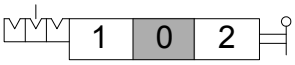
TQ Kit:

1	0	2

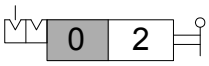
VM3 B Side
Monoblock Directional Control Valves

Type 6

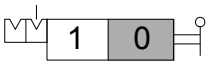




6-1 Kit:
DETENT IN POS. 1-0-2, WITHOUT SPRING CENTERED

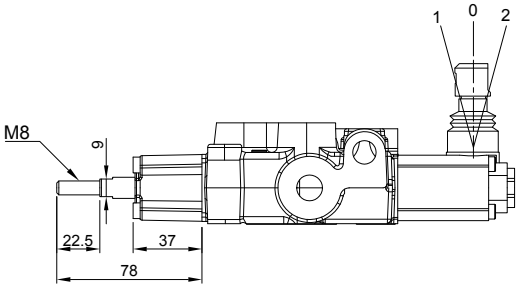


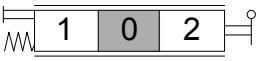
6-2 Kit:
2 POSITIONS, DETENT IN POS. 0-2, WITHOUT SPRING CENTERED



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

Type 8D2



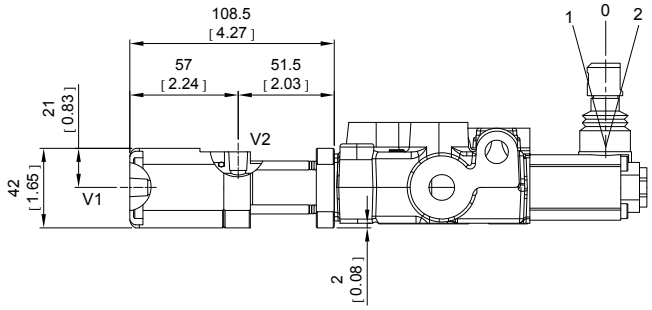


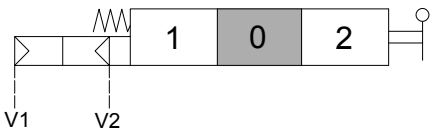
8D2 Kit:
WITH SPRING RETURN TO NEUTRAL POSITION AND PIN WITH M8 MALE THREAD FOR DUAL CONTROL

VM3 B Side
Monoblock Directional Control Valves

Type 8P

V1 & V2: NPT 1/8 - 27



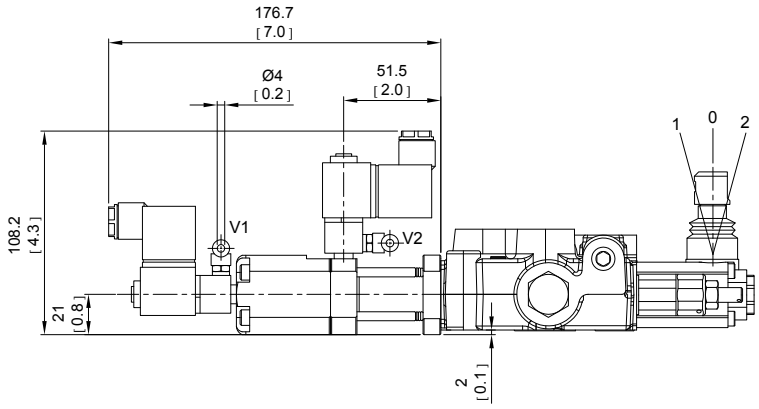


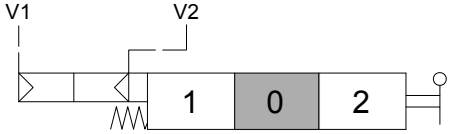
Operating feature:

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

Type 8EP3

ON/OFF electro-pneumatic control:





Description:

NOMINAL VOLTAGE: 24VDC

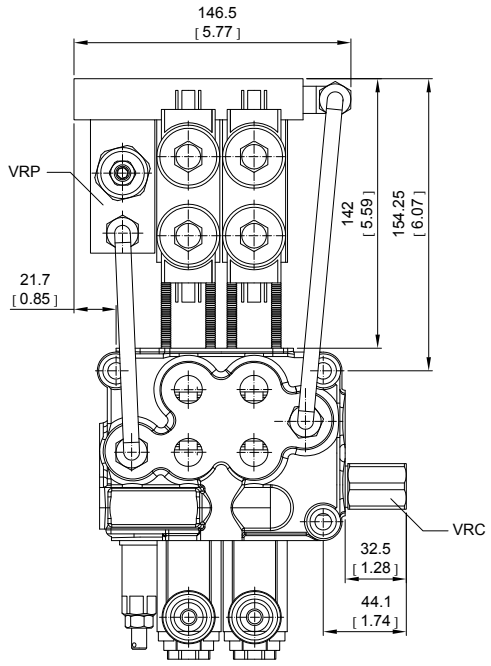
Solenoid operating features:

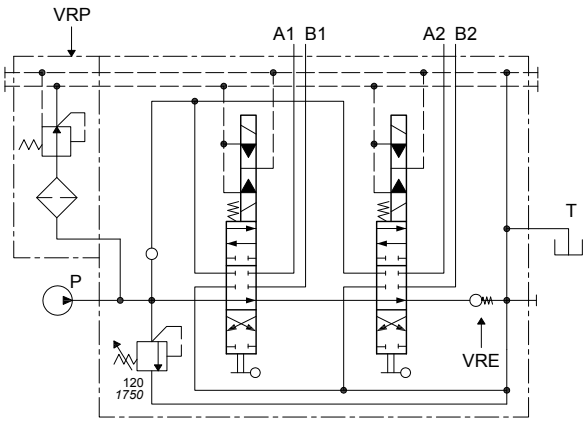
NOMINAL VOLTAGE TOLERANCE: ± 10%
POWER RATING: 5W

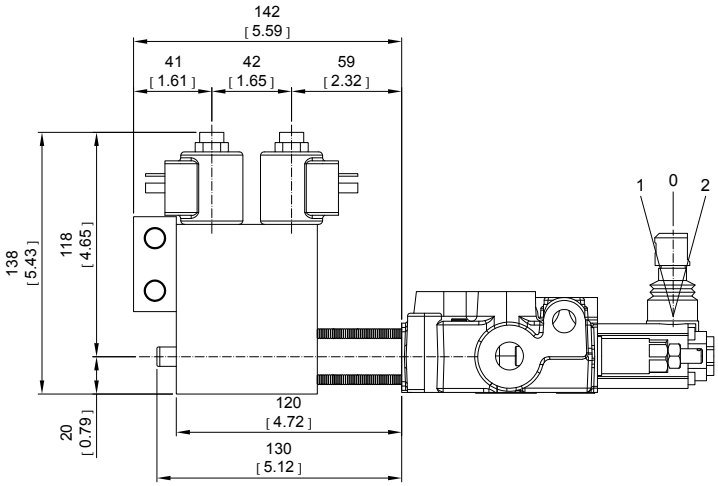
VM3 B Side

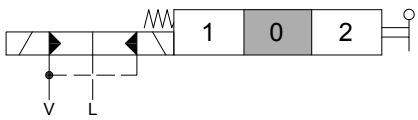
Monoblock Directional Control Valves

Type 8ED3









Operating features:

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

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

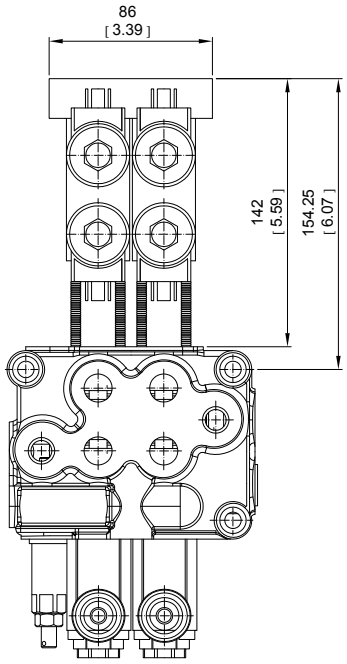
Coil features:

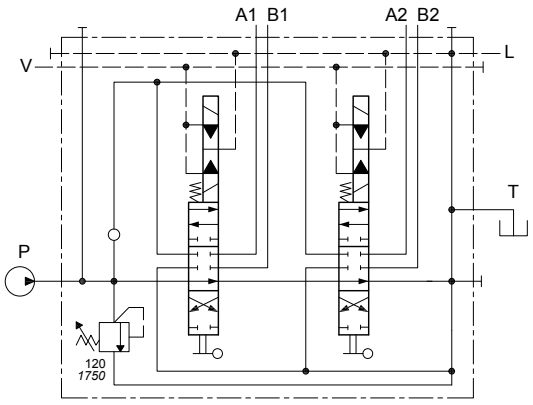
NOMINAL VOLTAGE TOLERANCE: ± 10%
ELECTRIC POWER: 21 W
STANDARD VOLTAGE: 12 VDC / 24 VDC

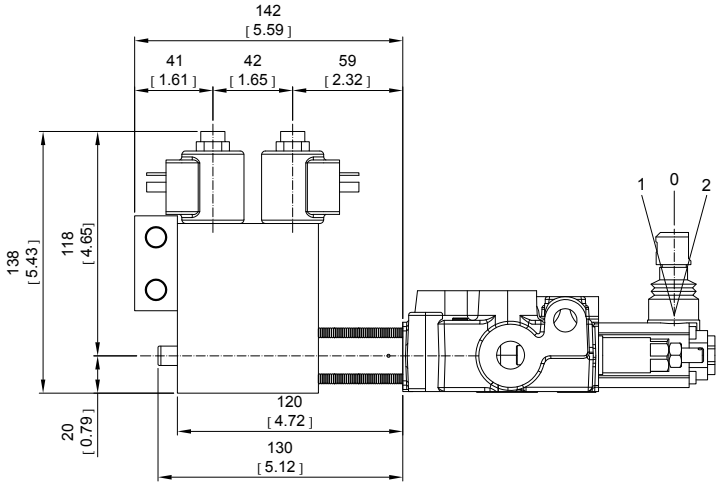
VM3 B Side

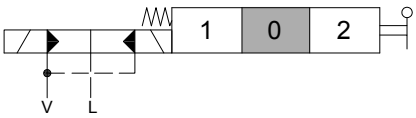
Monoblock Directional Control Valves

Type 8ER3









Operating features:

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

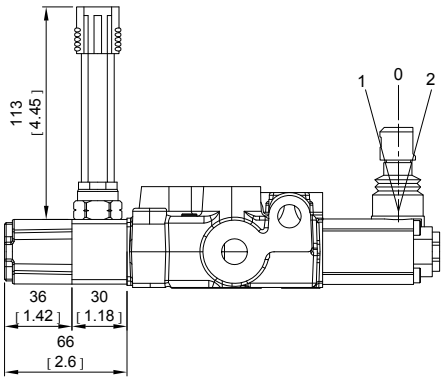
MAX. BACKPRESSURE ON DRAIN L: 25 BAR / 360 PSI

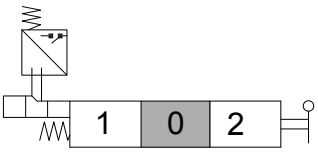
Coil features:

NOMINAL VOLTAGE TOLERANCE: ± 10%
ELECTRIC POWER: 21 W
STANDARD VOLTAGE: 12 VDC / 24 VDC

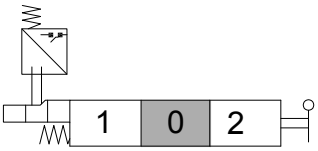
VM3 B Side
Monoblock Directional Control Valves

Type 8MG

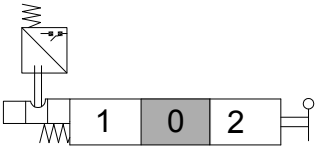




8MG1 Kit:
MICROSWITCH WITH MALE/FEMALE CONNECTOR, OPERATED IN POS. 1

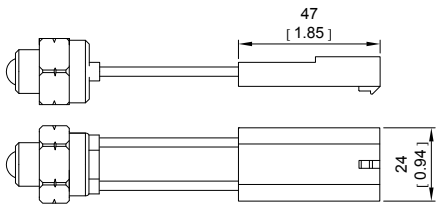


8MG2 Kit:
MICROSWITCH WITH MALE/FEMALE CONNECTOR, OPERATED IN POS. 2

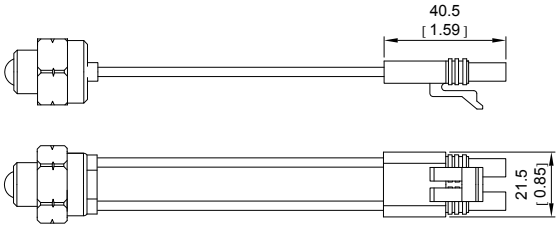


8MG3 Kit:
MICROSWITCH WITH MALE/FEMALE CONNECTOR, OPERATED IN POS. 1 AND POS. 2

With NO contact (female connector with male end)



With NC contact (male connector with female end)



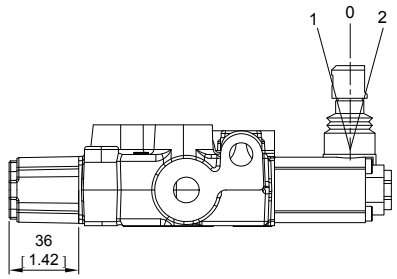
MICROSWITCH
Operating features:

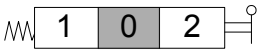
MECHANICAL LITE: • $5X10^5$ OPERATIONS

ELECTRICAL LITE (RESISTIVE LOAD):
- 10^5 OPERATIONS - 7A / 13.5 VDC
- $5X10^4$ OPERATIONS - 10A / 12 VDC
- $5X10^4$ OPERATIONS - 3A / 28 VDC

VM3 B Side
Monoblock Directional Control Valves

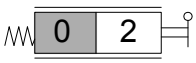
Type 8





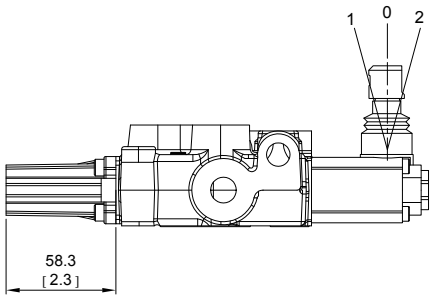
8 Kit:
SPRING RETURN TO NEUTRAL POSITION.

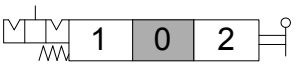
8-1 Kit:
SPRING RETURN TO NEUTRAL POSITION.
(2 POSITIONS)



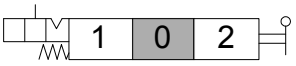
8-2 Kit:
SPRING RETURN TO NEUTRAL POSITION.
(2 POSITIONS)

Type 9

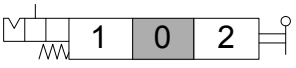




9-1 Kit:
DETENT IN POS. 1, 2 WITH SPRING CENTERED



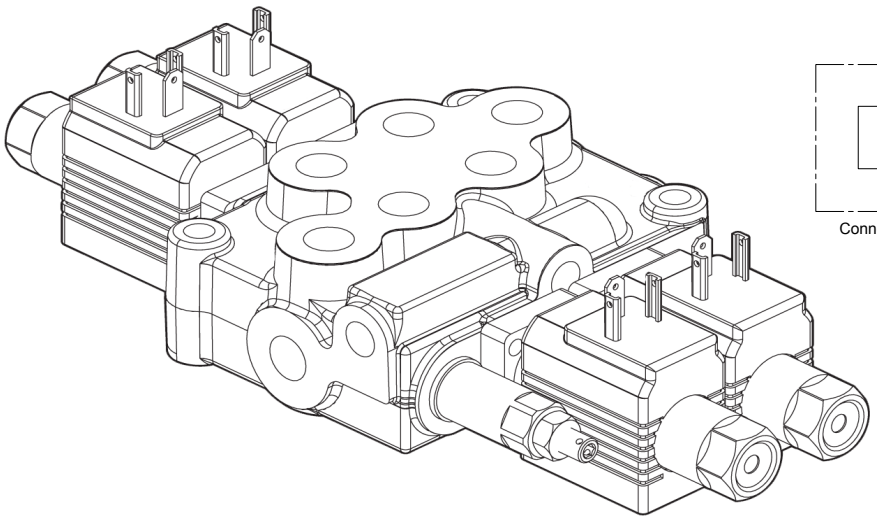
9-2 Kit:
DETENT IN POS. 2 WITH SPRING CENTERED



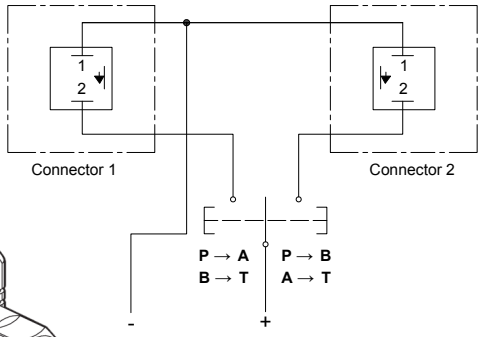
9-3 Kit:
DETENT IN POS. 1 WITH SPRING CENTERED

VM3 B Side (Optional controls)

Monoblock Directional Control Valves



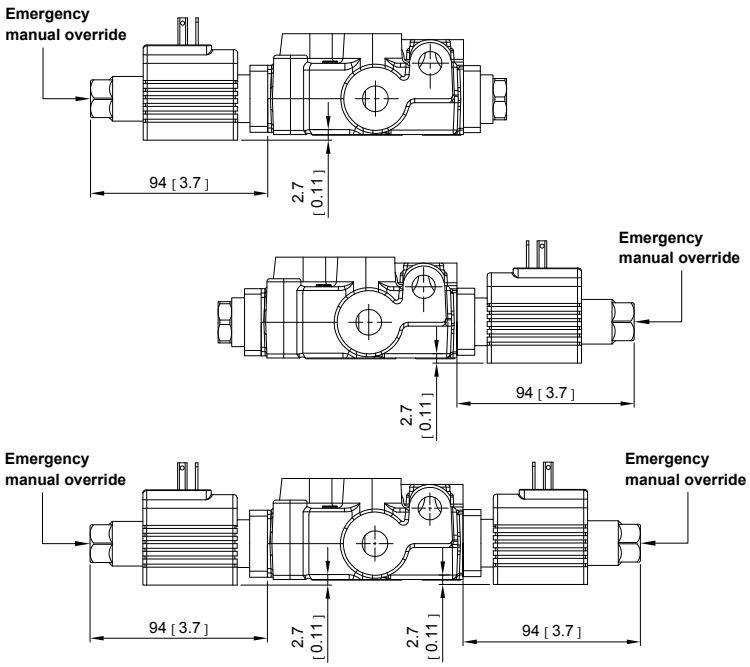
Electric wiring example



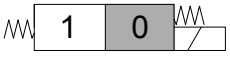
Coil features:

NOMINAL VOLTAGE TOLERANCE: ± 10%
ELECTRIC POWER: 36 W
STANDARD VOLTAGE: 12 VDC / 24 VDC

Type 8ES



8ES1 Kit:
ACTING IN 1



8ES2 Kit:
ACTING IN 2

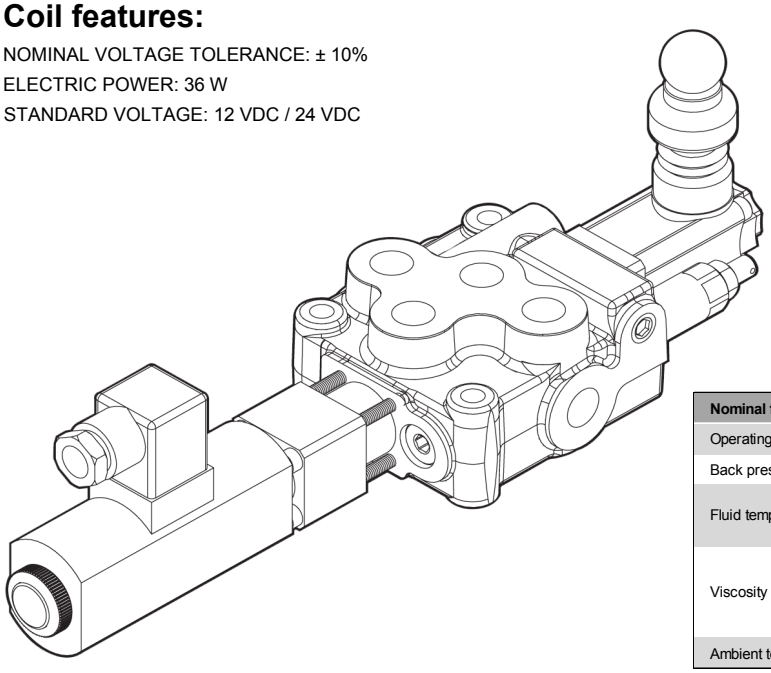
8ES3 Kit:
ACTING IN 1 & 2

VM3 B Side (Optional controls)

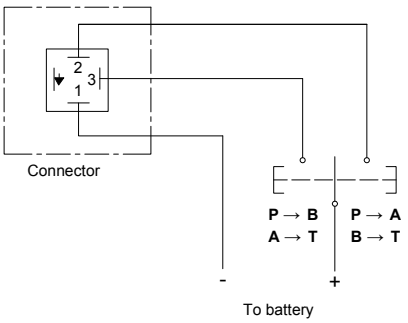
Monoblock Directional Control Valves

Coil features:

NOMINAL VOLTAGE TOLERANCE: ± 10%
ELECTRIC POWER: 36 W
STANDARD VOLTAGE: 12 VDC / 24 VDC

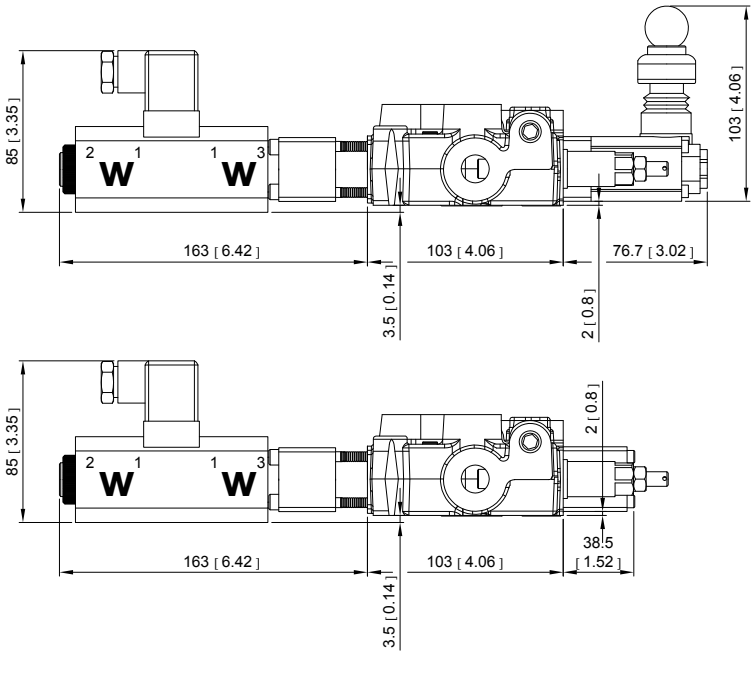


Electric wiring example

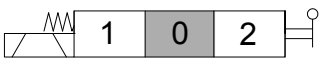


Nominal flow rate		45 l/min	12 US gpm
Operating pressure (max.)	parallel circuit	250 bar	3600 psi
Back pressure (max.)	on outlet port T	25 bar	360 psi
Fluid temperature	with NBR seals	-20ºC ~ 80ºC	-4º ~ 176ºF
	with FPM seals	-20ºC ~ 100ºC	-4º ~ 212ºF
Viscosity	operating range	15 ~ 75 mm^2/s	15 ~ 75 cst
	min	12 mm^2/s	12 cst
	max.	400 mm^2/s	400 cst
Ambient temperature		-40ºC ~ 60ºC	-40º ~ 140ºF

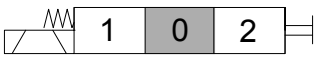
Type 8ESN



8ESNLES Kit:



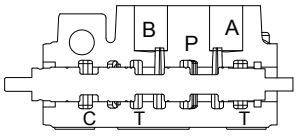
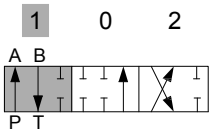
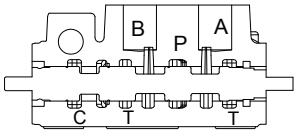
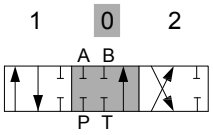
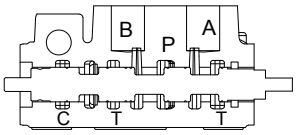
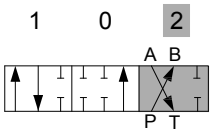
8ESNCAE Kit:



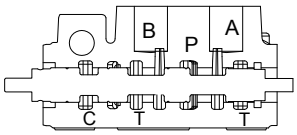
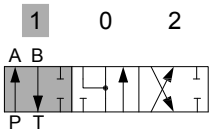
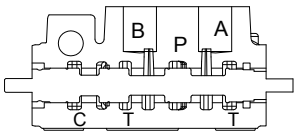
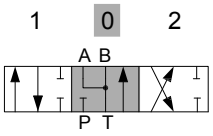
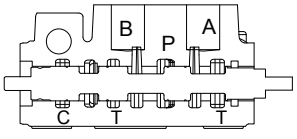
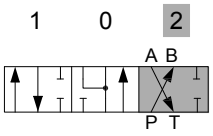
VM3 Special spool (Options for 8ES Kit)

Monoblock Directional Control Valves

Type 8ES3#1

	P → A B → T C closed	
	A & B & P & T closed C open	
	P → B A → T C closed	

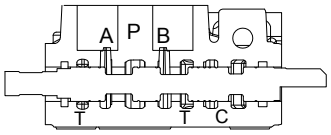
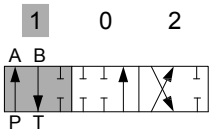
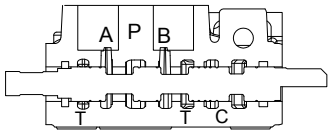
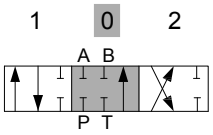
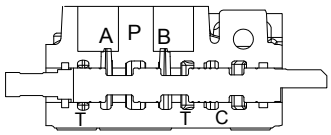
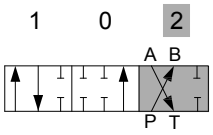
Type 8ES3#2

	P → A B → T C closed	
	A & B → T P closed C open	
	P → A A → T C closed	

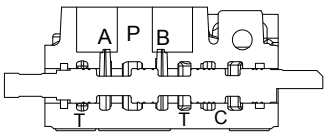
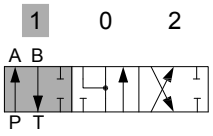
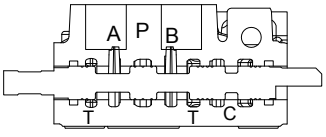
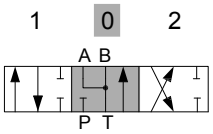
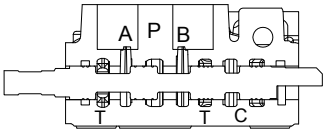
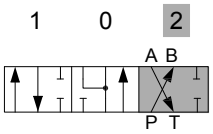
VM3 Special spool (Options for 8ESN Kit)

Monoblock Directional Control Valves

Type 8ESN#1

	P → A B → T C closed	
	P & T & A & B closed C open	
	P → B A → T C closed	

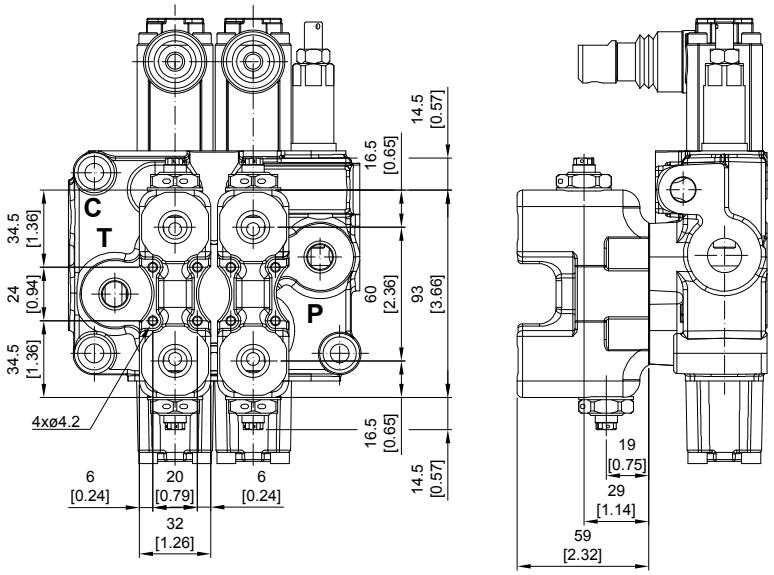
Type 8ESN#2

	P → A B → T C closed	
	A & B → T P closed C open	
	P → B A → T C closed	

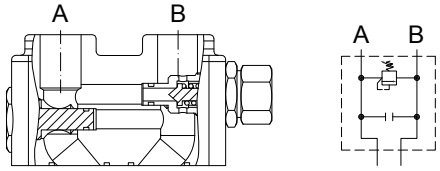
VM3 Service and auxiliary valves

Monoblock Directional Control Valves

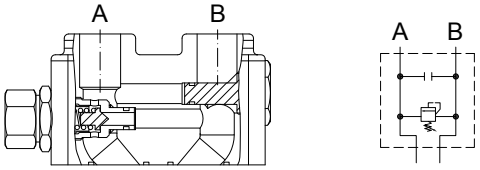
Type P



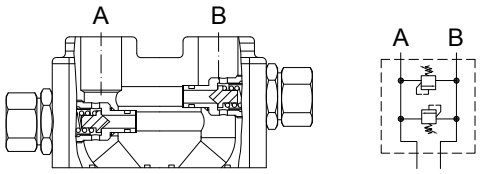
P1 Kit: Block with valve on port A



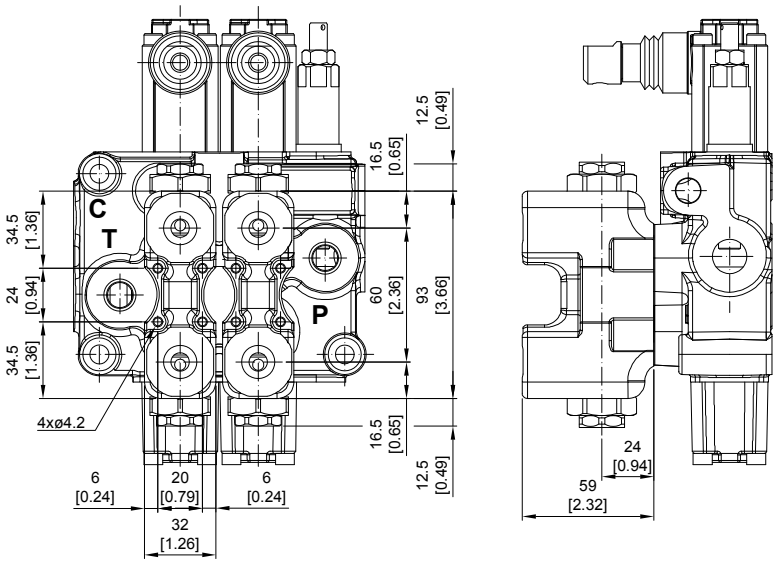
P2 Kit: Block with valve on port B



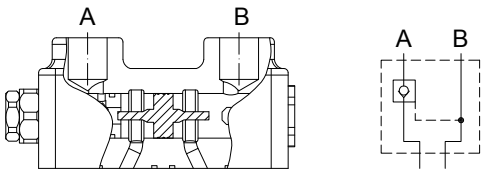
P3 Kit: Block with valve on port A and B



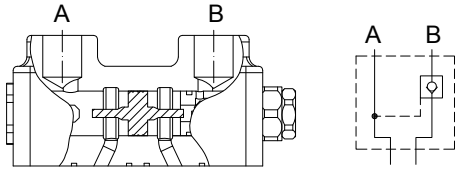
Type BSP Pilot check valves (With Pre-opening, supplied with mounting block)



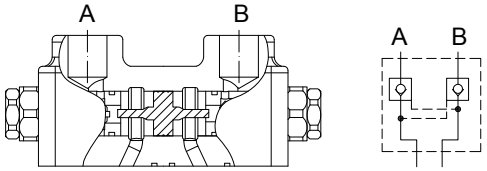
BSP1 Kit: Block with valve on port A



BSP2 Kit: Block with valve on port B



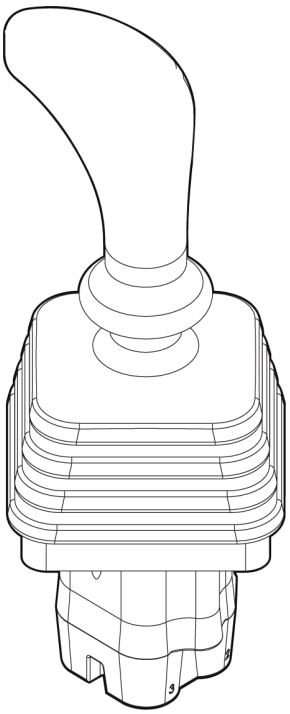
BSP3 Kit: Block with valve on port A and B



VM3 Accessories

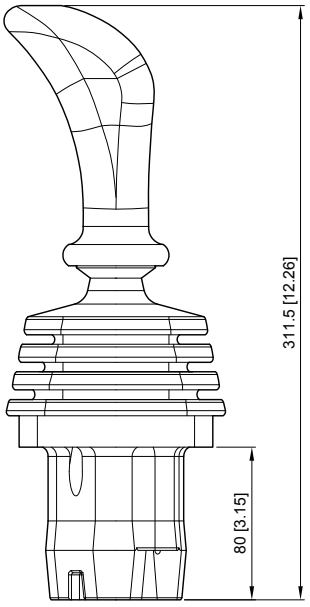
Monoblock Directional Control Valves

Type JHP-2

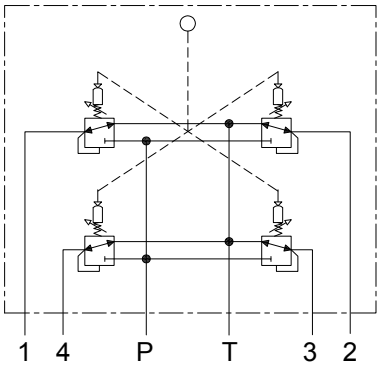


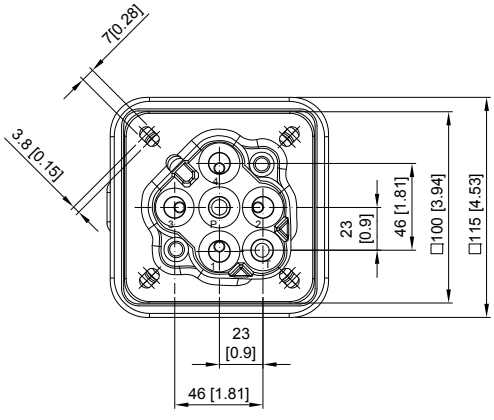
Specifications:

- This data sheet shows technical spec. with mineral oil of 46 mm²/s (cSt) voscosity 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:





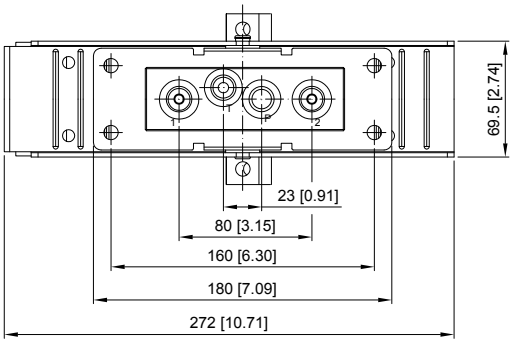
VM3 Accessories

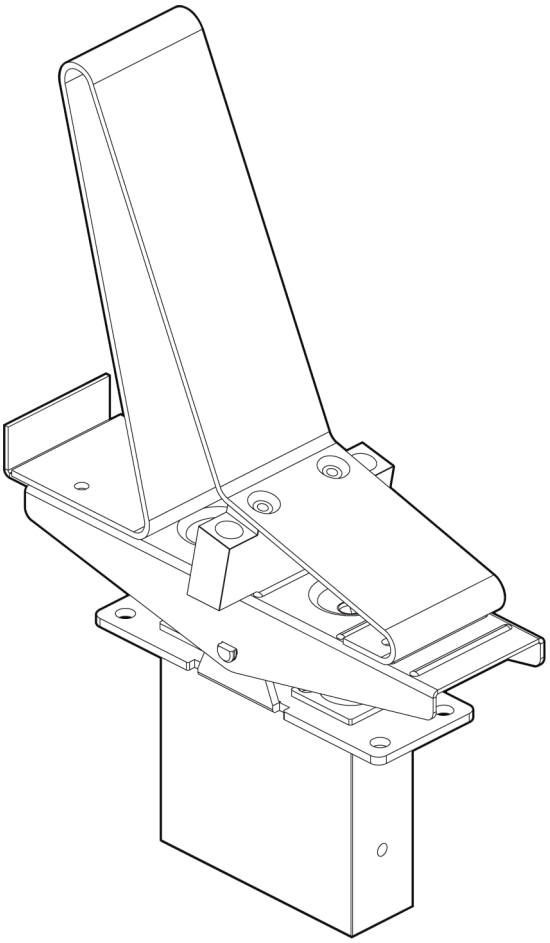
Monoblock Directional Control Valves

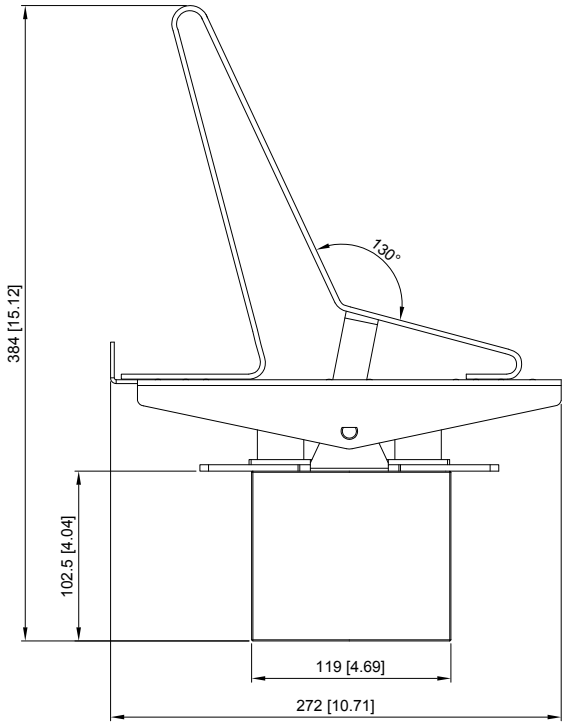
Type PHP-1

Specifications:

- This data sheet shows technical spec. with mineral oil of 46 mm²/s (cSt) voscosity 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







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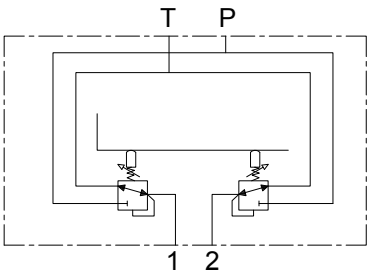
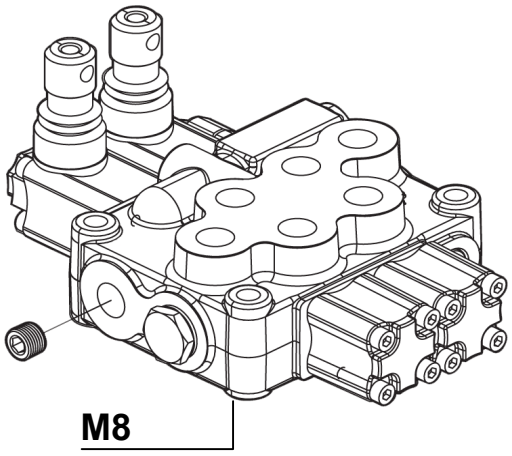


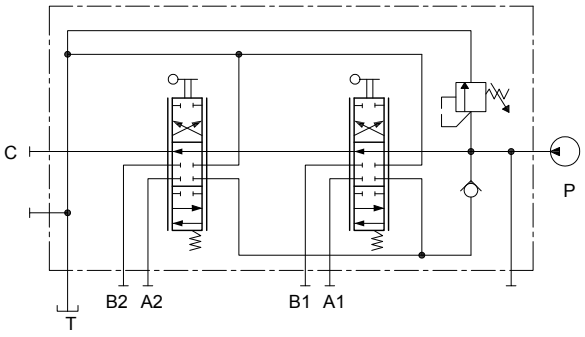
VM3 Outlet

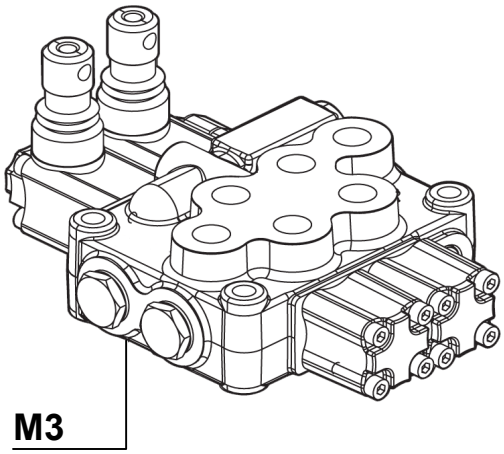
Monoblock Directional Control Valves

Power Beyond Conversion plug (Closed center plug)



M8





M3