

### Lever Operated Directional Valves

## DMA SERIES LEVER OPERATED DIRECTIONAL CONTROL VALVES 10.6 GPM (40 l/m) to 19.8 GPM (75 l/m) 3570 PSI MAX. PRESSURE



#### Features

The DMA Series is offered in D03 and D05 Interfaces, thus enabling the usage of our modular series for system flexibility.

## DMA Type Manually Operated Directional Valve

### Features

1. Compact design
2. Balanced design allows T-port back pressure up to 70 kgf/cm<sup>2</sup> (1000 psi) in G03 and 160 kgf/cm<sup>2</sup> (2286 psi) in G01 models.
3. D03 and D05 mounting pattern allows the use of modular valves to simplify circuit design.

### Specification

Model	Pipe Size (Valve Size)	Max. Operating Pressure kgf/cm <sup>2</sup> (psi)	Back Pressure (Tank Port) kgf/cm <sup>2</sup> (psi)	Rated Flow ℓ/min (gpm)	Stroke mm (inch)		Weight kg (lbs)
					Two Position	Three Position	
DMA-G01-***-20	1/8	350, 250 (3571), Note	160 (2286)	40 (10.6)	4 (0.16)	4(0.16) x 2	1.3 (2.9)
DMA-G03-***-10	3/8	250 (3571)	70 (1000)	75 (19.8)	6 (0.24)	6(0.24) x 2	3.0 (6.6)

Note: The figure in parenthesis is for tandem center type.

Position	Spool Type	JIS Symbol	Model	
Two Position	Closed Crossover		DMA-G01-A3X-20 G03-A3X-10	
	Open Crossover		DMA-G01-A3Z-20 G03-A3Z-10	
	Closed Crossover		DMA-G01-E3X-20 G03-E3X-10	
	Open Crossover		DMA-G01-E3Z-20 G03-E3Z-10	
Three Position	All Ports Open Center		DMA-G01-C4-20 G03-C4-10	
	All Ports Blocked Center		DMA-G01-C5-20 G03-C5-10	
			DMA-G01-F5-20 G03-F5-10	
	Pressure Port Blocked Center		DMA-G01-C6-20 G03-C6-10	
			DMA-G01-F6-20 G03-F6-10	
	Tandem Center	Closed Crossover		DMA-G01-C7X-20 G03-C7X-10
		Open Crossover With Taper		DMA-G01-C7Y-20 G03-C7Y-10
		Closed Crossover		DMA-G01-F7X-20 G03-F7X-10
		Open Crossover With Taper		DMA-G01-F7Y-20 G03-F7Y-10
	B Port Blocked Center		DMA-G01-C8-20 G03-C8-10	
		DMA-G01-F8-20 G03-F8-10		

### Notes

1. The following three different methods are available to operate the valve handle.
  - (1) Spring offset type(A-type)  
With this type, the lever is always kept at the end position; when the lever is pulled, the flow is changed over from one direction to another, But when the lever is released, the flow returns to the initial direction.
  - (2) Spring center type(C-type)  
With this type, the spool is always kept at the center between the other two valve positions; when the lever is released after shifting the spool to either one of these valve positions, the spool returns to the center with the assistance of the spring.
  - (3) Detent type (F- and E-types)  
With this type, the spool comes to a standstill by its notch provided at the third or second position on this spool.
2. The mounting direction of the lever can be changed optionally at every 90° if the direction of the cover on the lever side is changed.
3. DMA-G\*\*-\*7\*-10 of the P and T port connection type is based on DMA-G\*\*-\*7X-10 of the closed cross type.
4. The following are the locking bolts furnished for each valve.

DMA-G01	10-24 UNC-3A x 1 3/4	4 pcs
DMA-G03	1/4-20 UNC-3A x 2 1/4	4pcs

Note: Use the locking bolts with a torque rating of grade 12.9 or the equivalent.

5. Select the desired subplate according to the following table if necessary.

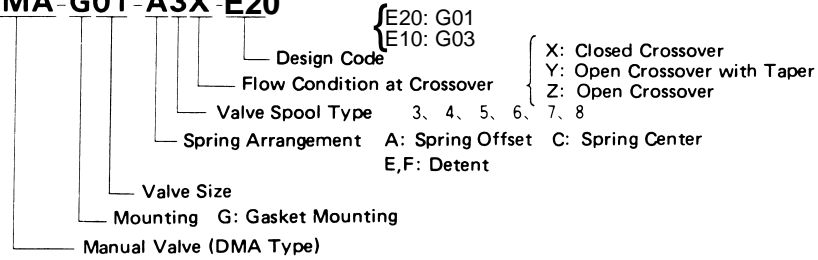
Model	Pipe size	Max. Flow ℓ/min (gpm)	W/gt kg (lbs)	Applicable Valve Model
MSA-01Y-E10	3/8	30 (7.9)	1.3 (2.6)	DMA-G01-***-E20

Model	Pipe size(E)	Max. Flow ℓ/min (gpm)	W/gt kg (lbs)	Applicable Valve Model
MSA-03X-E10	1/2	80 (21.2)	2.3 (5.1)	DMA-G03-***-E10

## DMA Type Manually Operated Directional Valve

Model Code

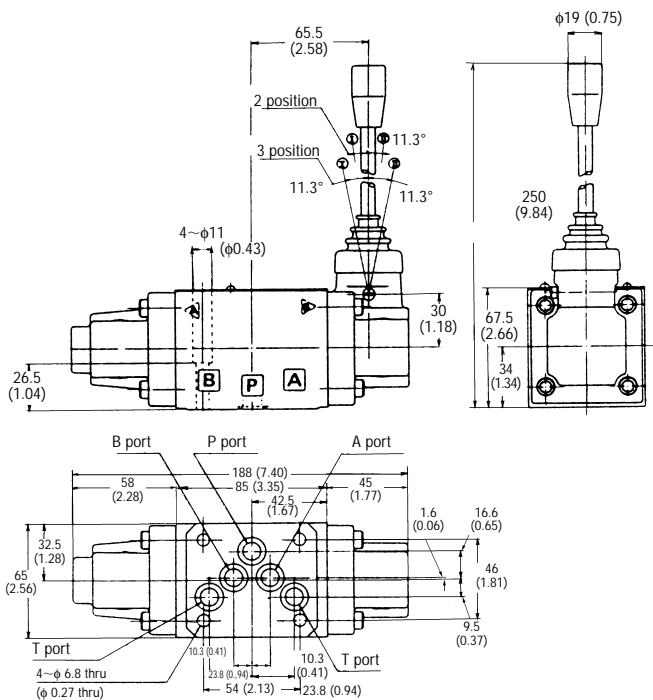
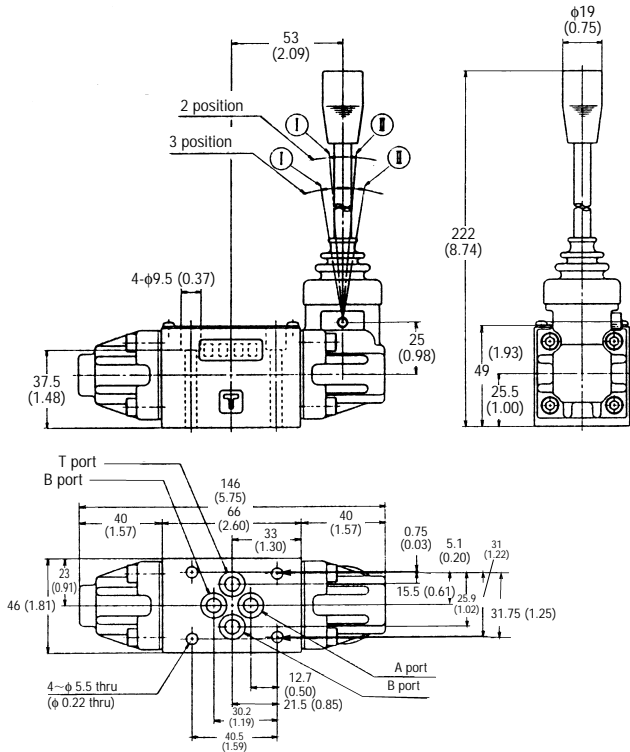
**DMA-G01-A3X-E20**



### Installation Dimensions

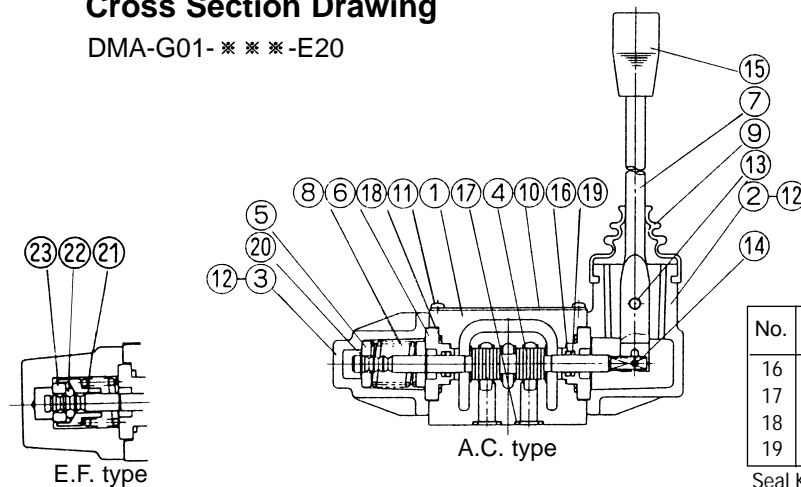
DMA-G01-\*\*\*-E20

DMA-G03-\*\*\*-E10



### Cross Section Drawing

DMA-G01-\*\*\*-E20



No.	Name of Port	No.	Name of Port
1	Body	13	Screw
2	Cover A	14	Pin
3	Cover B	15	Knob
4	Spool	16	O ring
5	Ring	17	O ring
6	Bushing	18	O ring
7	Lever	19	Backup ring
8	Spring	20	Snap ring
9	Bellows	21	Guide
10	Name plate	22	Ball
11	Screw	23	Retainer
12	Screw		

No.	Name of Part	Number of Part			
		DMA-G01	Qty	DMA-G03	Qty
16	O Ring	RO-P7	2	RO-P10	2
17	O ring	RO-P9-90	4	RO-P12-90	5
18	O ring	ROA-019-90	2	RO-P28-90	2
19	Backup ring	RBO-P7	2	RBO-P10	2

Seal Kit = DNS-G01 (DMA-G01)  
 DNS-G03 (DMA-G03)