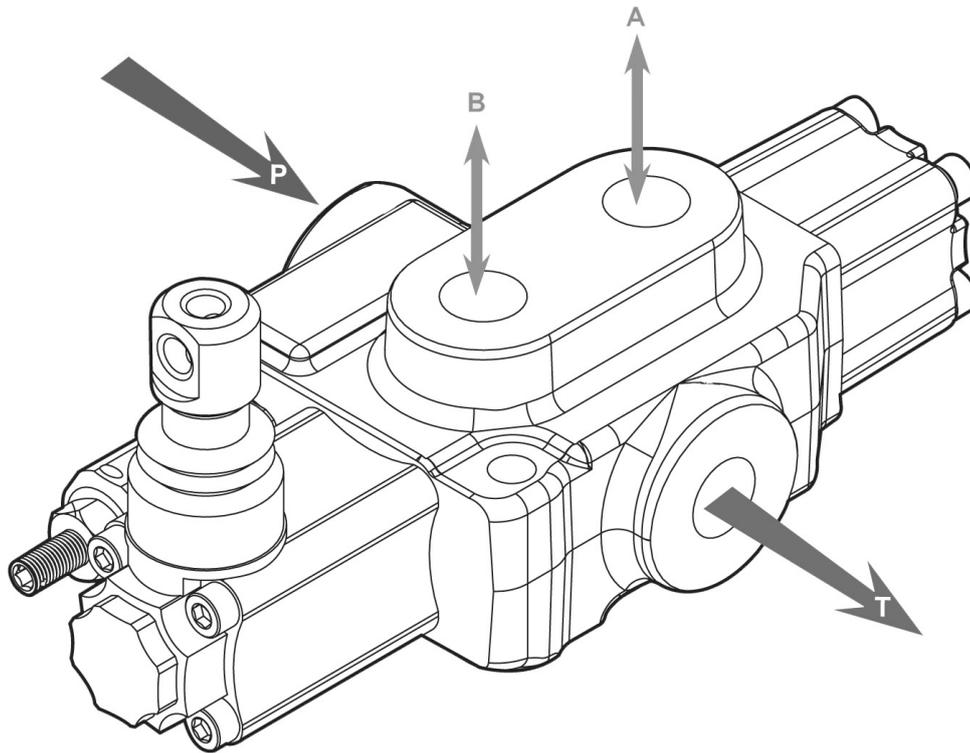


VM2

Monoblock Directional Control Valves



VM2 Specifications

Nominal flow rate		45 l/min	12 US gpm
Operating pressure (maximum)		250 bar	3600 psi
Back pressure (maximum)	on outlet port T	25 bar	360 psi
Fluid temperature range	with NBR(BUNA-N) seals	from -20°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



VM2

Monoblock Directional Control Valves

VM2 / **1S** **3** / **1 8 L** / G-3 / M1
 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:	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



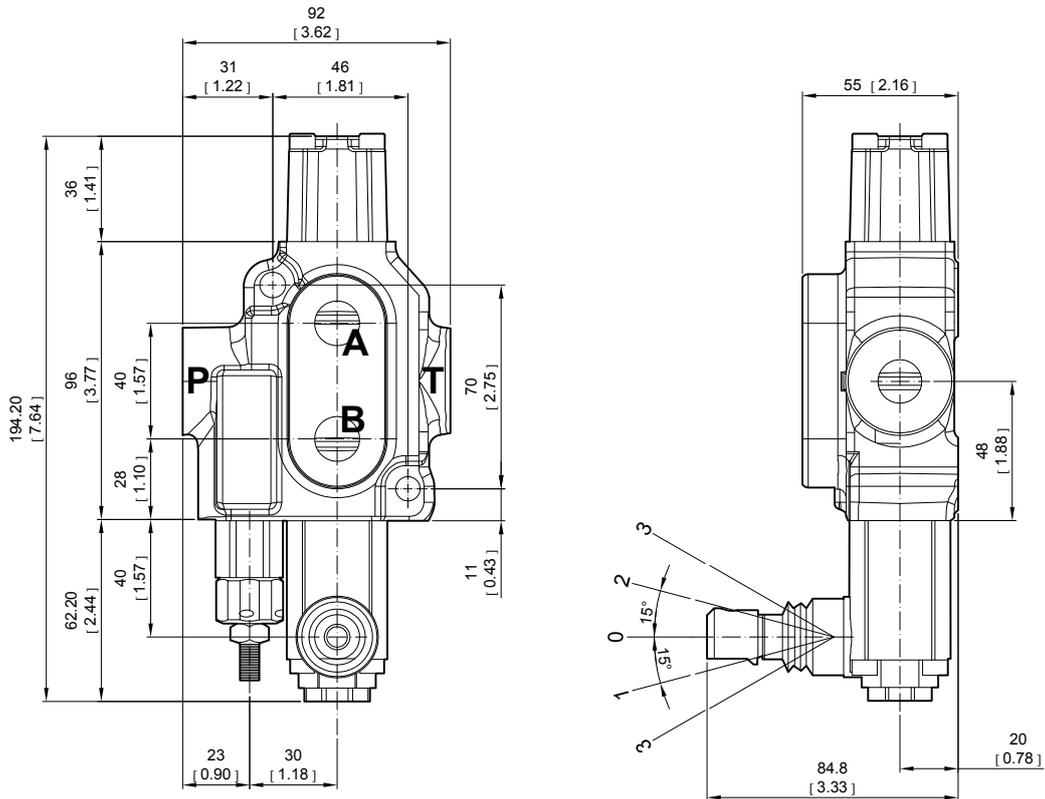
VM2

Monoblock Directional Control Valves

3: Spool Options		
TYPE	CODE	DESCRIPTION
1	VM23001	Double acting, 3 positions, with A, B closed in neutral position
2	VM23002	Double acting, 3 positions, with A, B closed to Tank in neutral position
3	VM23003	Single acting on A closed in neutral position, 3 positions, B plugged
4	VM23004	Single acting on B closed in neutral position, 3 positions, A plugged
9	VM23009	Double acting, 3 positions, with P, T, A, B closed in neutral position (Closed center)
10	VM23010	Double acting, 3 positions, with A, B open to Tank and P, T closed in neutral position (Closed center)
4: B Side Spool Positioners		
TYPE	CODE	DESCRIPTION
6-1	VM24061	Detent in pos. 1-0-2, without spring centered
6-2	VM24062	2 positions, detent in pos. 0-2, without spring centered
6-3	VM24063	2 positions, detent in pos. 1-0, without spring centered
8D2	VM24200	With spring return to neutral position and pin with M8 male thread for dual control
8EP3	VM24300	ON/OFF Electro-Pneumatic actuator
8P	VM24080	ON/OFF Pneumatic actuator
8MG1 (NO)	VM24801	Microswitch kit operated in pos. 1 (Normally Open)
8MG2 (NO)	VM24802	Microswitch kit operated in pos. 2 (Normally Open)
8MG3 (NO)	VM24803	Microswitch kit operated in pos. 1&2 (Normally Open)
MG (NO)	VM24804	Microswitch with NO terminal
8MG1 (NC)	VM248011	Microswitch kit operated in pos. 1 (Normally Closed)
8MG2 (NC)	VM248021	Microswitch kit operated in pos. 2 (Normally Closed)
8MG3 (NC)	VM248031	Microswitch kit operated in pos. 1&2 (Normally Closed)
MG (NC)	VM248041	Microswitch with NC terminal
8	VM24008	With spring return to neutral position
8-1	VM24081	2 positions, with spring centered from pos. 1
8-2	VM24082	2 positions, with spring centered from pos. 2
9-1	VM24091	Detent in pos. 1, 2 with spring centered
9-2	VM24092	Detent in pos. 2 with spring centered
9-3	VM24093	Detent in pos. 1 with spring centered
5: A Side controls		
TYPE	CODE	DESCRIPTION
L	VM45000	Standard lever box
SLP	VM45001	Without lever box, with dust-proof plate
TQ	VM45003	Flexible cable connection

VM2

Monoblock Directional Control Valves

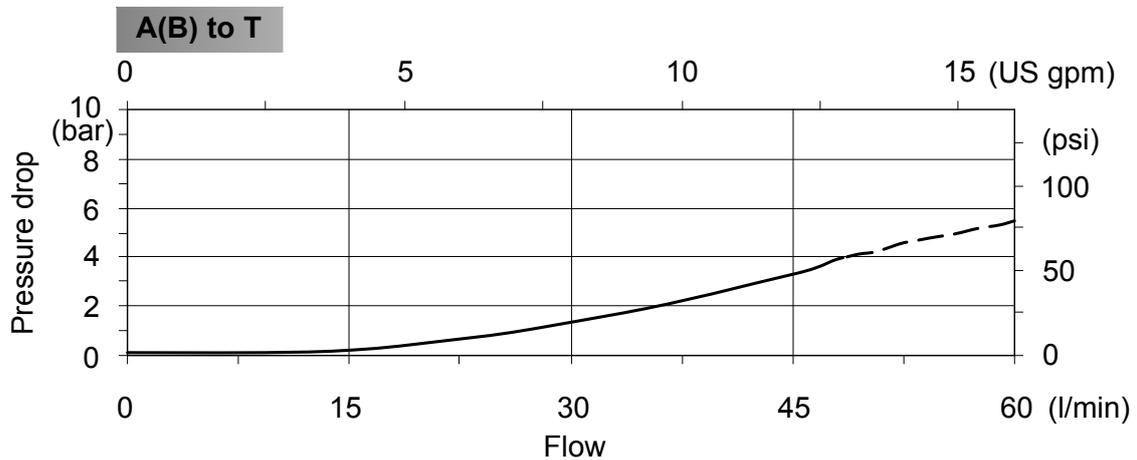
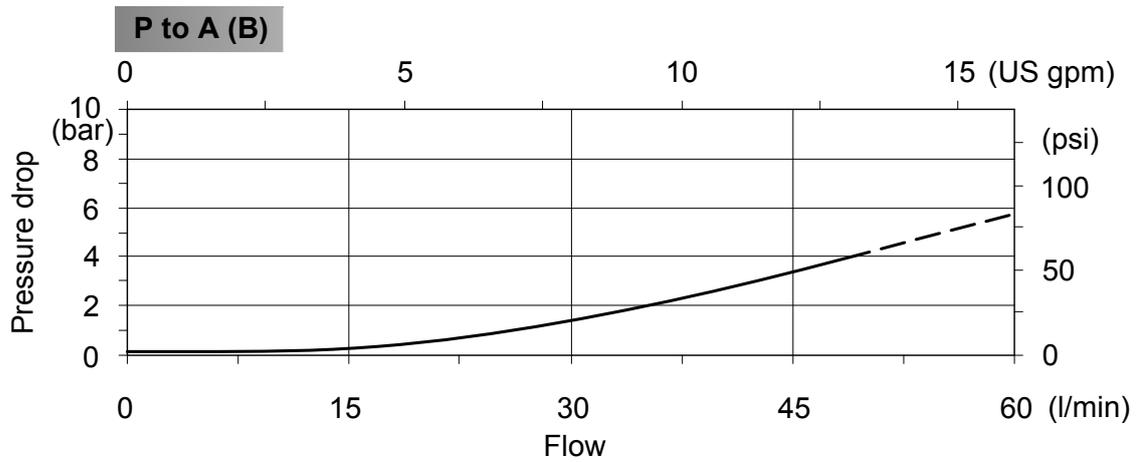
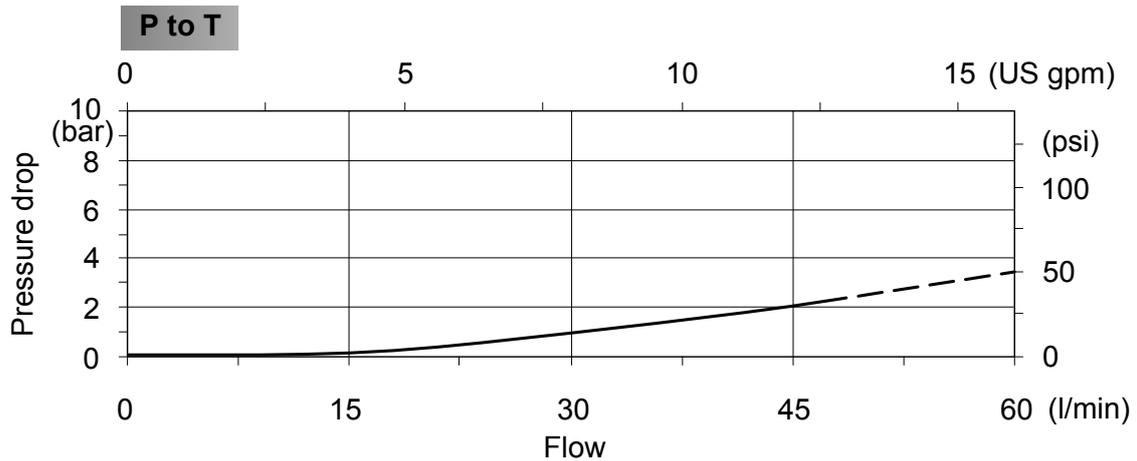


Ports	Inlet P	A and B	Outlet T
BSP	G3/8	G3/8	G3/8
UN-UNF	3/4-16 UNF-2B (SAE 8)	3/4-16 UNF-2B (SAE 8)	3/4-16 UNF-2B (SAE 8)
METRIC	M18x1.5	M18x1.5	M18x1.5

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

VM2 Performance curve chart

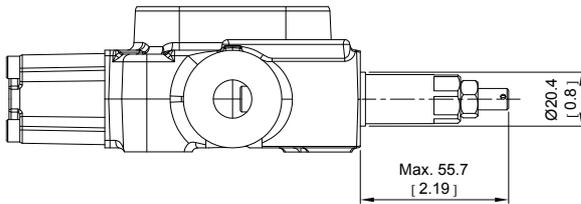
Monoblock Directional Control Valves



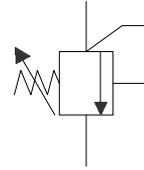
VM2 Inlet Relief (Options)

Monoblock Directional Control Valves

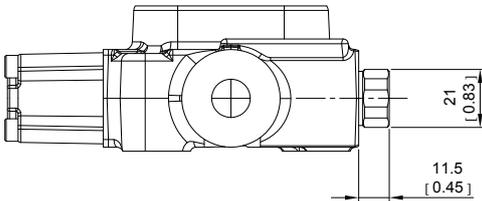
Type DG



Direct pressure relief valve:



Type SV



Relief valve blanking plug:



VM2 Spool Options

Monoblock Directional Control Valves

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

VM2 Spool Options

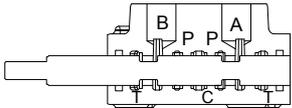
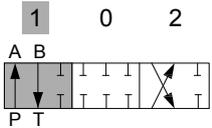
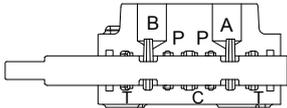
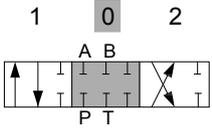
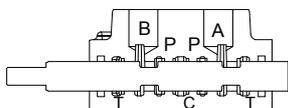
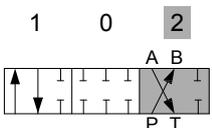
Monoblock Directional Control Valves

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

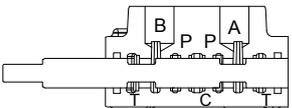
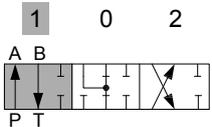
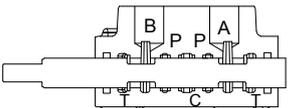
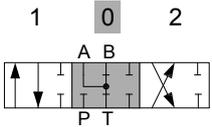
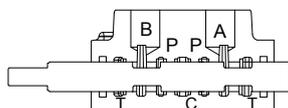
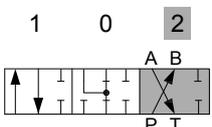
VM2 Spool Options

Monoblock Directional Control Valves

TYPE 9

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

TYPE 10

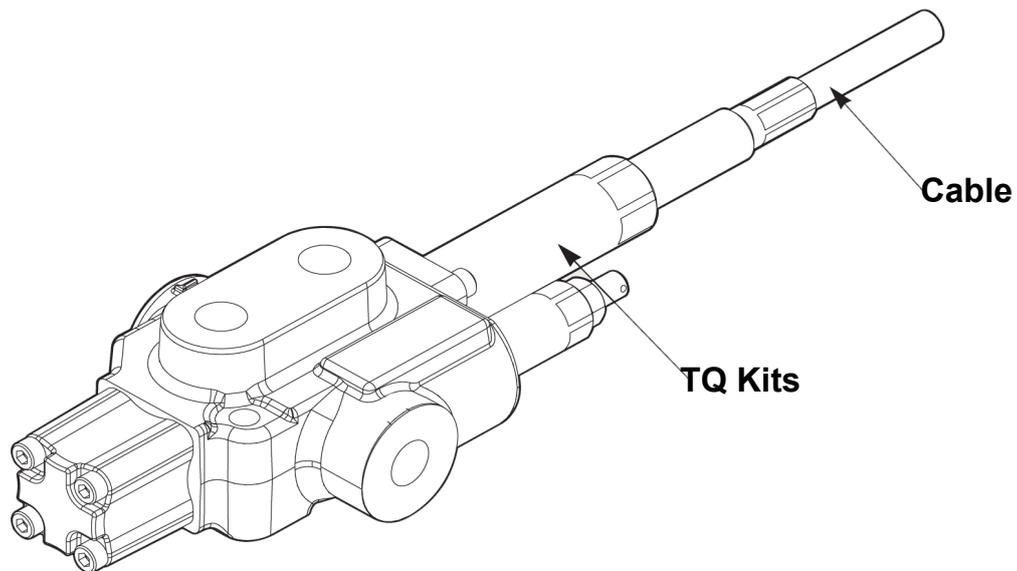
	<p>P → A B → T C closed</p>	
	<p>A & B → T P & C closed</p>	
	<p>P → B A → T C closed</p>	

VM2 A Side Monoblock Directional Control Valves

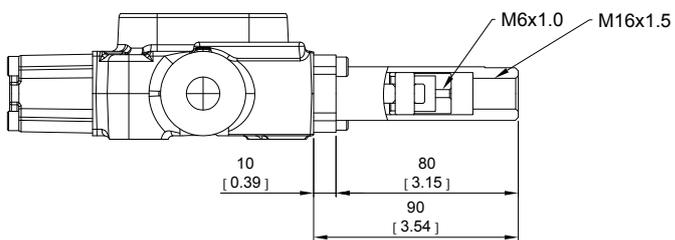
Type L		
		<p>Type L: STANDART LEVER KIT</p>
Type R		
		<p>Type R: STANDART LEVER KIT (ROTATED 180 DEGREE)</p>
Type SL		
		<p>Type SL: WITHOUT ANY COVER</p>
Type SLP		
		<p>Type SLP: WITH DUST-PROOF PLATE</p>

VM2 A Side Monoblock Directional Control Valves

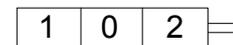
Note : CONNECTION KIT NOT INCLUDE CABLE



Type TQ

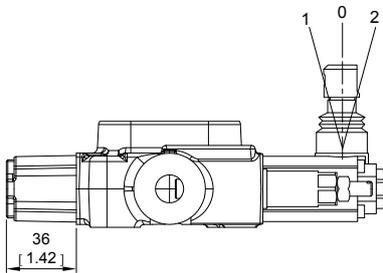


TQ Kit:



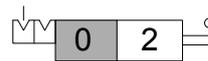
VM2 B Side Monoblock Directional Control Valves

Type 6



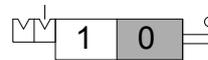
6-1 Kit:

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



6-2 Kit:

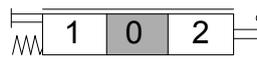
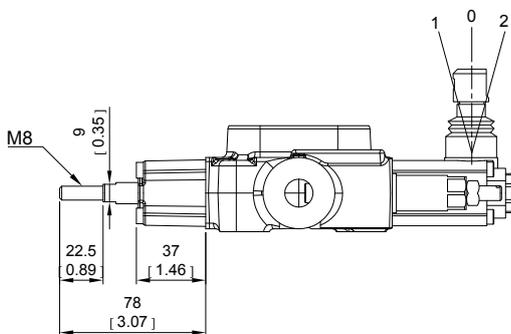
2 POSITIONS, DETENT IN POS. 0-2, WITHOUT SPRING CENTERED



6-3 Kit:

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

Type 8D2



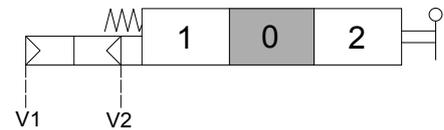
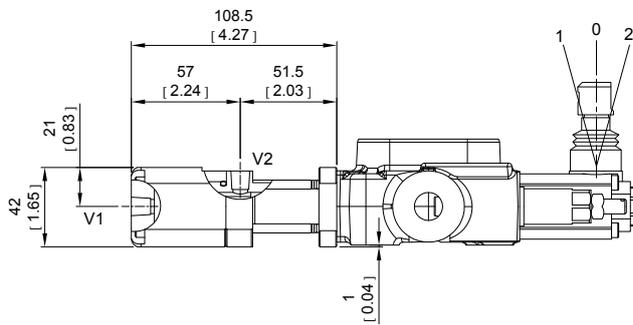
8D2 Kit:

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

VM2 B Side Monoblock Directional Control Valves

Type 8P

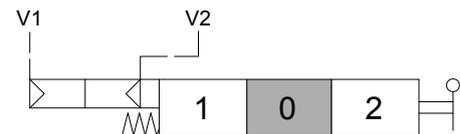
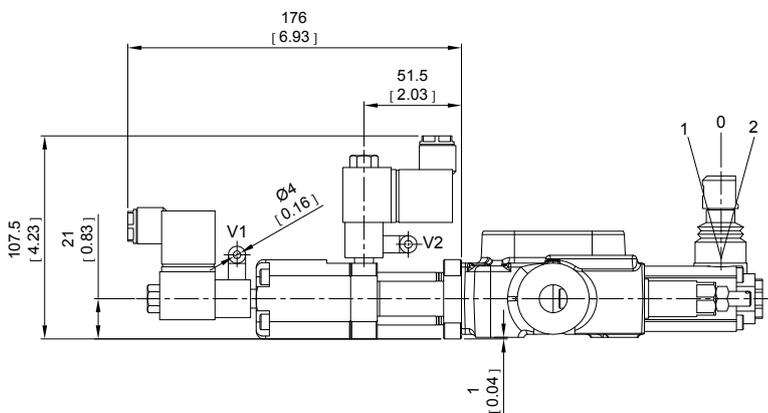
V1 & V2: NPT 1/8 - 27



Operating feature:

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

Type 8EP3

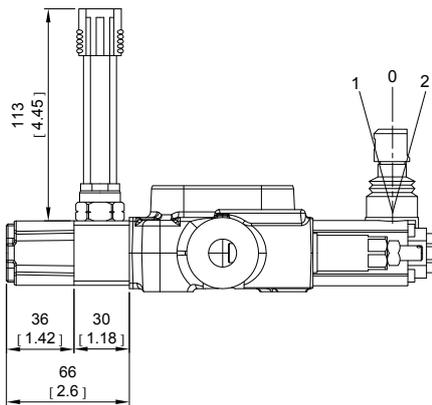


Solenoid operating features:

NOMINAL VOLTAGE: 24VDC
NOMINAL VOLTAGE TOLERANCE: $\pm 10\%$
POWER RATING: 5W

VM2 B Side Monoblock Directional Control Valves

Type 8MG



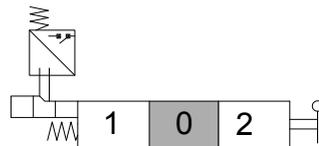
MICROSWITCH

Operating features:

MECHANICAL LITE: • 5X10⁵ OPERATIONS

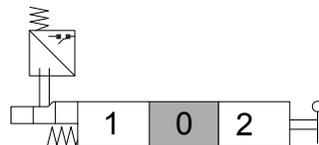
ELECTRICAL LITE (RESISTIVE LOAD):

- 10⁵ OPERATIONS - 7A / 13.5 VDC
- 5X10⁴ OPERATIONS - 10A / 12 VDC
- 5X10⁴ OPERATIONS - 3A / 28 VDC



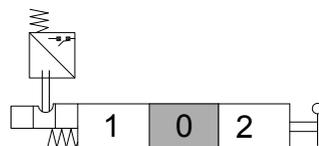
8MG1 Kit:

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



8MG2 Kit:

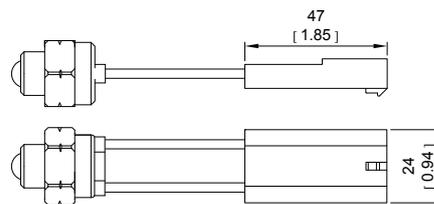
MICROSWITCH WITH MALE/FEMALE CONNECTOR, OPERATED IN POS. 2



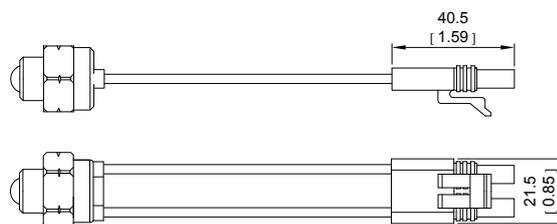
8MG3 Kit:

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

With NO contact (female connector with male end)

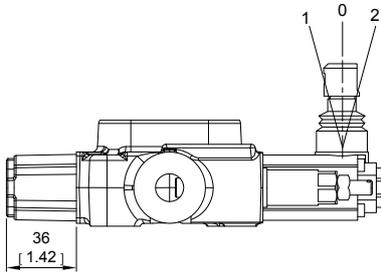


With NC contact (male connector with female end)



VM2 B Side Monoblock Directional Control Valves

Type 8



8 Kit:

SPRING RETURN TO NEUTRAL POSITION.



8-1 Kit:

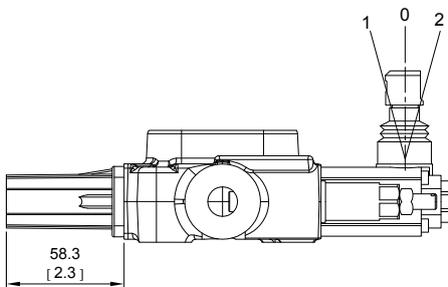
SPRING RETURN TO NEUTRAL POSITION.
(2 POSITIONS)



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



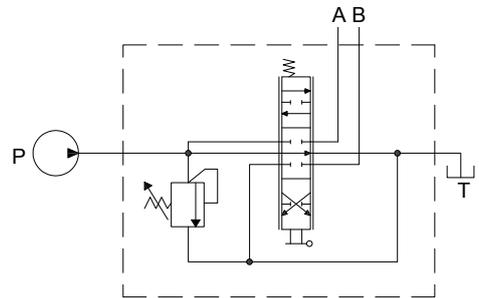
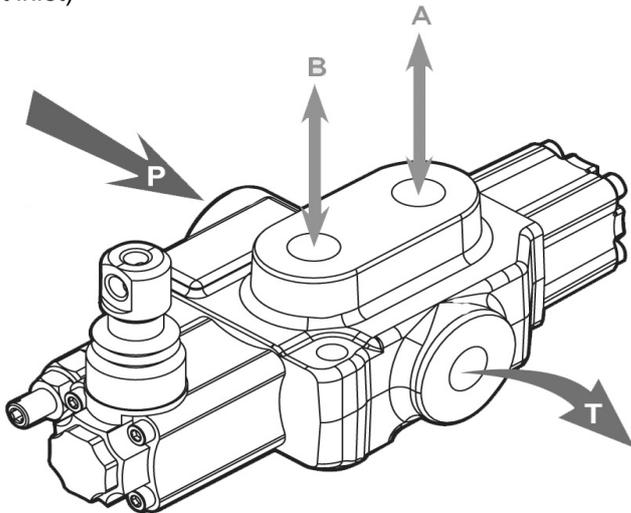
9-3 Kit:

DETENT IN POS. 1 WITH SPRING CENTERED

VM2 Inlet Monoblock Directional Control Valves

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

(Left inlet)



(Right inlet)

